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# Laudato Si': Francis' Green Encyclical?

*An In-Depth Analysis of Pope Francis' Encyclical Letter From The Perspective of  
Martin Gorke's Pluralistic Holism*

**Joshua Schell-Ehl**

**Supervisor**

Professor Marius Mjaaland

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From The Perspective Of Pluralistic Holism

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Joshua Schell-Ehl

*Frankfurt am Main, November 2022*

## Abstract

This thesis explores the encyclical letter *Laudato Si'* published in 2015 and written by pope Francis, from the perspective of environmental ethics, particularly Martin Gorke's pluralistic holism. In this context, one of the main research objectives is to examine the common ground and fundamental differences between the worldviews of the authors, as well as their main focus. Additionally, this project asks, how the two approaches may be able to complement each other, adding new perspectives to their ethical focus. At last, the findings aim to answer the question, of how green *Laudato Si'* is from the perspective of environmental ethics, referring to the international scale, running from light-green anthropocentrism to dark-green ecocentrism.

To answer the research questions, an in-depth analysis of Francis' encyclical *Laudato Si'* has been conducted. For this purpose, the method of content analysis has been used to categorise and structure the source material. These categories depict the core topics of *Laudato Si'* which are relevant for the later discussion: Environmental crisis, Roman Catholic worldview, economic criticism, social dimension, and recommended actions. The discussion follows this structure and explores the different topics from the perspective of pluralistic holism, before answering the research questions.

The findings of this project show, that despite their differences in the areas of worldview and theoretical derivation of their ethical approach, *Laudato Si'* and pluralistic holism have more in common than previously expected. Both approaches share a holistic understanding of the ecological crisis. Further, both publications attribute value to humankind and non-human life and see humans as bearers of responsibility to care for the natural environment. Nonetheless, there are also fundamental differences between the two positions, resulting from their opposing centres: While *Laudato Si'* clearly focuses on human-centred ethics, pluralistic holism is in danger of neglecting those. To follow the thought of Patrick Curry, an ideal ethical approach manages to combine both anthropocentric and ecocentric standpoints - unfortunately, neither *Laudato Si'* nor pluralistic holism manages to further implement his suggestion.

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# 1. Introduction

## 1.1 Context of the Project

Without a doubt, the current environmental crisis is one of the greatest challenges for humankind in the 21. century. For now, the global north remains in the privileged position to still disregard most of the natural changes, while maintaining a wealthy, consumerist lifestyle, the global south suffers from extreme weather conditions in form of droughts, storms, floods and other ecological calamities. In this context, the global north carries a certain responsibility, as industrial nations like the United States, Norway, Germany and France have been contributing unproportionally (in relation to their population) to the annual global greenhouse gas emissions. But how can societies be called upon to rethink their way of life, to introduce a global paradigm shift towards a more ecological future?

In 1967, American historian Lynn White Jr. published his controversial article *The Historical Roots of Our Ecological Crisis*. In this publication he claimed, that the individual ecological understanding of people is highly influenced by their belief systems:

What people do about their ecology depends on what they think about themselves in relation to things around them. Human ecology is deeply conditioned by beliefs about our nature and destiny - that is, by religion. (White Jr., 1967, p. 1205).

While White Jr.'s publication can be neglected in the context of the discourse of environmental ethics, its core idea, connecting personal ecology to one's individual worldview seems fruitful, as worldviews contain attributions of value, which fundamentally influence, how individuals interact with entities in their environment.

Based on this assumption, this project aims to examine the "green" encyclical *Laudato Si'*, written by pope Francis in 2015. This encyclical has been regarded with favour for its environmental message and its focus on environmental protection. Because of its actuality and status, addressing Roman Catholic communities around the globe, it is a particularly interesting research object for this project. In this context, this project aims to discuss Francis' encyclical from the perspective of pluralistic holism, a position within the "dark-green"<sup>1</sup> spectrum of environmental ethics.

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<sup>1</sup> "Dark-green" in this context refers to the international classification of positions within the discourse of environmental ethics. A detailed introduction to this field will be given in the following chapters.

## ***1.2 Why Laudato Si'? Why Pluralistic Holism?***

Considering the different text genres of *Laudato Si'* and pluralistic holism, one being an encyclical letter, the other a contribution within the discourse of environmental ethics, the question arises, why have these two publications been selected in this thesis?

Starting with Francis' encyclical, *Laudato Si'* is a significant contribution of the Roman Catholic Church, addressing aspects of the current environmental crisis. Its content allows an in-depth analysis of the church's position in the context of ecological development while discussing multiple problem areas of the global community. Additionally, the Roman Catholic Church remains one of the "largest of all Christian churches and communities" (Tanner, 2011, p. 3), which suggests that *Laudato Si'* has reached a significant amount of Christians, offering guidance concerning ecological questions.

Gorke's pluralistic holism, on the other hand, has an opposing starting point. Not only is it a specialised publication, within a specific field, but it also differs immensely in its theoretical derivation, as it is grounded in an ethical position that does not rely on a meta-ethical background. At the same time, pluralistic holism follows a prominent claim in the discourse of environmental ethics, to introduce an approach that moves from a human-centred, anthropocentric orientation towards a "dark-green" position with a holistic perspective. Curry argues in this context, that only dark green ethics, holistic approaches, take whole species and ecosystems into consideration, suggesting that to protect the non-human life on earth, humanity has to accept to sometimes not act based on self-interest and "on occasion, to lose" to the interests of the natural environment (Curry, 2011, p. 92).

Bringing these fundamentally different approaches together promises to enable a fruitful analysis and discussion of ethical positions, theoretical derivations and the overall relationship between humans and non-human life.

## ***1.3 Research Questions***

Starting with the religious background of *Laudato Si'*, the research questions address the fundamental differences between the two approaches and ask about common arguments and different perspectives. Furthermore, potential starting points of cooperation are at the centre of this research project. At last, the initial question remains, how ecological is the "green" encyclical from the perspective of environmental ethics, particularly pluralistic holism?

1. Where do *Laudato Si'* and pluralistic holism reach common ground? Where do their positions differ and why?

2. How can both approaches benefit from each other? Are there possibilities to develop their ethical positions and scopes further?
3. Considering the demands of environmental ethics to move towards a “dark-green” approach, how green is *Laudato Si'* within the range of this scale?

#### ***1.4 Outline of the Thesis***

After this brief introduction, this project begins with an overview of the current state of the global climate crisis, before moving towards the topic of religion and ecology. A specific focus lies on the measures of the Roman Catholic Church. Chapter three provides an introduction to environmental ethics, its range and different positions, as well as an overview of Martin Gorke’s pluralistic holism. The latter is presented in detail, covering its theoretical derivation, principles of action and criticism. Before the analysis and discussion, chapter four reveals the methodology of this project, presenting a combination of content and discourse analysis. The next chapter covers the analysis of *Laudato Si'*, categorising its major points for discussion and pre-structuring the following discussion. Chapter six, at last, discusses the findings of the analysis from the perspective of pluralistic holism, addressing the research questions formulated in chapter 1.3. This project ends with a brief conclusion, summing up its results and giving an indication of future projects.

## **2. The Environmental Crisis, Religious Responses and the Roman Catholic Church**

### ***2.1 The Ecological Crisis***

#### **2.1.1 Oceans, freshwater and the rainforest**

The consequences of climate change can be observed in multiple areas of the planet. This chapter will explore the current state of the world's oceans, freshwater and rainforests, before the impact on biodiversity and animals is presented. At last, the developments in current population growth, as well as the overall discussion about environmental justice will be thematised.

According to Safina, Paladines and Feely, the developments on land heavily influence the state of the oceans, as the production of carbon dioxides leads to an acidification of the seas (Feely, 2011, p. 2; Safina & Paladines, 2017, p. 257). The continuous growth of fossil fuel-based industry is the main reason for this unprecedented environmental impact, with “the concentration of atmospheric CO<sub>2</sub>” rising from 280 to 417 parts per million (ppm) in the time interval of around 260 years, leading to a global rise of temperature (CO<sub>2</sub>.Earth Initiative, 2022; Safina & Paladines, 2017, p. 258). As a result, the world's oceans absorb “increasing amounts of carbon dioxide”, which leads to a falling pH value on the ocean surface (Feely, 2011, p. 2). Considering the future developments in the industrial sector, the pH value of surface water is likely to decrease further until the end of the century, showing the lowest value “for more than 20 million years” (Feely, 2011, p. 3). The chemical reaction of CO<sub>2</sub> with saltwater leads to a reduced “availability of carbonate ions, which play an important role in shell formation for a number of marine organisms such as corals, marine plankton, and shellfish” and would “affect some of the most fundamental biological and geochemical processes of the sea” (Feely, 2011, p. 3). Further acidification would also “significantly reduce the ability of reef-building corals to produce their skeletons, affecting the growth of individual corals and making the reef more vulnerable to erosion” (Feely, 2011, p. 3). Another contributing factor to development is the emission of methane as a result of intensive livestock farming (Safina & Paladines, 2017, p. 258). Models suggest that the global increase in temperature will affect the near-surface water temperature of the oceans by up to three degrees, with drastic consequences for coral reefs and other underwater habitats (Safina & Paladines, 2017, p. 258):

Between 1876 and 1979 scientists recorded only three bleaching events. In 2002 more than half of the world's barrier reefs experienced bleaching, with most of the affected sites experiencing large-scale die-offs. Mass coral deaths are biological catastrophes that also disrupt the lives of people who depend on reefs for food and economic activities, including tourism. (Safina & Paladines, 2017, p. 258).

Other human practices like industrial fishing or the global use of fertilisers impact life in the oceans, too. The problem of overfishing even lead to reports counting between “a third and a tenth of their former abundance” leading to 80% of the world’s fishing grounds being “either fully or overexploited” (Safina & Paladines, 2017, p. 259). While industrial fishing is drastically reducing the fish populations, fertilisers running into the oceans have an even more devastating impact on life in the sea. With the invention of synthetic fertilisers, the “global nitrogen flow to living systems [has doubled] since the 1960s” creating oxygen-starved areas, also called dead zones, in the world’s oceans (Safina & Paladines, 2017, p. 259). Dead zones emerge, when algae fields grow unproportionally due to fertiliser runoff, consuming all the available oxygen in the closer environment, creating a hypoxic area that “drive[s] out or kill[s] animal life” (Buck, 2011, p. 9). Most of these zones are located near industrial hotspots like the “US East Coast, Northern Europe [or] Southeast Asia” (Safina & Paladines, 2017, p. 259). All these developments give a reason for concern, as oceans “produce half the oxygen we breath [...] absorb a third of the carbon dioxide we produce [and] over 90 percent of the heat arising from our industrialized world” (Safina & Paladines, 2017, p. 257).

With the environmental impact of industrial agriculture on the world’s oceans, a closer look at the usage of global freshwater resources is necessary, particularly consumptive water use. The usage of freshwater is categorised as consumptive, if it does not “return water to the watershed in any meaningful way” (Peppard, 2017, p. 287):

Agriculture represents a consumptive use of water, and grain production generally consumes less water than meat production. Domestic uses (such as bathing) tend to be non-consumptive. Agriculture and industrial pollution remains a particularly acute problem, since governments may or may not regulate point and non-point pollution in ways that conduce to the health of the watershed or downstream populations. (Peppard, 2017, p. 287).

From a global perspective, around 70% of the freshwater resources are used for agricultural purposes, primarily in industrialised countries, whereas only 8% are used in domestic settings and as nutrients (Peppard, 2017, p. 287). In view of these proportions, the privatisation of freshwater has to be discussed critically, since access to this resource is considered a human right for over a decade (Peppard, 2017, p. 288). Water scarcity in dry regions has the potential to provoke conflicts, as the situation in the Middle East has shown (Peppard, 2017, p. 288). Philosopher Michael Nelson criticised that even though “[f]resh water is one of the few global, earthen realities upon which all life depends”, it has not been included in ethical discussions for decades (Peppard, 2017, p. 285). The discussion of nondiscriminatory water distribution also raises the question if non-human life should be considered equally in their need for water resources.

There are important philosophical objections to the anthropocentrism of human rights. Do other animals, or ecosystems, have rights to the integrity of water? Does water ‘itself’, however we understand that complex concept, have the right to exist in a clean, unsullied and undammed state? It could be argued that because of the geological and evolutionary agency of water, this slippery substance itself is deserving of rights. (Peppard, 2017, p. 289).

With the quality of water declining since the industrial revolution (Peppard, 2017, p. 286), the issue of water distribution remains an important factor in environmental debates around the globe.

Reaching a total size of 395 million ha, the Brazilian rainforest is the “largest [...] tropical forest on the planet” with numerous essential roles concerning the stability of the climate, like “carbon sequestration” and providing the ground for the development of biodiversity (Pacheco et al., 2021, p. 78; Sonter et al., 2017, p. 2). However, due to excessive economical use, “[t]he biome is close to reaching a tipping point, at which the forest will no longer be able to sustain processes such as water recycling, that keeps it alive, and [...] diminished rainfall and prolonged dry seasons” (Pacheco et al., 2021, p. 78; Seymour & Busch, 2016, p. 757). Geographically, the southern and eastern regions of the rainforest are affected most by increasing deforestation (Pacheco et al., 2021, p. 78). Cattle ranching represents the industry with the most severe impact on the forest and the surrounding lands (Pacheco et al., 2021, p. 78; Seymour & Harris, 2019, p. 756). Other factors include infrastructure projects, the construction of hydroelectrical dams and mining (Pacheco et al., 2021, p. 78; Sonter et al., 2017, p. 1). In their research, Sonter et al. discovered, that the overall risk of deforestation and habitat destruction due to mining is largely underestimated (Sonter et al., 2017, p. 1). Through the analysis of “satellite data and propensity score matching”, the researchers discovered, that mining projects regularly cause deforestation and pollution up to 70km outside the leased area (Sonter et al., 2017, p. 2). Since 2005, this practice has led to 9% of the total deforestation within the Brazilian rainforest and therefore “poses significant risks to tropical forests worldwide” (Sonter et al., 2017, p. 4). Other rainforests in Africa and Asia show comparable developments. While Africa suffers rainforest loss due to commercial farming, the forest areas in Indonesia are reduced to increase the production of industrial palm oil and pulpwood (Seymour & Harris, 2019, p. 756). Seymour and Harris see political intervention and new environmental guidelines as a possible solution to decrease deforestation: “Brazil’s decade-long reduction in deforestation in the Amazon, which started in 2004, illuminated how the implementation of appropriate policies and private-sector initiatives can have a substantial effect on curbing deforestation” (Seymour & Harris, 2019, p. 756). The inclusion of indigenous communities in the Peruvian Amazon showed comparable suc-

cess (Seymour & Harris, 2019, p. 756). However, according to Sonter et al. governmental action does not “consider the full extent of mining-induced deforestation” (Sonter et al., 2017, p. 4). Ultimately, creating public awareness of the importance of rainforests for climate stability and biodiversity may help to implement new regulations to protect these biomes (Seymour & Harris, 2019, p. 757).

### 2.1.2 Biodiversity and animals

For invertebrates the proportion of unknown species is huge and for micro-organisms even more vast. So it becomes seriously difficult to estimate the total number of species on the planet. It must be somewhere between ten and a hundred million. This highlights not only the imperative to explore unknown life on Earth, including, for example, the biodiversity that makes soils living habitats, but also to develop ways to conserve what we do not know. (Lovejoy, 2017, p. 249).

The term biodiversity describes the absolute number of different organisms, plants, animals or even smaller entities, like insects, who coexist in a defined space. This space can be a certain geographic region, or the planet itself. As Lovejoy’s quote indicates, the total amount of living things is still unknown to mankind, making their loss due to the consequences of climate change an unknown variable in the stability of the world’s ecosystems. Functional biomes are at the core of human development and well-being, as homo sapiens is not only a part of these systems, it also benefits from its resources to receive food, clothing, shelter, medicine and thereof health (Dasgupta & Ehrlich, 2017, p. 268; Lovejoy, 2017, p. 250). Aspirin made from the bark of the willow tree, penicillin, antibiotics, as well as ACE inhibitors are just some medical products based on natural ingredients, provided by the earth’s ecosystems (Lovejoy, 2017, p. 250). Those ecosystems rely on biodiversity. The observation of Yellowstone National Park has shown, that the biome recovered after the reintroduction of wolves<sup>2</sup> (Lovejoy, 2017, p. 252). In this case, wolves are a key species for the stability of Yellowstone, because of their effect on the local elk population:

[T]he renewed presence of wolves dramatically reduced the pressure of elk on vegetation adjacent to water-courses and brought back characteristic vegetation and animal species and enhanced water quality. (Lovejoy, 2017, p. 252).

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<sup>2</sup> Since the re-introduction of wolves in Yellowstone National Park, numerous videos have been released, explaining the influence of a single species on an ecosystem. The case of the wolf packs has since then gained media attention. The attached link shows a format called *One Minute Explore* presenting the case: <https://www.youtube.com/watch?v=fT-Pt70vA39k>



According to Lovejoy, each entity serves a specific purpose within a functioning biome, as it is a “unique set of solutions to a unique set of environmental and biological challenges” (Lovejoy, 2017, p. 251). For Yellowstone National Park, wolves were the solution to the specific problem of elk overpopulation and as a consequence of their reappearance, the ecosystem recovered in unpredictable ways.

While “no organism can exist without affecting the environment”, the loss of natural biodiversity is a consequence of human expansion (Lovejoy, 2017, p. 251f.). With around 40% of the earth’s landmass cultivated and over 47% of the world’s forests gone, human impact on biodiversity remains drastic (Lovejoy, 2017, p. 252). A consequence of land distribution is the emergence of biodiversity hotspots like the Amazon rainforest, which often are the last resort for numerous endangered species (Lovejoy, 2017, p. 253). With globalisation connecting different continents through trade, migration and wildlife imports, the danger of alien species has risen for local biodiversity in many regions (Lovejoy, 2017, p. 253). A prominent example may be the case of feral foxes and cats in Australia, who do not have natural enemies and therefore endanger local wildlife populations (Low, 2017, p. 3). At last, as already described concerning the acidification of the world’s oceans, the extensive use of chemical products like fertilisers and the chemical byproducts of industrial production, which are released into nature, have a drastic effect on global biodiversity, with these chemicals being responsible for the rising number of dead zones around the world, “double[ing] every decade for the past four decades” (Dasgupta & Ehrlich, 2017, p. 266; Lovejoy, 2017, p. 254). With annual CO<sub>2</sub> emissions constantly rising (IEA, 2022), Lovejoy reminds his readers of the blue-green bacteria, an organism that has been living on the planet since the beginnings of life:

More important there is a critical lesson in the history of the living planet. Early in life’s history before the rise of ‘higher’ forms of life, life was mostly aquatic and single celled. Prominent were the blue green bacteria that formed colonies that fossilized as stromatolites. They were essentially the dominant life forms and oxygenated the atmosphere that made multicellular life including ourselves possible. One could regard that as an extraordinary ecosystem service, especially since it benefitted us. It is important, however, to remember that oxygen was a toxic waste for these organisms and by oxygenating the atmosphere they basically undercut themselves, made the planet unsuitable for themselves, and only hang on marginally today. We are doing exactly the same thing as the stromatolites, but with CO<sub>2</sub>. So we have a lesson to learn, which is to treat our home as a living planet and manage it (and therefore ourselves) that way. (Lovejoy, 2017, p. 255).

This story is a reminder of the potential of humankind. Like the blue-green bacteria, the environmental changes introduced during the Anthropocene may “determine the planet’s future” and therefore shape the existence of the human species itself (Rees, 2017, p. 15).

With the development of human civilisation, cultures and other achievements, the self-understanding of homo sapiens has been interpreted through exceptionalism: “[A] form of human-centeredness that holds humans superior to and thus rightly entitled to privileges over all else in our more-than-human world” (Waldau, 2017, p. 296). According to Waldau, this development has been leading to a denial of animal’s emotional capabilities in Western countries:

[C]ircles where doubts about other animals’ emotional realities prevail, as is the case in the production-oriented academic field of animal science, which is dominated by money from industrialized agribusiness [...]. In the profit-making businesses themselves, denials of food animals’ individual emotional needs remain the de facto reality. (Waldau, 2017, p. 297).

This underlying conviction is one of the reasons, why human objectives like economic growth or resource exploitation to increase prosperity have been chosen over the ecological stability of the environment, as resources are consumed faster than they are reproduced (Dasgupta & Ehrlich, 2017, p. 264). A similar trend can be observed in hunting practices, leaving the majority of African elephant herds on the brink of extinction (Dasgupta & Ehrlich, 2017, p. 264). On the other hand, through the process of industrialisation, environmental pollution has increased exponentially:

Scientists have even found persistent organic pollutants in the crustaceans six miles under the sea in the bottom of the Marianas Trench. The expanding human enterprise is relentlessly converting forests, wetlands and grasslands into farmland, which destroys local biodiversity. Habitats are undergoing change today of a rapidity not seen in 66 million years. (Dasgupta & Ehrlich, 2017, p. 264).

The primary focus of these developments lies on two crucial factors: First, the enormous rate at which changes to the environment take place, and second, the spatial extension. These factors influence the stability of animal habitats and as a result the well-being of animals themselves. Depending on the unique characteristics of these biotopes, partial destruction can already lead to the extinction of certain species (Dasgupta & Ehrlich, 2017, p. 264). In the cultivated monocultures of Europe and North America, as well as in the regions of the tropical rainforests, agriculture is one of the main drivers of habitat destruction (Dasgupta & Ehrlich, 2017, p. 266). Dasgupta and Ehrlich note the irony of this circumstance, as studies have shown, that a species-rich environment in a functioning ecosystem “yield[s] greater biomass than species-poor ones, which would indicate that the total productivity of an assemblage of species is greater than the sum of the productivities of any individual species grown in isolation” (Dasgupta & Ehrlich, 2017, p. 268). Studies on the insect die-off in Central Europe, confirm the danger of declining biodiversity for local populations. Excessive land

use, climate change and rising CO<sub>2</sub> emissions have led to a drastic decline of various insects like “herbivores, decomposers, parasitoids, predators and pollinators”, leaving essential ecosystem services unexecuted (Jedicke, 2021, p. 238). As a result, the population development of birds has declined (Jedicke, 2021, p. 238). Jedicke argues, that the insect die-off, therefore, needs to be understood as a warning signal, to protect regional biodiversity and introduce a paradigm shift in society towards a “radical change to sustainability” (Jedicke, 2021, p. 238). On a global level, the Living Planet Index<sup>3</sup> has confirmed the results of these developments in their investigations, suggesting that the overall wildlife population has already decreased “by some 60 per cent between 1970 and 2012” (Dasgupta & Ehrlich, 2017, p. 262).

### **2.1.3 Population and environmental justice**

Current population growth models estimate the global population to rise to 9.1 billion people in 2050 and 11.2 billion by the end of the 21st century (Bongaarts, 2017, p. 193; Sandford, 2017, p. 275). This population development started in the 1950s, and still shows unpredicted growth levels, which will lead to “wide-ranging and potentially adverse implications for human welfare and the natural environment” (Bongaarts, 2017, p. 193). According to UN estimates, an increase of 70% in the production of food would be necessary to feed this population (Sandford, 2017, p. 275). While population growth itself is a side effect of progress, the development of industrial societies, and the ambition of many developing countries to introduce a meat-rich diet, comparable to the traditional nutrition of the global north, to its population, creates additional environmental challenges (Bongaarts, 2017, p. 194; Sandford, 2017, p. 275):

[M]eat production, especially factory-farmed meat production, carries enormous environmental health, and social costs and is responsible for unspeakable animal suffering. Thích Nhất Hạnh writes that ‘by eating meat we share the responsibility of climate change, the destruction of our forests, and the poisoning of our air and water. The simple act of becoming a vegetarian will make a difference in the health of our planet’. (Sandford, 2017, p. 280f.).

Geographically, the population of the global south continues to show the fastest growth, particularly in sub-Saharan Africa “is expected to quadruple again by 2100 (from 0.96 to 3.93 billion)” (Bongaarts, 2017, p. 196). On the other hand, most developed countries of the global north show a birth rate “near or below zero” (Bongaarts, 2017, p. 196). With the current and future effects of climate

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<sup>3</sup> Hier Living Planet Index measures global biodiversity, based on local environmental changes and measuring points. More information can be found on their website: <https://livingplanetindex.org/#/>

change threatening the stability of the ecosystems in the global south, coming generations, who depend on ecosystem services, as well as the “poor, rural and forest communities in the developing countries” will face additional challenges such as energy constraints, water shortages and overall environmental degradation, besides the impact of their growing population (Dasgupta & Ehrlich, 2017, p. 262f.; Sandford, 2017, p. 277f.).

The past has shown, that comparable to the concept of systemic racism, the consequences of climate change and pollution affect those disproportionately, who are either part of a minority or do not have the financial resources to challenge those responsible for the environmental impacts (Pellow & Guo, 2017, p. 336). As illustrated in the previous paragraphs, the impact of climate change is far more visible in the global south, even though the global north contributes considerably to the release of CO<sub>2</sub> emissions and other toxic materials (Rees, 2017, p. 17). In this context, the projects of corporations, developers and other economic actors, often endanger the regional environment and livelihood of local communities, as the increasing deforestation in the world’s rainforests shows (Pellow & Guo, 2017, p. 336). On a regional level, various studies in the United States have shown, that toxic uses “were disproportionately located in communities of color and working class neighborhoods” (Pellow & Guo, 2017, p. 336). In the processes of environmental decision-making, racial minorities and lower social classes, as well as indigenous communities, have been systematically excluded, while being affected above average (Pellow & Guo, 2017, p. 337).

Several studies show that people of color, women, indigenous communities, and global South nations often bear the brunt of climate disruption in terms of ecological, economic, and health burdens - giving rise to the concept of climate injustice [...]. These communities are among the first to experience the effects of climate disruption, which can include ‘natural’ disasters, rising levels of respiratory illness and infectious disease, heat-related morbidity and mortality, and large increases of energy costs. (Pellow & Guo, 2017, p. 337).

Other native communities have been affected in different ways. A prominent example is the Mt. Graham International Observatory built on a sacred site of the Apache population in Arizona (Pellow & Guo, 2017, p. 339). Not only was the veto right of the Apaches denied, but the observatory was financed by the public university of Arizona and the Vatican (Pellow & Guo, 2017, p. 339). Until today, the Apache population does not have access to the observatory (Pellow & Guo, 2017, p. 339). At last, it is inevitable to discuss environmental justice in light of future generations and their right to unpolluted air, freshwater and functioning ecosystems. While the current use of fossil fuels, population growth and short-term planning concerning economical actions, endanger the basis of the existence of future generations, economical profits made from environmental destruction are

largely privatised and excluded from investments into eco-sensitive alternatives (Rees, 2017, p. 20f.):

Profits, we privatize; costs we socialize. What physics and ecology have taught us, evolution has taught us, and even the golden rule tried to teach us: there is no free lunch. People who are not even born yet, will pay for us [...]. Other species pay most. The cost of destruction, and the risk, are all mis-valued. America once ran its economy on the energy of slaves. The war over slavery was a war over the morality of cheap energy. We lacked moral clarity about slavery. We lack moral clarity now about fossil fuels. Fossil fuels cause worldwide problems that we are demonstrably incapable of solving. The fossil fuel industries do nothing to help solve the problem; they do everything that perpetuates them. (Safina & Paladines, 2017, p. 261).

In addition to these anthropocentric perspectives on environmental justice, environmental ethics discuss the claim of non-human life and ecosystems to self-fulfilment and territorial and physical integrity.

## ***2.2 Religion and Ecology***

### **2.2.1 A global overview**

This chapter explores the relationship between religion and ecology on a global scale. It examines the different approaches toward climate change and discusses why religion should be involved in global climate debates. In doing so, this chapter focuses mostly on Christianity, as this thesis examines a Roman Catholic publication.

According to Grim and Tucker, history has shown, that religion has an ambiguous view of most current events. They argue religions embody “both conservative and progressive dimensions”, which means they “can be both limiting and liberating” (Grim & Tucker, 2014, p. 14). While traditional factions usually show characteristics of “dogmatic, intolerant, hierarchical, and patriarchal” mindsets, progressive streams within the same tradition may represent liberating ideals, such as “compassion, justice, and inclusivity” (Grim & Tucker, 2014, p. 14). The same holds true for the distribution of priorities: Does a religious tradition focus on the otherworldly destinations, such as the afterlife, or is it concerned with this-worldly incidences (Grim & Tucker, 2014, p. 14)? Depending on the religious institution, some either “politically [engage] or intentionally [disengage], illustrating the complex and contested nature of religion itself” (Grim & Tucker, 2014, p. 14). However, in the last century, social developments, like the civil rights movement in the United States, had a lasting impact on “both secular and religious concepts of justice” (Grim & Tucker, 2014, p. 15). In this context, Mahatma Gandhi and Martin Luther King are two powerful examples of positive poli-

tical influence, as both of them initiated “political and social change with the spiritual power of their convictions and with the example of their own lives” (Grim & Tucker, 2014, p. 16).

With the emergence of the research field of religion and ecology in the aftermath of Lynn White Jr.’s publication *The historical roots of our ecological crisis* (1967), religious institutions around the globe discovered “their ecological phase, bringing light to the moral dimensions of the environmental crisis” (Grim & Tucker, 2014, p. 25; Hulme, 2017, p. 239). In the last decades, various movements within religious traditions have formed, which are advocating environmental justice as the basic principle for social transformation (Grim & Tucker, 2014, p. 17). Nonetheless, as already mentioned, single religious denominations also largely ignore the current focus on sustainability, as the case in the United States illustrates, where some white evangelical denominations go as far as linking climate change to the biblical end times (Hulme, 2017, p. 243):

On climate, population, extinction - pulpits are mainly silent. Some even welcome the running down of the world as a sign of the Second Coming; ‘Good News’ is the acceleration of destruction. In effect, our philosophy of living, our religions, and our economic system regard the world as given, nothing to venerate. (Safina & Paladines, 2017, p. 262).

These few impressions underline the conflicting positions and interpretations of the climate crisis within Christianity (Hulme, 2017, p. 243).

Safina and Paladines argue, that taking action against the global climate crisis is not a technological issue, but rather a problem of values and morality (Safina & Paladines, 2017, p. 260). With politicians and religious leaders arguing about the course of action, unable to approach problems on a global level, it can clearly be identified, that opposing worldviews hinder further cooperation (Safina & Paladines, 2017, p. 260). They further suggest, that “[v]alues determine how new information will be incorporated into living” and rather than “[trying] to change values, we might be more effective working within people’s existing values context” (Safina & Paladines, 2017, p. 262). Hulme adds to this critique the physical focus of the public climate debate: “In the IPCC, and pre-dominantly in most public discourse, the climate is framed as a physical phenomenon, to be studied using theories of physics and the tools of numerical simulation models” (Hulme, 2017, p. 240). Instead, climate change should be discussed as an interdisciplinary “hybrid physical-cultural phenomenon”, examining not only the physicochemical processes on Earth but also the “narratives” of local belief systems influencing the relationships between humans and non-human nature (Hulme, 2017, p. 240). On a personal level, religious traditions have the chance to shape the “cosmologies” of their believers, influencing the understanding of local climate developments and sudden

changes (Grim & Tucker, 2014, p. 21; Hulme, 2017, p. 241). In other words, religion has the potential to challenge the “social and ethical norms” of local communities regarding their natural environment, while contributing to the “political discourses at local, national and international levels” (Hulme, 2017, p. 241):

Within academia it is becoming clear that cultural, ethical, and religious worldviews must be included in the study of environmental issues. This is because historically religions have had ecological dimensions in the ways they ground human communities in the rhythms of nature. (Grim & Tucker, 2014, p. 18).

A key factor for this form of involvement is the deep and intrinsic motivation to participate in activism or a larger cause, based on one's personal beliefs and values (Hulme, 2017, p. 241f.). From an ethical or moral standpoint, religion and theology can provide additional perspectives on the relationship between humans and the environment (Grim & Tucker, 2014, p. 18; Waldau, 2017, p. 294). New positions are often brought forward by prominent scholars or pioneering thinkers like Francis of Assisi and Albert Schweitzer in the context of Christian environmental debates (Waldau, 2017, p. 294f.). Considering the global trend of populations showing a higher degree of religious affiliation, than in previous decades, the inclusion of religious worldviews in the ecological discourse might become a fruitful addition (Grim & Tucker, 2014, p. 19; Haynes, 2007, p. 27f.). Simultaneously, traditional boundaries between worldviews become blurred, giving space to “hybrid and fluid identities so that the secular and the religious are not exclusive categories but often mutually interpenetrating” (Grim & Tucker, 2014, p. 19). Addressing the deep and intrinsic motivation within the worldview of people indicates the potential of religious institutions and denominations in environmental discussions and decision-making. Religious institutions could then become an essential ally to initiate a paradigm shift in the global society:

Religions are the largest nongovernmental organizations in the world and have significant institutional resources, infrastructure, and financial assets. They claim allegiances that transcend differences of race, class, gender, and nationality. The United Nations Environmental Programme has recognized this potential for decades and has been working with religious communities since 1987. (Grim & Tucker, 2014, p. 26).

In this context, the Australian organisation ARRCC<sup>4</sup> further demonstrates the potential of interfaith cooperation on a grass-root level, introducing concrete assistance and education to their denominations through the distribution of climate action kits.

### 2.2.2 Ecology in the Roman Catholic Church

This chapter explores the role of the Catholic Church in the current environmental crisis. To understand its position and argumentation, it is essential to give a brief overview of the historical relationship between the Catholic Church and science, before introducing Francis of Assisi, the role model of pope Francis' ecological and social approach. This leads to an exploration of the church's social mission and its potential to become a change agent in today's precarious times. The chapter closes with an overview of current ecological projects and environmental activism originating in the Church's periphery.

Historically, the relationship between the Roman Catholic Church and upcoming natural sciences has been ambiguous. From the conflicts about astronomic models in the 17th century to geological discoveries in the 19th century and Darwin's publication about the origin of species, new findings have been the source of conflicts with the church (Peppard, 2015, p. 32ff.). The developments of the 20th century gave birth to an extensive reflection of power and global social differences within Catholic theology and moral philosophy, criticising current neoconservative economical models and the wealth gap between the industrialised global north and the global south (Peppard, 2015, p. 35). In this context, Francis introduces his new way of understanding the natural world, with his "integral ecology" he assigns value to all creation and calls for a new technological and economical orientation: Away from purely profit-oriented planning toward a system that keeps "human and ecological well-being" at its core (Peppard, 2015, p. 37). His encyclical *Laudato Si'* plays an essential role in this proposal:

*Laudato Si'* is the document in which the Catholic Church officially disavows 'modern anthropocentrism' (that is, assigning overwhelming moral value to human beings, at the cost of everything else) that is characterized by technological and economic hubris. The encyclical takes aim at the entire 'technocratic' paradigm and the myopic economic idealism that has allured and beguiled human beings into fundamental misunderstandings of our proper place. (Peppard, 2015, p. 36).

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<sup>4</sup> The *Australian Religious Response to Climate Change* (ARRCC) network is an example of successful interfaith cooperation in the field of religion and ecology. The network is based in Australia and unites believers from Christianity, Buddhism, Judaism, Islam and smaller religious denominations. The ARRCC describes itself as a "multi-faith, member-based network committed to taking action on climate change" that follows two main goals: First, to promote an environmentally friendly, sustainable personal lifestyle and, second, to motivate its members to political activism to ultimately achieve "climate justice". ARRCC. (2022). *Annual Report 2021*. Australian Religious Response to Climate Change Retrieved from [https://drive.google.com/file/1PrsHg7drz6odsWV\\_lv3RGYhldxuPSLdl/view](https://drive.google.com/file/1PrsHg7drz6odsWV_lv3RGYhldxuPSLdl/view).



While the support of the scientific research surrounding the phenomenon of climate change is an essential part of further progress, the historical bond between prominent individuals in religious traditions shows, that topics like environmental ethics and the moral consideration of non-human life have been discussed for centuries. A significant thinker within the Christian tradition has been Francis of Assisi, who became the patron saint of the current pope. He was known for his admiration for animals and the deep compassion he felt because of their suffering (Vauchez, 2019, p. 325f.). Although Francis of Assisi saw a clear hierarchy among living creatures, according to their consciousness and cognitive capacity, he suggested that all creatures deserve dignity (Vauchez, 2019, p. 329). The reason for this assessment was his admiration for God's creation, which he praised in the well-known song *Canticle of the Sun* (lat. *Laudes Creaturarum*), to thank God for the act of creation itself (Vauchez, 2019, p. 333). Francis' writings were not only focused on the relationship between humans and the natural world, but he also addressed the need for solidarity within the societies of the past. He ultimately wished for people to live as brothers and sisters, who see the natural world as a part of their family and the basis of their existence (Vauchez, 2019, p. 335).

Considering the enormous resources of the Catholic Church and its vast global network, the Church has the potential to initiate a paradigm shift among its believers. According to Heimbach-Steins and Stockmann, exceptional individuals or organisations are able to generate considerable influence on the development of society and become change agents (Heimbach-Steins & Stockmann, 2019, p. 30). Change agents are defined as "single, clearly defined actors within a social system", who operate on a micro-, meso- and macro-level (Heimbach-Steins & Stockmann, 2019, p. 30). On a micro level, change agents are confronted with opposing positions, which "prefer the status quo", while their goal on a meso level is the emergence of an emotional spirit of optimism among their target audience (Heimbach-Steins & Stockmann, 2019, p. 31). On a macro level, change agents analyse existing barriers within society (Heimbach-Steins & Stockmann, 2019, p. 31). Additionally, the success of change agents depends on internal and external criteria: Recognition, participation, integrity and assertiveness are essential internally, while credibility and provision of resources are important external factors (Heimbach-Steins & Stockmann, 2019, p. 33). Applied to the Roman Catholic Church, the model of change agency and its internal and external factors is translated in the following way: Internally, the ecological course of Pope Francis and his encyclical *Laudato Si'* is assessed positively in progressive parts of the church and the scientific community, whereas conservative voices criticise the status of secular sources used to write the publication (Heimbach-Steins & Stockmann, 2019, p. 34). While *Laudato Si'* had an overwhelming impact in Western countries, it only played a minor role in Africa and Asia (Heimbach-Steins & Stockmann,

2019, p. 34). In its role as a change agent, the Church also relies on its denominations and faith-based organisations, to address the explicit goals of the Encyclical and implement them in their work (Heimbach-Steins & Stockmann, 2019, p. 35f.). Examples of executions are the mandatory climate protection plans of Austrian denominations and the thematisation of *Laudato Si'* in religious education (Heimbach-Steins & Stockmann, 2019, p. 36). External factors on the other hand describe the “natural moral authority” of the Pope and the high reputation the church has globally concerning moral and ethical opinions (Heimbach-Steins & Stockmann, 2019, p. 37). Both, the Pope and the Catholic Church as an institution rely on their credibility among believers and others to form partnerships and cooperations in different fields (Heimbach-Steins & Stockmann, 2019, p. 38). However, because of the Church’s controversial position toward women’s reproductive rights and the ongoing scandals of sexual abuse, its credibility and moral authority have been acknowledged with reservations (Heimbach-Steins & Stockmann, 2019, p. 39). Nonetheless, political alliances have been formed despite notorious differences, oftentimes to benefit from the Catholic Church’s resources and network (Heimbach-Steins & Stockmann, 2019, p. 39ff.). To strengthen its position and credibility, the main concern of the Church is to implement the ecological policies of Francis’ *Laudato Si'* in its institution and organisations, to ultimately become a pioneer in the search for a global climate change solution (Heimbach-Steins & Stockmann, 2019, p. 43). All in all, Pope Francis’ encyclical brings together spirituality and secular science, and shows, how the Catholic Church can act as a change agent in the climate crisis (Heimbach-Steins & Stockmann, 2019, p. 44).

### ***2.3 Roman Catholic Integral Ecology***

One of the prominent concepts surrounding Francis’ encyclical *Laudato Si'*, is the call for an integral ecology. An integral ecology is essentially an approach to perceiving the global environment, including the current environmental crisis from a holistic perspective (Magill, 2017, p. 246). But what exactly does this mean in the context of the current climate crisis? Magill sees Francis’ integral ecology as an invitation to interdisciplinary cooperation, in other words, to analyse and understand climate change through the lens of various disciplines, connecting “economic ecology”, “social ecology”, “cultural ecology”, “human ecology” with essential principles, like “the principle of subsidiarity”, “solidarity”, “distributive justice” and a renewed focus on “the relationship between human life and the moral law” (Magill, 2017, p. 245). Integral ecology emphasises the connection between entities and causes, and as a consequence sees reality as a network of interconnected occurrences. Through the acknowledgement of multiple causes for environmental degradation, origina-

ting in different sections of the human and natural environment, a logical conclusion is to unite these different sectors in their endeavour to find a solution for the current situation.

The demand for an integral ecology will play a significant role in the later analysis, as this approach is one of the key suggestions within *Laudato Si'*, particularly in Francis' suggestions for further action. Integral ecology also allows an interesting discussion, analysing the approach from the perspective of pluralistic holism.

#### ***2.4 Pope Francis' Encyclical Letter Laudato Si'***

Pope Francis' encyclical *Laudato Si'* is the research object of this thesis. Published in 2015 it had a substantial impact on the Catholic Church's ecological and social mission. This chapter gives a brief introduction to the encyclical and its structure, introduces its central motives, and at last, illustrates the language Francis used in his work.

The encyclical *Laudato Si'* evolves around the topics of environmental degradation and, connected to the consequences of climate change and social injustice, calling attention to the impact of environmental change on the (global) poor (Heimbach-Steins & Stockmann, 2019, p. 13). It presents fundamentally ethical questions concerning human ecology to the global catholic community on one hand and the secular, non-Christian public, on the other hand, using his position as head of the church to gain a hearing for relevant scientific findings (Heimbach-Steins & Stockmann, 2019, p. 14). While other encyclicals focused on social injustices, *Laudato Si'* is the first publication which has the topic of ecology at its core and focuses on the environmental destruction caused by human interaction with the natural world. In its first chapter, it gives an extensive overview of the current ecological crisis, before it introduces the Jewish-Christian Bible passages that deal with the preservation of creation in chapter two (Heimbach-Steins & Stockmann, 2019, p. 15f.). Chapter three discusses the reasons for today's environmental situation (Heimbach-Steins & Stockmann, 2019, p. 15f.). One of the core topics of *Laudato Si'* is Francis' suggestion of to adopt an integral ecology, including not only humans but also non-human life in questions of moral value (Heimbach-Steins & Stockmann, 2019, p. 15f.). The final chapters provide guidelines for a more ecological way of life and Christian guidance for personal growth (Heimbach-Steins & Stockmann, 2019, p. 15f.).

The central motives of the encyclical are the relationship between humans and God's creation and the extension of the "family of humankind" to the "family of creation" (Heimbach-Steins & Stockmann, 2019, p. 16). While non-human life receives considerable concessions, humans have been granted a significant responsibility as the "stewards" of creation, not its masters (Heimbach-

Steins & Stockmann, 2019, p. 16). This addresses a prominent discussion in Christian Bible interpretation. As described earlier in chapter 2.2.1, even today numerous evangelical and fundamentalist denominations represent the interpretation of humans having a god-given dominion over the natural world. *Laudato Si'* clarifies that with human stewardship over creation, the focus lies on responsibility and care (Heimbach-Steins & Stockmann, 2019, p. 16). This responsibility given to humankind involves two fields of application: On one hand, humans are supposed to show solidarity within their kind to treat each other as a common family. This mandate points to the social mission of the Church, which Francis includes in his encyclical (Heimbach-Steins & Stockmann, 2019, p. 17). In this context, the global north is criticised and made responsible for the ecological degradation in the south (Heimbach-Steins & Stockmann, 2019, p. 17). On the other hand, the principle of solidarity is extended to the non-human “family of creation”. In this context, Francis argues, that through the practice of integral ecology and modesty, it is possible to change international policies toward the triad “environment - economy - social awareness” and ultimately reduce environmental destruction (Heimbach-Steins & Stockmann, 2019, p. 17f.).

The language of Francis' encyclical is shaped by plain language and a considerable provision of different translations, to make the publication as accessible as possible (Heimbach-Steins & Stockmann, 2019, p. 14). In his argumentation, Francis combines scientific models and expressions with religious-philosophical metaphors: While the planet is illustrated with the picture of the “common home”, the environmental crisis is compared with the metaphor of sickness (Heimbach-Steins & Stockmann, 2019, p. 22f.). In this context, the successful implementation of integral ecology is identified as a major part of the cure (Heimbach-Steins & Stockmann, 2019, p. 24). A critical approach to the current economical system and its responsibility for environmental degradation is formulated throughout the encyclical in form of a prophetic statement of claim, referring to the linguistic styles of the Old Testament (Heimbach-Steins & Stockmann, 2019, p. 23ff.). In contrast, Francis includes religious and philosophical sources from different traditions, like the Christian *Canticle of the Sun*, indigenous wisdom and Latin American maxims (Heimbach-Steins & Stockmann, 2019, p. 28).

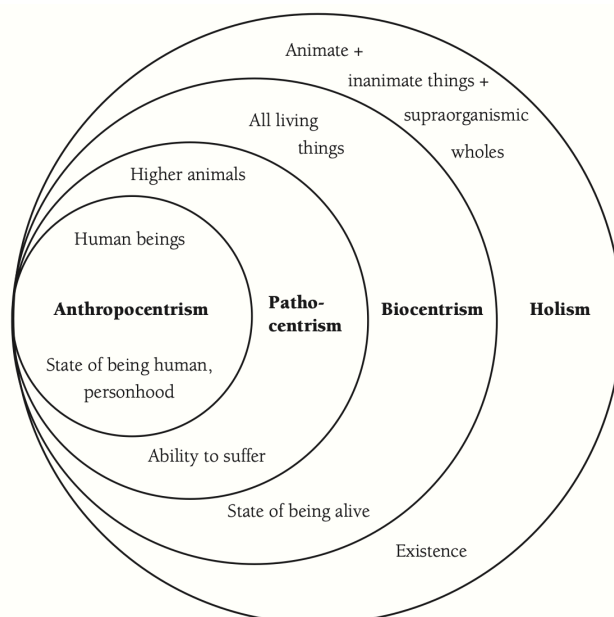
### 3. Theoretical Perspective

#### 3.1 Environmental Ethics

##### 3.1.1 A Brief Introduction

Before introducing the different approaches to environmental ethics, it is necessary to give a brief overview of the field and provide the fundamental differentiations between the positions.

In a first vital distinction, environmental ethics<sup>5</sup> have to be categorised into anthropocentric and physiocentric approaches: The anthropocentric approach declares, that only humans are entitled to bear moral value and thus uphold a higher status in the hierarchy of existing things (Ott et al., 2016, p. 11). However, it is possible to declare a natural object a “protective natural resource”, grounded in a theory of goods, which describes the different worth of objects (Ott et al., 2016, p. 11). Physiocentric approaches include sentientism, biocentrism, ecocentrism and holism. These approaches oppose the anthropocentric view of nature and argue, that (certain) natural objects possess intrinsic value and have the right to be included in the “Moralgemeinschaft” or moral circle (Ott et al., 2016, p. 12). While all physiocentric approaches agree on the intrinsic value of certain natural



Gorke, M. (2003). *The Death of Our Planet's Species. A Challenge to Ecology and Ethics*. Island Press. (p. 123).

objects, multiple fields of conflict differentiate the positions within this category: One discussion evolves around the conflict between individual and collective or ecosystem, another sees only higher animals as bearers of moral value, opposing the holistic view to granting value to all existing objects - animated and inanimated (Ott et al., 2016, p. 14). The depicted figure, taken from Gorke's publication *Death of Our Planet's Species* (2003) illustrates the unique preconditions physiocentric approaches require

from natural objects to receive moral value. While sentientism focuses on the capacity to suffer, biocentrism sees life itself as the crucial obstacle to receiving moral value (Ott et al., 2016, p. 12).

<sup>5</sup> According to the editors of the anthology *Handbuch Umweltethik* (2016), environmental ethics is a sub-area of ethics that examines the relationship between humankind and the non-human environment, including non-human entities (Ott et al., 2016, p. 5). The research field of modern environmental ethics emerged in the United States in the aftermath of Lynn White Jr.'s controversial publication *The Historical Roots of Our Ecological Crisis* (1967), discussing the predominant idea of human domination over the natural world (Ott et al., 2016, p. 4).

Holism, while including the preconditions of the other approaches, defines itself as the only approach that additionally focuses on inanimate natural objects, as well as the natural world as an existing unity, in which every individual object has intrinsic value, as it belongs to the organism (Ott et al., 2016, p. 12).

The following chapters give a detailed overview of the different approaches to environmental ethics, introducing light-green anthropocentrism, mid-green sentientism and biocentrism, as well as dark green ecocentrism and holism.

### 3.1.2 The *Light-Green Anthropocentrism*

In the international research community, the range of approaches is categorised into different nuances of the colour green. Therefore the following chapters will move gradually from light- to dark-green approaches.

Author of *Ecological Ethics: An Introduction* (2011) Patrick Curry defines the spectrum of light-green ethics as exclusively anthropocentric, which places it on the first layer of Gorke's figure, presented in the previous chapter (Curry, 2011, p. 61):

Nonhuman beings of any kind have no independent moral status or considerability and only merit consideration in so far as they matter to humans; consequently, any parts of nonhuman nature that have no use-value for humans are fair game to exploit, and any parts which apparently have no value can be disposed of. Likewise, an ecological problem is defined here as one that poses difficulties for humans, regardless of its effects on the rest of nature. (Curry, 2011, p. 61f.).

While Curry presents the distance between human and non-human objects in his definition of light-green ethics, he acknowledges, that environmental protection and ethical discussions concerning the value of nature within the light-green spectrum are possible. However, he also suggests, that the light-green perspective needs to critically reexamine and expand its core principles. First, the limits of human self-reflection need to be addressed, as human ignorance towards nature exceeds the ecological awareness of the global society (Curry, 2011, p. 62). Curry calls this addition the "precautionary principle" (Curry, 2011, p. 62). As a next step, the definition of sustainability within the light-green approach has to be revised: An action or economic process is only then sustainable if it is "indefinitely sustainable" (Curry, 2011, p. 62). At last, Curry argues, that the guiding principle for the conservation of nature should be to protect as much nature as possible globally (Curry, 2011, p. 62).

Because of its exclusively anthropocentric focus, the core of light-green ethics is fundamentally flawed by human self-interest and a deep lack of awareness of the rage of the ecological crisis

(Curry, 2011, p. 65). The understanding of non-human objects as resources represents Curry's conclusion, as a resource's only purpose is to be consumed. Subsequently, the exploitation of the natural environment is determined by thinking about resources (Curry, 2011, p. 63).

### 3.1.3 The Mid-Green Spectrum

The mid-green spectrum of environmental ethics unifies multiple approaches, that are “non-anthropocentric but not fully ecocentric” (Curry, 2011, p. 71). In other words, the mid-green approaches value humans and individual living entities through the process of “moral extensionism”, but do not include whole ecosystems and habitats in their moral circle (Curry, 2011, p. 71f.). Two established positions in the mid-green spectrum are sentientism (previously called pathocentrism) and biocentrism.

Sentientism argues, that not only humans but also higher animals and sentient beings possess intrinsic moral value (Krebs, 2016, p. 157). In this context, sentient beings are defined as non-human natural beings, who are equipped with the ability of emotional perception, ranging from positive to negative feelings like happiness and passion on one hand, and pain or grief on the other (Krebs, 2016, p. 157). This foundation shows, that the focus of sentientism is the argument that nature is sentient (Krebs, 2016, p. 159). Popular representatives of sentientism are Peter Singer, author of *Animal Liberation* (1975) and philosopher Martha Nussbaum *Frontiers of Justice* (2004) (Krebs, 2016, p. 158).

Biocentrism is based on the assumption, that every living being has intrinsic value and surpasses the mere instrumental value ascribed by humans (Engels, 2016, p. 161). Therefore humans have a direct moral responsibility towards individual animals, plants and even microorganisms like bacteria (Engels, 2016, p. 161). However, there are two opposing perspectives within biocentrism concerning the equality of life: Egalitarian biocentrism argues, that all living beings have equal value and differentiation is only possible in case of a vital conflict (Engels, 2016, p. 161). Hierarchical biocentrism on the other hand sees a clear hierarchy between individual species (Engels, 2016, p. 161).

Historically, Albert Schweitzer was one of the early representatives of (egalitarian) biocentrism (Engels, 2016, p. 161). His ethical approach *Ehrfurcht vor dem Leben*, publicly announced in a sermon in Strasbourg in 1919 is largely based on the teachings of Francis of Assisi (Schweitzer, 1963, p. 27). Schweitzer sees humans as just another part of all life in this world. In his sermon he

declared, “we live in the world and the world lives in us”<sup>6</sup> (Schweitzer, 1919, p. 34) and later in his memoirs in 1963, “I am life, that wants to live, among [other] life that wants to live”<sup>7</sup> (Schweitzer, 1963, p. 21). In his criticism of the ecological crisis in the early 20th century, Schweitzer demanded a paradigm shift in society's relationship with non-human life:

A new renaissance is necessary, reaching further than the one that helped humankind to leave the dark age: A great renaissance in which humankind finally breaks out of its poor sense of reality and finds the courage to move towards a reverence for life.<sup>8</sup> (Schweitzer, 1919, p. 23).

This paradigm shift is based on increasing awareness in society of the inherent value of non-human life. Schweitzer believed, that from the moment humans truly start to reflect on the destruction they have been causing and the suffering animals have to endure, once all this misery is acknowledged, it would be impossible to disregard (Schweitzer, 1919, p. 35). The interaction between human and non-human life is based on the assumption, that it is good to preserve and nurture life, while it is morally reprehensible to harm or destroy life (Schweitzer, 1963, p. 22).

The central theme of not harming life is one of the core principles of the mid-green approaches. Sentientism and biocentrism are connected in the endeavour to criticise the current form of livestock, factory farming and society's nutritional habits. The statistics show that “45 to 50 billion farmed animals are killed [annually] for food, plus at least as many animals” and in the US alone “19,000 [animals are slaughtered] per minute” (Curry, 2011, p. 85). Recognising these numbers, Nobel Price winner J. M. Coetzee stated:

Let me say it openly: we are surrounded by an enterprise of degradation, cruelty, and killing which rivals anything the Third Reich was capable of, indeed dwarfs it, in that our is an enterprise without end, self-regenerating, bringing rabbits, rats, poultry, livestock ceaselessly into the world for the purpose of killing them. (Coetzee in Curry, 2011, p. 85).

Acknowledged by various environmental and animal rights organisations, the debate about nutrition and eating animals starts with the mid-green approaches and carries on to the dark-green and holistic positions.

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<sup>6</sup> German original: “Wir leben in der Welt und die Welt lebt in uns.”

<sup>7</sup> German original: “Ich bin Leben, das leben will, inmitten von Leben, das leben will.”

<sup>8</sup> German original: “Eine neue Renaissance muß kommen, viel größer als die, in der wir aus dem Mittelalter heraus-schritten: die große Renaissance, in der die Menschheit dazu gelangt, von dem armseligen Wirklichkeitssinn, in dem sie dahinlebt, zur Gesinnung der Ehrfurcht vor dem Leben fortzuschreiten.”



According to Curry, biocentrism as an ethical approach has a core problem: the focus on individuality (Curry, 2011, p. 76):

In this perspective, an individual of a common species has exactly the same value as one of a species on the verge of extinction. Such an ethic therefore cannot handle a non-random collection of individuals such as species [...] [n]or can it directly address - as our current ecocrisis urgently requires - the non-random collection of individuals that is an embedded ecological community (or series of overlapping communities); individuals always trump the interests of ecosystems, because the latter are not morally considerable. (Curry, 2011, p. 76).

With its focus on the individual lifeform, biocentrism neglects the species as a whole and the habitat of non-human life. While the survival of species and ecosystems - the collective as a unit - is a core element of ecocentrism, only holism includes inanimate objects like mountain ranges or deserts, as a living environment for species.

### 3.1.4 The *Dark-Green Ecocentrism*

It is a deep green ethic that helps us realize the enormity of the crime when an old-growth forest is razed for pulp, a mountain-top is levelled for coal, a seabed is covered in oily slime, or the very last few members of a species die - obscure, perhaps, but unique and irreplaceable, and insignificant to themselves - as a result of human greed or selfishness. (Curry, 2011, p. 94).

Ecocentrism in its various forms is the position of the dark-green spectrum. Curry defines ecocentrism as a holistic approach, that underlines the “integrity of species and of ecosystemic place, as well as human and non-human organisms” (Curry, 2011, p. 92). Further, ecocentric approaches must allow “conflicts between the interests of human and nonhuman nature” and in the process of decision making “allow purely human interests [...] to lose” (Curry, 2011, p. 92). Other than mid-green biocentrism, ecocentrism does not represent individuals, as it focuses on the wholeness of ecosystems, the collective of species and the importance of their moral consideration (Dierks, 2016b, p. 169). The value of individuals is measured by their importance to the collective and its surrounding, and additionally, in cases of conflict, the well-being of the collective is more valuable than the interests of the individual (Dierks, 2016b, p. 169).

Aldo Leopold has been one of the most influential representatives of ecocentric approaches. His land ethic (1949) is based on the assumption, that the land itself is an organism (Dierks, 2016b, p. 170). To illustrate the interconnectedness and dependency of living beings, Leopold created a pyramid model with different layers, which are linked through food chains and energy cycles (Dierks,

2016b, p. 170). Based on the pyramid model, he formulated his guiding ethical principle toward non-human nature: “A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise” (Leopold in Curry, 2011, p. 94). In this context, Leopold famously recommended: “To think like a mountain” to underline the vital necessity of a change of perspective (Curry, 2011, p. 97).

Since Leopold’s pyramid model, the concept of interconnected and balanced ecosystems has been a popular understanding of nature among philosophers and environmentalists (Dierks, 2016b, p. 170). However, with ecocentrism’s focus on the collective, controversial practices like wildlife hunting and killing animals is not necessarily prohibited, as long as it does not harm the community of the species or their living environment (Dierks, 2016b, p. 171). In this aspect, ecocentric ethics follow a double standard in itself, while killing animals can be supported to protect certain ecosystems, human well-being exceeds the intention to protect the “stability, integrity and beauty” of the non-human world, even though humans are the greatest danger to nature (Dierks, 2016b, p. 171). In his ecocentric approach, James Lovelock describes the human population as a “deadly disease that infected the planet” and argues for a reduction of the human population (Lovelock in Dierks, 2016b, p. 172).

According to Dierks, ecocentric approaches have been criticised for their unprecise theoretical definitions. Their focus on the collective and the wholeness of ecosystems is based on an inadequate set of boundaries and hierarchies (Dierks, 2016b, p. 174). Ecosystems in themselves are theoretical constructs, that remain fluid and without borders: A rotten tree can be an ecosystem, which exists inside the ecosystem of the forest - but where does it end (Dierks, 2016b, p. 175)? Additionally, landscapes are not static areas: Forests develop, burn and grow back, and the natural world continues changing and does not fit into static categories (Dierks, 2016b, p. 175). At last, from an environmentalist perspective, ecocentrism does not prioritise endangered species in precarious circumstances, although it is ethically reasonable (Dierks, 2016b, p. 175). Dierks concludes, that from an environmental perspective, the rejection of anthropocentrism does not justify pure ecocentrism and because of its clear limitations, ecocentrism plays a minor role in current environmental debates (Dierks, 2016b, p. 176).

### ***3.2 Gorke’s Pluralistic Holism***

#### **3.2.1 Monistic and pluralistic holism**

In the last chapter, dark-green ecocentrism has been introduced. With its concern for ecosystems and species, it focuses exclusively on the collective presence of life and clearly neglects individual

entities. This focus on the overall system makes ecocentrism a holistic approach also called monistic holism (Gorke, 2018, p. 23).

Gorke's approach, pluralistic holism, aims to combine the individual focus of biocentric approaches and the systemic prioritisation of ecocentrism. Through this combination of individual and holistic positions, Gorke's pluralistic holism gives no moral justification for dividing existing entities into different categories, instead, it argues that "every existing entity deserves moral consideration" (Dierks, 2016a, p. 179).

### 3.2.2 Theoretical derivation

Gorke's theoretical derivation follows three major arguments that ultimately lead to the position of pluralistic holism: The primal choice, the universal character of morality, as well as the question of inclusion, and the principle of ontological parsimony (Gorke, 2018, p. 36).

Gorke argues, that at the beginning of every decision individuals are confronted with a primal choice: The decision between an egoistic or a moral position, or in other words, becoming a power seeker or a social person, who follows a moral code (Dierks, 2016a, p. 179)<sup>9</sup>. In the context of environmentalism, the egoistic position embodies the classical human-centred, resource-oriented approach toward nature. In this scenario, the natural world is merely a resource used to fulfil economical needs (Gorke, 2018, p. 36). The moral position opposes this approach and suggests a more reflected interaction with the natural world. An individual choosing the moral position declares to "follow universal ethical principles on a voluntary basis" every step of the way (Gorke, 2018, p. 36).

After the initial decision to choose the ethical approach toward nature, the individual has to accept the universal character of morality. In other words, everything and everyone deserves moral consideration and individuals cannot include entities in the moral circle through a selective process (Gorke, 2018, p. 37). Based on this perspective, Gorke argues that the question of inclusion in an ethical discussion is not sustainable. Following the universal character of morality, it is necessary to

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<sup>9</sup> German original: "Will man entweder ein Machtmensch sein, der tut, was ihm beliebt und dem andere Menschen und Naturwesen im Wesentlichen als Mittel zur Befriedigung seiner Bedürfnisse dienen? Oder will man ein Mensch sein, der aus freien Stücken auch auf andere Wesen Rücksicht nimmt - und zwar nicht nur dann, wenn es ihm oder ihr gefällt oder nützt, sondern anhand von verallgemeinerbaren, ethischen Prinzipien?"

reverse the chain of argumentation and justify why an entity should be excluded from moral consideration, not included (Gorke, 2018, p. 48)<sup>10</sup>.

To underline his argumentation Gorke refers to the principle of ontological parsimony, often referred to as Ockham's razor. According to this ethical principle, in case of conflict between two ethical approaches, the theory with the least exceptions, additions and inferences is the more logical one (Gorke, 2018, p. 41). In this case, Ockham's razor is a tool to ideally "minimise bias and arbitrariness" in discussions and the process of theory building (Gorke, 2018, p. 41). In the context of environmental ethics, Gorke's pluralistic holism embodies the ethical approach with the fewest additional rules, as holism represents an absolute and egalitarian model (Dierks, 2016a, p. 180). If however, every entity deserves moral consideration, how can humans achieve personal fulfilment and go on with their everyday life? To address these conflicting situations, Gorke formulated two sets of principles designed to govern the contact between humans and the natural world. The first set (initial principles) is directed towards domesticated animals, cultural landscapes and unspoiled nature, while the second set is concerned with conflict situations.

### **3.2.3 Instructions for everyday life**

#### **3.2.3.1 Initial principles**

The first initial principle is called "the principle of not-harming". According to Gorke, it represents a negative duty or prohibition, comparable to the biblical commandment "Thou shalt not kill" (Gorke, 2018, p. 120). Its intent is to extend the principle of not-killing towards the natural world by the factor of not-harming. This implies, that it is not only wrong to kill an animal, but also to harm natural objects like plants or trees.

In unison with the first principle, Gorke formulates the second one: "The principle of doing good" (Gorke, 2018, p. 120). Other than the first principle, the act of doing good requires activity toward the natural world and is, therefore, more demanding (Gorke, 2018, p. 120). As examples of doing good, Gorke suggests among other things to either "defend the moral entitlement of others" or "to help others, protect them from harm and neutralise its origin" (Gorke, 2018, p. 120).

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<sup>10</sup> German original: "Nicht die Erweiterung der Moralgemeinschaft ist rechtfertigungspflichtig, sondern ihre Einschränkung. Nicht der Holist muss zeigen, warum Naturwesen aufgrund welcher Eigenschaften moralisch berücksichtigungswürdig sind. Es ist vielmehr an den Vertretern eingeschränkter Ethikkonzepte, plausibel zu machen, warum eine ganz bestimmte Eigenschaft - und nicht eine beliebige andere! - für die Aufnahme in die Moralgemeinschaft unabdingbar ist. Sie müssen zeigen, welchen Grund es gibt, vom egalitären Prinzip der universalen Berücksichtigung abzuweichen und bestimmte Teile der Natur aus der direkten menschlichen Verantwortung auszuschließen. Die Inklusionsfrage stellt sich dadurch die Umkehr der Begründungslast als Exklusionsfrage dar."

The third initial principle is concerned with not interfering with the natural world. According to Gorke, this suggests “minimising the extent of human manipulation of natural entities” (Gorke, 2018, p. 123). This includes “respecting interspecific conflicts of organisms and populations, as well as allowing ecosystems and their living and inanimate parts to self-organise” (Gorke, 2018, p. 123). The principle of not interfering can be the starting point of a conflict between individual and holistic approaches to environmental ethics. While biocentrism would argue that it is legitimate to help a wild animal in need, Gorke’s pluralistic holism would counter that interfering with an autonomous population of wild animals is inappropriate (Gorke, 2018, p. 123). At the same time, Gorke underlines, that the implementation of this principle can be difficult because of the principle of doing good. In emergency situations, the reflex to help might preempt the principle of not interfering, however offering help should stay an exception (Gorke, 2018, p. 130).

The fourth initial principle describes a case in which interference with the natural world is needed: The principle of restoring (environmental) justice. If an individual entity, a population or an ecosystem has been damaged by human actions, the principle of restoring justice has to be implemented. While a complete recovery of ecosystems is not always possible, the process of healing on an individual level is an alternative, as wounded animals can be nursed back to health to be reintegrated into their natural environment (Gorke, 2018, p. 124). The fundamental idea of the principle of restoring (environmental) justice is to reverse negative human influence on the natural world (Gorke, 2018, p. 124).

### **3.2.3.2. Principles of conflict solution**

While the initial principles have the capacity to govern day-to-day actions and promote a different understanding of the relationship between humans and the natural world, the second set of principles is concerned with direct conflicts.

Gorke begins with the principle of self-defence. According to this principle, every human has the right to apply self-defence in a critical situation, even if the outcome is lethal for an animal (Gorke, 2018, p. 172). Even though animals have inherent worth within pluralistic holism, the right of self-preservation in this critical situation surpasses the moral duty to not harm the animal (Gorke, 2018, p. 172). However, Gorke suggests, that critical situations should be avoided if possible. Here he gives the example of a tourist hiking through Svalbard, crossing the habitat of polar bears. In this

context, a polar bear attack seems almost inevitable, which raises the question, of whether such a hike is necessary in the first place (Gorke, 2018, p. 172)<sup>11</sup>.

The principle of proportionality is another guiding principle in cases of conflicts. Going back to the adventure tourist in Spitsbergen, the principle of proportionality would ask, if it is proportional to kill a polar bear, only to act out a touristic adventure fantasy. According to Gorke, existential interests should triumph over non-existential interests (Gorke, 2018, p. 173). In other words, the polar bear hunting in its habitat for survival should not suffer because of non-existential adventure tourism.

The difference between existential interests and non-existential (basal and non-basal) interests influences the principle of the least (moral) evil. Because of the human capacity to “apprehend and reflect interferences with nature, animals and ecosystems”, every interference should be discussed concerning its necessity: Is it existential or non-existential? (Gorke, 2018, p. 180). If interference is necessary to fulfil an existential interest, it should be reduced to the least (moral) evil, to minimise the impact on the natural world (Gorke, 2018, p. 117).

The final principle is concerned with distributive justice. According to Gorke, natural resources and habitats should be equally distributed according to existential needs (Gorke, 2018, p. 180). He further criticises the distribution of living space in Germany, where 97% is inhabited by humans and only 3% are dedicated habitats for wildlife (Gorke, 2018, p. 180).

### **3.3.4 Why is this perspective important?**

Gorke’s pluralistic holism offers a new perspective within the discourse of environmental ethics, combining individual and collective value, while simultaneously defending the inherent value of each entity on this planet. If every natural entity has inherent worth and deserves moral consideration, humans are forced to rethink their practices, for example, personal consumption or production patterns, as these areas are closely connected to unsustainable practices. Additionally, if an entity has inherent worth, it becomes more than a resource for human consumption, it becomes an autonomous being, which deserves a life without harm and a habitat free of human interference. Gorke’s understanding of the inherent worth of human and non-human entities can be seen as a first step in

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<sup>11</sup> German Original: Das Risiko tödlicher Konfrontationen ist aber nicht nur auf Seiten der Natur, sondern auch auf Seiten des Menschen zu minimieren, wenn dieser für sich das Notwehrrecht in Anspruch nehmen will. Zwar mag ein Abenteuer tourist, der bei seinem Marsch entlang der Küste Spitzbergens einen Eisbären erschießen musste, in der betreffenden Situation tatsächlich keine andere Wahl gehabt haben, um sein eigenes Leben zu retten. Doch bleibt immer noch die Frage, ob es nicht vermeidbar gewesen wäre, den Bären und sich selbst in eine solche Situation zu bringen.”

shifting the environmental and social debate towards value and equality. Other authors like Judith Butler share his arguments, despite coming from a different academic discourse.

In her publication, *The Force of Nonviolence* (2020) Butler shows significant similarities with Gorke's attribution of value. The core of Butler's argumentation is her concept of grievability, which she sees as a direct result of inherent value: "If they were to be lost as a result of violence, that loss would be registered as a loss only because those lives were affirmed as having a living value, and that [...] means we regard those lives as worthy of grief" (Butler, 2020, p. 29). According to Butler, grievability is the ultimate attribution of value and leads to an acknowledgement of the inherent worth of an entity (Butler, 2020, p. 55). Therefore she proposes a thought experiment about a global society guided by universal equality in terms of their status as grievable subjects:

[In this state there would be] no difference between lives worth preserving and lives that are potentially grievable. Grievability governs the way in which living creatures are managed, and it proves to be an integral dimension of biopolitics and of ways of thinking about equality among the living. (Butler, 2020, p. 56).

Even though Butler mainly focuses on human societies and systemic inequality between different groups, her approach can be interpreted from an environmental perspective. Following pluralistic holism, the idea of equality between individual subjects and groups can be transferred from human societies to the relation between humans and non-human entities. Only if these non-human entities finally receive their status as equally valued, violent acts like industrial livestock farming result in grief and are therefore condemned.

Another promising connection to Gorke's pluralistic holism is made by the approach of planetary thinking. Planetary thinking describes a relatively young model of perceiving reality from a planetary perspective. It is based on the holistic understanding of the environment and acknowledges the connection between the entities on the globe, making each form of life and inanimate object a part of the planet (Hanusch et al., 2021, p. 15). In this context, planetary thinking argues also shares the attribution of inherent value, arguing that it is necessary to sense that humans live in planetary solidarity with other forms of life, as this community shares the same planet as their home (Hanusch et al., 2021, p. 22). A distinctive feature of planetary thinking is the examination of events and correlations on a planetary scale. From the planetary perspective, possible outcomes of different events are considered in their absolute range, in the example of climate change, how do emissions in the global north change the natural environment in the global south? Additionally, planetary thin-

king promotes interdisciplinary solutions for multi-faceted problems that expand to a planetary scale.

Gorke's pluralistic holism introduces various promising approaches to the discourse of environmental ethics. His consequent attribution of value is shared by Butler's concept of gievability and the fundamental perspective of holism, to perceive reality as an interconnected network of entities has created new approaches like planetary thinking, advocating for a more extensive perception of global events, like the current environmental crisis.

### 3.2.5 Critique

Martin Gorke's pluralistic holism has been criticised on multiple levels. According to scholar Jan Dierks, the argumentative structure of Gorke's theoretical derivation is controversial and displays some contradictions. Dierks argues, that it is impossible to raise an objection against the inclusion of entities into the moral community because every argument can be categorised as arbitrary according to the use of Ockham's razor (Dierks, 2016a, p. 181). He continues that the principle of ontological parsimony is rather a selection criterion than a criterion of truth, as it is meant to resolve argumentative stalemates (Dierks, 2016a, p. 181). Additionally, Dierks sees a contradiction in the principle of not-harming. Since the principle has to be applicable to living and inanimate entities, the question arises if inanimate objects can be harmed, because they neither have teleonomy, nor personal interests (Dierks, 2016a, p. 182).

Christian theologian Christina Aus der Au generally criticises the holistic character of holism. She argues that "an ethical approach, which sacrifices the substantiality of a person, integrating it seamlessly into the web of life, loses the capability to be addressed as an individual, which is essential for the Christian belief in creation"<sup>12</sup> (Aus der Au, 2003, p. 64). Additionally, she sees holism as an extension of human egoism, where one tries to "expand the self to the whole" (Aus der Au, 2003, p. 88). Further, Aus der Au opposes the principle of not-interfering, which may seem unproblematic for holists, but represents an issue for Christians, who "want to perceive their environment mindful and relationship-ready" (Aus der Au, 2003, p. 64f.). In this context, the Christian context of love focuses on an individual counterpart, which is excluded in a holistic system (Aus der Au, 2003, p. 65). At last, Aus der Au criticises the static concept of ecosystems, because it refers to an artificial construct, that cannot be supported according to scientific findings. Therefore referring

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<sup>12</sup> German original: "Eine Ethik, welche die Substantialität der Person aufgibt, sie aufgehen lässt in einen ‚Knoten im Geflecht des Lebendigen‘, verliert den Anredecharakter, welcher konstitutiv ist für den christlichen Schöpfungsglauben" (Aus der Au, 2003, p. 64).



to the overall health of an ecosystem suggests a static ideal state, which does not exist in a dynamic, ever-changing system (Aus der Au, 2003, p. 77). Following Aus der Au's criticism, it is essential to highlight, that she mainly addresses monistic holism, as the individual still possesses moral consideration and inherent worth within pluralistic holism.

## 4. Methodology

### 4.1 Previous Research

Since its publication in 2015, Pope Francis' encyclical *Laudato Si'* entered the public discourse on religious responses to the current ecological crisis. The coverage of the encyclical ranges from church internal discussion (see 2.2.3 about Austrian denominations), as has been shown in the previous chapters, to coverage in the worldwide media, and, at last, its academic examination.

In preparation for this thesis, three types of academic publications have been analysed to understand the content and impact of the encyclical. First, Christiana Z. Peppard's article *Pope Francis and the fourth era of the Catholic Church's engagement with science* (2015) is about the historical and contemporary relationship between the Catholic Church and natural science. Second, Heimbach-Steins' and Stockmann's anthology *Die Enzyklika Laudato Si'. Ein interdisziplinärer Nachhaltigkeitsansatz?* (2019) combines various analyses of *Laudato Si'* in different contexts, like the Catholic Church as a change agent, or the encyclical and capitalism. Third, numerous academic publications, acknowledge Francis' engagement with ecology and environmental justice. This category includes Jenkin's, Tucker's and Grim's *Routledge Handbook of Religion and Ecology* (2017), the United Nations Environment Programme and Parliament of the World's Religions co-authored publication *Faith for Earth: A Call for Action* (2020), Hart's *The Wiley Blackwell Companion to Religion and Ecology* (2017), as well as Pasquale's *Care for the World: Laudato Si' and Catholic Social Thought in an Era of Climate Crisis* (2019).

However, no previous research has been conducted bringing Francis' *Laudato Si'* and deep-green environmental ethics (pluralistic holism) together. In their field both publications take a unique standing, may it be the head of the Roman Catholic Church uniting climate science with Christian spirituality, or Gorke, who carries a doctoral degree in both biology and philosophy, adding interesting professionally qualified proposals to the discussion of environmental ethics.

### 4.2 Research Methods

#### 4.2.1 Content Analysis

To structure the data taken from the encyclical *Laudato Si'* and prepare its core topics, positions and recommendations concerning ecological development, the method of content analysis has been chosen. According to Nelson and Woods Jr. content analysis is a type of textual analysis, which focuses on statements made in written contexts and is "used to describe and systematically analyze the content of written, spoken or pictorial communication" (Vogt in Nelson & Woods Jr., 2011, p. 110).

While this method is often used to structure and filter the content of interviews or other media products, it can also be applied to “public texts”, both in a quantitative or qualitative setting (Nelson & Woods Jr., 2011, p. 109f.). As an example, in the research field of religious studies, content analysis has been used to analyse “religious expressions and identities, evaluate religion in media, and examine religion in social institutions and culture” (Nelson & Woods Jr., 2011, p. 109).

In the context of *Laudato si'*, content analysis is used to fulfil the function of identifying “patterns and commonalities within a particular genre”, in this specific case, the environmental discourse, its worldviews and specific applications (Nelson & Woods Jr., 2011, p. 110). Nelson and Woods Jr. point out the utility of content analysis for “drawing comparisons between similar types of variables” within distinct settings (Nelson & Woods Jr., 2011, p. 110). This particular function is useful for the later analysis and discussion of the motives in *Laudato Si'*. Another advantage of content analysis is the capacity to “systematically manage and summarize large quantities of relatively unstructured information”, which partly applies to core topics of *Laudato Si'* (Nelson & Woods Jr., 2011, p. 111). While the structure of Pope Francis’ encyclical is relatively clear, as Heimbach-Steins and Stockmann pointed out in the previous chapter, it remains a priority to categorise the dominant ideas and restructure Francis’ arguments, as they are spread throughout the chapters of *Laudato Si'*. Once the different categories are compiled, the method of discourse analysis is used in the discussion. This process shows a relevant strength of the method of content analysis: It can easily be combined with other research methods (Nelson & Woods Jr., 2011, p. 109). In this thesis, the content analysis is utilised as an analytical toolkit, to enable in-depth analysis and in doing so, pre-structure the discussion (Neumann, 2008, p. 75). Neumann describes the use of multiple research methods as follows:

Tool one would be a carver that would carve texts out of the social world. Tool two would be an equalizer that makes other phenomena (for example, a semaphore, an ad, a body) into material to be analyzed on a par with texts. Tool three would be something like a herding dog that would group these phenomena together based on them being about the same thing. Tool four would be a slicer, cutting the phenomena into different representations of the same thing. Tool five would be some kind of optic device that would make visible the meaning dimension of the material phenomenon to its users. It would come with a grading spectre that could demonstrate how easy it would be to change the different layers of a given phenomenon. And finally, the only one that I would really like to see on my desk, tool six would be a self-reflecting quill that accounted for my own weighting of the phenomena of which I wrote as I wrote. (Neumann, 2008, p. 75f.)

While Neumann did not describe the method of content analysis, his picture of the “herding dog” dividing content into different groups, fits the process of this method.

The data for the analysis is collected through the process of categorising and coding, which has to be prepared by choosing a sample (Nelson & Woods Jr., 2011, p. 112). Since this analysis is focused on the encyclical *Laudato Si'*, the different categories are formed within the limits of the publication. No additional sources have been used, aside from secondary literature, to form a deeper understanding of the content. As a next step, the source text is divided into different themes and topics, through a process called “unitising” (Nelson & Woods Jr., 2011, p. 113). As the research about *Laudato Si'* suggested, the encyclical addresses the overall scale of the current ecological crisis, gives an insight into the Roman Catholic Church’s worldview, discusses economic criticism and the social dimension of climate change, as well as proposed actions against climate change. For this reason, the broad units “Environment”, “Worldview”, “Economic Criticism” and “Social Dimensions” and “What Can Be Done?” have been formulated as an initial position, to focus on the thematic orientation of the thesis (Nelson & Woods Jr., 2011, p. 114).

Once this process was completed, the formation of categories within the units started. Kuckartz and Rädiker describe the formation of categories in their publication *Qualitative Inhaltsanalyse. Methoden, Praxis, Computerunterstützung* (2022). Following their guideline for category formation, categories can be formed either deductive, inductive, or in a mixed form of both types. Deductive categories are determined independently from the source text and are prepared before the analysis is conducted (Kuckartz & Rädiker, 2022, p. 71). Inductive categories on the other hand are formed during the analysis of the source text (Kuckartz & Rädiker, 2022, p. 82). According to Kuckartz and Rädiker, inductive category formation is a demanding and challenging process, as it improves according to the research experience and social-scientific knowledge (Kuckartz & Rädiker, 2022, p. 82). At the core of forming categories lies the questions: Is category formation essential for the individual research project and what is the goal of doing so (Kuckartz & Rädiker, 2022, p. 90; Nelson & Woods Jr., 2011, p. 114)? As the goal of this thesis is to discuss the encyclical *Laudato Si'* from the perspective of Gorke’s pluralistic holism, it is essential to group the concepts and statements of Francis’ publication and structure the discussion in thematic units. However, neither the purely deductive, nor the inductive approach by itself is a perfect fit for the analysis. Therefore, a deductive-inductive form of category formation is used. This mixed form starts out with broader categories (see the process of unitising, described by Nelson and Woods Jr.), which are then inductively specified into sub-categories during the analysis of the source material (Kuckartz & Rädiker, 2022, p. 102). If statements or passages do not fit within the existing categories or sub-categories, the inductive approach allows the formation of new ones (Kuckartz & Rädiker, 2022, p. 102). In

this context, the broader categories (or units) function as a search grid to structure the material, before the sub-categories are created (Kuckartz & Rädiker, 2022, p. 103).

#### 4.2.2 Coding of Data

After the source material has been sighted and the categories and sub-categories are prepared, the process of coding begins. Kuckartz and Rädiker describe coding as the process in which code segments are assigned to a fitting thematic category or sub-category (Kuckartz & Rädiker, 2022, p. 67). In this context, coding can imply two things, either a segment is integrated into an existing sub-category, or in the case of an inductive approach, a new sub-category is created specifically for the segment (Kuckartz & Rädiker, 2022, p. 67). In other words, it is necessary to distinguish between subsuming and generating (Kuckartz & Rädiker, 2022, p. 67). In an inductive and deductive-inductive setting, this process is congruent with the process of categorisation described in the previous chapter, as segmentation and coding take place at the same time (Kuckartz & Rädiker, 2022, p. 244). However, during the process of coding, it is essential to follow certain guidelines to improve the validity and reliability of the analysis: First, a coded segment should be categorised in one category or sub-category only - their “classification should be mutually exclusive and exhaustive” (Kuckartz & Rädiker, 2022, p. 68; Nelson & Woods Jr., 2011, p. 113). Second, the sorted coding segments should also be understandable outside the context of their category, (Kuckartz & Rädiker, 2022, p. 69). Third, the existing categories should fit the coded segments or be extended until they do, a validation Nelson and Woods Jr. call “face validity” (Nelson & Woods Jr., 2011, p. 113).

The general process of categorisation and coding in this thesis follows Kuckartz’s and Rädiker’s “Common Processmodel of Qualitative Content Analysis” (Kuckartz & Rädiker, 2022, p. 106), presenting the procedure of content analysis in five steps: First, examination of the textual source, second, building categories, third, coding the textual segments, fourth, analysing the coded data, and final, presenting the results. During each stage of this model, the direction of the analysis is aligned with the direction of the research project and its research questions. At last, it is necessary to demonstrate the difference between a qualitative and quantitative analysis concerning the use of the gathered data. If the focus lies on the “nominal categories”, the analysis operates within a qualitative setting, whereas “counting the units in each category produces quantitative data” (Nelson & Woods Jr., 2011, p. 114).

### 4.2.3 Technical Implementation

The content analysis has been conducted with the qualitative data analysis software NVivo 12. The programme was part of the research tools the University of Oslo offers to its students. Through its functionality, it enables researchers to directly import the resource object, in this case, the official PDF version of *Laudato Si'* as it was released by the Vatican. Subsequently, it was possible to form the initial (broad) categories and assign single passages and paragraphs to them, before creating more precise sub-categories. NVivo 12 offers additional functions, like the possibility to have each category and sub-category presented in an overview, to identify similarities and differences between the different groups, as well as connections, which may be useful for later discussions. Further, through data handling in one central software, unintended transcription errors can be avoided.

### 4.2.4 Validity and Reliability

Both Kuckartz and Rädiker, as well as Nelson and Woods Jr., point to the importance of a valid and reliable analysis. Within a content analysis, the fulfilment of quality criteria can be achieved through the organisation of the research process. To achieve the highest possible degree of validity and reliability, the formation of categories and the coding process should be conducted by multiple researchers or research assistants (to guarantee at least two interpretations of the source material), who have been trained to execute this task (Kuckartz & Rädiker, 2022, p. 69; Nelson & Woods Jr., 2011, p. 114). This step is necessary because the mere construction of categories performed by different researchers could result in different outcomes (Kuckartz & Rädiker, 2022, p. 239). The reason for these differences is the individual (academic) backgrounds of each researcher involved, as their unique worldview and knowledge influence the formation of categories (Kuckartz & Rädiker, 2022, p. 239; Nelson & Woods Jr., 2011, p. 112). Because of this unavoidable influence, Kuckartz and Rädiker suggest, that the process of coding should be the measurement of reliability instead (Kuckartz & Rädiker, 2022, p. 239). Ultimately, the involvement of multiple coders remains a quality criterion for the method of content analysis. The validity of content analysis can be controlled by comparing categories for example “religiosity” with external sources that defined that same variable through a “valid measurement” (Nelson & Woods Jr., 2011, p. 113f.).

Because of the finite resources of this master’s thesis and its orientation as an individual work of qualification, it has not been possible to conduct the process of category formation or coding with a team of multiple researchers or assistants. However, through the consultation of secondary literature sources, such as Heimbach-Steins’ and Stockmann’s analysis of the encyclical’s structure and thematic orientation, it has been possible to create the initial categories for the analysis

in accordance with other researchers' structural interpretations. This way the initial point of the category formation received a supportive framing.

### 4.3 Discourse Analysis

After the source material has been pre-structured, the method of discourse analysis is used to lead the discussion. As described in the previous chapter, the document analysis functions as a toolkit to prepare and pre-structure the arguments and themes in Francis' encyclical for discourse analysis. Hjelm describes this process as a preparation to align “[the] research question/problem, data and method [...] in a way that enables a rich, yet practically feasible analysis” (Neumann, 2008, p. 63). The different contexts and circumstances of each discourse analysis require the researchers to adapt their approach, as “[f]ew discourse analysts concentrate on the same thing in their research; rather they modify and change their analytical ‘toolkit’ to suit the requirement of different questions and data” (Hjelm, 2011, p. 142). Another factor in the preparation of the discussion is the necessity to research background information about the different, essential “representations themselves” in terms of climate change data, the historical position of religions and the Catholic Church in environmental conflicts, and, at last, the spectrum of environmental ethics (Neumann, 2008, p. 71). Neumann describes this process as the development of “a basic level of cultural competence to recognize the shared understandings that create a common frame of references” within research (Neumann, 2008, p. 64).

According to Hjelm, discourse analysis is a method that “examines how actions are given meaning and how identities are produced in language use”, in other words, it can be used to “investigate processes of social constructions” (Hjelm, 2011, p. 134). As the discussion evolves around the environmental standpoints of both Francis' encyclical *Laudato Si'* and Groke's concept of pluralistic holism, it is essential, to analyse elements like the attribution of value in both publications and see, how these attributions influence the understanding of the recipients. Neumann adds yet another essential function of discourse analysis, the possibility to reveal “affinities and differences between representations in order to demonstrate whether they belong to the same discourse”, which is interesting, considering the contrary starting points of the authors (Neumann, 2008, p. 62). In this context, the focus on cultural developments and their underlying understanding of reality is another topic to be examined and discussed within this thesis (Neumann, 2008, p. 62).

#### *4.4 Structure of Analysis and Discussion*

The analysis chapter will provide an in-depth overview of the dominant topics in Francis' encyclical letter *Laudato Si'*. Francis opens his letter with a recognition of the current climate crisis, addressing global hot spots and the negative impact of human actions on the environment. The second category gives an overview of the Roman Catholic worldview. At the core of Francis' encyclical lies extensive criticism of the dominant global economic model, the consumerist lifestyle and the fast pace of technological development and marketing. In connection with this criticism, *Laudato Si'* shows a prominent focus on the social dimension of climate change. This presentation is deeply rooted in the social mission of the Roman Catholic Church and reflects on the current relationship between the global north and south. The final category is labelled "What can be done?" and illustrates concrete calls to action, exemplary types of activism, and, at last, a strong argument for the importance of environmental education and the implementation of integral ecology. The analysis has the goal to present the content of *Laudato Si'* as authentic as possible and therefore stays close to the source material to capture the core of Francis' intentions. Based on this, the discussion builds up on this structure and discusses the single categories from the perspective of pluralistic holism. The final sub-chapter then comes back to the initial research questions and aims to give a detailed answer.



## 5. Analysis

### *5.1 Recognising the Severity of the Global Climate Crisis*

While the relationship between natural science and the Roman Catholic Church has not always been close, Francis bases the content of his opening chapters on the common findings of the global scientific community. He describes the conclusion of the scientific corpus as a clear “consensus” and expresses the certainty of “a disturbing warming of the climatic system” (Francis, 2015, p. 18) on a global scale (Francis, 2015, p. 20). An important statement in this context is the acknowledgement of human responsibility:

It would hardly be helpful to describe symptoms without acknowledging the human origin of the ecological crisis. A certain way of understanding human life and activity has gone awry, to the serious detriment of the world around us. (Francis, 2015, p. 75).

He further connects human involvement to the emission of greenhouse gases like “carbon dioxide, methane, nitrogen oxides and others”, leaving no doubt about the climatic consequences of “human activity” (Francis, 2015, p. 19). In this context, Francis’ uses overwhelmingly negative descriptions to depict human action. Due to what he calls the “rapidification” of human life, its gradual increase in speed, a separation from the natural pace of the environment has occurred (Francis, 2015, p. 15). To keep up with this accelerated mode of life, human treatment of the natural world became increasingly “irresponsible” (Francis, 2015, p. 6), drifting off into the “plundering” and “exploitation” of natural resources (Francis, 2015, p. 3f.). Francis often references previous popes, like Paul II., and includes their commentary on various subjects: “Due to an ill-considered exploitation of nature, humanity runs the risk of destroying it and becoming in turn a victim of its degradation” (Paul II. in Francis, 2015, p. 4). Or in the words of former Pope Benedict XVI., who criticised the self-aggrandisement and egoism of humankind in their relationship with the planet: “The misuse of creation begins when we no longer recognize any higher instance than ourselves, when we see nothing else but ourselves” (Benedict XVI. in Francis, 2015, p. 7). Francis builds upon these previous assessments and complements his argumentation with guiding thoughts of St. Francis of Assisi, his patron saint. In his argumentation, he focuses on the feeling of connectedness to the natural environment and non-human life, as well as an inner awareness of these connections:

If we approach nature and the environment without this openness to awe and wonder, if we no longer speak the language of fraternity and beauty in our relationship with the world, our attitude will be that of masters, consumers, ruthless exploiters, unable to set limits on their immediate needs. (Francis, 2015, p. 11).

From a Roman Catholic perspective, the missing “awe and wonder” humans are supposed to feel, when interacting with the natural environment, suggest that the current environmental problems are closely connected to missing spirituality and an overall ethical understanding of the human-nature relationship (Francis, 2015, p. 8). At the same time, Francis acknowledges, that even responsible actions have influenced the natural environment. In a quote by patriarch Bartholomew, he underlines how everyone “generate[s] small ecological damage” (Bartholomew in Francis, 2015, p. 8).

In the beginning chapters of *Laudato Si'*, Francis gives an overview of the ecological hot-spots and problem areas. His conclusion about the current state of the planet Earth is devastating: “The earth, our home, is beginning to look more and more like an immense pile of filth” (Francis, 2015, p. 17). A consequence of this development is the increased health risks for the human population. Because of industrial pollution and greenhouse gases, generated by “transport [and] industrial fumes”, as well as the use of “fertilizers, insecticides, fungicides, herbicides and agrottoxins” in the context of agricultural processes, not only the air but also freshwater sources are contaminated (Francis, 2015, p. 16f.). Additionally, chemical production and nuclear power plants generate “hundreds of millions of tons of waste [...] much of it non-biodegradable, highly toxic and radioactive” (Francis, 2015, p. 17). These practices are not only a health risk for the human population, but also for the local populations of non-human life and organisms, who are in danger of “bioaccumulation” (Francis, 2015, p. 17). Further Francis illustrates, how the industrial practices of humankind impact the planet itself. Besides human and non-human life, areas of the planet are directly affected, like the soil or the lungs of the planet, rich in forests (Francis, 2015, p. 19). The situation is worsened by the overall impact of pollution on the natural carbon cycle:

It creates a vicious circle which aggravates the situation even more, affecting the availability of essential resources like drinking water, energy and agricultural production in warmer regions, and leading to the extinction of part of the planet’s biodiversity. The melting in the polar ice caps and in high altitude plains can lead to the dangerous release of methane gas, while the decomposition of frozen organic material can further increase emission of carbon dioxide. Things are made worse by the loss of tropical rain forests which would otherwise help to mitigate climate change. Carbon dioxide pollution increases the acidification of the oceans and compromises the marine food chain. (Francis, 2015, p. 19f.).

Furthermore, the melting of natural freshwater reserves, like the polar ice caps or the glaciers, has serious consequences concerning the availability of drinkable water, especially in Africa, where “large sectors of the population have no access to safe drinking water or experience droughts which impede agricultural production” (Francis, 2015, p. 22f.). According to Francis, one reason for the precarious situation in many African countries is the lack of “adequate regulation or controls” in the

“mining, farming and industrial” sector (Francis, 2015, p. 23). The pollution in these cases happens on multiple levels, as “[d]etergents and chemical products” contaminate the groundwater, and “pour into [...] rivers, lakes and seas” (Francis, 2015, p. 23). Following the water cycle, Francis also addresses marine pollution. He acknowledges the problem of industrial overfishing and the sensitive situation of coral reefs around the world, before concluding, that the rising temperature of the world’s oceans is the biggest threat to this diverse living environment (Francis, 2015, p. 29f.):

This phenomenon is due largely to pollution which reaches the sea as a result of deforestation, agricultural monocultures, industrial waste and destructive fishing methods, especially those using cyanide and dynamite. (Francis, 2015, p. 30).

At last, *Laudato Si'* includes insight into the current state of the rainforests. Here Francis links the decline of biodiversity to the “loss of forests and woodlands” and the problematic emergence of monocultures to increase the production of single resources (Francis, 2015, p. 24ff.). As the rainforests in the Amazon and in the Congo basin are considered the “biodiverse lungs of our planet”, the “disappearance of thousands of plant and animal species” is a sentimental loss for the global community but also a loss of potentially “important resources in the future, not only for food but also for curing disease and other uses” (Francis, 2015, p. 24ff.).

Francis argues that the seriousness of the environmental crisis and the failure of humankind to acknowledge its “ethical degradation” is closely related (Francis, 2015, p. 41). Because of this lack of ethical self-reflection, the industrial development of the past centuries led to unprecedented mistreatment of “our common home”, while humans have not been able to “see that our common home is falling into serious disrepair” (Francis, 2015, p. 44). This analysis culminates in a warning:

[W]e can see signs that things are now reaching a breaking point, due to the rapid pace of change and degradation; these are evident in large-scale natural disasters as well as social and even financial crises, for the world’s problems cannot be analyzed or explained in isolation. There are regions now at high risk and, aside from all doomsday predictions, the present world system is certainly unsustainable from a number of points of view, for we have stopped thinking about the goals of human activity. (Francis, 2015, p. 44).

Francis’ conclusion on the current state of the environmental crisis underlines an important scientific theory, the existence of “breaking points”. These have been assigned to specific thresholds, like the established 1,5°C limit, which was set to mark the irreversible mark of the global rise of temperature.

## 5.2 Understanding the Roman Catholic Worldview

### 5.2.1 God, Creation and Mankind

The Roman Catholic understanding of the current climate crisis is deeply rooted in their understanding of the world and the spheres beyond. To interpret Francis' encyclical letter concerning the questions of human-nature relationships, it is, therefore, necessary to take a closer look at the passages of *Laudato Si'* which give an insight into Roman Catholic articles of faith. This part of the analysis focuses on the fundamental understanding of the universe and planet Earth, as a creation of the one trinitarian God, the position and role of humankind within creation, as well as the relationship of animals and non-human life to God. In addition to the commentary of previous popes, Francis is referring to several summits and church councils in passages of *Laudato Si'*. If quotes are taken from these parts, it is indicated in the references.

According to the Roman Catholic worldview, God is the foundation of every form of existence. The big bang theory describes the origin of existence in our universe, as it is known to humankind. However, in *Laudato Si'* this event is accredited to the trinitarian God: "The God who created the universe out of nothing" (Francis, 2015, p. 55) or "God's love is the fundamental moving force in all created things" (Francis, 2015, p. 56). God is described as the ultimate force in the universe, being present in every entity that exists through his love. The addition of God's love as an element that is present in everything and declared to be a "moving force", underlines his affection for every individual form of life he created:

The Lord is the everlasting God, the Creator of the ends of the earth. He does not faint or grow weary; his understanding is unsearchable. He gives power to the faint, and strengthens the powerless. (Is 40, 28b-29 in Francis, 2015, p. 54).

Francis extends the relationship between God and the universe further, by not only stating, that God created the universe and drives everything that exists but also formulating the intrinsic motivation of every entity there is: "The ultimate destiny of the universe is in the fullness of God" (Francis, 2015, p. 60). This understanding underlines the wholeness of the trinitarian God and the belief, that every entity is connected to God, the creator. Francis extends this notion further and underlines the position of Jesus Christ in God's plan for the universe:

In the Christian understanding of the world, the destiny of all creation is bound up with the mystery of Christ, present from the beginning: 'All things have been created through him and for him' (Col 1:16). (Francis, 2015, p. 73).

A logical continuation of the Roman Catholic account of creation is the formation of planet Earth and all living entities on it: “[W]e are called to be instruments of God our Father, so that our planet might be what he desired when he created it and correspond with his plan for peace, beauty and fullness” (Francis, 2015, p. 39). The natural environment, as a part of the planet, is another chapter in the process of creation. According to *Laudato Si'*, nature has to be understood as “a magnificent book in which God speaks to us and grants us a glimpse of his infinite beauty and goodness” (Francis, 2015, p. 11). Nature in this context becomes a “locus of [God’s] presence”, where humans can discover “a mystical meaning [...] in a leaf, in a mountain trail, in a dewdrop, in a poor person’s face” (Francis, 2015, pp. 65, 168). The way in which Francis describes the creation of the planet already foreshadows the role of humankind and non-human life, which is reinforced by the term “instrument”. Passages of the creation story in the book Genesis comment on God’s assessment of his work: “God saw everything that he had made, and behold it was very good” (Gen 1,31 in Francis, 2015, p. 47). However, *Laudato Si'* portrays the Roman Catholic understanding of a perfectly imperfect creation. While there are certain characteristics of life on Earth, that can seem unreasonable or cruel, it is important to understand, that those were created to serve a specific purpose:

Creating a world in need of development, God in some way sought to limit himself in such a way that many of the things we think of as evil, dangers or sources of suffering, are in reality part of the pains of childbirth which he uses to draw us into the act of cooperation with the Creator. (Francis, 2015, p. 58).

The intention to design creation, so that every entity serves a specific purpose, in this instance to foster the bond between humankind and the creator through cooperation, illustrates how created entities have a strong bond with God, but also with each other. This leads to the interconnectedness within creation.

Francis argues, that “all of us are linked by unseen bonds and together form a kind of universal family” (Francis, 2015, p. 65f.). This Family does not only include humankind, it extends to non-human entities, like animals, as well as abstract concepts like “time and space”:

Time and space are not independent of one another, and not even atoms or subatomic particles can be considered in isolation. Just as different aspects of the planet - physical, chemical and biological - are interrelated, so too living species are part of a network which we will never fully explore and understand. (Francis, 2015, p. 103).

The connection of entities, and their existence in a living network, highlights the importance of being aware of these links. Francis underlines this connection with his metaphor of “living in a

common home” or the “one world with a common plan” (Francis, 2015, p. 121f.). In another section of *Laudato Si'*, the interconnectedness of creation is directly linked to the “divine model” or a worldview based on the belief, that the universe has been created by God: “[T]he world, created according to the divine model, is a web of relationships” (Francis, 2015, p. 174). The role of planet Earth in this relation is to provide a shared home and the livelihood of living beings, defining the “natural environment” as “a collective good” (Francis, 2015, p. 70): “[T]he earth is essentially a shared inheritance, whose fruits are meant to benefit everyone” (Francis, 2015, p. 68).

This chapter has so far illustrated, how the universe and planet Earth have been created according to the Roman Catholic worldview. Further, Francis’ understanding of the overall connection between different entities within creation and with God has been presented. Now that the parameters of creation have been established, the open question remains: What role do humans play in creation? Through the chapters of *Laudato Si'*, Francis describes the role of humans in different circumstances: The position of humans within creation, their task as planned by God, and the misconception of their task, based on a wrongful interpretation of the scriptures. These three roles will be presented in the following paragraphs.

The biblical books of genesis give a detailed account of the creation of humankind. Francis does not start his description of the human place within creation with biblical narrations. Instead, he starts early on to relate humans to their natural environment, as a human “is spirit and will, but also nature” (Francis, 2015, p. 7). The three parts of humans point to the directions of God, through the spirit, the autonomous individual with his own will, and nature, which humans are a part of. Roman Catholic doctrine emphasises the uniqueness of humans compared to other forms of life, which “cannot be fully explained by the evolution of other open systems”, pointing towards the actions of the Creator (Francis, 2015, p. 59):

The sheer novelty involved in the emergence of a personal being within a material universe presupposes a direct action of God and a particular call to life and to relationship on the part of a ‘Thou’ who addresses himself to another ‘thou’. The biblical accounts of creation invite us to see each human being as a subject who can never be reduced to the status of an object. (Francis, 2015, p. 60).

In later chapters, Francis clarifies, that humans, while “created in God’s image” are not on equal footing with their creator: “We are not God” (Francis, 2015, p. 49). In the context of the human role in creation, this fundamental distinction clarifies, that the dominion interpretation of the Bible has to be refused:

Although it is true that we Christians have at times incorrectly interpreted the Scriptures, nowadays we must forcefully reject the notion that our being created in God's image and given dominion over the earth justifies absolute domination over other creatures. The biblical texts are to be read in their context, with an appropriate hermeneutic, recognizing that they tell us to 'till and keep' the garden of the world. 'Tilling' refers to cultivating, ploughing or working, while 'keeping' means caring, protecting, overseeing and preserving. This implies a relationship of mutual responsibility between human beings and nature. (Gen 2,15 in Francis, 2015, p. 49).

In other words, "every claim to absolute ownership" over the planet Earth and the natural world has been rejected (Francis, 2015, p. 49). The interdependent relationship between humankind and nature is further underlined by the special status of humans. While created by God and therefore connected to creation and its non-human entities, humankind still has an exceptional position: Not only bear humans the responsibility to "till and keep" in the sense of maintaining and caring about Earth and its inhabitants but, according to the Roman Catholic doctrine, humans also possess "a particular dignity above other creatures" (Francis, 2015, p. 89). Through this dignity, humans are able to see the "esteem" in other life and are therefore able to relate to its needs (Francis, 2015, p. 89). Francis reflects on the special status of humans and underlines, that the task to care for creation is rooted deeply within the Christian faith (Francis, 2015, p. 161). Following this argument, he promotes an "awareness that each creature reflects something of God and has a message to convey to us", based on the notion, that "God created the world, writing into it an order and a dynamism that human beings have no right to ignore" (Francis, 2015, p. 161).

*Laudato Si'* has numerous passages that describe the Roman Catholic interpretation of God's task for humankind. Building on the foundation of the previous paragraph, it has been established, that the task of tilling and keeping underlines the "steward" interpretation of the Christian scriptures. At the very beginning of his encyclical, Francis enriches the "steward" status of humankind: Appointing humans to be the stewards of Earth, God had to entrust "the world to us men and women", making humans his confidants (Francis, 2015, p. 5). Further, Francis highlights the inherently human ability to "transform reality" on an unprecedented scale, leaving humankind with the responsibility to "proceed in line with God's original gift of all that is" (Francis, 2015, p. 6). The conclusion of the 2012 Halki Summit, emphasises the importance of the Christian view on the communion between "God and our neighbours on a global scale" (Francis, 2015, p. 9). The metaphor of neighbourhood on a global scale references the idea of a "common home", which is one of Francis' dominant allegories. The neighbourhood metaphor has also been present in the biblical narrations of creation, suggesting in the books of Genesis, that "human life is grounded in three fundamental and closely intertwined relationships: with God, with our neighbour and with earth itself" (Francis, 2015, pp. 48, 89). In this spirit, "each [creature] must be cherished with love and respect,

for all of us as living creatures are dependent on one another” (Francis, 2015, p. 30). To fulfil this purpose, humankind needs to “learn to see [itself] in relation to all other creatures” (Francis, 2015, p. 63). Like its creatures, planet Earth needs human care too, otherwise, its capability to provide for humankind’s basic needs is compromised (Francis, 2015, p. 49). According to Francis, caring for planet Earth and the non-human life on it is a possibility for Christians to “discover in each thing a teaching which God wishes to hand on to us” (Francis, 2015, p. 62). This interaction between the mysteries of the natural environment and humankind shows another aspect of the human role in creation. While maintaining creation, humans become God’s students, discovering his teachings through the natural world. At last, Francis points to the human destination, to create a “human ecology”, which has to be based on “the relationship between human life and moral law, which is inscribed in our nature and is necessary for the creation of a more dignified environment” (Francis, 2015, p. 115). In other words, human beings are natural carriers of the laws of morality. The capacity to make moral decisions, distinguish between right and wrong, and ultimately create a moral law in this world, is a unique competence of humankind. At the same time, it is the direction humans are heading, that is damaging to the natural environment:

Many things have to change course, but it is we human beings above all who need to change. We lack an awareness of our common origin, of our mutual belonging, and of a future to be shared with everyone. This basic awareness would enable the development of new convictions, attitudes and forms of life. A great cultural, spiritual and educational challenge stands before us, and it will demand that we set out on the long path of renewal. (Francis, 2015, p. 149).

Francis describes this new course for humankind in the final chapters of *Laudato Si’*. An essential part of his vision is the strong focus on ecological education. Here global Christianity is in great demand:

All Christian communities have an important role to play in ecological education. It is my hope that our seminaries and houses of formation will provide an education in responsible simplicity, in grateful contemplation of God’s world, and in concern for the needs of the poor and the protection of the environment. (Francis, 2015, p. 156).

The global Christian community as a teacher of a comprehensive ecological model portrays another side of humankind’s purpose. While important knowledge can be obtained through the natural environment, putting humans on the receiving end of the transaction of knowledge, their moral capacity and the ability to formulate ecological teachings, show, that humankind can become the bringer of



knowledge to further develop the global community. Francis closes his description of the human position in creation with the reminder that “God, who calls us to generous commitment and to give him our all, offers us the light and the strength needed to continue on our way” (Francis, 2015, p. 177). In conclusion, Francis starts his argumentation by describing the task of humans within creation, as the duty of a steward, caring for the planet and planetary life. He continues with locating humankind in a triangular relationship, with God, the creator, and non-human life. In this triangle, humans have the task to receive God’s teachings through their natural environment and developing it further to create morally sustainable ecological teachings on their own to steer humanity into a new, more ecological direction.

Besides the positive characteristics of humankind and its potential to lead the global community to a new, more ecological life, Francis also addresses the negative aspects of human self-understanding and the misconception of their role within creation. Referencing the “dominion” exegesis of Genesis, he criticises that “we have come to see ourselves as her lord and master, entitled to plunder her at will”, here referring to mother Earth (Francis, 2015, p. 3):

This is why the earth herself, burdened and laid waste, is among the most abandoned and maltreated of our poor; she ‘groans in travail’. (Rom 8,22 in Francis, 2015, p. 3).

Previous pope John Paul II. already warned humanity in his writings, calling attention to the current lifestyle of a substantial part of the global community, as people “see no other meaning in their natural environment than what serves for immediate use and consumption” (John Paul II. in Francis, 2015, p. 5). This intrusion into the natural world, to understand the existence of natural entities and non-human life, only as a product of consumption, shows one of the negative characteristics of humankind: Humans as careless consumers. Francis sees the reason for this mindset in the fundamental misinterpretation of the Christian scriptures:

The harmony between the Creator, humanity and creation as a whole was disrupted by our presuming to take the place of God and refusing to acknowledge our creaturely limitations. This in turn distorted our mandate to ‘have dominion’ over the earth [...], to ‘till it and keep it’ [...]. As a result, the originally harmonious relationship between human beings and nature became conflictual”. (Gen 1,28-3,19 in Francis, 2015, p. 48).

The Asian Bishops’ Conference reflected on the Christian contribution to the “dominion” interpretation and came to the conclusion, that it was due to an “inadequate presentation of Christian anthropology”, which led to “a wrong understanding of the relationship between human beings and the

world” (Asian Bishops' Conference in Francis, 2015, p. 87). According to Francis, John Paul II. even saw this understanding as a cause for a schism with reality:

Once the human being declares independence from reality and behaves with absolute dominion, the very foundations of our life begin to crumble, for ‘instead of carrying out his role as a cooperator with God in the work of creation, man sets himself up in place of God and thus ends up provoking a rebellion on the part of nature. (John Paul II. in Francis, 2015, p. 88).

Francis argues, that humans, by “place[ing] themselves at the centre”, relativise the inherent worth of their natural environment (Francis, 2015, p. 90). The second problematic character trait of humans is their hubris, placing themselves in the role of God, ruling over creation, as they wish. In addition to this, both character flaws are aligned in humankind’s actions. Francis points out that “if we acknowledge the value and the fragility of nature and, at the same time, our God-given abilities, we can finally leave behind the modern myth of unlimited material progress” (Francis, 2015, p. 57). In other words, only through the rejection of the self-centred dominion approach, based on an over-estimation of its own position within creation, can humankind overcome the consumerism, that is at the heart of environmental exploitation. By reflecting on the value of non-human life and the natural environment, humans have the chance to turn from another attribution: Humans as exterminators. Francis states clearly, that “[b]ecause of us, thousands of species will no longer give glory to God by their very existence, nor convey their message to us. We have no such right” (Francis, 2015, p. 25). At last, it is essential to acknowledge, that the origin of the environmental crisis is closely connected to the loss of certain values within human individuals and their social surroundings. Francis argues, that “when there is a general breakdown in the exercise of a certain virtue in personal and social life, it ends up causing a number of imbalances, including environmental ones” (Francis, 2015, p. 163). This leads to the final characterisation of humans: Those who have lost their virtues and therefore are responsible for the disruption of human and non-human life. God’s position on these wrongdoings is clear: “If we scan the regions of our planet, we immediately see that humanity has disappointed God’s expectations”, adding another nuance to the negative characterisation of humankind - those who disappoint the Creator (Francis, 2015, p. 44). In various chapters of *Laudato Si’*, Francis takes the social and environmental deficiencies as evidence for the omnipresence of sin. Sin is seen as the reason for the overall wrong path of humankind, leading to the destruction of the natural environment (Francis, 2015, p. 48). In this context, he refers to patriarch Bartholomew I., who declared that committing “a crime against the natural world is a sin against ourselves and a

sin against God” (Bartholomew I. in Francis, 2015, p. 8):

[W]e are called to acknowledge ‘our contribution, smaller or greater, to the disfigurement and destruction of creation’. He has repeatedly stated this firmly and persuasively, challenging us to acknowledge our sins against creation: ‘For human beings... to destroy the biological diversity of God’s creation; for human beings to degrade the integrity of the earth by causing changes in its climate, by stripping the earth of its natural forests or destroying its wetlands; for human beings to contaminate the earth’s waters, its land, its air, and its life - these are sins’. (Bartholomew I. in Francis, 2015, p. 8).

The concept of sin plays an important role in the characterisation of humans. Its existence shows the imperfection of human autonomy and its fundamentally flawed process of decision-making when it is driven by selfishness and the absence of virtues.

This chapter gave an insight into the worldview of the Roman Catholic belief. It described the church's understanding of the process of creation, the role of God in the formation of the universe and Earth, as well as his connection to the natural environment of the planet. The role of humankind within creation and its different characteristics in connection to God’s plan, positive and negative ones, have been unfolded and analysed.

### **5.2.2 About Animals and Non-human Life**

After defining the role of humankind in creation, it is essential for the following discussion, to take a closer look at the Roman Catholic view on non-human life or animals. This is a relevant factor for the perspective of environmental ethics, as the acknowledgement of inherent value often is a distinctive factor between the different positions.

Francis states in the early chapters of *Laudato Si’*, that “it is not enough, however, to think of different species merely as potential ‘resources’ to be exploited, while overlooking the fact that they have value in themselves” (Francis, 2015, pp. 25, 61). Additionally, the inherent value of animals is an attribution given by the creator: “[W]e are called to recognize that other beings have a value of their own in God’s eyes: ‘by their mere existence they bless him and give him glory’” (Francis, 2015, p. 50). These two passages reveal two important positions, first, Francis opposes the fully anthropocentric approach connected to pure resource thinking, giving room for animals to be accepted as valuable living beings, besides their hypothetical usefulness to humans. Second, God acknowledges the inherent value of animals, while animals, on the other hand, worship him through their existence. This leads to the conclusion, formulated by the German Bishop Conference, “of the priority of being over that of being useful” (German Bishop Conference in Francis, 2015, p. 11). The status of animals is also put into writing in the catechism of the Roman Catholic Church, un-

derlining Francis' position:

The Catechism clearly and forcefully criticizes a distorted anthropocentrism: 'Each creature possesses its own particular goodness and perfection... Each of the various creatures, willed in its own being, reflects in its own way a ray of God's infinite wisdom and goodness. Man must therefore respect the particular goodness of every creature, to avoid any disordered use of things'. (Catechism of the Church in Francis, 2015, p. 51).

The inherent worth of animals is not only addressed in the catechism of the church, but also in the Christian scriptures. According to Francis, "the Bible has no place for a tyrannical anthropocentrism unconcerned for other creatures", because "[t]he laws found in the Bible dwell on relationships, not only among individuals but also with other living beings" (Francis, 2015, p. 50).

The previous chapter already presented the connection of humankind to the "web of life", which has been created by God. Francis argued that all of life exists in relation to each other, this fundamental understanding can be transferred to the Roman Catholic view on animals, as "no creature is self-sufficient. Creatures exist only in dependence on each other, to complete each other, in service of each other" (Francis, 2015, p. 63). The interdependence among animal life further underlines the omnipresence of the Creator, animals, "[soil], water, mountains: everything is, as it were, a caress of God" (Francis, 2015, p. 61).

Like humankind, animal life is traversed by the ultimate goal of God's plan. According to Francis, every "creature has its own value and significance" in "God's loving plan" (Francis, 2015, p. 56). Nevertheless, the range of God's love does not exclude any type of animal or non-human life (Francis, 2015, p. 62), "[e]ven the fleeting life of the least of beings is the object of his love" (Francis, 2015, p. 56). To acknowledge the importance of each animal within creation, humankind ultimately needs to understand, that each individual species is one piece "within the entirety of God's plan" (Francis, 2015, p. 63). According to biblical accounts, human life began in common with the animals of planet Earth, connecting the two on their "journey through this land seeking God" (Francis, 2015, p. 177). This joint journey illustrates the common goal of life on Earth:

The ultimate purpose of other creatures is not to be found in us. Rather, all creatures are moving forward with us and through us towards a common point of arrival, which is God, in that transcendent fullness where the risen Christ embraces and illumines all things. Human beings endowed with intelligence and love, and drawn by the fullness of Christ, are called to lead all creatures back to their Creator. (Francis, 2015, p. 61).

After all creatures of the Earth are reunited with their Creator in the afterlife, they "will take [their] rightful place" serving the poor (Francis, 2015, p. 177). However, Francis states that Jesus underli-

ned the value of animals and their right to protection: “We read in the Gospel that Jesus says of the birds in the air that ‘not one of them is forgotten before God’[...]. How then can we possibly mistreat them or cause them harm?” (Lk 12,6 in Francis, 2015, p. 161). For their creation and because they are driven by God’s love, as described earlier in this chapter, animals are fond of their Creator: “We do not only exist by God’s mighty power; we also live with him and beside him. This is why we adore him” (Francis, 2015, p. 54). This shows an inner awareness of animals and an understanding, that they exist because of their God.

The final passage of this chapter explores the status differences between humans and animals, as declared by the Roman Catholic Church. While animals are accepted as a part of God’s plan and as carriers of God’s love, the Roman Catholic doctrine draws a clear distinction between the status of human beings and non-human life: “This is not to put all living beings on the same level nor to deprive human beings of their unique worth and the tremendous responsibility it entails” (Francis, 2015, p. 66). In this context, Francis criticises the approach of several ethical positions, granting equal value to all species.

At times we see an obsession with denying any preeminence to the human person; more zeal is shown to protecting other species than in defending the dignity which all human beings share in equal measure. Certainly, we should be concerned lest other living beings be treated irresponsibly. But we should be particularly indignant at the enormous inequalities in our midst, whereby we continue to tolerate some considering themselves more worthy than others. (Francis, 2015, p. 66).

While stating clearly, that animals should not be treated “irresponsibly”, *Laudato Si’* clearly states, that the sympathy and concern of those, who wish to help, should be directed to the injustice among humans - the unjust contribution of wealth and the situation of the poor. The church further argues in its catechism that the use of animals is morally justified only if it is essential for the well-being and development of humankind:

While human intervention on plants and animals is permissible when it pertains to the necessities of human life, the Catechism of the Catholic Church teaches that experimentation on animals is morally acceptable only ‘if it remains within reasonable limits [and] contributes to caring for or saving human lives’. The Catechism firmly states that human power has limits and that ‘it is contrary to human dignity to cause animals suffer or die needlessly’. All such use and experimentation ‘requires a religious respect for the integrity of creation’. (Catechism of the Catholic Church in Francis, 2015, p. 97).

Despite the clear goal to avoid suffering and needless deaths, Francis does not address the practice of industrial livestock farming in his encyclical *Laudato Si’*.

This chapter analysed the position of animals within creation, their relationship to God and humans, as well as their inherent worth. It closed with the position of the Roman Catholic Church concerning the differences between humans and animals and gave an insight into the question if experiments on animals are permissible and under which circumstances they may be justified.

### ***5.3 Capitalism, Consumerism and the Technocratic Paradigm***

#### **5.3.1 About Capitalism**

Francis's encyclical *Laudato Si'* presents the Roman Catholic Church's position concerning the global economy, based on the theories of capitalism. The overall tone is notably critical, connecting the economic practices of the global north to the poverty in the global south. Chapter 5.3 explores the church's critique of the capitalistic economy, the consequential consumerist lifestyle, as well as the overall model of the technocratic paradigm.

At its core, Francis' capitalism critique is based on the economic model of infinite growth. Early on, he states, that the "earth's resources are also being plundered because of short-sighted approaches to the economy, commerce and production" (Francis, 2015, p. 24). One of the consequences, of the production-oriented approach to nature, is environmental decline, a dire outcome, "making our earth less rich and beautiful", because of "the degree of human intervention" (Francis, 2015, p. 26). A side effect of habitat destruction, for example in the Amazon rainforest, is the loss of biodiversity, as "countless species are lost and the areas frequently become arid wastelands" (Francis, 2015, p. 28).

Where profits alone count, there can be no thinking about the rhythms of nature, its phases of decay and regeneration, or the complexity of ecosystems which may be gravely upset by human intervention. Moreover, biodiversity is considered at most a deposit of economic resources available for exploitation, with no serious thought for the real value of things, their significance for persons and cultures, or the concerns and needs of the poor. (Francis, 2015, p. 139)

To make processes like the mining of resources in biodiverse areas less bureaucratic and operations easier to realise, transnational corporations advocate for the internationalisation of national territory to then privatise the land and further benefit their agenda (Francis, 2015, p. 28). Francis criticises this practice in the example of freshwater, as "in some places there is a growing tendency, despite its scarcity, to privatize this resource, turning it into a commodity subject to the laws of the market" (Francis, 2015, p. 23). Another side effect of the constant privatisation of national property is the restriction to "places of beauty", particularly problematic in large cities, where the poor lack access

to “‘ecological’ neighbourhoods” (Francis, 2015, p. 31f.). The environmental burden imposed on the poor is also visible in the processes of waste dumping and the exploitation of poor environmental regulations in many developing countries, leading to actions businesses “would never do in developed countries or the so-called first world” (Francis, 2015, p. 37). With multinational businesses following the philosophy of profit first, “special interests and economic interests easily end up trumping the common good and manipulating information so that their plans will not be affected” (Francis, 2015, p. 40). Competition between small, regional businesses and global corporations is yet another challenge for developing countries:

Economies of scale, especially in the agricultural sector, end up forcing small-holders to sell their land or to abandon their traditional crops. Their attempts to move to other, more diversified, means of production prove fruitless because of the difficulty of linkage with regional and global markets, or because the infrastructure for sales and transport is geared to larger businesses. (Francis, 2015, p. 96).

Francis describes practices like “might is right” approaches to economy and business as an endangerment to equality, causing great social injustice, while the “winner[s] take it all” (Francis, 2015, p. 60). While the scale of the global economic system of the global north and its production has a severe impact on the natural environment and those communities, that are situated in the developing world, another factor of the international imbalance marks a danger concerning the cultural dimensions of globalisation:

Many intensive forms of environmental exploitation and degradation not only exhaust the resources which provide local communities with their livelihood, but also undo the social structures which, for a long time, shaped cultural identity and their sense of the meaning of life and community. The disappearance of a culture can be just as serious, or even more serious, than the disappearance of a species of plant or animal. The imposition of a dominant lifestyle linked to a single form of production can be just as harmful as the altering of ecosystems. (Francis, 2015, p. 109)

In this instance, Francis refers to the so-called Americanisation of the globe, describing the cultural convergence of various cultural regions. The Roman Catholic Church sees the duty to govern and regulate international businesses and corporations in the political sphere of the nation-states. Various paragraphs of *Laudato Si'* address the role of politics, stating that an “economy without politics cannot be justified” (Francis, 2015, p. 143) or that “politics and economy tend to blame each other when it comes to poverty and environmental degradation” (Francis, 2015, p. 145), while both “have been slow to react in a way commensurate with the urgency of the challenges facing our world” (Francis, 2015, p. 122f.).

To conclude Francis' critique of capitalism, his position can be summarised in a short and plain comment: "[P]rofit cannot be the sole criterion" (Francis, 2015, p. 137). At the moment, when profit becomes the single guideline for the global economy and its capitalistic ideology, environmental damage and social exploitation are inevitable. However, to change the economical direction of the global community, rethinking the prevalent consumerist ideology is essential.

### 5.3.2 A Lifestyle of Consumerism

As explained in the final paragraph of the previous chapter, the global capitalistic ideology of the market is closely connected to the individual consumerist lifestyle. Francis discusses this connection extensively in various parts of *Laudato Si'*.

Early on, he invites humankind "to recognize the need for changes of lifestyle, production and consumption, in order to combat this warming or at least the human causes which produce or aggravate it" (Francis, 2015, p. 18f.). He directly links the consumption of those, who manage to finance such a lifestyle, to the economical production of the capitalistic model, presented in the previous chapter: "[I]t is not possible to sustain the present level of consumption in developed countries and wealthier sectors of society, where the habit of wasting and discarding has reached unprecedented levels" (Francis, 2015, p. 22). According to Francis, a byproduct of lifestyle, predominantly found in the global north, is the emergence of relativism. As long, as products are produced and made available at an attractive price, the methods of production are negligible for those who consume. Through this practice, taking advantage of the workforce of developing countries, "[treating] others as mere objects", becomes normalised (Francis, 2015, p. 91). Alongside the negative impact on the global low-wage sector, the consumerist lifestyle also leads to a change in those who follow it. Francis argues, that "[t]he emptier a person's heart is, the more he or she needs things to buy, own and consume" (Francis, 2015, p. 150). This addiction to consumption is not even stopped by the natural limits of reality, further aggravating the environmental impacts caused by the production of goods (Francis, 2015, p. 150). While the freedom of "needless buying and spending" seems to underline the self-determination of the consumer, Francis states, that the opposite is actually the case, leading "people to believe that they are free as long as they have the supposed freedom to consume" (Francis, 2015, p. 150). Following this argumentation, the Roman Catholic Church sees an "ethical and cultural decline" connected to the self-centred culture of instant gratification through consumption (Francis, 2015, p. 120). At the same time they argue, "a world of exacerbated consumption is [...] a world which mistreats life in all its forms" (Francis, 2015, p. 166). In addition to the number of products manufactured for consumption, the pace at which the economy operates dif-



fers drastically from the natural pace of the environment, leading to an overuse of natural capacities, which in turn may not be able to regenerate properly (Francis, 2015, p. 119). Francis sees the only solution for a sustainable future in a clear lifestyle change, leading people to change “their harmful habits of consumption” (Francis, 2015, p. 40) and abandon their “‘use and throw away’ logic” (Francis, 2015, p. 91). A particular challenge for this change is the deep-rootedness of consumerism in the younger generations, who “have grown up in a milieu of extreme consumerism and affluence which makes it difficult to develop other habits”, which points out, that this is “an educational challenge” (Francis, 2015, p. 153).

In conclusion, the global capitalistic economy is closely connected to the consumerist lifestyle of individuals and wealthy societies. This lifestyle carries the assumption, that consumption is equal to happiness and fullness of life, a view that Francis strongly opposes. According to his argument, the only way to change this *modus vivendi* is through extensive educational efforts, which portrays a temporal challenge for the global community.

### **5.3.3 The Technocratic Paradigm**

The final subchapter surrounding capitalism and consumerism is about the so-called “technocratic paradigm”. Francis defines this paradigm as close cooperation between “economy and technology [...] sidelining anything unrelated to its immediate interests” (Francis, 2015, p. 40). A consequence of this powerful cooperation is creating a new side of subjects and their way of interacting with the environment:

This paradigm exalts the concept of a subject, who using logical and rational procedures, progressively approaches and gains control over an external object. This subject makes every effort to establish the scientific and experimental method, which in itself is already a technique of possession, mastery and transformation. It is as if the subject were to find itself in the presence of something formless, completely open to manipulation. (Francis, 2015, p. 79).

In other words, Francis criticises the increasingly rational approach to the environment of subjects. Through the exclusive acceptance of scientific methods, like the formation of hypotheses and experimental testing, these “external objects” ultimately lose their subjective self.

The effects of imposing this model on reality as a whole, human and social, are seen in the deterioration of the environment, but this is just one sign of a reductionism which affects every aspect of human and social life. We have to accept that technological products are not neutral, for they create a framework which ends up conditioning lifestyles and shaping social possibilities along the lines dictated by the interests of certain powerful groups. (Francis, 2015, p. 80).

This is closely connected to the concept of technoscience, a theory about a future, in which the problems of humankind can be solved solely by the development of technology. Francis highlights, that technoscience “can produce important means of improving the quality of human life” but only if the approach is “well directed” (Francis, 2015, p. 76). At the same time, it is essential to not neglect other dimensions of development. If technology “is presented as the only way of solving [environmental problems]” the “mysterious network of relations between things” remains unnoticed, often leading to the solution of “one problem only to create others” (Francis, 2015, p. 16f.). Another problematic aspect of the technocratic paradigm is the global imbalance of technological progress. While many countries of the global north have advanced knowledge and “economic resources”, the global south remains left behind and at times in danger of negative consequences of technological progress, like nuclear war (Francis, 2015, p. 77). As consequence, “[l]ife gradually becomes a surrender to situation conditioned by technology”, particularly in the context of nations technologically dominating others (Francis, 2015, p. 83).

#### **5.3.4 A Possible Solution?**

Throughout *Laudato Si'*, Francis aims to present a transformation of the global economy, suggesting a new, more ecological direction, administered by political and ethical guidelines.

Referencing former pope Benedict XVI., “the deterioration of nature is closely connected to the culture which shapes human coexistence” (Benedict XVI. in Francis, 2015, p. 6). As established in the previous sub-chapters, this quote refers to the global culture of consumerism, promoted by a global capitalistic economy. Because of this close connection between the economic model, culture and subsequently individual lifestyles, it is difficult to determine the most promising angle to introduce a paradigm shift. In *Laudato Si'*, Francis promotes multiple approaches, surrounding his idea of an “economic ecology” (Francis, 2015, p. 106). This orientation would have the potential to target each of the three areas.

Through environmental consideration in the design of growth agendas, the limits of the natural world, “reasonable limits”, would become the new reference point of the global economy (Francis, 2015, p. 141). A part of this development is the exploration of more “diversified and innovative forms of production”, which may “prove very profitable” in the future (Francis, 2015, p. 140). At last, the natural limitations of planet Earth, have to be respected in the process of production. As previously described, the pace of natural regeneration is clearly slower, than the economic pace of production, a new economical model has to adapt to these limitations, potentially giving “rise to another form of progress and development” (Francis, 2015, p. 140).

Francis sees the responsibility in limiting the global economy and international cooperation in the political sphere. To allow populations and cultures to thrive, stronger regulation of the market is necessary, focussing on the common good of the global population:

Politics must not be subject to the economy, nor should the economy be subject to the dictates of an efficiency-driven paradigm of technocracy. Today, in view of the common good there is urgent need for politics and economics to enter into a frank dialogue in the service of life, especially human life. (Francis, 2015, p. 137f.)

A fruitful dialogue in this case requires additional preparation in the political sphere. A new political approach is necessary, one that implements a far-sighted agenda, allows interdisciplinary cooperation, and follows an integral ecological model (Francis, 2015, p. 144). At last, Francis demands higher moral principles within international politics and the scientific discourse: “Honesty and truth are needed in scientific and political discussions; these should not be limited to the issue of whether or not a particular project is permitted by law” (Francis, 2015, p. 135).

After economical regulation and a new direction in global politics, *Laudato Si'* promotes rethinking ecology on an individual level. Following the simple premise of “less is more”, the unlimited consumption of modern societies could be significantly reduced (Francis, 2015, p. 162). Benedict XVI. described this change as an “[encouragement to] more sober lifestyles, while reducing their energy consumption and improving its efficiency” (Benedict XVI. in Francis, 2015, p. 141). Francis further argues that a changing lifestyle could also “bring healthy pressure to bear on those who wield political, economic and social power”, referring to “consumer movements” and other forms of civil activism (Francis, 2015, p. 151). Through an accumulation of individual decisions, corporations can be pushed to change their practices and follow more ecological guidelines to remain successful competitors in the market (Francis, 2015, p. 151). One of the early paragraphs in *Laudato Si'* delivers a well-formulated conclusion concerning the lifestyle of consumerism. Once more, Francis quotes Patriarch Bartholomew I., who suggests the following approach:

[R]eplace consumption with sacrifice, greed with generosity, wastefulness with a spirit of sharing, an asceticism which ‘entails learning to give, not simply to give up. It is a way of loving, of moving gradually away from what I want to what God’s world needs. It is liberation from fear, greed and compulsion. (Bartholomew I. in Francis, 2015, p. 8f.)

A call to modesty in times of infinite economical growth and countless luxury product offerings on one hand, while poor working conditions, poverty and hunger remain a challenge for the global community on the other hand.

## 5.4 *The Social Dimension of Climate Change*

### 5.4.1 **The Foundation of Francis' Argument**

The economical ideology of capitalism and the consumption of goods are closely related to social inequality and the global north-south division (in developmental terms). This chapter explores the social dimension of climate change, introducing Francis' main argument concerning the connection between ecology and the social duty of the global community. Besides its environmental orientation, the encyclical letter *Laudato Si'* focuses on the core topics of the Roman Catholic Church's agenda, including extensive passages on its social mission.

To understand the social efforts of the Roman Catholic Church in connection to the global climate crisis, it is essential to understand Francis' main argument. In the early chapters of *Laudato Si'*, he brings forward the argument, that there is a direct link between environmental protection and social care: “[A] true ecological approach always becomes a social approach” (Francis, 2015, p. 35). Following this argument, he further demands that “every ecological approach needs to incorporate a social perspective” (Francis, 2015, p. 68). The reason for this connection is the influence that one sphere has on the other: Every environmental crisis, leading to either extreme weather events or the possible destruction of the livelihood of local populations, can consequently become a humanitarian crisis. The parallel emergence of “environmental and social problems worldwide” underline this hypothesis (Francis, 2015, p. 122). Another way of interpreting Francis' statement is to reframe the reference point: An ecological approach becomes a social approach, concerning the subject, acting ecologically. Through this ecological action, the acting subject also acts socially in a caring, social sense. This interpretation refers to the connection between the living entities of creation, including the connection to other human beings: “Everything is connected. Concern for the environment thus needs to be joined to a sincere love for our fellow human beings and an unwavering commitment to resolve the problems of society” (Francis, 2015, p. 67). In order to achieve this goal Francis demands a “new and universal solidarity”, in which everyone becomes active and offers his or her talents to “redress the damage caused by human abuse of God's creation” (Francis, 2015, p. 13). On an individual level, this form of activism, fueled by solidarity with those, who suffer the consequences at the forefront of environmental destruction and partly, do not have the means to become active, includes development from a purely individual perspective, to a social comprehensive view on humankind:

[T]he rejection of every form of self-centeredness and self-absorption, are essential if we truly wish to care for our brothers and sisters and for the natural environment. These attitudes also attune us to the moral imperative

of assessing the impact of our every action and personal decision on the world around us. (Francis, 2015, p. 152f.)

Overcoming self-centredness has already been a prominent topic in the previous chapter, focussing on individual consumption, which is why Francis also addresses individualism in the context of solidarity. He argues, “[i]f we can overcome individualism, we will truly be able to develop a different lifestyle and bring about significant changes in society” (Francis, 2015, p. 153). Ultimately, a rejection of individualism would bring out “social love” in humans, pushing them to “devise larger strategies to halt environmental degradation and to encourage a ‘culture of care’ which permeates all of society” (Francis, 2015, p. 167).

Francis’ thesis is a consequent advancement of the Roman Catholic Church’s social mission. Acknowledging the current climate crisis as the origin of social injustices, he argues for a dualistic approach: Ecological development on one side and social development on the other. However, this proposition can only move forward, if people allow themselves to move from a self-centred lifestyle to a more social one. Otherwise, the overconsumption of some countries and social classes will further aggravate the effects of the global climate.

#### **5.4.2 Effects of Climate Change**

While the first chapter of this analysis gave an overview of the current climate crisis, as discussed in *Laudato Si’*, Francis continued to address this topic within the framework of a social perspective: “The human environment and the natural environment deteriorate together; we cannot adequately combat environmental degradation unless we attend to causes related to human and social degradation” (Francis, 2015, p. 33).

Early on, Francis criticises the slow response of the global community concerning the health-related consequences of the climate crisis, only then gaining traction, when communities already face serious consequences (Francis, 2015, p. 17). This accusation primarily aims at the output of carbon emissions and other harmful substances. Other areas that are affected by pollutants are the ground- and freshwater reserves in many countries. This remains a dominant problem in many poor countries, where the “quality of water” is directly responsible for deceases like “[d]ysentery and cholera” leading to “suffering and [...] infant mortality” (Francis, 2015, p. 23).

The high output of carbon emissions and other toxins of the global north, historically and in current times, lead to another important argument. Francis states that a “true ‘ecological debt’ exists, particularly between the global north and the south” (Francis, 2015, p. 36). This ecological debt re-

quires those countries, that are developed enough to invest their wealth into ecological measures, instead of maximising economic profits, generating more emissions (Francis, 2015, p. 125). Acting responsibly and in solidarity also means putting the “global common good” above national interests (Francis, 2015, p. 125). Current attempts to find solutions, like the “internationalization of environmental costs” or carbon credits and emission trading, create new problems for developing countries, as costs may be imposed “on countries with fewer resources”, while at the same time benefiting the status quo of industrial nations, allowing a “new form of speculation” (Francis, 2015, p. 125f.).

The climate crisis unproportionally impacts developing countries and those people, who are living in areas where extreme weather conditions appear more often. The Roman Catholic Church sees this as a direct consequence of a passive and phlegmatic global north, a community of industrial states, that profited immensely from industrialisation, environmental destruction and global pollution. The following subchapter therefore analyses, how Francis locates the global climate crisis in the reality of the poor, which could also be described as the global precariat.

### **5.4.3 The Global Precariat**

Following the social mission of the Roman Catholic Church, the effect of the environmental crisis on the poor is one of the cornerstones of *Laudato Si'*.

In the beginning chapters, Francis argues, that “the worst impact will probably be felt by developing countries in coming decades”, mostly because of the dependency on “natural reserves and ecosystemic services, such as agriculture, fishing and forestry” (Francis, 2015, p. 20). In this context, extreme weather conditions and climate change lead to phenomena, such as animal population migration, which as a consequence can cause the local human population to migrate, because of the negative effects on their “livelihood” (Francis, 2015, p. 20). This cycle points towards the fundamental connection between climate stability and the basis of existence for the “most vulnerable people on the planet”, who in turn are only considered hesitantly by the global community, particularly by the industrialised countries (Francis, 2015, p. 33f.). Francis sees the reason for this neglect in the fundamentally different reality of life in the global north, going as far as describing its relationship with the global south as “detached” (Francis, 2015, p. 34). Additionally, the “foreign depth of poor countries has become a way of controlling them, yet this is not the case where ecological debt is concerned” (Francis, 2015, p. 38). In this context, Francis points to an observation of the New Zealand Catholic Bishop Conference:

If we make something our own, it is only to administer it for the good of all. If we do not, we burden our conscience with the weight of having denied the existence of others. That is why the New Zealand bishops asked what the commandment ‘Thou shalt not kill’ means when ‘twenty percent of the world’s population consumes resources at a rate that robs the poor nations and future generations of what they need to survive’. (New Zealand Bishop Conference in Francis, 2015, p. 71).

One of the major concerns in the social mission of the Roman Catholic Church is that the status quo is not changing towards a better future for the global community, but instead “the poor end up paying the price” (Francis, 2015, p. 125).

Another problematic development in the global south is the rapid rate of urbanisation, where the “[l]ack of housing is a grave problem [...] since state budgets usually cover only a small portion of the demand” (Francis, 2015, p. 113). A consequence is the loss of human dignity when many face “the chaotic realities that people have to endure in city life” (Francis, 2015, p. 115). But the growing urban landscape is also an environmental problem, as Francis notes:

Many cities are huge, ineffective structures, excessively wasteful of energy and water. Neighbourhoods, even those recently built, are congested, chaotic and lacking in sufficient green space. We were not meant to be inundated by cement, asphalt, glass and metal, and deprived of physical contact with nature. (Francis, 2015, p. 31)

However, while many developing countries aim to “eliminate extreme poverty” and introduce “social development” in their societies, sustainable development becomes an additional financial burden, calling for higher support from the global community (Francis, 2015, p. 126). At the same time, Francis demands combating the “scandalous level of consumption” and “corruption” in developing countries (Francis, 2015, p. 126f.).

#### **5.4.4 Rethinking Nature as a Common Good**

Throughout chapter five, Francis’ understanding of the social dimension has been analysed. From his main argument, ecological development is social development, to put it briefly, the effects of climate change on the global south, and, at last, the situation of the poor within the global ecological crisis, the social dimension remains an essential part of the current discussion. Within Francis’ argumentation, the call for global solidarity is clearly noticeable. This final part illustrates the concept of solidarity within the topic of the global natural environment, climate, and within the current climate crisis.

One of Francis’ fundamental arguments throughout *Laudato Si*, is to understand that “climate is a common good, belonging to all and meant for all” (Francis, 2015, p. 18). Because of the

global scale of climate change, leading to the alteration of local environments, animal populations, and natural resources, as well as the loss of safe living spaces, due to ecological calamities, industrial practices and the release of carbon emissions in one part of the world, can have a considerable environmental impact in other parts of the planet. These developments then consequently have significant effects on the local populations. Following this argumentation, Francis suggests “[w]e need to strengthen the conviction that we are one single human family” (Francis, 2015, p. 39). Only, when those, who are better-situated start to live a life in solidarity with the poor, effective development will be possible. This requires a part of the human family to lose their inner “wretchedness”, present in society’s treatment of animals and in danger to show “itself in our relationship with other people” (Francis, 2015, p. 68). Another angle of understanding climate and the environment as a common good is to rethink privatisation:

The principle of the subordination of private property to the universal destination of goods, and thus the right of everyone to their use, is a golden rule of social conduct and ‘the first principle of the whole ethical and social order’. The Christian tradition has never recognized the right to private property as absolute and inviolable and has stressed the social purpose of all forms of private property. (John Paul II. in Francis, 2015, p. 69).

The critique on the privatisation of public goods has already been discussed in the previous chapters, however, in connection to the social dimension of climate change, Francis extends the call for solidarity to future generations: “The notion of the common good also extends to future generations” (Francis, 2015, p. 118). He argues further, that intergenerational solidarity is “not optional, but rather a basic question of justice, since the world we have received also belongs to those who will follow us” (Francis, 2015, p. 118). In the context of privatisation and future generations, Francis, in a broader sense, calls upon the governments of each country, to bring environmental policies into effect, which protect the land, instead of facilitating the landownership of cooperations, who act on their own interest of profit maximisation. Both future generations and the poor, belong to a category of people, who are unable to influence the course of industrial expansion and as a consequence, humankind’s future plans for the planet’s natural environment.

[O]ur inability to think seriously about future generations is linked to our inability to broaden the scope of our present interests and to give consideration to those who remain excluded from development. Let us not only keep the poor of the future in mind, but also today’s poor, whose life on this earth is brief and who cannot keep on waiting. Hence, ‘in addition to a fairer sense of intergenerational solidarity there is also an urgent moral need for a renewed sense of intragenerational solidarity’. (Benedict XVI. in Francis, 2015, p. 120).



Considering the potential of humankind, one of Francis' quotes may seem like a good fit to end this chapter. In the third chapter of *Laudato Si'*, he takes a hopeful look into the future and reflects on past achievements, only to conclude, that "there is reason to hope that humanity at the dawn of the twenty-first century will be remembered for having generously shouldered its grave responsibility" (Francis, 2015, p. 123).

## ***5.5 What can be done?***

### **5.5.1 Concrete Actions and Activism**

After taking a closer look at the dominant topics in *Laudato Si'*, the environmental crisis, the Roman Catholic Church's worldview, Francis' critique of capitalism and society's consumerist lifestyle, as well as the social dimensions of climate change, it is now time to conclude the analysis with a final chapter dedicated to answering the question, what can the global community do? Like in the previous chapters, Francis presents numerous possibilities, for how individuals and societies can move forward to become more ecological and ultimately make a difference in humankind's youngest challenge. This chapter is parted into two subchapters, one focusing on concrete advice for activism, and the other promoting Francis' vision of environmental education and the promotion of integral ecology. Within the suggestion for concrete activism, *Laudato Si'* offers three main areas. First, the suggestion for action that directly impacts the environment, second, measures taken in the political, societal and communal spheres, and, third, guidelines for action from a Christian background.

Starting with activism directly focused on the environment, Francis demands, that humankind needs to act long before a natural system "reaches a critical state" (Francis, 2015, p. 25). The level of protection in this context can vary according to the importance of the system for the "global ecosystem" (Francis, 2015, p. 27f.). To protect particularly valuable areas, Francis recommends the establishment of natural sanctuaries, safeguarding the unique local flora and fauna from human interference, particularly industrial exploitation (Francis, 2015, p. 27). While key areas like the amazon rainforest or the Congo basin play an important role in the global climate, the local environment in every region of the world needs additional protection as well. In these cases, Francis gives other suggestions, which directly improve the condition of the natural environment:

In some countries, there are positive examples of environmental improvement: rivers, polluted for decades, have been cleaned up; native woodlands have been restored; landscapes have been beautified thanks to environmental renewal projects; beautiful buildings have been erected; advances have been made in the production of non-polluting energy and in the improvement of public transportation. These achievements do not solve glo-

bal problems, but they do show that men and women are still capable of intervening positively. (Francis, 2015, p. 42)

With some of these projects directed towards the natural environment, like the cleanup of rivers and the renaturalisation of specific areas, the modernisation of public transportation, living spaces and energy sources are measures to improve the structures of human societies. In the ongoing intention to reduce the use of fossil fuel-based means of transportation, the modernisation of public transportation needs to be an absolute priority, according to Francis (Francis, 2015, p. 114). Finding a more ecological path in for industrial purposes and societies' energy supplies, requires a step-by-step approach, consistently choosing the least harmful methods:

We know that technology based on the use of highly polluting fossil fuels - especially coal, but also oil and, to a lesser degree, gas - needs to be progressively replaced without delay. Until greater progress is made in developing widely acceptable sources of renewable energy, it is legitimate to choose the less harmful alternative or to find short-term solutions. (Francis, 2015, p. 122).

However, at the same time, the emergence of hazardous wastes has to be prevented, since these substances have dire consequences for the natural environment and international conventions regulate their fabrication (Francis, 2015, p. 124). Other concrete propositions on a smaller scale are “the use of plastic and paper, reducing water consumption, separating refuse, cooking only what can reasonably be consumed, [...] using public transport or car-pooling, planting trees, [and] turning off unnecessary lights” (Francis, 2015, p. 155).

On a political and societal level, Francis proposes closer cooperation between governments, state agencies and environmental organisations, “entering into a dialogue with a view to developing comprehensive solutions” (Francis, 2015, p. 44). At the same time, a global dialogue is necessary, to determine how to “[shape] the future of our planet”, “bringing the whole human family together to seek a sustainable and integral development” (Francis, 2015, p. 12). In this context, Francis underlines humankind's ability to cooperate on a global scale (Francis, 2015, p. 12). The global political sphere is called upon to show “a true world political authority”, “[upholding] high principles and [thinking] of the long-term common good” in a spirit of “[t]rue statecraft” (Francis, 2015, p. 129ff.). According to Francis, political authority is particularly needed, to obligate those “who cause pollution to assume its costs”, while also determining the exact consequences for the environment (Francis, 2015, p. 124). A special role in these processes may fall on political decision-making on a local level:

Political activity on the local level could also be directed to modifying consumption, developing an economy of waste disposal and recycling, protecting certain species and planning a diversified agriculture and the rotation of crops. (Francis, 2015, p. 132).

In cases of political inaction, “non-governmental organizations and intermediate groups” have to put additional pressure on the representatives of the local populations, to challenge them to take action (Francis, 2015, p. 131). Independent from the public officials, Francis argues for the involvement of the local population in the process of decision-making, as “they are concerned about their own future and that of their children, and can consider goals transcending immediate economic interests” (Francis, 2015, p. 134f.). Besides the strong environmental focus, politics and civil society also have to push forward the global “goal of eliminating poverty”: “A more responsible approach is needed to deal with both problems: the reduction of pollution and the development of poorer countries and regions” (Francis, 2015, p. 128).

At last, Francis calls upon the believers and the global community, to take the teachings of Christian spirituality into account, when outlining action plans for the future. Within the process of decision-making, it is essential for him to declare, that “[a]ll of us can cooperate as instruments of God for the care of creation, each according to his or her own culture, experience, involvements and talents” (Francis, 2015, p. 13). A special responsibility falls to the Christian communities, as they have the task of actively asking God “for a positive outcome to the present discussions” (Francis, 2015, p. 125). Francis does not communicate how exactly this process is supposed to occur, however, an assumption could be through the study of the Christian scriptures to receive their messages, prayers or the activism within the local community. Overall, Christian believers are not only asked to cooperate in their local communities and search for wisdom in communication with God, but Francis also encourages them to further develop interreligious relations, to tackle the global environmental crisis most effectively. This demand also includes cooperation between different research branches to promote interdisciplinary cooperation:

The majority of people living on our planet profess to be believers. This should spur religions to dialogue among themselves for the sake of protecting nature, defending the poor, and building networks of respect and fraternity. Dialogue among the various sciences is likewise needed, since each can tend to become enclosed in its own language, while specialization leads to a certain isolation and the absolutization of its own field of knowledge. (Francis, 2015, p. 147f.).

As concern about the negative effects of scientific specialization in one field suggests, the broadening of one's understanding can lead to new insights, approaches and overall support. Eventually, Francis promotes an ecological conversion within Christianity to initiate a “reconciliation with creation” (Francis, 2015, p. 159). Referring to the Australian Bishops’ Conference, he argues that to “achieve such reconciliation, we must examine our lives and acknowledge the ways in which we harmed God’s creation through our actions and failure to act. We need a conversion, or change of heart” (Francis, 2015, p. 159). This conversion can be achieved by accepting the guidance that prominent figures within Christian history have given. Francis describes this guidance as a “prophetic and contemplative lifestyle, one capable of deep enjoyment free of the obsession with consumption”, a change that Christians should “live fully” and embody in their demand for a sustainable economy (Francis, 2015, p. 161f.):

Christian spirituality proposes a growth marked by moderation and the capacity to be happy with little. It is a return to that simplicity which allows us to stop and appreciate the small things, to be grateful for the opportunities which life affords us, to be spiritually detached from what we possess, and not to succumb to sadness for what we lack. This implies avoiding the dynamic of dominion and the mere accumulation of pleasures. (Francis, 2015, p. 162).

Francis’ promotion of a prophetic lifestyle and being able to find happiness in a modest life have strong parallels to his economical critique, discussed in the previous chapter. In both cases, he refers to the teachings of Christianity to argue for a clear paradigm shift, from a lifestyle of consumption and possession to a modest, conscious life.

### **5.5.2 Environmental Education and Integral Ecology**

The analysis of this thesis concludes with Francis’ recommendations for environmental education and his proposition to implement an integral ecology in the global community. This subchapter illustrates, how these two topics are represented in Francis’ encyclical *Laudato Si’*, starting with environmental education and then moving on to the overall concept of integral ecology.

Throughout *Laudato Si’* Francis argues, that the most effective way to improve humankind’s understanding of the environment and, in this context, its capabilities and limitation, is to improve the overall ecological education within the global community. The aim of higher ecological education has shifted in the past decades, leaving behind its original capacity of presenting “scientific information”, raising ecological awareness and, as a consequence, reducing environmental risks, to an extensive critique of “individualism, unlimited progress, competition, consumerism [and] the unre-

gulated market”, characteristics of the “‘myths’ of modernity grounded in a utilitarian mindset” (Francis, 2015, p. 153f.). According to Francis, a successful increase in education requires dedicated educators “capable of developing an ethics of ecology, and helping people, through effective pedagogy, to grow in solidarity, responsibility and compassionate care” (Francis, 2015, p. 154). These “broadened goals” show multiple connections to other core topics of *Laudato Si'*: The fundamental ethics of ecology are closely linked to the Roman Catholic Church’s worldview, solidarity and responsibility are dominant concepts in Francis’ critique of capitalism and the consumerist lifestyle, as well as, the social dimensions of climate change, while compassionate care reflects on the duty of humankind within creation. But environmental education does not only aim to improve the overall understanding of complex ecological correlations and connections, but it also promotes a better reflection of seemingly irrelevant daily actions. It is these daily actions, that can underline a “real change in [personal] lifestyle[s]” and consequently show, that there “is a nobility in the duty to care for creation” (Francis, 2015, p. 154f.). Learning about the environment and current developments also requires an increase in resources available for scientific research, as “[o]ngoing research should also give us a better understanding of how different creatures relate to one another in making up the larger units which today we term ‘ecosystems’”(Francis, 2015, pp. 30, 105). New knowledge gained through research also has the capacity to highlight the importance of constantly reflecting on current “models of development, production and consumption” (Francis, 2015, p. 103). At last, an extensive discussion about environmental ethics in the global community is overdue. Francis argues, that a hasty conversion to models like biocentrism may not solve humankind's problems, but rather create new issues on another level:

A misguided anthropocentrism need not necessarily yield to ‘biocentrism’, for that would entail adding yet another imbalance, failing to solve present problems and adding new ones. Human beings cannot be expected to feel responsibility for the world unless, at the same time, their unique capacities of knowledge, will, freedom and responsibility are recognized and valued. (Francis, 2015, p. 88).

This statement underlines Francis’ emphasis on the extraordinary position of human beings within creation. While the Roman Catholic worldview, analysed in one of the previous chapters, clearly states, that humans and animals are a part of the family of creation, there is no doubt about the special status of humans. Their cognitive and social skills, as well as the biblical account of humans being created as the image of God, distinguish humans from other life. Following this division, Francis calls for a stronger focus on anthropology: “There can be no renewal of our relationship with nature without a renewal of humanity itself. There can be no ecology without an adequate an-

thropology” (Francis, 2015, p. 88). In other words, solving the current ecological crisis requires the treatment of conflicts within humanity, pointing towards Francis’ fundamental observation, that every ecological approach always is a social approach. The Roman Catholic Church sees ecological education as a process that is not confined to classrooms but instead takes place “in a variety of settings”, including “in families, in the media, in catechesis and elsewhere” (Francis, 2015, p. 155). This inclusion of the family as an important locus of environmental education is aligned with the Roman Catholic Church’s focus on the traditional family, repeatedly emphasising its overall importance for society, the upbringing of children and now as an essential place for education. In this context, Francis argues, that “[g]ood education plants seeds when we are young, and these continue to bear fruit throughout life” (Francis, 2015, p. 155).

Environmental education is the foundation to understand the entirety of the current ecological crisis, as it is a network of different issues, environmental, political and social, connected on a global scale. Throughout *Laudato Si’*, this cluster of issues is often referred to as, “the ethical, cultural and spiritual crisis of modernity”, with an emphasis on modernity, as a period in which techno-scientific worldviews became a dominant understanding of reality (Francis, 2015, p. 89). In this context, Francis sees the implementation of integral ecology as a promising fundament, to further initiate environmental and human development. When analysing the world through the lens of integral ecology, humankind is able to understand the connectedness of the different conflicts and crises, and, therefore, knows that “these problems cannot be dealt with from a single perspective or from a single set of interests” (Francis, 2015, pp. 83, 103, 104):

Given the complexity of the ecological crisis and its multiple causes, we need to realize that the solution will not emerge from just one way of interpreting and transforming reality. Respect must also be shown for the various cultural riches of different peoples, their art and poetry, their interior life and spirituality. If we are truly concerned to develop an ecology capable of remedying the damage we have done, no branch of the sciences and no form of wisdom can be left out, and that includes religion and the language particular to it. (Francis, 2015, p. 45f.).

In other words, by acknowledging that humankind is not only dealing with a purely ecological crisis but instead with an interconnected crisis that includes social, political, ecological, economic and spiritual dimensions, an interdisciplinary solution is needed. Francis describes this awareness as an “openness to categories which transcend the language of mathematics and biology, and take[s] us to the heart of what it is to be human”, including fundamental human questions which are answered in spiritual settings (Francis, 2015, p. 10). Thus, closer, respectful cooperation between “science and religion, with their distinctive approaches to understanding reality, can enter into an intense dialo-

gue fruitful for both” (Francis, 2015, p. 45). As spirituality is a part of Francis’ concept of integral ecology, an “all-powerful” God, following Roman Catholic doctrine, is expected to be at the centre of it (Francis, 2015, p. 55). A divergent spiritual orientation could, as a negative consequence, lead to “worshipping earthly powers, or ourselves usurping the place of God”, ultimately, “claiming an unlimited right to trample his creation underfoot” (Francis, 2015, p. 55). In accordance with the Roman Catholic accounts of creation, Francis argues repeatedly, that God can be found within the natural environment. Accepting this principle in the context of integral ecology should, consequently, lead to the cultivation of “ecological virtues”, and therefore change the human treatment of nature and non-human life (Francis, 2015, p. 65).

An integral ecology includes taking time to recover a serene harmony with creation, reflecting on our lifestyles and our ideals, and contemplating the Creator who lives among us, whose presence ‘must not be contrived but found, uncovered’. (Apostolic Exhortation *Evangelii Gaudium* in Francis, 2015, p. 165).

Furthermore, Francis sees a direct connection between ecological virtues and the Christian faith. He describes, how certain convictions of faith can offer an additional “motivation to care for nature and for the most vulnerable [...] brothers and sisters” (Francis, 2015, p. 46). These convictions fall under the category of “ecological spirituality”, drawing their messages from “the teachings of the Gospel”, consequently shaping a believer’s “way of thinking, feeling and living” (Francis, 2015, p. 158). Referring to the Apostolic Exhortation *Evangelii Gaudium*, Francis argues, that an ecological lifestyle, which implies an extensive commitment to care for creation, cannot be “sustained by doctrine alone”, which is why spirituality as an additional driver of intrinsic conviction and motivation is necessary, to inspire and ultimately give “meaning to [...] individual and communal activity” (Apostolic Exhortation *Evangelii Gaudium* in Francis, 2015, p. 158). Being able to access this inner conviction and following its standards in life, has the additional positive side effect, that in the case of Roman Catholic belief, fundamental values, like humanity are an integral part of its spiritual ecology. Francis sees the alignment of an inner conviction with a believer's actions as an essential factor in achieving inner peace:

Inner peace is closely related to care for ecology and for the common good because, lived out authentically, it is reflected in a balanced lifestyle together with a capacity for wonder which takes us to a deeper understanding of life. (Francis, 2015, p. 164).

At last, integral ecology suggests closer cooperation between national and international advocates of environmental protection and local cultures. A particular emphasis is put on the cultural aspect of this cooperation, as Francis sees culture as yet another way to support the protection of local environments:

Ecology, then, also involves protecting the cultural treasures of humanity in the broadest sense. More specifically, it calls for greater attention to local cultures when studying environmental problems, favouring a dialogue between scientific-technical language and the language of the people. Culture is more than what we have inherited from the past; it is also, and above all, a living, dynamic and participatory present reality, which cannot be excluded as we rethink the relationship between human beings and the environment. (Francis, 2015, p. 108).

In conclusion, in his description of integral ecology, Francis promotes an interdisciplinary understanding of the current ecological crisis. He argues, that “[t]here needs to be a distinctive way of looking at things, a way of thinking, policies, an educational programme, a lifestyle and a spirituality”, all in favour to implement a new perspective on reality, opposing the “assault of the technocratic paradigm” on the global community (Francis, 2015, p. 84). Along with this new perspective comes a comprehensive vision for the future, including a “healthier, more human, more social, more integral” approach to the development of humankind (Francis, 2015, p. 84). A reference to the Second Vatican Ecumenical Council provides a good summary of integral ecology:

An integral ecology is inseparable from the notion of the common good, a central and unifying principle of social ethics. The common good is ‘the sum of those conditions of social life which allow social groups and their individual members relatively thorough and ready access to their own fulfilment’. (Second Vatican Ecumenical Council in Francis, 2015, p. 116).



## 6. Discussion

### 6.1 A Brief Overview

The analysis of *Laudato Si'* provided a comprehensive understanding of Francis' main arguments, combining concrete ecological talking points with the social dimension of climate change and economic criticism. This discussion aims to answer the research questions of this thesis and does so by dividing the chapters according to the central themes. While the beginning of this thesis was driven by the question, of how Francis' encyclical *Laudato Si'* would perform concerning a solid scientific background, the following discussion focuses on the different positions of *Laudato Si'* and Gorke's *Eigenwert der Natur*, a distinct ethical publication. In this context, the discussion aims to focus on differences and common ground within the authors' direction, argumentation and fundamental worldview, but to also include a perspective on *Laudato Si'* that is embedded in the perspective of pluralistic holism. This altered approach also makes it possible to discuss how the two publications can complement each others' argumentation while remaining critical towards fundamental differences. At last, this discussion answers the question, of whether *Laudato Si'* lives up to its name as the "green" encyclical or if it fails to deliver a comprehensive picture of the global environmental crisis.

With the help of the method of content analysis, Francis' argumentation and his textual focus in *Laudato Si'* was categorised and segmented into five parts. The first part analysed Francis' understanding of the global climate crisis, referring to scientific findings and established facts within the scientific community. In the following chapter, the Roman Catholic Church's worldview has been examined, providing extensive insight into the understanding of the relationship between human beings, nature and non-human life on Earth. The third part introduced Francis' criticism of the global economy and "northern" consumerist lifestyle, following the developments of the technocratic paradigm. This critique is closely connected to the social dimensions of climate change, the fourth part of the analysis. Francis gives a detailed overview of social injustices on a global level, worsening as a consequence of the ecological crisis. The fifth and final part provided concrete recommendations for activism and the suggestion, that environmental education and a new, integral, approach to ecology are necessary to respond to the climate crisis.

These findings will be analysed in this chapter, discussing aspects of Francis' encyclical from the perspective of Gorke's pluralistic holism, its derivation and its principles of action. The discussion starts with a confrontation of the two worldviews, including an understanding of the universe, the origin of ethics, the role of humans within the natural environment, and finally a compari-

son of the global environmental crisis from the perspectives of pluralistic holism and the Roman Catholic Church's integral ecology.

The following chapter provides an overview of economic criticism, from the perspective of *Laudato Si'* and pluralistic holism. At this point, the principles of action play an important role in Gorke's publication, as direct economic criticism is not a part of his writings and has to be developed following the logic of his principles. A brief discussion of social injustice and solidarity concludes the chapter.

Chapter 6.4 discusses the perspective of pluralistic holism in the context of environmental activism and improved education. According to Francis' these steps are necessary to implement integral ecology and ultimately introduce a new understanding of the interconnectedness of global issues, including the current climate crisis.

The final chapter of the discussion circles back to the initial research questions of this thesis and aims to answer these, while critically showing the contributions of *Laudato Si'* and pluralistic holism.

## **6.2 Opposing Worldviews?**

### **6.2.1 Understanding the Universe**

The first discussion of this chapter may already prove to be the most difficult one. When analysing the fundamental worldview of two parties, there is often a set of key questions that need to be answered, like whether there is a God, how the universe came into existence, or what is the driving force within life as we know it. While the analysis of *Laudato Si'* gave various examples of the Roman Catholic worldview, these questions are far more difficult to answer, in the case of Gorke's ethical concept of pluralistic holism, as it does not directly address those.

Following Francis' explanations about nature and the universe, clearly showed, that the Roman Catholic Church's understanding of the world, or creation, is inspired by a theocentric worldview. In other words, the existence of life and matter has its origin in the trinitarian God. Francis describes on more than one account, that the universe was created by God and even moves towards God in its purpose. At the same time, God is present in every form of life and matter through his love, delivering vital energy to every entity and connecting them in an ever-present network. However, even though the Roman Catholic Church argues from a theocentric perspective, it acknowledges scientific theories and well-established facts, as presented in chapter 2.2. Thus the Roman Catholic Church's worldview sets itself apart from fundamentalist Christian positions, which often remain strictly anti-science and interpret the book of Genesis as the only account of the origin

of humankind and planet Earth. Nevertheless, the Roman Catholic Church denies derivations that exclude the trinitarian God and his role as the Creator, showing that there is a margin for discussion, but only until the absolute dogmas are reached.

Gorke on the other hand does not argue about the origin of life, the formation of the universe or the driving force of animated and not animated entities, but this might be due to the context of his publication. Other than *Laudato Si'*, Gorke's *Eigenwert der Natur* is a publication in the field of environmental ethics, not a religious memorandum, written by the head of one of the world's largest institutions. Therefore, ethical aspects, theoretical derivations and instructions for various scenarios are discussed, but not a fundamental worldview in a religious or philosophical sense. However, other points of discussion, like the self-understanding of humankind in relation to the natural environment and the origin of Gorke's ethical approach, give an insight into his understanding of the world and therefore allow further ascriptions, but only through interpretation.

Following the spirit of *Laudato Si'*, the possible differences between the two elaborations may still prove useful for each other in the context of coping with the global climate crisis. Particularly the profoundly different general directions of the publications provide leverage points for further development including new perspectives concerning their focus and positioning. The following chapter will provide an examination of the origin of ethics within both systems and in this context provide further insight into Gorke's pluralistic holism.

### **6.2.2 The Origin of Ethical Approaches**

When discussing ethical approaches, a closer look at the origin of the approaches reveals additional information about the understanding of the world of the different parties involved. This subchapter compares Francis' and Gorke's theoretical derivation, to reveal fundamental differences, but also commonalities.

As the analysis of *Laudato Si'* has shown, the position of Roman Catholic ethics is based on the responsibility and purpose of humankind within creation. Through the process of creation, God, the Creator, has given a framework that clearly determines rightful and wrong actions, as well as morality. Following this derivation, it is clear, that the origin of morality and ethical behaviour is grounded in Roman Catholic tradition. God becomes the origin of morality, sharing ethical principles through the Christian belief, and, to an extent, through the holy scriptures and interpretations of their faith. Observing the Roman Catholic approach from a meta-perspective reveals, that Christian ethics relies extensively on a meta-ethical derivation, right and wrong have been defined by a religious worldview: God is at the heart of moral thought. Gorke describes this position as “meta-ethi-

cally objectivist”<sup>13</sup>, understanding the value and moral consideration as a given, “absolute” value within reality (Gorke, 2018, p. 27).

Gorke’s pluralistic holism is grounded in another tradition. His ethical approach is not founded on a meta-ethical origin. Following his derivation, the ethical position of pluralistic holism begins with the primal question, a decision between egoism and moral behaviour, or to an extent social behaviour, as others come into the focus of individual action. This primal decision is followed by the universal character of morality. Here Gorke argues, that every entity deserves moral consideration, reversing the question of inclusion to a question of exclusion. At last, he states, that the principle of ontological parsimony would support his approach, because of the clear ethical argumentation: Every entity deserves moral consideration versus a hierarchical structure, in which some entities are deemed more worthy than others. Through his exclusion of a meta-ethical derivation, Gorke’s approach becomes theoretically more accessible for individuals who are not rooted in a religious worldview, grounding the origin of individual value in the process of attributing value, performed by evaluative entities, in this case, humans (Gorke, 2018, p. 27)<sup>14</sup>. This separates the creation of moral values from a meta-ethical origin, in other words, ethical approaches exist, because human individuals performed acts of attribution, giving value to different entities and, consequently, determining their positions to each other.

The Roman Catholic Church’s worldview and Gorke show fundamentally different ethical derivations, based on their reliance, or in the case of pluralistic holism its rejection, of a meta-ethical origin of values and morality. This difference may give an indication of the open question of worldviews, asked in the previous chapter. In this context, it is plausible to conclude, that Gorke’s worldview does not evolve around a religious philosophy, which would otherwise be included in the ethical derivation of his approach. Instead, a logical secular derivation has been chosen. Which expectations the ethical approaches formulate towards humankind will be discussed in the following chapter.

### 6.2.3 Humans, Animals and Nature

Building on the Roman Catholic Church’s understanding of humankind’s role within creation, as mentioned in the previous chapter, humans are seen as the “stewards” of the natural environment. Francis addresses this interpretation in multiple passages in *Laudato Si’*, clarifying God’s plans for

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<sup>13</sup> German original: “Eigenwerte existierten für den metaethischen Objektivisten bereits vor Heraufkunft des Menschen; sie sind so gesehen ‘absolut’.”

<sup>14</sup> German original: “Für den metaethischen Subjektivisten hingegen sind Werte Produkte wertender Wesen.”

humankind. A prominent task is connected to the process of caring for creation, giving humans a special status among other forms of life. In the two established interpretations of the biblical scriptures alone, the capacity of humankind is underlined: Both stewardship and dominion require the capacity to manipulate the natural environment, changing nature for the better or for the worse. It also highlights the importance of responsibility, as it is within the range of humankind to determine the course of planet Earth. Gorke's pluralistic holism, too, attributes a special responsibility to humankind. His principles of action show the capacity of human individuals to either do good or to mistreat the natural environment. The principles of not harming and doing good, as well as the principle of restoring (environmental) justice further underline the authority of humankind over nature. While humans in the context of Gorke's holistic approach can generally be understood as one part of the network of life and even though, a special status has not been attributed by a higher entity, a differentiation between humans and other forms of life cannot be denied.

But how do both approaches see the role of animals and the natural environment within their line of argument? In *Laudato Si'* Francis clearly stated, that animals carry, as entities created by God, a share of the Creator in themselves, attributing worth to them. To acknowledge this worth, humans are supposed to treat animals with respect and see them as entities, who are worthy of their care. However, following the general direction of Francis' argumentation, animals and other entities, subsumed in the term biodiversity, are often seen as potentially useful elements, particularly in the passages about the value of biodiversity for future discoveries in the medical sector (Francis, 2015, p. 24ff.). While acknowledging the value of animals, on one hand, their protection based on possible future usefulness carries a deeply anthropocentric understanding of the natural environment: Protection and care for non-human entities on the basis of human self-interest. Gorke's pluralistic holism approaches this relationship from a similar direction but ends in a different conclusion. Comparable to the Roman Catholic view of animals, pluralistic holism attributes inherent value, not only to animals but also to the inanimate environment. This value is the foundation of the non-human entities' inclusion in the moral circle and therefore grants them moral consideration. Furthermore, Gorke's principles of action illustrate through the principle of not harming, that animals are not supposed to be harmed by humans. Additionally, the principles of non-interference and distributive justice underline the autonomy of species. Here Gorke argues, that because of their own inherent drive to live an autonomous life, animals have to be seen as independent entities, who not only deserve their own territory in the natural environment but also have to be respected aside from their potential usefulness to humankind. However, the attribution of inherent value does not exclude the possibility to harm animals. Following the argumentation of pluralistic holism, the principle of

restoring (environmental) justice is open to the possibility of harming species, if they represent an imbalance in local ecosystems, due to human errors. A prominent example of the use of sanctioned violence is the case of feral cats in Australia, presented in chapter two, which are a danger to the local flora and fauna. Environmental protection agencies use the poison 1080 to control the cat population. This procedure would be within the limits of Gorke's principle of restoring (environmental) justice, despite being in violation of the principle of non-harming. The key argument, in this case, is the recovery of the natural balance of the Australian ecosystems, furthermore, the intervention is not based on human self-interest.

Another potential conflict arises in the question of industrial livestock farming. While Francis clearly ascribes importance to the just keeping of animals, he does not speak out against these practices, even though livestock farming plays an explicit role in animal suffering and, as a by-product, contributes to environmental degradation, like in the cases of wood clearing in Amazon rainforest to expand the land usage for cattle-farming. A possible explanation for the absence of criticism may be the primary focus on the reduction of poverty, which remains an essential goal in the catholic social mission. In this context, the production of food through the means of livestock farming might count as an overall contribution to feeding the poor. Following Gorke's principles of action, livestock farming cannot be justified, neither from the perspective of self-defence, which may be applicable in extreme situations of life and death, like death by starvation nor under the principle of least moral evil, which serves as a guiding principle to choose the least damaging measures, if interference with the natural world is inevitable. Both principles, however, do not apply in the case of livestock farming.

At last, a closer look at the understanding of the natural environment of the two approaches reveals, that Francis' descriptions and Gorke's pluralistic holism, have a similar understanding of the natural environment. As described in the analysis chapter, the Roman Catholic Church understands nature as a part of God's creation. In multiple passages of *Laudato Si'* Francis states, that God and his essence, or love, is present in the natural environment, making nature a "locus of his presence" (Francis, 2015, p. 65). Through this presence, every part of the natural environment is understood as a valuable product of creation, designed by the Creator to serve a specific purpose and, thus, being essential. In pluralistic holism, the entirety of nature, including inanimate objects, are seen as entities that hold inherent value. This does not only apply to a union of individual entities, for example, a forest, in contrast to ecocentrism, the individual entity, in this case, a tree, holds value as well. While the reason for the attribution of value differs, the result is comparable: Both the

Roman Catholic Church's view on nature and the argumentation of Gorke's pluralistic holism, see natural entities as objects with inherent value.

#### 6.2.4 Understanding the Global Climate Crisis

One of the most interesting aspects of the analysis of *Laudato Si'*, is the perception of reality in which the Roman Catholic Church apprehends the current environmental crisis. Francis addresses this topic in the chapter about integral ecology, which is a fundamental part of the Roman Catholic Church's attempt to solve the problems culminating in climate change.

As depicted in the analysis chapter, the perspective of integral ecology sees the global environmental crisis as an event which originates from multiple issues. Francis addresses these issues throughout *Laudato Si'*, identifying their negative impacts on the natural environment. He argues, that the origin of climate change, does not only lie in environmental degradation but also in the processes, interfering with the natural environment. In other words, to understand, why the environment is degrading, it is essential to understand which factors are contributing to this phenomenon and why. In his economic criticism, Francis sees the global economy, as a major contributor to the environmental crisis, acting on the maxim of infinite growth through production. Simultaneously, he identifies the current lifestyles of wealthier societies, culminating in thoughtless consumerism, as a co-contributor, forming a powerful dynamic with the economy, pushing each other to set new limits. Another prominent factor, which plays a considerable role in the network of reasons leading to the current environmental crisis, is the technocratic paradigm. Francis describes this paradigm as a consequence of the development of modernity, responsible for the increased consumption of technology, as well as the confidence, that technology may solve climate change for humankind. To face this multi-faceted network of issues, integral ecology promotes the openness to encounter this global challenge with an interdisciplinary countermeasure, including a new spiritual perspective, in this case, guided by Roman Catholic thought. This interdisciplinary approach is seen as a potential solution to the complex networks of global problems.

Observing this approach through the lens of pluralistic holism reveals both a familiar form of conception, but also a spiritual dimension, which is not addressed in Gorke's publication. Starting with the common ground, the basic principle of holistic thought is to see the globe as a network of entities, both animated and in-animated, that share a connection and a common space to live. Manipulating one part of this network, consequently, influences other parts as well. In pluralistic holism, every entity shares the same inherent value, making it plausible to speak of a network of life. However, while the connection between entities is a prominent topic in this perspective of envi-

ronmental ethics, it does not address the concrete reasons for the current environmental crisis, nor does it provide an overview of different hot spots, originating in different areas of human societies, their practices and underlying ideologies. The overall concatenation of events leading to climate change is instead addressed by the planetary perspective, whose approach is based on holism. Planetary thinking shows multiple parallels to Roman Catholic integral ecology, starting with the eponymous planetary perception of current events. By reviewing single hot spots from the perspective of planet Earth, planetary thinking, like integral ecology, analyses networks of concurrent causes and acknowledges the contribution of different processes as initiators of the global climate crisis. However, the key difference between integral ecology and the planetary perspective is the position of humankind within the approach. While integral ecology, argues, that its perspective places humans in the centre of perception, planetary thinking argues for refocusing the view on global events, purposely leaving the human-centred position behind. Instead, every development has to be viewed from a planetary perspective. This counts for the global climate crisis as well, aligning integral ecology and the planetary position, which includes political action, economic decisions and general change within societies.

This sub-chapter has pointed out, that the Roman Catholic perspective of integral ecology and the planetary perspective of holism, share strong parallels in their argumentative structure and perception of reality. Both approaches see the current ecological crisis as a product of multiple origins, demanding an interdisciplinary solution.

### ***6.3 The Economy, Social Injustice and Solidarity***

#### **6.3.1 Economic Criticism and Consumerism**

The economic criticism of Francis has a central position in *Laudato Si'*. It is not only closely connected to the environmental decline but also the origin of social injustice around the globe. At the same time, the economic ideology of capitalism influences current lifestyles and consumer behaviour in the global community. This sub-chapter discusses the contributions of *Laudato Si'* from the perspective of Gorke's principles of action, providing an additional perspective from an environmental standpoint.

Francis' main argument concerning the global economic model, is its detachment from the reality of the natural world. He highlights the differences between economic production and the natural pace of growth and regeneration. Another fundamental difference is the potentially infinite growth of economic models and predictions, on one hand, and the limited natural resources of planet Earth, on the other. Environmental destruction in key areas of the global ecosystem, like the



Amazon rainforest, is just one of many consequences. The current lifestyle of consumerism additionally fuels economic production and the growing consumption of resources. Francis concludes with the demand to, first, refrain from counting profit as the only goal of economic thought, and, second, to change the current ways of consumption, following the guiding principle of less is more. Gorke's pluralistic holism addresses both pillars of this problem, the economic exploitation of natural resources and the general lifestyle of (primarily) northern societies. The first part of this chapter will discuss the principles concerned with the economy, before moving to the ethical question addressing different models of lifestyles.

Being confronted with the impacts of the global economy on the natural environment, multiple principles of Gorke's pluralistic holism can provide additional guidance in the current situation. Starting with the first two principles, not harming and doing good, the general practices of production can be criticised. Underlining Francis' demand to not only view the natural environment as a provider of resources, the principle of not harming prohibits natural exploitation on the fundamental reason of avoiding harm. As deforestation continues, ecosystems are damaged, including local animal populations, which lose their habitats and basis of existence. By changing the economic utilisation of resources to a more sustainable practice, harming local populations could be prohibited. While Gorke's principles were primarily developed to guide humans' relationships with non-human entities, they can also be applied in the context of human-human relationships. In other words, if economic practices harm local communities, the principle of not-harming instructs humankind to not further engage in these practices. Instead, the principle of doing good demands finding more sustainable practices, which benefit not only the natural environment but also the local populations. However, not every manipulation of the natural environment can be avoided, just as not every local population can be spared from the effects of economical practices. Upcoming conflicts in these situations can be considered including the principle of least moral evil. If interference with the natural environment is inevitable, humankind would be advised to choose the approach, that is least destructive. The same holds true for the burden which is put on the local population. Coming back to the example of the Amazon rainforest: If deforestation due to an increase in livestock farming is one approach, and following other means of food production, that can avoid cutting down the forest, are an equivalent alternative, the alternative approach should be selected. The treatment of local populations should be handled comparably: If the emission of greenhouse gases consequently leads to rising sea levels, alternative energy sources should be promoted on the basis of protecting local communities, which are directly affected by climate change. The principle of proportionality is closely linked to this discussion. Following this principle, it is necessary to ask, if certain actions are

proportionate when the consequences of their outcome are taken into consideration. This question can directly be linked to Francis' criticism of economic practices: International corporations, polluting the natural environment of developing countries, to benefit wealthier societies located in the global north. Following Gorke's principle, the excessive wealth and consumption of natural resources in the global north, does not justify the destruction and burden of the global south.

The focus on consumption introduces the second part of this chapter. The principle of the least moral evil introduces yet another crucial factor in the process of decision-making, differentiating between essential and non-essential decisions. If the natural environment is manipulated to secure the essential needs of the local (human) population, for example, food supplies, building materials and basic medical care said manipulation through economic companies providing these services can be justified. However, if environmental destruction or harming animal populations takes place on a grand scale, to provide luxury items, like classic fur coats, for example, the principle of least moral evil urges humankind to find alternative solutions or to discontinue these economical practices, particularly, if local populations are harmed. Francis' clear critique of the high consumption of goods in the global north also includes consumption based on technological advances. Gorke's theoretical derivation and the principles of least moral evil, as well as distributive justice, share these concerns. With the global imbalance of resource consumption in mind, it is essential to remember that the overuse of environmental goods has direct consequences for the global south. Consumption in this context equals the choice of egoism over moral behaviour in Gorke's primal choice. Following his argumentation, individuals have to make a conscious decision, either continuing on an egoistic path or choosing to follow a moral lifestyle based on ethical behaviour. While the original wording names egoistic versus moral behaviour, "moral" can also be substituted with "social", as both terms cover the same behavioural pattern. Following this argument, choosing social behaviour requires a change in one's lifestyle and thus, a change in patterns of consumption. Additionally, the principle of least moral evil, as presented earlier in this chapter, requires overconsuming individuals to acknowledge their privilege, as overconsumption in many cases equals the consumption of luxury items, which are neither part of an essential basis of existence, nor is the rate of consumption society in the context of the global community. The principle of distributive justice adds the dimension of living space to this discussion, pointing towards the unproportional natural territory needed to produce goods for the global north. Coming back to the example of deforestation in the Amazon rainforest, a large portion of the produced meat from livestock farming, is exported to the global north or other wealthy countries, leading to environmental degradation in Brasil, a developing country, to enhance the availability of quality meat in industrial countries. Practices like

these, ultimately contribute to the land utilisation of industrial countries, even outside their national borders. The principle of distributive justice demands in the context of overconsumption in human societies, that the consumption of goods is reduced in a way, that foreign territories do not have to substitute the national boundaries of industrial countries. Exceptions are of course possible if some countries for example export goods that secure the basic livelihood of others. The grain production in Ukraine is such an example. However, Gorke's principle of distributive justice also includes a perspective on territories for non-human species and unspoiled nature. He argues, in the example of Germany, that the cultivation of most of the country's environment does not offer adequate living space for wild animals. Throughout *Laudato Si'*, Francis illustrates the importance of nature sanctuaries, however, Gorke's principle suggests more than this: While nature sanctuaries typically cover only a small percentage of the absolute area, leaving the majority of the regions open for human cultivation, the principle of distributive justice demands an adequate percentage of the overall territory for non-human life, to guarantee species-appropriate living conditions. Even though both Francis and Gorke have the same ambition, to increase the protection of the natural environment, their demands result from fundamentally different ethical backgrounds. In the case of land distribution, Francis' anthropocentric position underlines the division of the environment, clearly favouring humankind, while Gorke argues for an approach that benefits non-human life equally.

While Gorke does not directly address the global economy in his publication, his theoretical derivation and principles of action show, that his argumentation aligns with Francis' criticism. However, *Laudato Si'* has a different main focus, concentrating most arguments on the inequality between wealthy states and the poor, whereas pluralistic holism, as an environmental ethic, highlights the current condition of the non-human environment and offers guiding principles to support a paradigm shift towards a more just and ecological future.

#### **6.4.2 Social Injustice and Solidarity**

Following the economic criticism of both authors, a discussion of the social mission of the Roman Catholic Church and Francis' call for global solidarity, is a logical next step. Based on Francis' main argument, an "ecological approach" always is a "social approach", a significant part of *Laudato Si'* discusses social injustices on a global scale. This sub-chapter explores, if there is a social dimension in pluralistic holism and, if so, how it differs from the Roman Catholic perspective.

The dual understanding of ecological approaches, always including a social dimension, is based on the Roman Catholic integral ecology. As described in the previous chapter, the view of integral ecology sees the global environmental crisis as a network of different hot spots, including a

severe social crisis. Through this lens, the parallel emergence of environmental and social problems has been a logical conclusion. In the context of social development, Francis repeatedly argues for a “culture of care”, focusing on the unproportional burden of the poor and the need for global solidarity, particularly from the global north. The environment and living spaces of humankind should be understood as a common good, demandable by every member of the global community.

Comparable to the previous sub-chapter focusing on consumption, the topic of social obligations and global solidarity can be discussed with the help of Gorke’s primal choice and several principles of action. Starting with the primal choice, the decision to accept the natural environment as a shared possession, belonging to all of the human community, would be equal to the moral choice, opposing an egoistic path. However, the common good in the context of injustice is primarily focused on the human species. When Francis demands to see nature as a common good, it is directed at humankind, addressing the imbalance in resource consumption and environmental exploitation. Accepting planet Earth as a common good of all forms of life is not covered by this claim. Pluralistic holism on the other hand has a specific interest in non-human entities, which is why the common good would have to be available for a broader audience, including animals, other forms of non-human life and even inanimate objects. This extension of the circle of entities, that are entitled to participate in the common good, is the main difference between the two approaches. Comparable to the previous chapter, the focal point of *Laudato Si’* is bound to the social mission of the Roman Catholic Church and is first and foremost concerned with the social inequality among humans. Gorke on the other hand, coming from a background of environmental ethics, includes non-human life in every concept that evolves around social obligations and solidarity. The discussion around consumption already covered the most important points of discussion concerning the social obligation of caring about the poor and the consequences of climate change in the global south. However, the concept of global solidarity has not yet been analysed with the role of non-human life in mind.

As described at the beginning of this chapter and the previous chapter, the global north has, according to Francis, a social debt towards the global south. Economic practices, injustice concerning the distribution of resources, and the overall engagements of ecological development, still favour the wealthy countries in the global north. The discussion in *Laudato Si’* addresses these concerns extensively, nonetheless, the inclusion of non-human life is somehow detached from the discussions about solidarity. Of course, solidarity remains one of the fundamental topics within Francis’ encyclical, but only on the level of human-to-human relationships. The existential burden put on animal populations is mainly addressed in connection to the environmental crisis, never in terms of a social crisis or in reference to inter-species solidarity. Yet, forward principles, like the principle

of not-harming, or the principle of doing good show clear signs of social interaction. If one treats another well and chooses to not harm but to nurture and care, a social choice has been created, in which both entities stand in a relationship with one another. The biblical interpretation of stewardship over creation conveys such relationships, in which humans care about those, that were created with them. The same solidarity that should urge the global north to show care for the reality of the poor and the global south, should also be extended to the non-human environment. Following Gorke's principles of action, solidarity plays an essential part in the distribution of resources and living space, the restoration of natural environments and the proportionality of consumption. Again pointing to the parallels with the previous chapter, *Laudato Si'* does not go far enough from the perspective of pluralistic holism. Its fundamental concepts, including social injustice and economic criticism, resonate with the primal choice and the principles of action in Gorke's publication, but non-human life remains a side issue in its solution approach.

Comparable to the analysis of *Laudato Si'*, economic criticism and social injustice are inseparable issues that have to be discussed together, to find an interdisciplinary solution. Chapter 6.3 illustrated the common ground and the differences between Francis' and Gorke's approaches, concluding, that *Laudato Si'* has a mainly human-centred perspective when addressing consumption and social injustice. Pluralistic holism offers the possibility to not only address the social problems of humanity but also to extend the moral circle and provide the same care for non-human life.

#### **6.4 Courses of Action**

The second half of *Laudato Si'* introduced multiple measures to act against the continuing environmental degradation on a global scale, resulting in the current climate crisis. As the previous analysis illustrated, Francis demands activism on one hand, and a general shift in environmental education, introducing ecological virtues and integral ecology to large parts of the population, on the other hand. This chapter explores how pluralistic holism approaches these concerns and discusses potential differences concerning the focus of action.

The first part of this chapter is concerned with concrete activities. In this part, Francis argued, an initial step of ecological activism requires a new understanding of the human-nature relationship. In this context, he introduces the concept of actively caring about the natural environment. This includes concrete practices, like the restoration of the environment through clean-ups, allowing natural spaces to recover from human utilisation and, thus, being able to restore their original state, if possible. But active care does not only cover changes in the natural environment, Francis also demands that other areas within human societies are changed. This includes the conscious decision

to develop new forms of clean energy and to further improve the public infrastructure of countries around the world. Furthermore, a new self-understanding of political duties is essential to effectively implement environmental measures and guarantee satisfying expectations of the electorate. At last, on an individual level, an ecological lifestyle has to be chosen, prioritising a social choice over individual consumerism. Additionally, Francis proposes a new spiritual dimension of ecology.

Gorke's position shares most of these proposals and answers them through his principles of actions and theoretical derivation. Starting with the concept of caring for nature, which is covered through the first two principles, not-harming and doing good. These instructions call for active care, first by rejecting environmental manipulation that harms the natural environment or non-human life, and, additionally, by actively nurturing non-human entities. Animal welfare as a concrete example, particularly in the context of livestock farming, would be a demonstrative model to exemplify how the principles of not-harming and doing good could interact in the concrete environment. Following the principle of not-harming, the practice of livestock farming is deeply problematic, not only because of the intentional termination of living entities, that hold intrinsic value but also because factory farming does not follow the standards of species-appropriate husbandry. This way, the potential of these specific animals cannot be fulfilled. Caring for the natural environment in terms of reparations is then covered by the principle of restoring (environmental) justice. Through the processes of river clean-ups, forest restoration or environmental renewal, the recreation of an original state is supposed to be reached. This follows the initial thought of restoring justice. The destruction and pollution caused by humankind are categorised as unjust behaviour, calling for compensation. Finally, the active decision to positively change collective and individual lifestyles picks up on the primal choice in Gorke's theoretical derivation. Similar to the previous examples of choosing moral behaviour over egoism in the context of personal consumption and economic practices, as well as showing solidarity in the face of social injustice, the primal choice as an active element of public and individual development focuses on moral choices. The demand for a new political self-understanding depicts the choice between social practices, protecting the electorate from the environmental destruction of global economic production and a strictly liberal policy, which is founded on the principle of an unregulated market, fueled by uncontrolled capitalism. Referring to Francis' capitalism critique, profit can never be the sole criterion of the economy, particularly from a social perspective. The primal question asked on a political level is a question about the morality of political decisions, based on social policies. Transferred to an individual level, the primal question also demands the choice between moral and egoistic behaviour. This example is identical to the one in the previous chapter, asking individuals to decide between consuming and living out a wasteful lifestyle

(in terms of consumption) or integrating informed ecological choices into one's everyday life. By making the primal choice in both a public setting and an individual decision, the first step in realising a paradigm shift has been made. At last, it is necessary to address Francis' request for a new ecological spirituality. While Gorke's pluralistic concept offers a new ethical understanding of reality, it does not attempt to include a spiritual perspective in its theoretical derivation. Therefore, Francis' call for a new ecological spirituality remains unanswered from the perspective of pluralistic holism.

The second part of this chapter addresses Francis' introduction of integral ecology, based on an overall improvement of environmental education. While the approach of integral ecology has already been presented in chapter 6.2.4 discussing the fundamental understanding of the environmental crisis, the connection to an increase in education has not been laid out yet. When talking about an improvement in environmental education, Francis points towards a lack of self-understanding concerning humankind's role on this planet. As illustrated in the analysis chapter, a misinterpreted claim of ownership over the natural environment can only promote a destructive form of anthropocentrism, culminating in environmental destruction and self-enrichment. Instead, a new form of ecological ethics is needed within the Roman Catholic Church's worldview based on anthropological research. Only through a better self-understanding and an integration of humankind within the natural environment (or creation), the adoption of ecological virtues is possible. Additionally, the implementation of integral ecology provides an in-depth understanding of the ecological crisis, as a network of global issues, only solvable through interdisciplinary approaches.

Gorke's pluralistic holism starts from a similar standpoint, criticising the current predominant human self-understanding grounded in strong anthropocentrism. However, Gorke does not include an educational perspective in his publication, instead, he offers his ethical position as an alternative approach itself. Following his onion model, presented in chapter 3.1.1, the differences between an anthropocentric standpoint and a holistic position reveal that both approaches are opposites in the entirety of environmental ethics. Through the perspective of pluralistic holism, alternative perceptions of the natural world and non-human entities are promoted, introducing a critical perspective on previous attributions of value. At the same time, the interdisciplinary approaches of integral ecology can partly be found in pluralistic holism, as the approach incorporates ethical thinking and biological necessities: While unjustified use of violence against non-human life is unacceptable, sanctioned termination for the sake of population control or the protection of endangered species can be a valid solution, following the principles of action. Species conservation in this scenario surpasses the principle of not-harming in specific cases. Again, the case of feral cats in Australia

lia serves as a demonstrative example: The protection of the endangered local flora and fauna surpasses the right of integrity of the feral cat populations. Additionally, the principle of restoring (environmental) justice sanctions the recreation of the natural environment. Further similarities and differences between integral ecology and pluralistic holism (and to an extent planetary thinking) can be found in chapter 6.2.4.

This chapter introduced yet another dimension of Gorke's pluralistic holism in the context of environmental activism, as well as Francis' call for environmental education and the implementation of integral ecology.

## **6.5 Revising Open Questions**

### **6.5.1 *Laudato Si'* and Pluralistic Holism - Conflicting Publications?**

The final chapter of this discussion aims to answer the research questions of this project. Starting from the position of public reception, *Laudato Si'* has been received as a substantial contribution to the discourse of the global environmental crisis, and, additionally, counts as a beacon of Roman Catholic contribution (see Magill & Potter, 2017). But how is Francis' encyclical assessed within environmental ethics, specifically, pluralistic holism? This sub-chapter points out common ground and conflicts concerning the two publications.

Starting with the common perspectives, both Gorke's pluralistic holism and Francis' *Laudato Si'* and to an extent, the Roman Catholic integral ecology, advocate for an extensive reflection of the global environmental crisis. This perspective includes the acceptance of a connection between living entities, as well as the awareness, that climate change is based on multiple causes. However, there are also slight changes of emphasis within the holistic view. First, pluralistic holism does not directly address the multiple origins of the ecological crisis, this is implemented by the inclusion of planetary thinking in this thesis, an approach that is structured around a holistic worldview. Francis' encyclical, on the other hand, incorporated the integral understanding of climate change into its general structure, discussing the economic and social dimensions of environmental degradation. These viewpoints can be accessed through the principles of pluralistic holism, but to do so, a derivation is necessary.

Moving towards the meta-ethical foundation, the first major difference between the two publications is revealed. While Francis follows the Roman Catholic tradition and locates the origins of *Laudato Si'*'s ethical derivation in the Christian belief, Gorke sees ethical value as an attribution that resulted from collective agreements within human communities. As already discusses in chapter 6.2.2, both approaches are fundamentally different in their theoretical derivation, one relying on a



meta-ethical explanation, the other, pluralistic holism, following a rational derivation without meta-ethical elements (rational in this case based on the rationality of secular logic, not as an evaluative term). Acknowledging, that the theoretical derivation of the Roman Catholic approach is based on established dogmas of the Christian faith, a convergence seems unpromising, however, remembering the different audiences of each publication, each approach has its right to exist.

Closely related to the theoretical derivation is the understanding of the relationship between humankind and the natural environment. Following the Roman Catholic belief, humans themselves hold a special position within creation, appointed by God. This refers to the position as steward of creation, raising humankind above other forms of life, to give them the responsibility to care for the natural environment. Gorke's concept of pluralistic holism sees humans as a part of nature, moving from a human-centred approach to a model of equality. Nonetheless, the special status of humankind cannot be denied. The fact alone that the capability of self-reflection is unique to the human species, as well as their responsibility, considering their destructive potential, distinguishes humankind from other forms of life. This may be one of the weaknesses of pluralistic holism. What remains though, is the differentiation between the human-centred approach of Francis on one hand, and Gorke's extended moral circle on the other.

At last, the scope of environmental protection differs between the two approaches. Francis clearly argues for a paradigm shift to accept the natural environment as worthy of protection, but in the overall context of *Laudato Si'*, the specific measures suggested in order to protect non-human life play a minor role, compared to the social demands of the Roman Catholic Church. Gorke's pluralistic holism on the other hand suggests proportional measures, that take non-human populations into account, for example in the discussion about proportionate land usage.

### **6.5.2 Can Christian and Secular Approaches Complement Each Other?**

Considering the different nature of the two publications, asking the question, of whether pluralistic holism and Francis' *Laudato Si'* can complement each other, is not one that comes naturally. However, because of their differences in genre, it is particularly interesting to see, how an outside perspective can give reasonable suggestions in the context of their thematic direction.

Starting with *Laudato Si'*, an analysis from the perspective of pluralistic holism, would suggest an extension of the fundamental demands, prospectively including non-human entities. When Francis speaks about the social dimensions of climate change, it is primarily discussed with the impact on humankind in mind. Of course, this focus is based on the social mission of the Roman Catholic Church, but particularly after Francis' explanation of animals' worth, acknowledging that

each individual carries a part of God in it, the exclusion of animals from this discourse seems incomprehensible. Another example is the vague declaration, of how animals are supposed to be protected. On one hand, animals are a part of the network of creation, moving autonomously towards God, side by side with humankind, but on the other hand, using animals for medical trials is sanctioned and the practice of industrial livestock farming has not been mentioned once in the context of animal protection. Particularly the issue of animal protection and ethical husbandry discussed in an encyclical has the potential to reach large parts of the global catholic population. The same counts for active measures to protect both animal populations and unique natural biotopes. While Francis suggested an expansion of nature sanctuaries around the globe, he did not argue in favour of a general increase of protected wildlife zones, proportionate to the number of existing species on the planet. Instead, the discussions about land and resource distribution only take place around human communities. All in all, an extension of social and environmental measures to include other species, would complete *Laudato Si'* from the perspective of pluralistic holism.

Gorke's pluralistic holism profits from the considerable range of *Laudato Si'*'s scope, too. Following the fundamental idea of holistic approaches, even in an environmental setting, pluralistic holism offers a unidirectional perspective on the discourse. Considering the complexity of the ecological crisis and taking other global issues into consideration, the possibility of developing this ethical approach further seems reasonable. Clearly, directing undivided attention towards non-human entities and human-to-non-human relationships allows a more in-depth analysis, but social and economical factors should be a part of a holistic view. This is further underlined by Gorke's demand for his own ethical approach. In contrast to ecocentrism, pluralistic holism combines the focus on the individual, as well as the collective in one ethical approach, on humans and non-human entities alike, as a holistic perspective on the planet should include everything that holds value (in short everything). However, a debate of primarily human concerns does not take place. Admittedly, it is possible to extend Gorke's principles of action and his theoretical derivation to include humankind, but a dedicated passage about the issues of humankind would broaden pluralistic holism. Even within the discourse of environmental ethics, this demand is not new, referring to Patrick Curry, who theorised that a combination of anthropocentric and ecocentric ethics would be a good middle ground (Curry, 2011, p. 60). By maintaining a theoretical derivation independent of meta-ethics, but adopting the scope of integral ecology and its fundamental idea of a network of multiple global issues, pluralistic holism could be developed further.

This chapter illustrated, by specialising in environmental ethics, pluralistic holism ignores social issues and ethical challenges in a human-to-human relationship. Even if it is possible to ad-

dress these examples through an extension of the principles of action, the circumstance, that social dimensions of climate change only play a minor role in Gorke's approach show, that pluralistic holism is not a fully all-inclusive ethical position. Francis' position in *Laudato Si'* has the same difficulties. Here integral ecology includes networks of global issues, but the human-centred position of the ethical approach neglects visible problems concerning human-to-non-human relationships. A truly holistic ethical position would have to cover both anthropocentric and ecocentric ethics in a balanced dualism, and, in doing so, follow Curry's recommendation.

### 6.5.3 How Green is *Laudato Si'*?

After an in-depth analysis and discussion, addressing the core topics of *Laudato Si'* from a perspective of pluralistic holism, one of the fundamental questions has not been answered yet: How "green" is Francis' encyclical letter? In other words, where can *Laudato Si'* be located on the international scale of environmental ethics, ranging from anthropocentric light-green approaches to ecocentric or holistic positions in the dark-green spectrum?

The previous two sub-chapters, focusing on key differences between Gorke's pluralistic holism and Francis' encyclical, illustrated the versatility of *Laudato Si'*. Throughout its chapters, multiple approaches have been adopted, either part of light-green positions, or situated in a holistic argumentation. Starting with the general theoretical derivation of the ethical position, Francis argues, that there is a distinct difference between humankind and non-human life, which is grounded in the process of creation. As noted in chapter 5.2.1 *God, Creation and Mankind*, humans as the stewards of creation are placed higher in the hierarchy of living entities. This does not diminish the worth of non-human life, but, instead, highlights the special status of humankind. Following this attribution, Francis argues in various passages, that even though a more ecological approach to ethics is necessary to solve the current environmental crisis, biocentrism and other directions are insufficient, as they deny the special status of humankind. Additionally, the proposed environmental measures and arguments often are situated in a human-centred argumentation: Biodiversity should be protected because it contains potential resources for humankind, land distribution is first and foremost a discussion concerning humankind, and, at last, no direct criticism of industrial livestock farming or other forms of animal husbandry. On the other hand, Francis advocates throughout *Laudato Si'* that each animal has inherent value, as it carries a part of God in itself, autonomously moves towards the Creator, and has the potential to impart God's knowledge to humankind. The attribution of inherent value is then framed by the inclusion of integral ecology. As the name already suggests, integral ecology offers, at least partly, a holistic view of the current crisis by accepting the connection of

global issues on one hand, and life on earth as a coherent network of living entities on the other. However, in the discussion of inherent value and equality, integral ecology follows the direction of Roman Catholic thought.

In its entirety, *Laudato Si'* shows a combination of different ethical approaches, but, ultimately, remains in the light-green spectrum of environmental ethics. Its overall perspective on global issues from an anthropocentric perspective, the core of its worldview based on the biblical accounts of creation, and the question of equality concerning humankind and non-human life, outbalance the holistic aspects of integral ecology. But where does this lead in the context of this discussion? It shows that despite the extensive descriptions of the inherent value of non-human life, the holistic aspect of integral ecology and the overall ecological message of *Laudato Si'*, a rejection of a purely anthropocentric standpoint has not been possible within Francis' encyclical. However, the potential toxicity of excessive anthropocentrism has been addressed in various passages, even though the call from various authors in the field of environmental ethics to reject anthropocentrism has not been answered.

## 7. Conclusion

After an in-depth analysis of the dominant topics in Francis' encyclical *Laudato Si'* and an extensive discussion, it is now time to conclude this project. The analysis has been conducted with the help of the method content analysis, allowing a precise segmentation of the source material, following its essential statements and declarations: The Roman Catholic worldview, economic criticism and the social dimension of climate change, as well as recommendations for action.

The discussion then built upon this segmentation, reviewing and debating each position from the perspective of environmental ethics, particularly pluralistic holism. This process revealed, that Francis' encyclical and pluralistic holism share various positions, like the holistic perspective on reality, expressed through integral ecology, or the human purpose to care about the natural environment. However, the theoretical derivation of both approaches also demonstrated, that the Roman Catholic perspective and pluralistic holism are separated by fundamental differences, particularly in the origin of the distinct ethical approaches, or in their core perspective (human-centred versus holistic). Nevertheless, especially differences between the approaches offer great potential, namely, to extend the frames of *Laudato Si'* and pluralistic holism. A fundamental openness towards core topics or lines of arguments of other ethical approaches could potentially be beneficial for further development and the inclusion of multiple perspectives. A more detailed description of this has been given in chapter 6.5.

At last, this project concludes with the observation, that a true combination of anthropocentric and ecocentric approaches has not been accomplished yet. On the side of *Laudato Si'*, the inherent focus on a human-centred perspective on creation neglects the elementary needs of non-human life, while pluralistic holism, on the other side, does not offer the same depth concerning anthropocentric issues, like economic criticism and social injustices. This way neither of the two approaches becomes a universally ethical approach, focusing on both environmental and human issues. However, in the spirit of Francis' integral ecology and its demand for new interdisciplinary approaches, further development in the field of (environmental) ethics may create an approach that focuses on both key issues equally.



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## 9. Attachments

Category	Subcategories
<b>Environmental Crisis</b>	<ul style="list-style-type: none"> <li>• Problem Hot Spots</li> <li>• Global Issues</li> <li>• Negative Human Action</li> </ul>
<b>Worldview</b>	<ul style="list-style-type: none"> <li>• Understanding of the Universe (Creation)</li> <li>• Human Position in the Universe (Creation)</li> <li>• Process of Creation</li> <li>• Planet Earth</li> <li>• Animals and Non-Human Life</li> </ul>
<b>Economic Criticism</b>	<ul style="list-style-type: none"> <li>• Capitalism</li> <li>• Consumerism</li> <li>• Technocracy</li> <li>• Infinite Growth</li> <li>• Masanthropic Market</li> <li>• Political Criticism</li> <li>• Human Culture / Lifestyle</li> </ul>
<b>Social Dimension</b>	<ul style="list-style-type: none"> <li>• Urbanisation</li> <li>• Privatisation</li> <li>• Affect on the Poor</li> <li>• Global North/South</li> <li>• Solidarity</li> </ul>
<b>What Can We Do?</b>	<ul style="list-style-type: none"> <li>• Concrete Advice</li> <li>• Solutions</li> <li>• Activism</li> <li>• Concrete Projects</li> <li>• Individual / Collective Action</li> <li>• Environmental Education</li> <li>• Integral Ecology</li> </ul>