

GLOBAL PROBLEM, GLOBAL LANGUAGE?
An Ecolinguistic Analysis of Nationally Determined Contributions under the Paris Agreement

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**Thesis submitted to the University of Ottawa
in partial Fulfillment of the requirements for the
Master of Science in Environmental Sustainability**

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Abstract

Climate change is shaking societal foundations on the deepest level by confronting our relationship with nature, with each other, and even with ourselves. How we handle this situation will not only affect life in the present, but also the future of life. Focusing on the nationally determined contributions (NDCs), national documents outlining mitigation and adaptation efforts reported to the United Nations in accordance with the Paris Agreement of 2015, I have identified several linguistic patterns that I argue not only maintain the status quo but also reinforce the damaging human habits that have created the current crisis. Using discourse, appraisal, and metaphor analysis, I conclude that the prevalent worldview is one of separation. There is a division between nature and humans, where we do not take responsibility for damages inflicted on other lifeforms, as well as between nations and individuals. We also separate emotional from rational thoughts, preferring the latter and shunning the former while telling ourselves a story where humans are still the protagonist. All the while treating nature, along with the negative effects of climate change, as a business opportunity. While these destructive patterns might cast a dark shadow on the future, they also shed light on how we can use language to break away from the mould and create a new narrative through devices such as storytelling, listening, and by actively questioning our interactions with nature. Gradually reconstructing our relationship with the biosphere to become one based on care rather than careless consumption.

Keywords: Climate change, Communication, Equality, Emotion, Hubris, Morals

Acknowledgements

Writing this section is emotional because there was a time when I suffered from self-doubt so severe that it truly felt as if there was no longer any space for me in academia. The reason behind this belief is a story for another time, but the important thing is that I entered linguistics with immense trepidation. While drawn to the field through a combination of curiosity and necessity, my self-esteem was so low that I told myself that I would give it just one chance. If I fell, it was an indication that I did not belong, that it had been presumptuous even to try, and that I should simply walk away from all scholarly pursuits. The beauty of the journey that followed is that I did fall, but when it happened, I had people surrounding me who provided the support to keep me going. Marlene Johansson Falk at Umeå University in Sweden was the first one who reached out a hand. She heard me when I expressed fear and doubt, encouraging me while also providing the scaffolding I needed to start prospering. For this I am immensely grateful, and I now try to pay this kindness forward whenever I see someone struggling with insecurities but also to anyone who seems to have a curious, unbound, mind. I also want to extend my thanks to Martin Hultman at Chalmers University of Technology, Sweden. Reaching out after reading my bachelor thesis provided not only a course forward but also a boost of courage that I sorely lacked at the time. It truly highlighted the fact that being generous with one's time as well as compliments can mean everything to the person on the receiving end. A huge thanks also needs to go to my supervisor Nathan Young at University of Ottawa for taking a chance on someone sending an email out of the blue just as the world was entering the Anthropause. You showed me that a supervisor should neither feast on their students' insecurities nor tear them down for viewing the world through a slightly different lens. Rather you showed that grace, patience, and encouragement create a foundation on which it is possible for a student to construct their own space, eventually rising

above those obstacles that once seemed unsurmountable. Finally, thanks to all the things in life – regardless of how small or simple they might seem at a first glance – that keep me grounded, remind me to be grateful, and fill me with a sense of awe.

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Chapter 1

1. Introduction

While not a linear journey, the story of the human species has largely been one of success. Highly adaptive, our lateralized brain has helped set us apart from other animals by making it possible to make and manipulate tools as well as to convey and process complex messages (Yule, 2017: 6). These abilities have in turn made it possible for us to reproduce, expand, and conquer earth in a way unmatched by previous species. However, by consuming more than what is sustainable (e.g., Wackernagel et al., 2002), humanity has now exceeded the biosphere's regenerative capacity and created an increasing strain on the natural world. Vitally, environmental scientists have shown that our activities have changed the composition of atmospheric greenhouse-gases (Mann et al. 1998). As a result of the post-war global industrial system in particular, atmospheric carbon dioxide (CO₂) is now measured at levels not seen since the Pliocene (3 Ma; Lear et al., 2020). With elevated CO₂ concentrations the planet is gradually heating up, current emission levels expected to result in temperatures 3°C above pre-industrial levels by the end of the century (IPCC, 2021). While these changes might seem minor, they have wide-ranging environmental implications. Not only are the oceans' ability to absorb CO₂ declining as waters become warmer, but marine life is negatively affected by the increase in heat and accompanied drop in pH levels (e.g., Sabine & Feely, 2007). Simultaneously, life on land is threatened by heatwaves and droughts along with encroaching water as melting glaciers and ice caps contribute to global sea-level rise (Jacob et al., 2012). With these changes already causing irreversible biosphere damage as well as humanitarian tragedies (e.g., OCHA, n.d; Missirian & Schlenker, 2017; Gynther et al., 2016), the scientific community now warns that we are heading for a sixth mass extinction (e.g., Ceballos et al., 2020). With

mammals, birds, and invertebrates all declining at alarming rates, survival has thus come to depend on humanity's ability to act responsibly and engage in far-reaching social change. Chiefly, if we are to keep the planet from warming above the safe threshold of 2°C, we need to end our reliance on fossil fuels immediately. However, this is easier said than done as climate change, as a “wicked” or even “super wicked” problem, is not an issue that can be solved quickly and to everyone's satisfaction (Rittel & Webber, 1973; Levin et al., 2012). With all of humanity as stakeholders, each one of us being part of the problem to some extent, value differences and self-interest become roadblocks to change. With limited visible action, the sunshiny optimism of the postwar years has thus started to fade, gradually replaced with negative feelings such as anger and fear (e.g., Rincon, 2019). In the words of Marshall Island poet Kathy Jetñil-Kijiner (2011):

...you tell them about the water
tell them how you have seen it rising
flooding across our cemeteries
gushing over our seawalls
and crashing against our homes
tell them we are afraid

1.1 Efforts to Address Climate Change

As the climate crisis has deepened, the issue has moved from the fringes of individual as well as social consciousness to take an increasingly central role in societies across the globe. We see this expressed not only in intensified scholarly attention but also in youth engagement as well as more radical activism (e.g., Fridays for Future, 2022; Aleem, 2022). Although an enormously complex

issue, climate change can be seen as a social problem revolving around key questions involving rights and duties. Who has the right to wellbeing? Just a subset of the current population or should these rights be extended spatially and temporally to include everything that is alive now as well as in the future? In addition, if these environmental rights are to be fully acknowledged, who has the duty to satisfy these rights?

Traditionally, governments are the ones who make rights possible (Lakoff, 2016: 58) and governments around the world have indeed started to respond to calls for action. In fact, long aware of the threat that climate change poses to wellbeing, the first world conference on the environment was held 50 years ago, the first paragraph of the 1972 Stockholm Declaration reading (UN, 1972):

Man is both creature and moulder of his environment, which gives him physical sustenance and affords him the opportunity for intellectual, moral, social and spiritual growth. In the long and tortuous evolution of the human race on this planet a stage has been reached when, through the rapid acceleration of science and technology, man has acquired the power to transform his environment in countless ways and on an unprecedented scale. Both aspects of man's environment, the natural and the man-made, are essential to his well-being and to the enjoyment of basic human rights – even the right to life itself.

Remarkable in how little has changed since then, a string of conferences has followed in the last half-century with various levels of success. From a clear North-South division seen at the Rio Convention (e.g., O'Brien & Williams, 2013), a “free-for-all of political frustration, outrage and disagreement” at the Copenhagen Accord in 2009 (Figueres & Rivett-Carnac, 2020: 48), to the

2015 Paris Agreement (PA) which was hailed as a landmark moment in multilateral negotiations. Set in a multipolar world, acknowledging the primacy of domestic politics, the PA – which provides the material for this thesis – is unique in that it represents the first pledge to address climate change signed by all nations (Falkner, 2016). Allowing countries to set their own climate goals in a bottom-up approach, the agreement aims to “...strengthen the global response to the threat of climate change...”. Furthermore, the PA acknowledges that:

...climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples...as well as gender equality, empowerment of women and intergenerational equity.

Wellbeing thus defined as extending into the future, the PA is built around progressive action plans known as “nationally determined contributions” (NDCs). With the United Nations describing these plans as the “heart of the Paris Agreement” (UNFCCC, n.d.), the texts are meant to “embody” each participating nation’s efforts to reduce emissions so to keep warming well below 2°C, while also enhancing adaptation plans and actions. While it is up to each party to design their own contribution, the PA stipulates that all parties must “...provide the information necessary for clarity, transparency and understanding...” (article 4(8)). Furthermore, nations are expected to provide long-terms goals, while also updating their individual NDCs every five years (article 4(9)). Importantly, the revised pledges are expected to become progressively ambitious. However, in the years following Paris, maintaining this momentum of increasingly aspiring pledges has proven

difficult. In the words of UK cabinet minister, and President of the Cop 26 climate summit, Alok Sharma (2022):

Those of us who came to Egypt to keep 1.5C alive, and to respect what every single one of us agreed to in Glasgow, have had to fight relentlessly to hold the line. We have had to battle to build on one of the key achievements of Glasgow, the call on parties to revisit and strengthen their [national plans on emissions].

As this quote indicates, a common goal does not necessarily equate a common ideology as moral lines are neither clear cut nor universal. Hence, with multilateral agreements engaging different value systems, climate change talks can easily morph into competitive situations of “us versus them” or what we can think of as a moral war among different interest groups. A conflict rooted in how we view the world and manifested in the stories we tell.

1.2 Research Aim

With climate change and a mass extinction looming, understanding our view of the world and our place in it has arguably never been more important than now. What are the stories upon which we have built our lives and what stories are being left untold? Given the importance of the NDCs to meeting the Paris temperature goals, each narrative setting an individual course for their respective country, I will use critical ecolinguistics to explore the main linguistics patterns in these texts. Specifically, I aim to identify and analyse narratives that can be seen as positively or negatively affecting planetary wellbeing. I will then use this information to discuss a set of alternative stories in Chapter 6, the intent being to provide an outline of how we can change our language to become more beneficial to all life. Beginning this process, I will consider the following research question:

1. How is the nature/human relationship portrayed in the NDCs and how does this relate to issues such as responsibility, collaboration, and equity?
2. As climate change has become an emotionally loaded topic, what role do emotions play in the NDCs?
3. How is climate change conceptualised, and in extension moralised, in the NDCs?

Of course, just as the NDCs are ideological representations, so is this thesis and my analysis will necessarily involve a level of judgement. Being cognisant and transparent of this fact, the next section will provide a positionality statement along with an outline of my personal ethical framework, or what Stibbe (2021) refers to as a researchers “ecosophy”.

1.3 Positionality and Ecosophy

Scientists, just as everyone else, are dynamic human beings with multiple intersecting identities (Bourke, 2014). I am of course no exception, my life being its own tapestry of stories – or mental models – that shape how I think and act. I am an immigrant and a mother who believes in kindness, deep-rooted optimism, and nonviolent activism. I find happiness and fulfillment in growing food, feeling the sun-warm soil between my fingers, and caring for animals – especially the ones who are misunderstood or seen as less “valuable”. Simultaneously, living a privileged life in Canada, I struggle with the swirling fear that accompanies thoughts of climate change and with the heavy guilt that comes from living a life far removed from what would pass as sustainable. Having been trained in a discipline shaped by positivist principles (geology), I am also conscious of my partiality to “effectiveness” as well as my predilection to Western science and its habit of using language that George Orwell (1946) rightly criticized for its “...slovenliness and vagueness”. At the same time, that training has also helped me gain a more long-term perspective when it comes

to time; highlighting that life is frail and just as much about dying as it is about living. Combined, these and other aspects of my life affect not only how I view the world but also how I would like to see it evolve. I am not an unbiased research instrument, an AI chatbot, but a human full of heart and hope. As such, there is no way for me to construct a text devoid of privilege or unmarked by values.

Recognising these same issues, Stibbe (2021: 11) argues that ecolinguists must recognise the ethical underpinnings shaping their feelings and situate their work in an open ethical framework. These ecosophies, a term first used by Naess (1995), describe a researcher's philosophical position along with an outline of how to reach their desired vision. Following this line of thought, I will share my own ecosophy to help paint a more comprehensive picture of my values. My hope is that this transparency will help explain why I consider certain environmental narratives to be more problematic than others. In this context it is also important to acknowledge that while the thesis format makes it possible to expand my ecosophy to a higher degree than permitted in an article, my position is neither complete nor static. Furthermore, many of the concepts I touch upon are related. From my perspective, this can be viewed as an allegory of this world, its constant evolution as well as its interconnectedness perhaps being two of its most distinctive features.

Ecosophy in one word: Leubh

Merging *Love* with *Care*, the Proto-Indo European Leubh, meaning “to love, like, care for” (UTexas LRC, n.d.), constitutes the root of my ecosophy. Chosen because it unifies the two feelings I most strongly associate with nature; the word symbolises the work needed to foster a mindset of love and appreciation for the natural world. From these feelings we can learn to see the world from another perspective, also gaining the empathy needed to make ethical decisions that

ensure the health and wellbeing of the planet. For Leubh to gain ideological strength, I believe that we need to follow a model acknowledging the following principles:

- **All life has value:** Look beyond the human sphere and the capitalist monetary frame. Learn to acknowledge and appreciate the role of other living organisms beyond the value they provide in terms of meat, fur, and firewood.
- **Accept responsibility:** Acknowledging fault is not easy as it undermines our self-image. However, for positive change to occur it is important to accept guilt and stop ignoring or minimizing the role we ourselves play in climate change.
- **Acknowledge interdependency:** The climate crisis requires that we move away from the idea of humans and nations as independent. Only by doing so can we move towards equity.
- **Allow emotions:** To inspire people to care for the natural world we must work towards normalising emotions triggered by environmental destruction while also making room for positive earth emotions.
- **Cease the competition:** There is no way to “win” climate change, only ways to lose more by not collaborating on these issues. Stop thinking about life as a war or a race with opponents and search for conceptualisations built on cooperation.
- **Just enough is good enough:** Abandon stories based on endless growth, scarcity, and survival of the fittest. Take what you need and then work to enrich the world rather than yourself.

Chapter 2

2. Background

As seen in the previous chapter, climate change as a topic has gained increasing scholarly interest. With evidence in support of climate change mounting, and our awareness of its implications rising, the scientific debate has gradually come to expand from its core of biochemistry and climate models. No longer bound solely to the domain of the natural sciences, climate change has evolved into an interdisciplinary issue with new parts of the scientific community starting to ask questions relating to issues such as well-being, risk perception, and the barriers preventing societal change. As part of this process, fields such as psychology, gender studies, and linguistics have joined the discussion, also engaging sub-disciplines such as ecopsychology, ecofeminism, and ecolinguistics. Scholarly branches joined in their view of humans as ecologically embedded, our thoughts being not separate from but rather entwined with nature (Kahn & Hasbach, 2012; Mies & Shiva, 2014; Stibbe, 2021).

For ecolinguistics to have developed to the discipline it is today, it first had to step away from the Chomskyan perspective of language as separate from cognition (Chomsky, 1965). Important contributions to this process were made by scholars such as Einar Haugen, who in his classic book *The Ecology of Language* first defined language ecology as the “...study of interaction between any given language and its environment” (1972: 57). Linking language to anthropocentrism, environmental destruction, and the survival of ecosystems, Michael Halliday’s work was also instrumental in laying the foundation for critical ecolinguistics (e.g., Halliday, 2001). As globalisation and the climate crisis have grown in parallel, the field of ecolinguistics has also

evolved to better mirror these issues. As such, language is now viewed as reflecting not only the environment in which it is spoken but also social, political, and historical structures. Steffensen and Fill (2013) refers to language in this context as the “sociocultural ecology” of language, involving the influence of institutions as well as economic practices. Over time, the field of ecolinguistics has thus grown to question not only human oppression but also the role we as humans play in relation to injustices experienced by other living beings and the damages humans inflict on the planet at large.

2.1 Ecolinguistic Contributions

In terms of its contributions to climate change research, ecolinguistics has continuously gained ground since the early work of Halliday. A Google Ngram search for “ecolinguistics” shows that while the word only started to be used more frequently in the last 20 years its usage has significantly increased over the last ten years. This image is further supported by conducting a time restricted search providing “ecolinguistics” as a field in the University of Ottawa database *Omni*, revealing a steady increase in scholarly interest over the last two decades (Fig. 1):

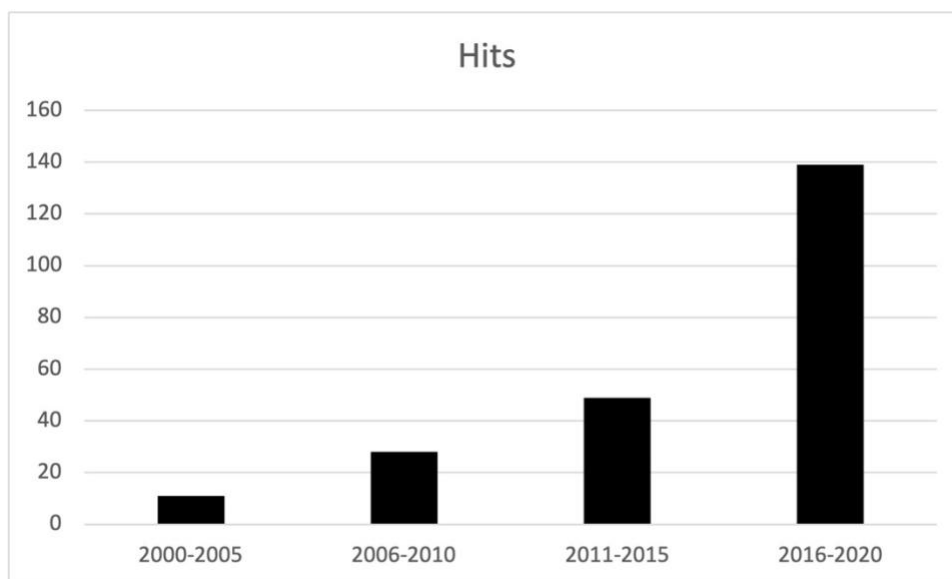


Figure 1. Hits for “ecolinguistics” in the uOttawa database Omni. A search for the time-period January 2020 to June 2023 resulted in an additional 120 hits.

With an increasing amount of research being conducted and published, it is important to acknowledge that ecolinguistic researchers still focus on a wide range of issues. While some will focus on issues such as language extinction (e.g., Nettle & Romain, 2000), the type of analysis I find most useful in relation to the NDCs is the identification of features that convey messages that either support and uphold environmental destruction, maintain the status quo, or actively help protect nature and humans alike. An analysis of ideology, these linguistic patterns are known as destructive, ambiguous, and beneficial discourses (Stibbe, 2021: 22-26). In the next section, I will provide a brief review of the ecolinguistic studies conducted within this space since the PA was adopted in 2015.

2.1.1 Destructive discourses

Stibbe (2021) identifies destructive discourses as those narratives that promote economic interests, downplay the importance of animals and nature, and encourage consumption. These are the stories that help maintain the separation between nature and humans rather than emphasising our codependence. Examples seen in previous ecolinguistic studies include the work of Ain et al. (2023), describing how multinational companies frequently use language to erase animal agents in their campaigns. Destructive narratives also tend to describe animals in abstract terms, cows as an example becoming “milk producers”. Trampe (2018: 325) refers to this tendency to frame animals more as products than living entities “euphemisation”, a strategy which also helps obscure the often-cruel treatment inflicted by humans on those animals that we keep or trap for profit. Analysing the language of 35 Spanish IBEX companies, Fernández-Vázquez and Sancho-

Rodríguez (2020) further identified destructive elements such as presenting nature as a material resource while also downplaying the agency of consumers. In addition, Fernández-Vázquez (2021) found that economic interests were protected by promoting technical solutions, effectively telling a story where it is possible to engineer ourselves out of the climate crisis simply by investing in more technology. Combined, these discourses are characterised by an anthropocentric outlook where financial interests are not only preferentially treated, but in many cases the only lens applied to life in all its forms. Viewing the world and its multitude of diverse inhabitants through a strictly capitalist perspective clearly goes against the ecosophy of this thesis as it does not recognise the importance and innate value of all life. Rather, it propagates the idea of human dominance, with nature being of secondary importance unless it can be used to fulfill financial goals. As such, these are stories that actively need to be counteracted if we are to move towards a world that is safe and just for everyone.

2.1.2 Ambiguous discourses

Not as overtly destructive as the ones just covered, ambiguous discourses are identified as those stories that at a first glance seem to convey a message of change. In such narratives, climate change is often acknowledged to be an issue and there will be linguistic elements in support of reduced emissions. However, at a closer read, these texts are human centered; supporting the status quo of exponential growth, neither providing the emotion nor emphasis needed to spur genuine change (Stibbe, 2021: 25). This sort of ambivalence is often seen in what Stibbe calls “...mainstream ‘green’ discourses...” and the ecolinguistic literature is ripe with examples. A study by Drury et al. (2022), found that speakers at the 2020 UN Summit frequently used language to blur the lines between nature and business while simultaneously using grammar to obscure the human role in

environmental degradation. Similarly, Wang et al. (2019), found that while the UN Secretary-General, António Guterres's speech at the 2018 climate summit linked natural destruction to human activities the detrimental aspects of climate change were still limited to humans, erasing all other animals from the narrative. Notably, Kanerva and Krizsán (2021) also revealed ambiguous language in the IPCC's (Intergovernmental Panel on Climate Change) Fifth Assessment Report. Not only were economic goals presented as more important than environmental degradation, but the language used in the report was seen as beneficial to climate sceptics while simultaneously offering a way for policy makers to avoid taking responsibility for the climate crisis. Importantly, this sort of ambivalence is not restricted to political or scientific discourses but permeates all levels of our society. As an example, Poole and Spangler (2020) showed that the stories perpetuated in the digital simulation game *Animal Crossing: New Leaf* (Nintendo, 2013) promoted unsustainable habits despite being framed as an eco-friendly narrative. Like destructive discourses, these stories fail to align with the ecosophy of this thesis, in part because of their limited focus on humans but also because this sort of language makes it possible to avoid responsibility. However, building on the positive elements that do exist, it is still possible to use these stories to construct something more in line with the changes needed to move towards symbiosis.

2.1.3 Beneficial discourses

Not all stories have to be reinvented or rewritten to achieve interconnectedness; some already exist that show love and appreciation for the natural world as well as depicting our place in it more accurately. Although this is a field that needs more attention, some ecolinguistic studies have focused on bringing attention to those stories where animals are included, where a connection between nature and humans exist, and where environmental protection is framed as a guiding

principle. Few and far between in the society we have constructed, we still find recent examples in discourses focusing on for example veganism, where animals are being presented as sentient beings with feelings (Zhdanova et al., 2021). Kordjazi et al. (2017) also considered the importance of emotions in writings dealing with nature, the moral aspects presented in lyrical nature writing being seen as creating a sense of sympathy along with humility among its readers. Of course, there are also various cultures that better represent a more holistic view of the world; Armon (2019: 246) stating that ecolinguistics can learn from Indigenous and traditional communities who have never abandoned their sustainable lifestyles. However, as pointed out by Stibbe (2021: 29), in these circumstances it is the responsibility of the ecolinguistic researcher to focus on the linguistic elements to avoid idealising stories while also being conscious not to appropriate knowledge.

2.2 Identifying the Research Gap

From the previous sections, the ecolinguistic community evidently engages with numerous facets of the ever-evolving nature/human relationship. While some of these studies have dealt specifically with the PA in the form of analyses of individual speeches (e.g., Mansyur et al., 2021), no ecolinguistic work has to my knowledge been done in relation to the language used in the different NDCs. This does not mean that the NDCs have not been the object of scientific enquiry, but the focus has largely been on gauging the progress of emissions reductions (e.g., Iyer et al., 2017; Liu & Raftery, 2021). Less attention has been given to linguistic aspects, and the few studies that exist have focused either on distinct geographical areas (e.g., Zhu & Shang, 2023) or language usage in relation to specific groups such as climate scientists (Pascoe et al., 2019). In terms of a larger discourse analysis, Jernnäs and Linnér (2019) have provided the only breakdown of the different storylines characterising the NDCs to date. By analysing the NDCs of 164 parties submitted prior

to December 2017, the authors were able to identify eight policy discourses. Of these stories, “liberal environmentalism”, or the idea of economic growth being essential to environmental protection, was found to be the dominant narrative. Following this storyline, economic growth needs to continue, climate change merely forcing adjustments to meet mitigation targets. While these results indicate that the NDCs analysed as part of this thesis will fall into the category of ambiguous discourses, this still does not answer the questions outlined in the previous section. Primarily, the analyses involving the NDCs to date have all had a distinct human focus; by not questioning the role of animals, or the human view of our place in the world, many of the issues that have created and supported climate change are still being backgrounded. These are the stories which I hope to bring to surface in this thesis; exposing the myths that have created the current crisis, then using this information to create a map towards equitable environmental wellbeing.

Chapter 3

3. Ecolinguistic Theory

Approaching the NDCs from an ecolinguistic standpoint is not entirely straightforward. As seen in the previous chapter, ecolinguistics is a multifaceted perspective that has emerged within a rapidly evolving crisis. As such, the definition of the term has shifted not only with the mental models of individual researchers but also with time. Consequently, it should come as no surprise that the field currently lacks the theoretical rigour and methodological clarity found in more established perspectives or those not focusing on climate change. More to the point, ecolinguistics does not provide us with a unified theory; or as eloquently expressed by Steffensen and Fill (2013):

...the field is so vast and various that one can doubt there is a unified domain at all. If one adopts the metaphor that SCIENTIFIC DISCIPLINES ARE TERRITORIES, ecolinguistics appears more like an archipelago than a continent. Hitherto, it has developed through insulated scientific programs that offer different views on both the language ecology and the theories and methods that are most appropriate for study.

While one could view this a hopeless fault, desperately jumping ship in search of more solid ground, I share Bhaskar's (2010: 20) position that theoretical pluralism is essential to any field attempting to address climate change. Accepting theoretical ambiguity, I will thus adopt what van Leeuwen (2005: 8) refers to as an "integrationist" perspective rather than a monodisciplinary approach. However, it is important to stress that this perspective does not justify ignoring

theorization. Hence, the following sections will explore the contours of a theoretical framework able to accommodate critical ecolinguistics.

3.1 Building a Theoretical Framework

Prior to proceeding, it must be stated that my intent is not to produce a full-fledged framework. To do so, as detailed by Yosef Jabareen (2009), would be well beyond the scope of this thesis as it would involve steps such as including the feedback from other practitioners. As such, I prefer to think about the following text more as a sketch inspired by Jabareen's work than a detailed chart. My hope is that the reader will view it as an outline of the ecolinguistic archipelago to which it is both possible and desirable to add as the field evolves.

Following the first phase of Jabareen's approach, a few key principles can be identified by reviewing the major directions of ecolinguistics. First, unlike traditional linguistics which is often presented as a neutral science, ecolinguists seem to agree that language is not an absolute truth (Steffensen & Fill, 2013; Finke, 2014). Second, just as everything else, science is not based on facts and rational arguments alone, but feelings, experiences, and prejudices are also important components of meaning making (Stibbe, 2021: 78). Third, language shapes reality and there is a relationship between language and how we treat the natural world (LeVasseur, 2015). Importantly, while those with power can obscure environmental damage, it is the moral duty of ecolinguists to "...untwist the knot of distortion that is contributing to the environmental crisis (Alexander, 2018).

With critical discourse analysis (CDA) also considered a prerequisite of ecolinguistic analysis (ibid.), researchers can use CDA as a "...semiotic point of entry..." (Fairclough, 2013: 19) to organize these concepts in the following schema (Fig. 2):

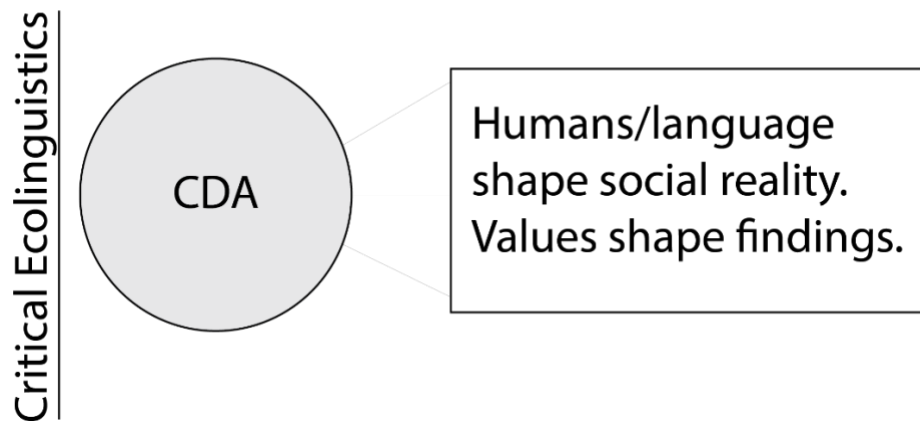


Figure 2. Defining concepts within critical ecolinguistics. As CDA is considered a prerequisite, it could be conceptualized as an entrance point, as depicted here, or the foundation for further analysis.

From here, it is possible to make a couple of ontological and epistemological deductions: 1) positivist and post-positivist perspectives are refuted, 2) the world is seen as socially and discursively constructed, and 3) reality is influenced by power. While I have not always been able to articulate these viewpoints even to myself, they have long functioned as personal guidelines; the moral component previously mentioned being the driving power behind my need to continue to ask questions. As such, these deductions reflect what Collins and Stockton (2018) refer to as my “...deepest values...”. Trying to connect these concepts to specific theories and methods, we can perhaps best begin to unravel the framework’s theoretical threads by turning to a section of a map of discourse methods and theories presented by Titscher et al (2000: 50; Fig. 3):

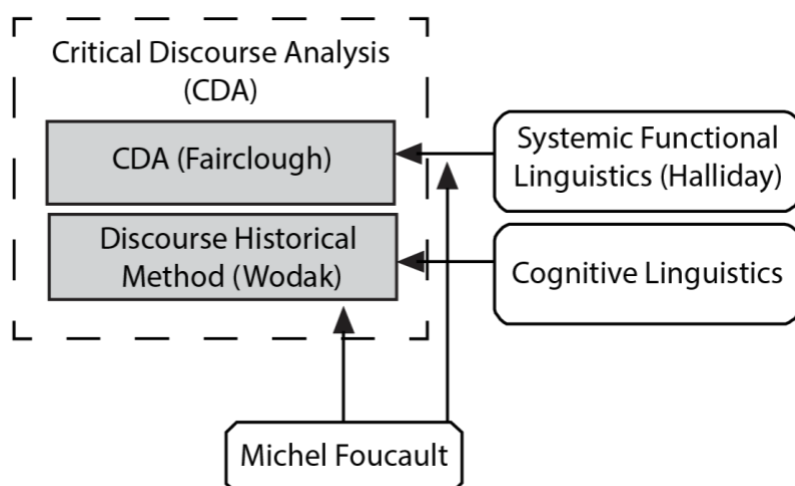


Figure 3. Modified excerpt from Titscher's (2000) map of theories and methods (methods of text analysis are shown in grey while the white shapes symbolise the social and linguistic theories being used).

Following this outline, we will dive deeper into the conceptual waters of ecolinguistics by first looking closer at CDA before moving on to Foucault's views on power and discourse, followed by Halliday's Systemic Functional Linguistics (SFL). In terms of the vast field of cognitive linguistics, the focus will be limited to that of conceptual metaphors.

3.1.1 Critical discourse analysis

As previously mentioned, CDA is seen as a necessary component of ecolinguistic research. While power and ideology are both considered central aspects of CDA, there are still many influential voices and perspectives within CDA to choose from (see for example van Dijk, 1993; van Leeuwen, 2008; and Wodak, 2001). For this thesis, I have selected the approach defined by Norman Fairclough for three main reasons. First, much of Fairclough's research focuses on his view of contemporary capitalism as a potential threat to human wellbeing (e.g., 2013: 11). This

belief aligns with the ecolinguistic view of climate change as a crisis of neo-liberal capitalism from which humanity cannot recover if we continue to operate within the same system. Second, Fairclough's work builds on Foucault's notion of orders of discourse, where linguistic structures are viewed as reflecting the changing nature of power as well as society. Third, I consider Fairclough's thoughts on interdisciplinarity, or transdisciplinarity, to be what Finke (2018) refers to as pioneering. Finke, highly critical of compartmentalised knowledge, condemns Baconian views on science and calls for a new scientific turn that strives for "...knowledge that extends beyond disciplinary boundaries..." (p. 406). In my view, Fairclough exemplifies this idea by embracing the lack of an all-encompassing theory. Building on Chouliaraki and Fairclough's (2010) description of CDA as a type of critical inquiry linking theory with methodology, I will explain the methodological facets of this thesis in Chapter 4. However, prior to that I will begin by outlining its critical and theoretical aspects. First, critique in general can be defined as analyses grounded in values that in turn shapes views on what can be done to right social wrongs. In terms of ecolinguistics, this element is noticeable in for example the need for an ecosophy. Furthermore, by placing texts in a social context and viewing no utterance as neutral, CDA can be used to explore texts as well as the relations that shape them and our view of the world. As such, CDA challenges inequalities by highlighting the role language plays in maintaining them while also suggesting ways in which social issues can be mitigated. This aligns with ecolinguistics, where stories are seen as tools by which we can shift our collective view of the world towards a state where our instinct becomes to protect rather than to prospect.

3.1.2 Foucault – power and discourse

Transitioning to Foucault and power, we need to begin by establishing that we are not dealing with the folk theory of power where stronger groups simply dominate weaker ones. Instead, power permeates our societies as well as our individual lives, each one of us contributing to and enforcing these structures. As part of this definition, language plays an important role; to maintain power, discourse is used to uphold legitimacy, making power and discourse different but not discrete entities (Fairclough, 2013: 4). Thoughts echoed by Foucault (1984: 10-11):

I make the assumption that the production of discourse is at once controlled, selected, organized and canalized in every society – and that this is done by way of certain procedures whose task it is to subdue the powers and dangers of discourse, to evade its heavy and threatening materiality.

Simply speaking, given that words hold power, it makes sense for those currently powerful to want to control language. However, while this pattern of domination has been brutally repeated throughout history (e.g., Nettle & Romaine, 2002), only the more egregious examples tend to trigger rejection and protests. Instead, linguistic domination often goes unnoticed, most of us never realising that power does not only manifest itself through decision-making but also shapes our thoughts through the stream of language permeating our lives (Lukes, 1975). Omnipresent, it is impossible to guard oneself completely from this discursive flood-wave, but it is at least feasible to brace oneself by trying to be conscious of its power and to ask as Foucault did (1988: 107), “How is it that, in our societies, ‘the truth’ has been given this value...”. One answer, of course, is that education – and the search for knowledge and truth – has long been a privilege of those agents who tends to hold power. Power over knowledge, power over language, power over people; power

being not only systemic but also characteristic of society. In this light, the long-cherished Enlightenment ideals can be viewed as knowledge that is not only partial but also local as well as discriminatory (e.g., Young, 1997: 63). As such, anyone engaging in Western scholarly pursuits needs to question the authority given to Western knowledge as well as the stories that we ourselves maintain and reproduce. Do our proclamations of truth have meaning beyond our sphere of influence, regardless of how large that sphere has grown? Just as important, if the truths by which we live our lives are damaging to the world we depend on for survival, is it time to question and possibly reject them? From an ecolinguistic viewpoint the answer is unequivocally “Yes!”. Building on Halliday’s (1990) words, “Language does not reflect reality, rather it actively creates reality”, we can expose the damaging influence of capitalism while simultaneously using language to shape a new sense of “truth”.

3.1.3 Systemic functional linguistics

Searching for an ideological base from which critical work can be conducted, many CDA practitioners have turned to systemic functional linguistics (SFL) (O’Grady, 2019). This practice makes sense for two main reasons. First, the development of ecolinguistics is often credited to Michael Halliday, the father of SFL. Second, from an ecolinguistic perspective, actively challenging stories based on endless growth, Halliday’s critique of ever-increasing productivity is highly relevant. Exploring SFL as a theoretical foundation, the Halliday tradition considers functionality as intrinsic to language. Furthermore, language is seen as a meaning building system that is constantly evolving (Webster, 2019: 45). In the words of Halliday (2013: 194-195):

...the usual way we talk about language is by saying that language “expresses”
meaning, as if the meanings were already there – already existing...and waiting

for language to transpose them into sound or some kind of visual symbols. But meaning is brought about by language...

As the quote shows, ecolinguistics and SFL both view language not only as something that shapes meaning but also our perception of reality. However, while this power is reflected in the way we talk it remains largely unconscious. Relating these concepts to that of science and the idea of truth, we can perhaps better understand how some of the more destructive elements of science have been able to take hold in our societies. As expressed by Halliday and Martin (1993: 20):

In adapting natural languages to the construction of experimental science, the creators of scientific discourse developed powerful new forms of wording; and these have construed a reality of a particular kind – one that is fixed and determinate... – without realising... [that] the language they learnt at their mother's knees is much more in harmony with their deepest theoretical perceptions.

Not temporally specific, it is easy to see how this quote could be extended through time. As such, it aptly captures one of the key distinctive features of SFL: the historical context of linguistics (Webster, 2019: 49). Connected to a Marxist view of language, Halliday's approach to language suggests that one should compare language to what it would have looked like in a non-Marxist society. Following this approach, ecolinguistic researchers need to identify what forms of language are considered higher value while also being mindful of the fact that the results will be influenced by personal ideology.

3.1.4 Cognitive linguistics and conceptual metaphors

Finally, let us move on to cognitive linguistics. Focusing predominantly on semantics, along with syntax, morphology, phonology, and historical linguistics (Croft & Cruse, 2004: 1), cognitive linguistics also constitutes a broad theoretical as well as methodological perspective (Evans, 2012). As such, researchers are left choosing from numerous approaches that all deal with knowledge representation and meaning construction. In relation to ecolinguistics and CDA, the cognitive dimension known as conceptual metaphors constitutes an ideal partner as they deal with both power and persuasion. In fact, the centrality of metaphors to human thinking has gained enough attention to produce two different theories over the course of the last 40 years: conceptual metaphor theory (CMT; Lakoff and Johnson, 1980, 1999) and conceptual blending theory (BT; Fauconnier & Turner, 2002). In relation to this thesis, I favour CMT as it has played a central role in shaping modern ecolinguistics. Notably, the intertextual element in Stibbe's *Language, Ecology and the Stories We Live By* pays clear homage to the importance of Lakoff and Johnson's contribution to the field.

Turning to CMT and the research that has evolved since Lakoff and Johnson first published *Metaphors We Live By* (1980), the central idea revolves around metaphors as cognitive structures transferring meaning. More specifically, a concrete source domain is used to “map” meaning to that of an abstract target domain (Charteris-Black, 2004: 13). This means that we tend to think about abstract or complex concepts such as love or illnesses in ways that are simpler and more familiar to us (e.g., journeys). In those cases where the source domain is experientially closer to the target domain, we also talk about what Grady refers to as “primary metaphors” (1997: 84). As an example, the comfort experienced by being held by our parents, simultaneously perceiving their body heat, creates the primary metaphor known as AFFECTION IS WARMTH. Of course, this

sort of simplification foregrounds some elements while downplaying others, creating a persuasive element to metaphors often used by politicians to take advantage of conscious as well as unconscious associations (Semino, 2008: 86). In other words, metaphors are more than mere mirrors of individual thought, they also have the power to influence and reinforce the way others view the world. Among the more prominent of these world views, we find what Lakoff (2008: 24) refers to as the “rescue narrative”. Simply speaking, this narrative frame builds on the idea of a villain causing harm to a helpless victim that then needs to be rescued by a hero who punishes the villain in the process. This moral narrative is powerful not only in that it combines dramatic and emotional structures but also in that it has become normalised to the point where it is perceived as a fact (Semino, 2008:33). Breaking away from these sorts of ideological structures is difficult as it requires either the construction of new metaphors or the conscious use of alternative metaphors selected with the intent to tap into the same target domain.

3.2 Connecting the Islands

At this point, continuously building on Steffensen and Fill’s archipelago metaphor, I hope the reader recognises not only a few common elements running through ecolinguistics but also the bridges connecting this discipline to various other fields. Islands beyond islands, all with the capacity to work together rather than closing themselves off to other ideas and approaches. Or as Fill writes (2018: 3), “...several ecolinguists have begun to see ecolinguistics no longer as a discipline within the study of language, but as a unified ecological worldview, in which harmony between humans and nature are expressed”. Perhaps then, the stability we are seeking is not so much situated in ecolinguistics itself but rather in the connections to other fields. Moving beyond the idea of sharply delineated fields of knowledge, steadily steering into the transdisciplinary

realm. I have tried to reflect this position in this work. As such, and as we will see in Chapter 4, I have branched out from Titscher's map by drawing on various aspects from the theoretical approaches outlined above. While this modified framework was constructed to suit my specific research questions they should not be viewed as prescriptive.

Chapter 4

4. Methodology

With ecolinguistics being transdisciplinary, and traditional methods and analyses being unsuitable for wicked problems (Camillus, 2008), it comes as little of a surprise that ecolinguists tend to apply a variety of methods in their research. LaVasseur (2015) lists corpus analysis, conceptual metaphor theory, sociolinguistics, framing, semiotics, and functional linguistics among others. Similarly, adhering to Stibbe's approach (2021), the researcher would have to consider the linguistic manifestations of nine different cognitive structures. For this thesis, I will follow Chouliaraki and Fairclough's (2010) call for more porous methodological protocols which allow researchers to bring in what social elements they find relevant. Hence, building on the research questions outlined in Chapter 1 along with the theoretical perspectives presented in Chapter 3, the NDCs will be analysed for three types of stories: ideology, evaluation, and metaphor. Adapting Titscher's map (2000) to represent these structures (Fig. 4), the ideological component will be analysed using CDA. Martin and White's Appraisal Analysis (2005) will be used for the evaluation component and Critical Metaphor Analysis (CMA), as described by Charteris-Black (2004) and the Pragglejaz Group (2007), will be used for the conceptual metaphor theory.

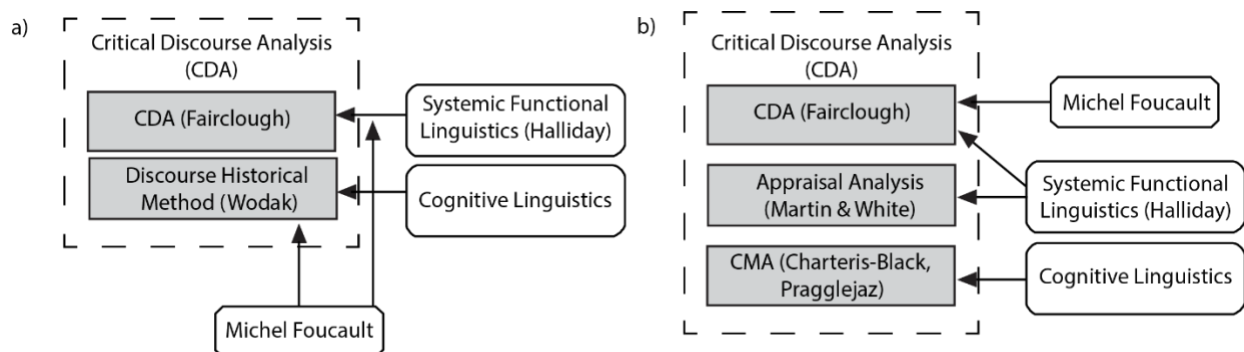


Figure 4. The theoretical framework as outlined in the previous section with methods in grey (a). The framework modified to showcase the three methods selected for this thesis (b).

Beginning by presenting the material used for the subsequent analysis, this chapter will then continue to provide more detailed descriptions in relation to the methods outlined in Fig. 4b.

4.1 Data Selection

Following the ratification of the PA, 194 NDCs have been submitted. These documents are available at the United Nations NDC registry (2022), the collection constituting a unique domain specific corpus in the realm of climate discourse. While it would be valuable to analyse all NDCs, the following steps were taken to create a more manageable data set for the present scope:

1. All NDCs submitted in languages other than English were removed
2. All NDCs submitted in their first version and/or submitted prior to 2020 were removed
3. The standardised NDC submitted by all parties of the European Union was removed

However, despite these constraints, the initial data set still came to 89 NDCs. To limit the data set further, while also capturing the disproportionate impact of climate change, a final set of ten countries were selected based on two additional criteria. First, countries were chosen based on their ranking in the Notre Dame-Global Adaptation Index (ND-GAIN; Chen et al., 2015). A free and open-source index, ND-GAIN ranks countries based on their current vulnerability to climate impacts as well as their adaptation readiness. Based on ND-GAIN ranks, two groups of countries were identified: those with the highest ability to meet the challenges associated with climate change and those with the lowest ability. Second, countries were selected to present as large a

spatial distribution as possible. This resulted in a final data set of five high-ranking countries and five low-ranking countries distributed over ten regions (Fig. 5):

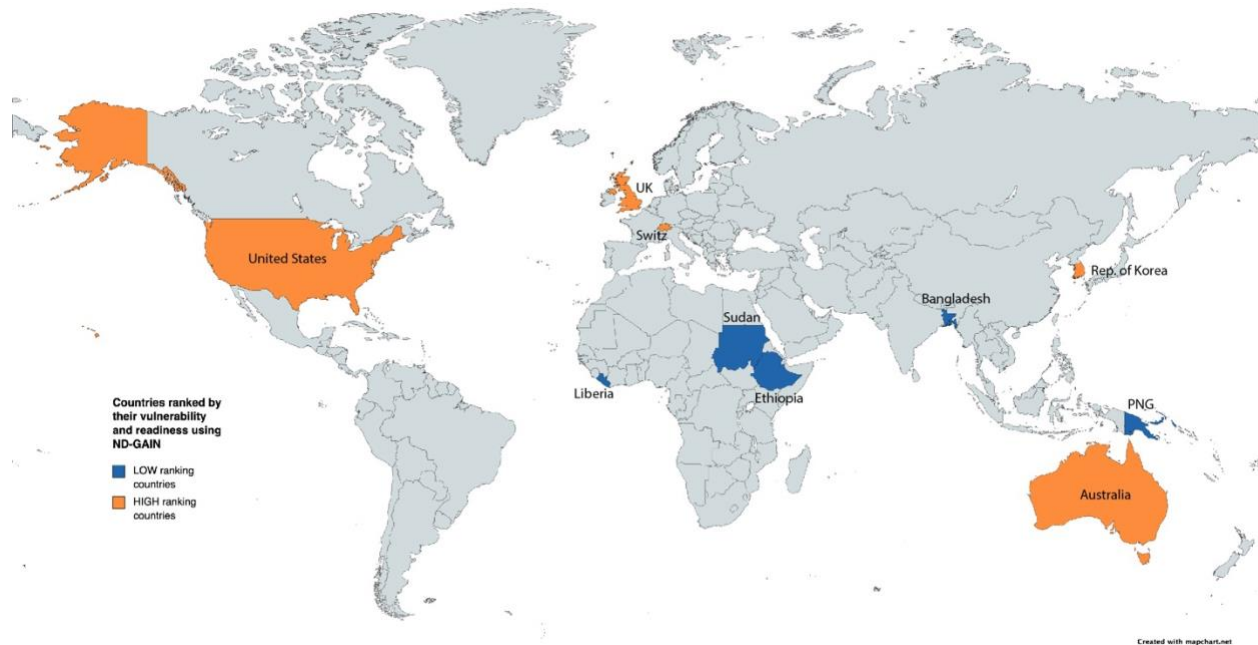


Figure 5. Distribution of the nations selected for analysis. Data plotted using MapChart (2022).

Once this selection was completed, the respective NDCs were downloaded and turned into txt files using AntFileConverter (Anthony, 2022a) before being manually reviewed to ensure that no information was missing or duplicated. Each txt was also edited to remove surplus information such as tables of content, footnotes, and any standardized framework that was not linguistically specific to the independent nations. Converting the NDCs to txt files also allowed them to be processed in AntConc (Anthony, 2022b), a free corpus analysis software making it possible to establish the number of words (i.e., tokens) in each document, search for key words, as well as display collocations for single words as well as multi-word units (Anthony, 2005). As seen in Table 1, the number of tokens – along with readiness and income level – varied considerably

between documents. Australia, as a developed country ranking 13th in the world in terms of ability to handle climate change, provided the shortest report at 4320 tokens compared to Liberia (ranked 173) who submitted the longest NDC at 14296 tokens.

Rank	Corpus	Country	Region	Income group	Score	Tokens
3	High	Switzerland (Switz.)	W. Europe	Upper	71.9	7315
11	High	United Kingdom (UK)	N. Europe	Upper	69.4	9717
13	High	Australia (AUS)	AUS/NZL	Upper	68.5	4320
15	High	Rep. of Korea (KOR)	E. Asia	Upper	67.2	6471
18	High	United States (US)	N. America	Upper	66.2	5220
160	Low	Papua New Guinea (PNG)	Melanesia	Low	37.4	13722
161	Low	Ethiopia (ETH)	E. Africa	Low	37.2	9091
164	Low	Bangladesh (BGD)	S. Asia	Lower middle	36.9	8238
173	Low	Liberia (LBR)	W. Africa	Low	33.8	14296
177	Low	Sudan (SDN)	N. Africa	Low	32.3	9299

Table 1. Countries listed in order of vulnerability to climate change as well as their readiness to address these changes (data from ND-GAIN). Each country is ranked based on their ND-GAIN

score, which is based on variables relating to life-supporting components such as food, water, and health as well as a country's ability to delegate finances to adaptation actions.

Based on the above division in readiness, the data was also divided in two corpora: developed countries with high preparedness being referred to as the “High-corpus” (33043 tokens) and developing nations characterised by lower preparedness belonging to the “Low-corpus” (54646 tokens). Before moving on to the methods employed to analyse the data, it needs to be clarified that High and Low were solely used to convey climate change preparedness, not to communicate any of the positive and negative messages traditionally associated with these directional metaphors as covered in Chapter 5 (e.g., Lakoff & Johnson, 1980: 15). That said, let us have a closer look at CDA, appraisal, and conceptual metaphors.

4.2 CDA to Disclose Ideological Dimensions

Stories are central to ecolinguistics as well as CDA, the latter viewing stories – or ideologies – as linguistic patterns that are shared and distributed among groups in the shape of grammar and vocabulary (e.g., Stibbe, 2021: 21). To expose the ideological dimensions of a text, a researcher will have to choose between various linguistic devices, the method one ultimately selects depending on the specific research questions being asked (Wodak & Meyer, 2009). For this study, an agency-focused approach was first selected to help establish the relationship between nature and humans. Manually searching the documents for representations of agents, this step was undertaken to uncover the balance/imbalance between nature and human actors, more dominant representations being known to become naturalised to a higher degree (Fairclough, 2013: 36). Second, and in relation to human agents specifically, the NDCs were analysed for linguistic

representations of impersonalisation, meaning the tendency to represent social agency and related processes in ways that are more abstract and factual (Merkel-Davies & Koller, 2012). This was done by focusing on two grammatical categories. First, metonymy is the process of referring to more abstract objects or concepts by a related but still more concrete entity (Littlemore, 2015:1). A classic example being the “kettle boiled” in reference to the water heated within a kettle. Among its advantages, as demonstrated by this example, metonymy can make communication more efficient. It can also help in building identity and relationships, but its inherent vagueness also means that it can be used to disguise agency and avoid responsibility. Second, referential vagueness relates to the concept of not clearly defining social actors. Aiding in this analysis, corpus linguistic methods such as collocation were also applied.

4.3 Evaluation and Appraisal: Patterns of Feelings and Belief

Evaluation constitutes another important grammatical feature when trying to discover the mental models structuring a text. For this aspect, I turned to a branch of SFL known as the “appraisal system”. Developed by Martin and White (2005), this system was created to explore whole texts for interpersonal meaning and evaluative patterns. Linked to ideology as well as emotions, Martin (2014: 17) states that appraisal aims to “...[bring] feelings together in relation to one another”. In terms of its framework, appraisal is divided into three sub-systems known as ATTITUDE, ENGAGEMENT, and GRADUATION. Focusing on emotions and the expression of feelings, this analysis was limited to ATTITUDE.

4.3.1 Elements of attitude

Used to model expressions of values and the relationship between feelings and meaning, ATTITUDE is central to the appraisal system and covers three distinct semantic regions referred to as **affect**, **judgement**, and **appreciation** (Martin & White, 2005: 38).

Starting with **affect**, which Martin and White describe as “...the heart of institutionalised feelings...” (45), this concept builds on the conscious expression of life as a mix of good and bad feelings. In terms of experiencing emotions, Martin and White (51) make four distinctions: 1) un/happiness, 2) dis/satisfaction, 3) in/security, and 4) dis/inclination. In terms of **judgement**, this region is used in relation to ethics and more specifically to communicate attitudes regarding positive and negative behaviour (42). Also building on the foundation of conscious participants, **judgement** is divided into two different classes known as ‘social esteem’ and ‘social sanction’ (52). Social esteem, in turn, deals with three categories: 1) normality, which can be understood as how common or special someone is, 2) capacity, relating to a person’s capability, and 3) tenacity, which refers to their determination. Social sanction on the other hand relates to veracity (i.e., truthfulness) and propriety (i.e., ethics). Finally, **appreciation** is used whenever evaluating the aesthetic quality of something and is categorised as ‘reaction’, ‘composition’, and ‘valuation’ (56). In relation to a text, this means asking questions in line of whether it catches your attention, if you find it balanced, and if you see it as innovative and in-depth. Rather than establishing an independent list of expressions relating to feelings, the multiple examples provided by Martin and White for each region were used to search the documents using AntConc.

4.4 Metaphors to Convey Worldviews

Focusing on metaphors lastly, conceptual metaphors are helpful to anyone interested in uncovering worldviews as they carry attitudes as well as valuations. However, to use metaphors successfully, they first need to be identified; for this thesis, this was done by turning to the work of Charteris-Black (2004) as well as the metaphor identification procedure (MIP) as outlined by the Pragglejaz Group (2007). As such, the process of identification started with a close reading to establish an understanding of the NDCs (Charteris-Black, 2004: 35). From this reading, a set of candidate metaphors were identified. These were words understood as either having a more concrete, bodily, or historical meaning than what was used in the text. To illustrate, the basic meaning of the word “alive” is understood as organic life/something that is not dead. However, it can also be used when we talk about lifeless entities such as the abstract feeling of hope. The fact that we can understand sentences such as “Hope is still alive”, means that *alive* in this context fits the requirements of a conceptual metaphor precisely because it does not involve a direct reference to a living being. Going further in one’s analysis, candidate metaphors can then be linked to various thought patterns and actions as well as overarching conceptual keys that are established by exposing patterns of similar metaphors (Cameron & Low, 1999; Charteris-Black, 2004: 16). Building on the example of hope, additional expressions such as “she could feel her anger stirring” or “joy fluttered in his chest” could thus be related to the higher-level metaphor of: EMOTION IS A LIVING ORGANISM. As with CDA, corpus linguistics can help in this identification process and was thus used in relation to the NDCs. For the analysis, Charteris-Black’s (2004: 89) concept of resonance was also applied to the data. This is a simple equation to establish the productivity of a metaphor and can be calculated by multiplying the sum of types with the sum of tokens. For example, there were three types of boat/water metaphors in the Sudanese NDC: *downstream*, *launched*, and *flows*. *Flows* was

used two times (providing two tokens) whereas the other metaphors were only used once (one token each). This resulted in a resonance of 12, based on the following equation:

$$3 (1+1+1) \times 4 (1+1+2) = 12.$$

Chapter 5

5. Results

In this chapter I will present the findings from the NDC analysis, starting with the stories associated with ideology before moving on to attitude and metaphors.

5.1 Ideology

To answer how the nature/human relationship was portrayed in the NDCs, the CDA focused first on linguistic representations of nature in relation to human agents. With climate change being anthropogenic in origin, human agents were also considered in relation to how responsibility was presented. With no single party being solely liable, though some nations have contributed significantly more emissions than others, questions of cooperation and equity were also considered. Using AntConc (Anthony, 2022b), it was possible to gain a multilevel understanding of the corpora which revealed that the stories being told were ones of division (Fig. 6).

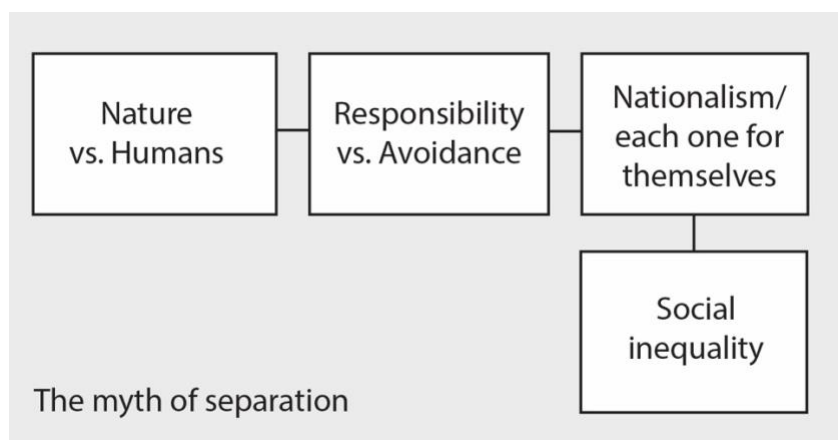


Figure 6. Stories of division as seen in the NDCs.

First, the NDCs revealed a clear split between nature and humans where nature was essentially excluded from the narratives unless it was coupled to human/financial interests. Second, along with removing ourselves from nature, various linguistic devices were also used to separate human agents from the moral responsibility associated with climate change. Third, without nature and responsibility as our common ground, cooperation and equity were found to suffer as little remained to prevent us from drifting further apart. Combined, I think about these worldviews as “the myth of separation”, with the following sections outlining how they are manifested.

5.1.1 Human centeredness

With climate change affecting all life, we need to ask whether the focus of the climate discourse is largely on human lives and interests or if other life forms are equally represented. Importantly, is there a balance between nature and human agents? To answer this question, the NDCs were first analysed for any expressions relating to nature and animals. Focusing on the High-corpus, and using a combination of close readings and AntConc, a total of 79 tokens belonging to 15 types (i.e., separate linguistic forms) were found (Fig. 7).

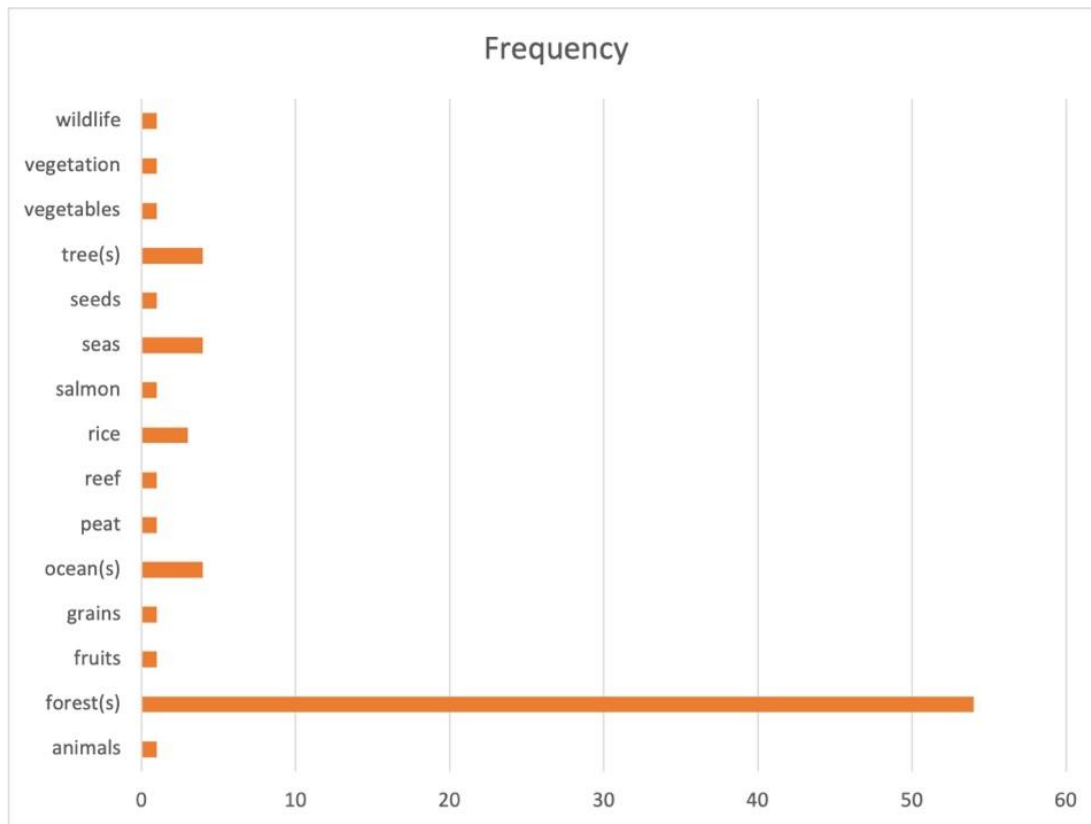


Figure 7. References to animals and nature as seen in the High-corpus. In total, nature terms accounted for 0.24% of words in the corpus, compared to 2.2% for human agents.

In relation to the >33000 words constituting the corpus and compared to the number of references made to human agents (738 tokens belonging to 102 types), nature terms were noticeably underrepresented. As seen in the above figure, ten of these expressions were only used once, automatically making them country specific. This applied even to terms of significant human importance such as “reefs”, the Australian NDC only referencing the Great Barrier Reef once despite it being a climate vulnerable biological hotspot associated with great socioeconomic value. While it might not be applicable to all Australians, this single usage sends the message that coral reefs are of little importance to the Australian population. A perhaps even starker illustration of

our separation from nature is the fact that generic terms such as animals, vegetation, and wildlife were also found to be country specific. Inarguably, Korea is not the only country with greenery, just as the US is not the only nation with animals or wildlife, yet this was not the message being conveyed. It is also noteworthy that the US use of animals was restricted to farm animals, meaning that non-domesticated animals were further backgrounded in the US narrative. As such, while the US text does not overtly portray wild animals as “bad”, their absence helps establish the image of animals and nature as unimportant. In those cases where a nature term was used more than once, this was inevitably connected not only to various forms of erasure but also to human financial interests. As an example, while rice was referenced three times in the Korean NDC there was no mention of the effect of climate change on rice plants nor the wildlife surrounding rice paddies. Instead, the discourse was limited to a distinctly human perspective through the role that rice plays in reducing emissions:

The Republic of Korea is introducing various options to accelerate low-carbon farming, for instance, improving irrigation techniques in rice paddies and adopting low-input systems for nitrogen fertilizers.

A similar approach was seen in terms of references to oceans, seas, and trees, with all usage of the latter being related to the process of removing atmospheric carbon:

...the UK will use nature-based solutions (including peatlands and trees), to tackle climate change and help avert its impacts.

and:

Sequestration was primarily the result of carbon uptake by standing United States forests, forest management, increased tree cover in urban areas, storage in harvested wood products, and the management of agricultural soils.

By systematically relating elements of nature to the self-created need for carbon sequestration, any form of environmental wellbeing, or symbiosis between species, is once again backgrounded. This same pattern is repeated in relation to forest(s), which also happens to constitute the only nature term used by all countries in the High-corpus. As seen in the Swiss text (31 hits), the concept of sequestration was also repeatedly linked to various forms of human intervention with “managed” being the fifth most frequent collocate to forests:

Managed forest land will be accounted for by comparing emissions/removals to a forest reference level (FRL).

I will spend more time on the ideas associated with management in the metaphor section, but from an ideological standpoint a lot of faith is clearly put into this concept. Most importantly, we seem to disregard the fact that we have created a situation where forests are no longer supposed to exist as they always have, instead requiring managerial manipulation by humans. It is a level of control, and a belief in human abilities, largely constructed around an economic mindset:

[the US] ...federal and state governments will invest in forest protection and forest management, and engage in intensive efforts to reduce the scope and intensity of catastrophic wildfires...

With active forest management involving large scale invasive efforts such as forest thinning and biomass removal (Kalies & Yocom Kent, 2016), one needs to ask what is truly being protected and at what scale. Ideally it would be the global climate in terms of trying to safeguard carbon storages, along with habitats for wildlife, rather than social interests such as property and human lives. However, considering the explicit connection between forests and financial interests in the US excerpt below, along with forest management being found to benefit human interests in the shape of facilitated fire suppression efforts (Moghaddas & Craggs, 2007), it would seem as if human interests constituted the prime objective:

Forests play a key role in the economy, ecology, and culture of the United States, with the approximately 290 million hectares of forest comprising the fourth largest forest area of any country in the world.

In addition, by placing economy first in the above sentence structure, ecology as well as culture become subordinated. Adding this piece to the overall puzzle, the story emerging from the High-corpus becomes one of division and utility: the biological world, with all its different species, is no longer seen as an integral part of the human experience except when linked to financial benefits.

Looking at the Low-corpus, these texts excluded nature to a lesser extent than the High-corpus at a first glance. A total of 545 tokens and 60 types were found in relation to nature, compared to 1068 tokens and 110 types for human agents. While many nature terms were only used once, ten types were found to generate ten or more hits (Fig. 8):

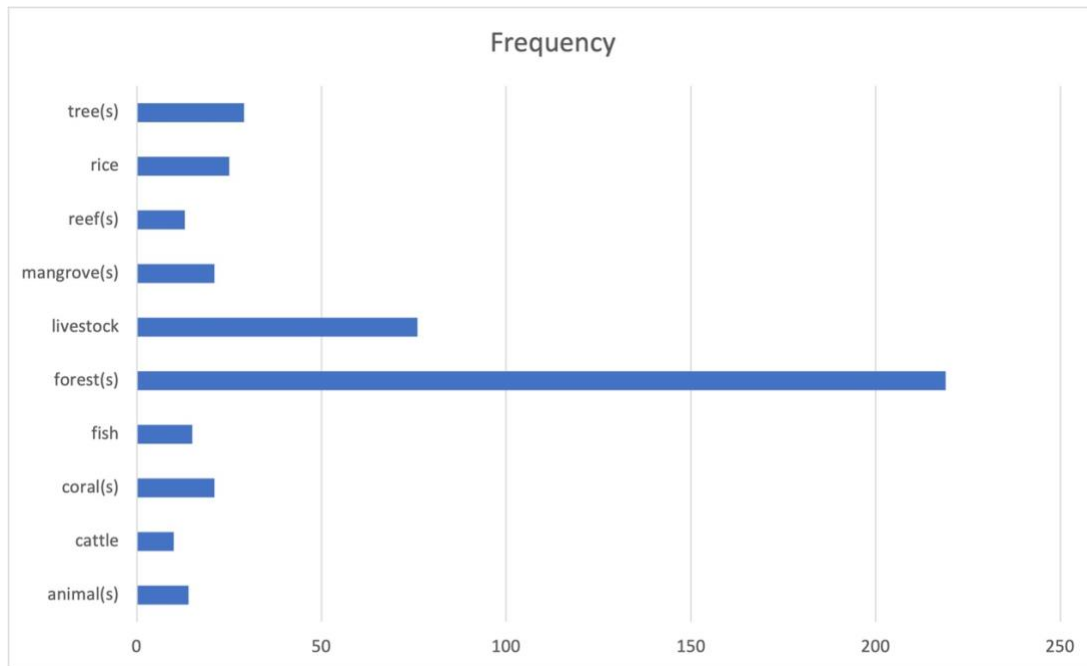


Figure 8. The top-ten references to animals and nature, out of 59 types, as seen in the Low-corpus. This represents 1% of the total amount of words in the corpus compared to 1.9% for human agents.

Looking at some of the same terms covered in the High-corpus, trees were referenced 29 times and by all five developing countries. With tree coverage playing a prominent role in many of these NDCs, the analysis once again found a connection between carbon sequestration and tree management. Trees were also repeatedly linked to financial interests as in the mentioning of “tree resources” and “tree crop value chains”:

Liberia commits to... develop policy and incentives frameworks to implement low-emissions practices in the production and processing systems of key commodity agriculture and tree crop value chains, e.g., oil palm, rubber, cocoa, rice, sugar cane, cassava, bananas by 2030.

As the above excerpt demonstrates, the Low-corpus also differed from the High-corpus in that all NDCs included references not just to individual tree and plant species but also to specific animals. However, while more diverse and detailed, the focus remained strictly on natural elements with monetary value to humans. As such, cash crops as well as domesticated animals in the form of “cattle” (10) and “livestock” (76) were frequently mentioned, while even culturally significant species such as birds belonging to the family *Paradisaeidea* were omitted from the texts. Not only does this tendency to view nature as a resource feed into the concept that is Anthropocentrism, but it also renders a washed-out image of nature; the colours inherent of coral reefs being erased when discussed in a purely factual manner:

There are 15 coastal provinces in PNG with a population of approximately 4.5 million that rely on food, shelter and livelihoods sourced from coral reefs.

However, the damaging nature of viewing nature through a capitalist lens is perhaps best exposed when looking at the use of forests in the Low-corpus, its top collocates saliently being “deforestation” and “degradation”. To illustrate, let us consider the following excerpt:

[Bangladesh’s]... Forest Investment Plan... has been developed to identify future investment opportunities to increase the forest cover, reduce deforestation and forest degradation and improve the livelihoods of the forest-dependent people through the implementation of participatory/social forestry.

While the sentence includes a positive participatory element, environmental degradation is still linked to the idea of financial gain; barren land becoming a “resource”. As such, even with

deforestation being identified as a problem, the land is still being framed as a boundless mean precisely because it will not be left to recover independently or cared for with the intent to restore biodiversity. Instead, it will be cultured in ways to protect future financial growth. With biodiversity loss firmly erased, conservation then seems to be more about conserving human financial interests than anything else.

5.1.2 Avoidance of responsibility

With nature backgrounded, and human agents centralized, the NDCs tell a story of human superiority. However, casting humans as masters of this world does not automatically translate into a stewardship role complete with a set of well-defined responsibilities. Neither does it mean that the governments behind the NDCs are willing to acknowledge any form of responsibility for climate change. In fact, a search for “responsible” resulted in no more than four hits in the High-corpus and 23 hits in the Low-corpus. Even so, most of these were in relation to institutions (e.g., a country’s “responsible institution” for mitigation), with only two cases being directly linked to human involvement in environmentally damaging activities:

The growing need for land for human settlement, agriculture, industries, and timber and fuelwood [in Bangladesh] is mainly responsible for deforestation and forest degradation.

and:

Even though Ethiopia has been responsible for only 0.04% of global emissions, the country is highly vulnerable to climate impacts that threaten its sustainable development.

A search for “anthropogenic”, which when coupled with climate change would indicate at least a species level of responsibility, had a similar outcome: 18 hits in the High-corpus and only four in the Low-corpus. Following Lakoff’s “rescue narrative” (2008: 24), this unwillingness to accept accountability – or perhaps more so the blame associated with it – is expected since most officeholders are inherently mindful about getting re-elected. To emerge as the competent heroes of their respective narratives, it makes political sense for policy makers to avoid any risk of blame by disassociating themselves from responsibility. In the next sections I will showcase how this is achieved by using linguistic strategies such as metonymy and referential vagueness.

5.1.2.1 Metonymy

As outlined in Chapter 4, metonymy can be used as a strategy to disassociate from agency as well as responsibility. A simple way in which this is done throughout the NDCs is using PLACE FOR INHABITANTS/LOCATION FOR SPEAKERS relationships:

Australia looks forward to making even stronger contributions to global climate science and sharing our expertise, experiences and skills across the globe toward stronger adaptation and resilience outcomes.

Here Australia is used in relation to the whole population, revealing a level of hyperbole frequently associated with these types of metonymies (Littlemore, 2015: 33). For various reasons, the entirety

of Australia's population will not look forward to climate measures, meaning that the statement is much more agent specific than what is presented. However, from an author perspective it is advantageous in the sense that responsibility is by-passed by not stating that it is for example the government specifically that is experiencing enthusiasm. This strategy is not unique to Australia as all NDCs contain examples of country names being used as substitutes for specifics, eradicating identity and local conditions along with accountability. In fact, this tendency is so strong that countries are frequently represented as if they were living beings just as dogs, children, and policy makers. In the Australian example above, we clearly see this through the combination of Australia with "looks forward", since continental crusts are obviously incapable of any form of seeing. Similarly, taking personification one step further, the land mass that is Sudan cannot commit, welcome, or meet anything:

Sudan remains highly committed to the climate change Convention and the Paris Agreement (PA). Therefore, *Sudan* welcomes the opportunity to submit an update to its first Nationally Determined contribution (NDC) as required under the Paris Agreement, hereby meeting its obligation under Article 4.9.

Once again, these are human based actions that belong to the agents contained within the Government of Sudan. However, by continuously using LOCATION FOR SPEAKERS and personification, authors efficiently erase the expectation of an easily identifiable human agent. In the process, metonymy helps transform the subjective to the factual while removing responsibility for climate policies as well as those decisions that are damaging to nature.

5.1.2.2 Referential vagueness

Disassociation can also be achieved through referential vagueness, which happens when agents are referenced imprecisely by using first person plural pronouns such as *we* and *our* (Merkl-Davies & Koller, 2012). While relatively rare in the NDCs, these linguistic representations can still be seen in for example the following excerpt from the US text:

Addressing the climate crisis requires scaling the many solutions *we* already have, while investing in innovation to improve and broaden the set of solutions, enabling multiple pathways to reach global net zero emissions.

While the *we* presumably refers to the US government, taking on the role of the hero, this is not automatically given. Instead, it could be used to refer to the US as a nation, thereby involving a multitude of agents, or even the global community. Similarly vague is the use of *our* in the Ethiopian NDC:

Ethiopia can achieve the ambitious vision presented in this updated NDC only in cooperation with *our* partners.

Here the agents could be other parties of the PA as well as international or Ethiopian business partners; as a reader it is difficult if not impossible to know. The problem of course is that with this sort of vague usage, no agent will be held accountable if solutions to address the climate crisis fail or if Ethiopia's vision fizzles out faster than industrial smokestacks. Applied to ownership, the usage of *our* becomes even more problematic:

...the United States will also reduce emissions from forests and agriculture and enhance carbon sinks through a range of programs and measures for ecosystems ranging from *our* forests and agricultural soils to *our* rivers and coasts.

Here nature is clearly presented as a property. However, this vagueness introduces several critical issues relating to ownership of land as well as the rights and responsibilities that would entail. Also, if there is an *our*, is there also a *their* to imply separation and in extension othering? We can see a tendency towards this in the UK text, where historical gains do not seem to translate into current obligations:

As climate change policy is devolved, the Devolved Administrations in Scotland, Wales and Northern Ireland have *their* own statutory emissions reduction targets. The Crown Dependencies and Overseas Territories are also responsible for setting *their* own emission reduction targets.

Another example where third person plural create vagueness can be seen in the following statement:

Australia is committed to working closely with our Pacific family to achieve an ambitious international response to the climate crisis, including talking with *them* about jointly hosting a future UNFCCC Conference of the Parties meeting.

While the need to address climate change is acknowledged, the cooperative partners are less clear. The use of “Pacific family” seems to establish an ingroup, but the reader does not know exactly who is included, what role each agent would play, and whether these “family members” would be treated as equals or if some would fill more of a token role. With the suggested conference seemingly little more than an idea put to paper, this example showcases how responsibility can be obscured even at the most theoretical of levels.

5.1.3 Nationalism and inequality

Combining the ideological representations above, we end up with a complex image where we as humans seem to see ourselves as separate from nature in the sense that animals and plants are only considered when having direct financial benefits. Similarly, officeholders are habitually avoiding taking responsibility for where this unbalanced relationship has brought us. However, while not proclaimed as loudly as it should, there is evidently enough concern surrounding climate change for the NDCs to have been produced – so how is this dichotomy solved? Analysing the NDCs, decision makers all seem to have adopted a similar strategy whereby their concerns largely revolve around their own nation. While the NDCs are intended to provide nation specific information, the extent of this strategy is so pronounced that the majority of the NDCs are entirely self-centered. As such, the US text uses “United States” 92 times while only acknowledging its immediate neighbours once and only in a geographical context. Joint efforts regarding international cooperation were also not highlighted except from making it clear that the US will reserve cooperation to allies that are “committed to fighting climate change”. Saliently, the benefits of climate efforts were also solely linked to the welfare of the US population:

All levels of government and the private sector will partner to drive and implement this NDC and create a more equitable, resilient, zero carbon future for the American people.

The fact that there are other people on the planet that would benefit from a zero-carbon future is thus effectively erased while simultaneously establishing a division between “committed” and “uncommitted” groups. This later division further opens the door for elitism, with the idea of being committed easily becoming equated to being part of the socioeconomic elite. This notion of climate change being an issue marked by exclusiveness is also enhanced when looking at what sort of agents are being mentioned most frequently (Fig. 9):

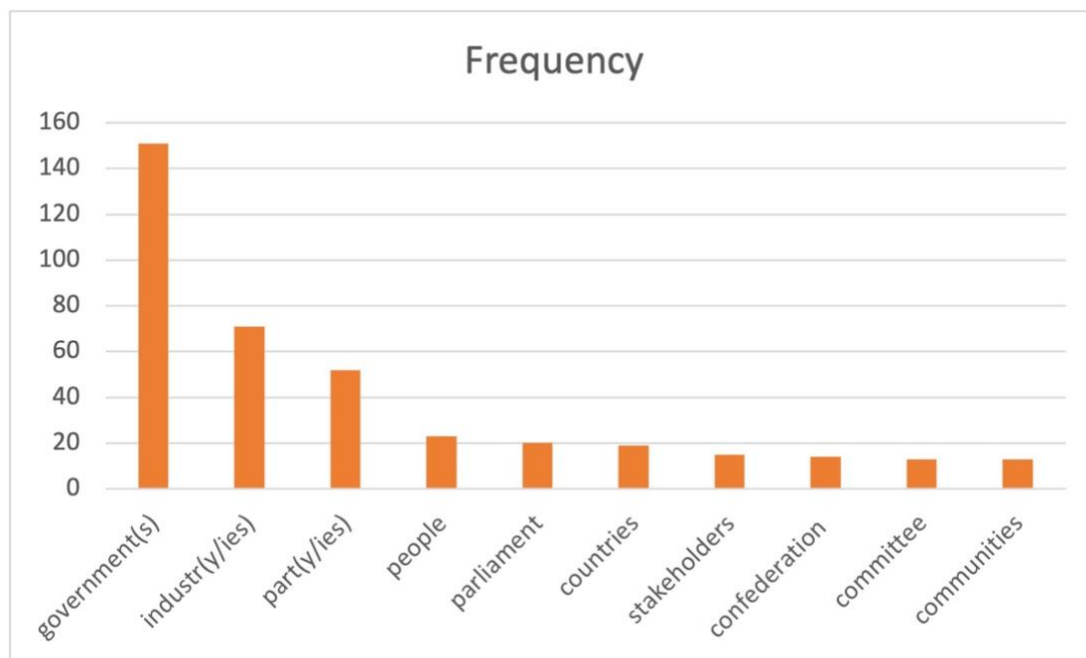


Figure 9. References to various agents as seen in the High-corpus. Governments and industry were found to play a dominant role compared to agents of lower socioeconomic status.

As can be seen from the above figure, the High-corpus focuses primarily on agents of power: government(s) being mentioned 151 times compared to communities at only 13. In terms of “people”, it is important to clarify that this is used as an umbrella term for a variety of marginalised groups such as young people (6) and Indigenous people (1). Considering that these groups are among those that stand to lose the most from climate change, the NDCs might reference climate justice but it is not otherwise manifested linguistically.

Moving on to the Low-corpus, while these NDCs are characterised by a higher level of local references than the High-corpus, other countries were once again relegated to geographical points. For countries such as Sudan this is perhaps to be expected, its long-standing conflicts making it difficult to engage with the international community. However, it is more surprising in relation to countries such as PNG who received significant international help to assemble their NDC. It is also noteworthy that international agreements were generally related to national ambitions rather than to global or future goals:

Adaptation planning is guided by PNG’s international agreements, regional commitments, and strategic framework of national plans designed to meet the country’s climate change goals in the immediate to long-term.

This is not to question that international support is critical for developing countries to achieve their stated emissions goals; however, one needs to question why there is no mention of how mitigation and adaptation efforts can be coordinated across state borders. In fact, the word “cooperative” was only used five times in the whole corpus, opening the question as to why climate change has become a solo venture, the idea of international support largely relegated to aid rather than to

building a joint future. In terms of agents featured, even though there is a higher focus on local as well as vulnerable groups such as women, governments are still referenced most often, once again indicating a top-down approach (Fig. 10).

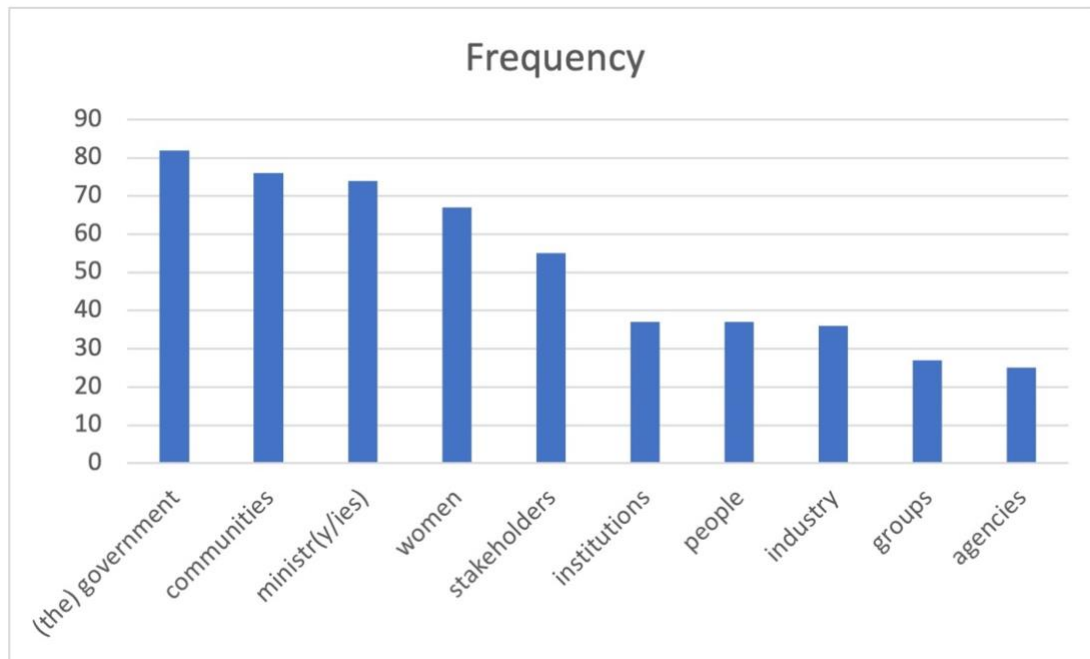


Figure 10. References to various agents as seen in the Low-corpus. While marginalised groups were given more space than in the High-corpus, governments still constituted the main agent.

Furthermore, while women were mentioned to a higher degree this did not equate to increased autonomy or influence. In many cases – like trees and forests – women were instead presented as tools to protect financial interests or as resources to further growth. As exemplified in the PNG text:

The primary objectives of women's access to forests are to meet household needs for fuel, fodder, medicinal needs; however, once these needs are met, they

become important vehicles through which income-generating opportunities and enterprises can be developed.

Linking into the next section and the concept of judgment, these sorts of statements seem to do little in terms of caring for nature and future life, instead protecting the short-term goals associated with economic growth. What is more, they fail at addressing the inequalities already present.

5.2 Appraisal: Attitude

While the appraisal system covers several resources, this analysis is restricted to **attitude** and the key domains of **affect**, **judgement**, and **appreciation**. From the analysis of those elements, it was found that emotions were essentially excluded in the NDCs. Instead, the focus was placed on self-praise along with highlighting the moral superiority of individual nations. I call this “The myth of rationalism”, a story centered on the preferential treatment of rational thought over emotions and what can perhaps best be labeled as “human hubris” (Fig. 11).

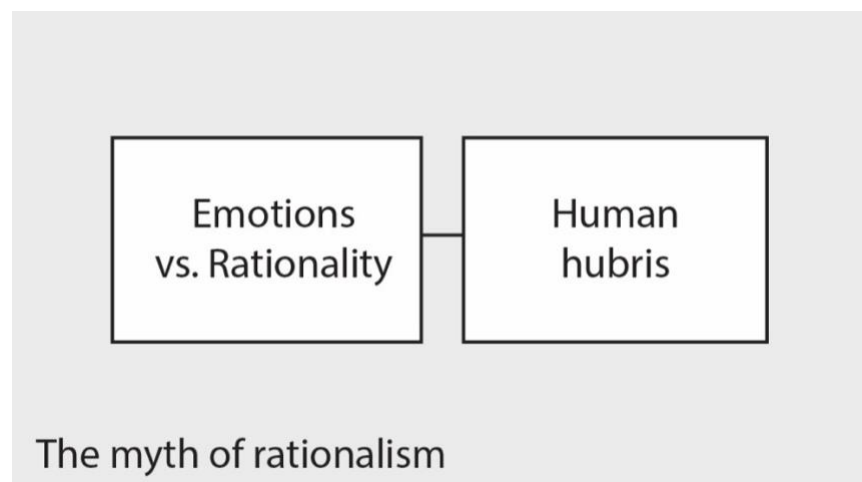


Figure 11. An outline of the feelings characterising the NDCs. While terms directly associated with emotions were virtually absent, national efforts were persistently associated with words conveying a positive message.

5.2.1 Affect

While Martin and White (p. 42) stresses the centrality of **affect** in appraisal analysis, the search for representations of positive and negative feelings in the NDCs resulted in a limited amount of hits even with the analysis extended to include both corpora (Table 2). Out of 29 positive emotions (e.g., joy and respect) and 38 negative emotions (e.g., anxiety and concern) that could have been expressed, only six examples were found.

Country	Emotion
Bangladesh	Rice is the primary staple crop of Bangladesh and there is a growing concern among the sector related community regarding emission reduction activities from rice field.
PNG	Sustainable economic development is a priority agenda for the Government of PNG, and is reflected as a long-term goal... for PNG to be a “Smart, Wise, Fair, Healthy and Happy Society”.
Switzerland	Switzerland is pleased to update its information necessary for clarity, transparency

	and understanding of its updated and enhanced nationally determined contribution...
	Switzerland is therefore pleased to communicate new measures and policies...
	After consultation with the concerned actors, the Federal Council may set target values for greenhouse gases...
United Kingdom	The approach towards the UK's NDC was discussed in meetings with NGOs, civil society and business groups, and covered in correspondence with representatives of these groups and interested Parliamentarians.

Table 2. Emotional expressions as occurring in both the High- and Low-corpus.

Considering the few hits, it is obviously difficult to make any claims beyond the fact that the parties in large seem to make a conscious effort to avoid any linguistic expressions of emotions in relation to climate change. That said, it is worth noting that Switzerland uses “pleased” two times in relation to their NDC. While this could be read as an expression of satisfaction that something is done to address climate change, it could just as easily be seen as an expression of pride and contentment associated with the achievement of submitting the NDC. Aside from these two examples, the other hits are largely used in relation to specific groups rather than the larger population. It is not Switzerland as in reference to the whole Swiss population experiencing a negative emotion, it is

simply a subset of actors whose opinion does not weigh heavily enough for the Federal Council to make a definite decision on acceptable GHG values. Similarly, it is not everyone in Bangladesh who has concerns related to rice crops or all UK parliamentarians who are interested in the country's NDC. It would thus seem as if climate related emotions are a niche at best, the standard being authors as well as actors who are “unburdened” by feelings. Assuming the actors associated with the NDCs are capable of feelings just as any other human, it thus seems as if feelings were consciously backgrounded – stigmatized to the point of invisibility.

5.2.2 Judgement

Having established the NDCs an emotional desert, one must then ask if the same goes for **judgement**. Focusing first on ‘social esteem’, AntConc was once again used to search for 62 positive and 61 negative evaluations as specified by Martin & White (2005: 53). The search resulted in a somewhat higher number of hits than seen in the previous section, also representing all three sub-categories of ‘normality’, ‘capacity’, and ‘tenacity’ (Table 3):

Normality	Hits	Countries	Examples
Erratic (-)	2/0	ETH, SDN	SDN: ... erratic rainfall patterns is an inherent vulnerability and a key factor in Sudan's future economy...
Predictable (+)	1/2	LBR AUS	AUS: Australia's new policies include... a predictable policy framework for industry...

Stable (+)	2/1	LBR US	LBR: This is a five-year national development plan aimed at addressing the basic needs of Liberians... in an enabling environment that is inclusive and stable .
Capacity			
Healthy (+)	5/6	LBR, PNG, SDN Switz., UK	UK: The UK's vision for the marine environment is for clean, healthy , safe, and biologically diverse ocean and seas.
Powerful (+)	1/-	ETH	ETH: ...adaptation interventions becomes (sic.) a powerful approach to ensure the effective and efficient utilization of the scarce resources available.
Robust (+)	12/6	BGD, ETH, LBR, PNG AUS, KOR, Switz., UK, US	BGD: Bangladesh will also provide a relevant contribution regarding national financial resources, staff time and robust integration of development and mitigation activities.
Sound (+)	3/1	LBR, PNG, SDN Switz.	LBR: ...derived data and estimates were... considered reliable and sound since they were based on scientific findings...

Strong (+)	8/5	ETH, PNG AUS, KOR, US	KOR: The update of NDC into the economy-wide absolute emissions reduction target indicates the Republic of Korea's strong commitment to reducing further GHG emissions...
Tenacity			
Accommodating (+)	1/-	PNG	PNG: ...is bestowed with remarkable diversity and extraordinary landscapes, terrestrial ecosystems, rich flora and fauna with accommodating climatic conditions.
Ambitio(n/us) (+)	54/25	BGD, ETH, LBR, PNG, SDN AUS, KOR, Switz., UK, US	AUS: Australia's updated [NDC] represents a significant increase in Australia's ambition and reflects a strong commitment to urgent ambitious action on climate change.
Careful (+)	-/1	US	US: After a careful process... the United States is setting an economy-wide target of reducing its net GHG emissions by 50-52 percent...
Flexible (+)	1/-	SDN	SDN: The adoption of the National Adaptation Plan in 2016 by the Sudanese government was

			an important milestone in establishing a clear and actionable framework for adaptive, flexible and decisive action to reduce climate change risks.
Reliable (+)	9/3	ETH, LBR, PNG, SDN KOR, US	US: The United States will also support... [a] reliable and affordable electricity system.
Faithful(ly)	-/3	KOR	KOR: The Republic of Korea will faithfully carry out the tasks that need to be undertaken to accelerate societal transition to carbon neutrality...

Table 3. Social esteem with positive judgement assigned as (+) and negative judgement as (-).

While expressions belonging to ‘social esteem’ were found to be higher compared to **affect**, the number of hits was still low: 14 realisations out of the 123 search terms applied. In addition, the category of negative realisations was limited to the word “erratic” which was only used in relation to rainfall, something arguably still outside the realm of human control. All other cases relating to human actors belonged exclusively to the category of positive evaluations. Furthermore, there was also a tendency to combine expressions of ‘capacity’ and ‘tenacity’ (e.g., “...**reliable** and **sound**...”), thus further amplifying the message of actors as capable and dependable. In contrast, no NDC or policy was described using words such as “unpredictable” or “unproductive”. Similarly, no actor was labeled “unjust” or “greedy”.

As for ‘social sanctions’, there were no hits for ‘veracity’ (16 search terms equally divided between positive and negative judgements), but four cases of ‘propriety’ (36 terms, also equally divided; Table 4):

Propriety	Hits	Countries	Examples
Fair (+)	8/20	ETH, LBR, SDN AUS, KOR, Switz., UK, US	LBR: Liberia’s current GHG emission is near-negligible to the global emissions and Liberia’s commitment to reduce its economy-wide emission to 64% is more than equitable and fair .
Just (+)	1/-	LBR	LBR: Develop alternative livelihoods programs with forest dependent people in 5 forested counties to ensure a just transition from forest extractive models for local communities...
Sensitive (+)	1/2	LBR KOR, Switz.	Switz.: Switzerland fully subscribes to the view that Parties should... respect, promote, and consider... gender sensitive policies.
Unfair (-)	-/1	US	US: The United States will work to ensure that our firms and workers are not put at an unfair competitive disadvantage and cooperate with allies and partners that are committed to fighting climate change.

Table 4. Social sanctions with positive judgement assigned as (+) and negative judgement as (-).

As can be seen from the above examples, some of these propriety terms were used in reference to acts and policies. However, since these acts “belong” to the respective countries they can be viewed as an extension of how the countries want to portray themselves. Once again, countries used positive evaluations, framing themselves as ethical. As an example, with Switzerland fully subscribing to gender sensitive policies, they are in extension beyond reproach themselves. Similarly, as the unmarked pair of “unfair” is fair, the authors of the United States NDC manage to use this word to convey positive evaluative meaning by framing themselves as the fair defenders of American firms and workers. In this way they effectively succeed in turning a term normally associated with negative judgement into something positive. In a related manner, “fair” was used in the Liberian NDC to rationalise national emission levels while also implying that developed countries have more of a responsibility to act on climate change than developing nations with comparable marginal emissions. While not arguing against the responsibility aspect, this reasoning still does little in terms of shifting the focus away from self-centered short-term issues.

5.2.3 Appreciation

For the last domain of **attitude**, a search was conducted for 62 positive and 60 negative evaluations belonging to **appreciation** (Table 5):

Reaction	Hits	Countries	Examples

Dramatic (+)	1/1	ETH KOR	KOR: The Republic of Korea will scale up dramatic financial investment in achieving the enhanced update of its first NDC.
Good (+)	11/5	LBR, PNG, SDN UK, US	UK: During its COP26 Presidency, the UK sought to... learn from and amplify the good practices of other countries and observer organisations.
Remarkable (+)	1/-	PNG	PNG: The country is bestowed with remarkable diversity...
Notable (+)	2/-	BGD, SDN	SDN: This NDC update has also benefitted from several notable developments since the INDC submission of 2015.
Composition			
Balanced (+)	3/1	BGD UK	UK: the UK has doubled its total International Climate Finance (ICF)... ensuring a balanced split between mitigation and adaptation finance.
Considered (+)	18/18	BGD, ETH, LBR, PNG, SDN	SDN: Sudan's updated mitigation contributions are considered fair and

		AUS, KOR, Switz., UK, US	ambitious given its obligations under the UNFCCC and PA...
Consistent (+)	12/38	ETH, LBR, PNG, SDN AUS, KOR, Switz., UK, US	US: As noted above, the United States' NDC is consistent with the Paris Agreement temperature goal...
Detailed (+)	4/7	BGD, ETH, LBR, PNG, SDN AUS, KOR, Switz., UK, US	US: The National Climate Advisor and the White House Office of Domestic Climate Policy, in consultation with relevant departments and agencies across the federal government, conducted a detailed analysis to underpin this 2030 target...
Irregular (-)	1/-	PNG	PNG: Driven by heavy irregular rainfalls, inland flooding regularly affects valleys and wetlands
Logical (+)	1/-	LBR	LBR: The plan will further establish a clear logical framework
Simple (+)	1/2	LBR Switz.	Switz.: The Federal Assembly will grant a 10-year commitment credit by means of a simple federal decree.

Precise (+)	1/1	PNG Switz.	Switz.: The precise objectives of the new law will therefore serve as a basis for short-term climate protection measures.
Rich (+)	3/1	PNG, SDN UK	UK: The UK found this process valuable thanks to the rich and open exchanges and learnt from the experiences and solutions shared by others...
Unified (+)	1/-	SDN	SDN: The MAL replaces the 2001 Environmental Law and unified the disparate Environment Councils operating in Sudan.
Valuation			
Appropriate (+)	19/11	BGD, ETH, LBR, PNG, SDN AUS, Switz., US	BGD: ...Bangladesh will also apply specific assumptions and methodologies, when appropriate , when assessing progress made under the policies and measures related to the implementation of its NDC...
Conventional (-)	1/-	BGD	BGD: The BAU scenario has been modeled following the use of conventional technology...

Deep (+)	-/2	UK	UK: The Glasgow Climate Pact recognises the need for deep and sustained reductions in global greenhouse gas emissions.
Effective (+)	22/7	BGD, ETH, LBR, PNG, SDN KOR, Switz., UK, US	ETH: Despite small contributions to total BAU emissions, policy interventions in the sector can be highly effective .
Ineffective (-)	1/-	PNG	PNG: Biodiversity is also affected through ineffective waste management protocols...
Innovative (+)	3/6	BGD, LBR KOR, Switz., US	KOR: The Green New Deal is underpinned by... establishment of innovative green industry ecosystems.
Insignificant (-)	1/-	PNG	PNG: There were no emissions reduction targets set for the Agriculture sub-sector... due to unavailability of country-specific activity data and insignificant emission results.
Profound (+)	2/-	ETH, SDN	ETH: Combined, these factors have a significant systemic shock that has profound implications for Ethiopia...

Timely (+)	3/1	LBR, PNG Switz.	LBR: Liberia commits to...[the] development of multi-stakeholder platforms for information sharing with regular/ timely updates...
Unique (+)	-/2	AUS	AUS: Protecting Australia's unique environment...
Valuable (+)	2/3	LBR KOR, UK	LBR: ...the Youth community of Liberia remained fully engaged throughout the NDC revision process through their representatives whose valuable participations and inputs contributed to the development of Liberia's revised NDC.

Table 5. Positive and negative evaluations in relation to appreciation.

As before, the number of evaluations were found to be low: 25 hits of 122 possible. Out of these, four were assigned a negative evaluation. However, that did not automatically mean that the respective countries assigned the items or agents discussed less value. For example, Bangladesh's usage of "conventional" when discussing emissions models was not done with the intent to describe their technology as dated. Instead, the usage is positive in that it frames the technology as "ordinary", meaning comparable to methods used by other countries. As for "irregular", no negative value was assigned to an actor since the usage was once again limited to rainfalls. As a result, the only negative evaluations in relation to human activities were found in the PNG text:

“insignificant” in relation to data gaps and “ineffective” when discussing waste management protocols. The latter being the most important one since it directly links human ineffectiveness to negative biodiversity outcomes. From a moral standpoint, this implied responsibility constitutes a rare example in the NDCs of humans being placed in the role of villains with nature as a victim.

Juxtaposed to the few negative evaluations, the AntConc analysis showcased a much higher number of words used for positive evaluations. While some of these can be read as support of climate action, the status quo of exponential growth was still present. As such, Korea linked the quality of their NDC to “dramatic” financial investment whereas Sudan’s NDC was described as advancing in parallel with “notable” developments. Looking at ‘composition’, the highest number of references was made to the word “consistent”. By running a collocation analysis, it was possible to establish that “consistent” was primarily used in relation to IPCC guidelines and the PA. As such, this usage once again contributed to the dominant frame of nations and their governments as capable; by following what has been outlined by experts and agreed upon in multilateral meetings they are framed as reliable and trustworthy. These sorts of messages are conveyed not only to the audience reading the NDCs, but also to various governmental bodies as seen in the UK text:

In its Progress Report to Parliament in June 2022, the Climate Change Committee reiterated that “the UK NDC is ambitious and **consistent** with the Paris temperature goal.”

Obviously, if all countries were “consistent” with IPCC and PA goals, the planet would be on track to stay below 2°C rather than following its current 3°C path. However, this gap between the message conveyed and the reality of the situation is left unaddressed and with the main message

instead being one of “all is well”, the reader is left wondering if it comes from a place of delusion or deceit. Finally, looking at ‘valuation’, it was found that most words were used sporadically with only “appropriate” and “effective” being used to a higher degree. In terms of “appropriate”, this usage was frequently linked to finances as well as to justify national interests:

[Switzerland’s] capacity to contribute to solving the climate problem is closely related to the ability to invest in **appropriate** mitigation measures, such as carbon-efficient technologies.

and:

Liberia is committed to achieving the goals of the Paris Agreement of keeping the temperature rise well below 2° C, aiming to limit warming to 1.5° C, provided that the international community supports Liberia with the **appropriate** means of implementation.

With the unmarked pair of “appropriate” being “inappropriate”, this usage conveys a message where “spending beyond one’s means” on one side and not providing financial help on the other is framed as wrong/immoral. However, no suggestions of how to find a balance between these two moral outliers were found in the NDCs. Lastly, in the High-corpus, the use of “effective” was found to highlight the need to address climate change:

Switzerland recognizes the need for an **effective** and *progressive* response to the urgent threat of climate change, in line with the best available scientific knowledge

and:

Scotland's Climate Assembly brought together over 100 people, broadly representative of the Scottish population, to learn about, discuss and make recommendations on how Scotland should change to tackle the climate emergency in a fair and **effective** way.

First, the idea of effectiveness is clearly an example of positive evaluation as the word is linked to positive skills, attitudes, and traits (e.g., Hannigan, 1990). Collocating “effective” with the name of a country thus helps paint a positive image of their representatives. Second, this positive evaluation was frequently found to be enhanced by combining “effective” with various journey metaphors (*italicised*), a metaphorical domain generally used to create a positive frame. The same tendency was found in the Low-corpus. However, as outlined in the Sudanese NDC, movement was not only linked to effectiveness but both factors were also limited by financial barriers:

Because of funding limitations, the NAP process could not *move* to do further work beyond scoping on the six specific recommendations for creating an enabling environment for **effective** adaptation responses.

With these excerpts showcasing the close relationship between appraisal and metaphors, let us now *move forward* by taking a closer look at the role that metaphors play in the NDCs.

5.3 Metaphors

As covered in the introduction, climate change is associated with a multitude of catastrophic threats to life. Hence, it seems not too far-fetched to assume that the term “climate change” would be linked to these dangers in the NDCs. Nonetheless, based on an initial AntConc search (Anthony, 2022b), climate change was rarely used in combination with words such as “emergency” (2 hits) or “crisis” (14 hits). Instead, “impact” was found to be the most common collocate in the Low-corpus and the third most common collocate in the High-corpus. With “impact” implying a level of harm, along with frames involving violence and victims, this indicates that climate change is indeed conceptualised as a threat in the NDCs. However, as one word does not tell a full story, all NDCs were subjected to a close reading that was then used to create a reference corpus of metaphors (NDCorpus) based on the combined findings. In cases where there were multiple morphological forms of the same keyword, such as *drive*, *driven*, and *driving*, these were grouped together. Using AntConc, each NDC was then cross-checked against NDCorpus to make sure that the same sets of metaphors were systematically identified. Based on this analysis, it was possible to calculate and compare the metaphor occurrence per 100 words between the countries (Table 6). This analysis showed that the low preparedness countries displayed on average one metaphor less per 100 words compared to the countries characterised by high preparedness (5.56 vs 6.46).

	BGD	ETH	LBR	PNG	SDN	AUS	KOR	Switz.	UK	US
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Tokens	8238	9091	14296	13722	9299	4320	6471	7315	9717	5220
Word entries	1484	1670	2123	2147	1871	926	1140	1332	1610	1163
Metaphors	395	544	832	720	553	312	415	349	756	327
Per 100 words	4.79	5.98	5.82	5.25	5.95	7.22	6.41	4.77	7.78	6.26

Table 6. Summary of linguistic features for each country.

In total, 5196 tokens belonging to 309 different types of metaphors were identified. From this data, 12 domains were recognised by linking targets to different sources of experience: War, Market, Journey, Building, Direction, Boat/Water, Container, Fabric, Family, Health/Wellbeing, Plant/Growth, and Seeing. In addition, metaphors that were identified but not found to belong to any of these domains were assigned to a separate group denoted “Other”. Following this step, the percentage distribution of each conceptual key was calculated in relation to the total amount of metaphors identified in each set (Table 7). This initial analysis showed that certain metaphors were consistently used to a higher degree, regardless of country borders and development level.

	BGD	ETH	LBR	PNG	SDN	AUS	KOR	Switz.	UK	US
War	14.1*	20.8*	24.7*	21.9*	21.0*	25.0*	24.1*	22.1*	22.8*	14.4
Market	19.4*	11.0*	12.8*	12.5*	13.6*	18.9*	6.3	12.6*	15.1*	20.5*
Journey	10.3*	18.8*	11.2	11.1	9.1	19.2*	20.5*	13.2*	19.7*	17.1*

Building	7.6	9.1	11.4*	12.3*	12.1*	4.5	11.8*	3.7	5.6	2.4
Direction	6.8	8.0	9.2	9.0	9.8	9.0	6.7	11.7	7.1	15.0*
Boat/Water	0.8	0.9	0.7	0.8	0.7	0.6	1.7	2.6	1.3	0.3
Container	0.5	1.1	1.2	0.6	0.7	1.3	-	0.6	0.9	1.2
Fabric	-	0.5	-	0.7	0.4	-	-	-	1.2	-
Family	0.8	0.2	1.3	1.0	1.4	1.6	0.7	3.2	0.5	0.6
Health	5.8	0.9	1.0	2.8	2.0	3.2	0.5	0.9	4.4	1.8
Plant/Growth	10.3	7.9	4.4	3.0	3.6	1.3	8.0	1.7	4.6	3.1
Seeing	5.3	7.3	6.6	7.8	10.5	5.4	5.3	11.2	4.0	5.2
Other	18.4	13.3	15.4	16.8	15.0	9.9	14.5	16.6	12.8	16.2

Table 7. Respective metaphor distribution in percentages. The three main domains for each country are indicated with an asterisk. In the case where two domains were tied, the one with the highest variation was selected.

The resonance analysis provided a similar picture (Table 8):

	BGD	ETH	LBR	PNG	SDN	AUS	KOR	Switz.	UK	US
War	560*	1440*	3296*	1738*	1972*	702*	900*	847*	2236*	564

Market	1001*	780*	1605*	900	825*	590*	208	352	1710*	737*
Journey	656*	1854*	2046*	1600*	950*	960*	1275*	570*	3725*	1071*
Building	180	300	855	1068*	402	98	441*	78	294	48
Direction	216	440	616	715	648	252	224	451*	756	588*
Boat/Water	9	15	18	24	12	2	14	45	20	1
Container	4	18	40	12	8	4	-	2	14	8
Fabric	-	6	-	10	2	-	-	-	27	-
Family	3	1	22	14	16	10	6	11	8	2
Health	138	10	40	120	66	20	4	9	165	12
Plant/Growth	205	172	148	66	120	8	99	18	105	30
Seeing	168	480	660	672	522	68	198	273	240	102
Other	1971	2628	4992	5203	2822	465	1680	1624	2910	1749

Table 8. Metaphor resonance with the three main domains indicated by an asterisk.

From this combined analysis, it became clear that WAR, MARKET, and JOURNEY dominated the discourse. What is more, considering the geographical and socioeconomic spread of the NDCs, these domains can be seen as universal representations of how climate change is conceptualised. It is also worth noting that the directional domain was frequently used by all countries. While these

metaphors are generally highly conventionalised, contributing little to the overall discourse analysis, the persistent use of the word *low* is noteworthy enough to include as a standalone unit. Combined, I think about these components as represented below (Fig. 12), all belonging to the same conceptual key of LIFE AS A STRUGGLE FOR SURVIVAL.

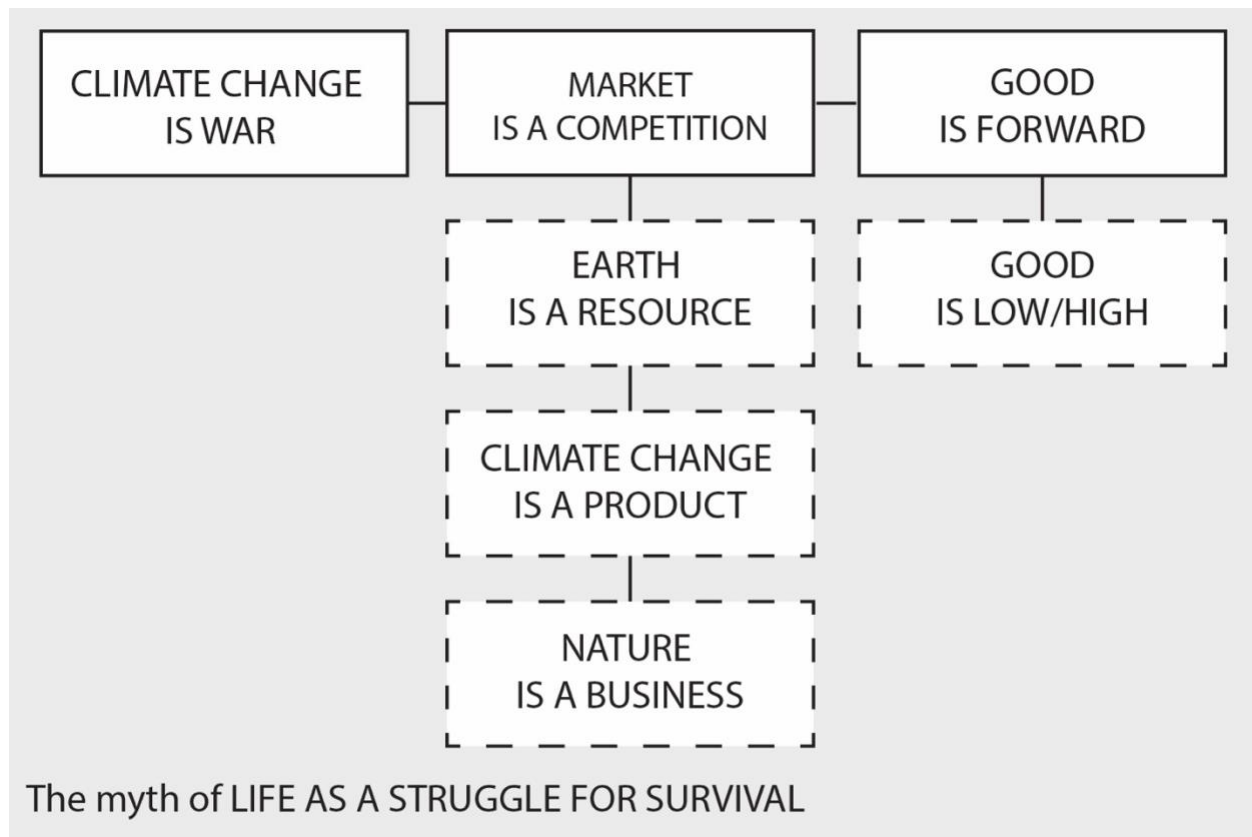


Figure 12. Conceptual map for the dominant ways in climate change is pictured in the NDCs.

5.3.1 War metaphors

Present in all NDCs, WAR displayed a high level of variation (27 types identified) while also making up on average a fifth of the metaphors (mean = 21.1%). With the individual usages becoming salient as a group (Taylor, 2021), the cumulative nature creates the conceptual metaphor

of CLIMATE CHANGE IS WAR. However, despite the high variation, only a limited set of metaphors were lexicalised at a higher frequency (Table 9):

Metaphors	BGD	ETH	LBR	PNG	SDN	AUS	KOR	Switz.	UK	US
<i>Aim</i>							2 (10)	2 (9)		
<i>Deploy</i>										2 (9)
<i>Impact</i>	3 (6)	3 (10)	3 (21)	3 (28)	2 (30)	2 (8)	3 (9)			3 (4)
<i>Protect</i>								3 (6)	3 (11)	
<i>Strategic</i>	2 (13)	1 (45)	2 (43)	2 (39)	1 (39)	3 (4)			1 (75)	
<i>Target</i>	1 (20)	2 (31)	1 (92)	1 (64)	3 (18)	1 (52)	1 (63)	1 (45)	2 (55)	1 (18)

Table 9. Top three war metaphors per country as ranked, number of tokens provided in brackets.

Looking at the top three metaphors, *target* was not only used in all NDCs, but it was also used to the highest degree (total of 458 tokens). We see it exemplified, and used in seriality, in this excerpt from Liberia:

Limited data on existing energy use and potential trends currently prohibits placing a quantified *target* on the *impact* of these actions.

To deduct whether targets varied significantly between countries, the three first collocates (+2, -2) for morphological variations of the node *target* were evaluated (Table 10):

Top collocates	1	2	3
BGD	Montreal (27.038)	protocol (25.101)	achieve (12.607)
ETH	baseline (34.832)		
LBR	adaptation (90.561)	mitigation (65.596)	following (62.141)
PNG	GHG (33.885)	adaptation (20.921)	summary (18.959)
SDN	reduction (37.368)	emission (27.540)	mitigation (16.246)
AUS	both (18.382)	reduction (17.812)	against (13.502)
KOR	reduction (60.967)	updated (20.418)	
Switz.	reduction (41.766)	intermediate (23.829)	emission (16.264)
UK	reduction (33.193)	emissions (20.361)	interim (15.088)
US	year (29.489)	wide (17.695)	economy (14.714)

Table 10. Collocates for the node targets, likelihood provided in brackets. Conjunctions and possessors not included.

This analysis revealed three main storylines. First, collocates such as “baseline” created a relatively narrow temporal schema: Bangladesh linked their efforts back to the 1987 Montreal protocol whereas Korea, Switzerland, and the UK talked about intermediate targets leading up to the year

2050. Second, collocates such as mitigation and adaptation pertained more to the nature of the current problem, emphasising that climate change is not only a future problem but also a current danger that requires focused action. Third, multiple collocates related *target* to emissions as well as the efforts to reduce them. As such, Australia commits to reduce greenhouse gas emissions by 2030 while the US relates *target* to “economy-wide” reductions of net GHG emissions.

Moving on to the various grammatical representations of *strategic*, this metaphor was used by all countries except from Korea, Switzerland, and the US. While a strategy could be seen simply as a way of “doing something or dealing with something”, the Cambridge Dictionary also defines it as a “detailed plan for achieving success in situations such as war...”. Similarly, Flusberg et al (2018) identifies strategies as a key property of a prototypical war:

War... involves a fight between opposing forces with a clear distinction between an in-group (us, “good”) and out-group (the enemy, “evil”), who are engaged in a struggle to achieve different goals; there are strategic decisions to be made about how to use resources for attack and defence... Further, wars convey a sense of risk and urgency...

Looking at the UK, as the country using *strategy* most extensively, it becomes evident that the word is frequently incorporated in the name of various action plans such as the UK’s Net Zero *Strategy* (12) and the Green Growth *Strategy* (5). In a similar manner, Ethiopia talked about a Climate Resilient Green Economy *Strategy* and a Long-Term Low Emission Development *Strategy*. While the focus of these strategies might be on reducing emissions, it is worth noting

how this goal is repeatedly linked to financial objectives, indicating that emissions and the natural environment have been conceptually grouped with economic interests.

Finally, while the word *impact* was used by all countries except Switzerland and the UK, it was used to a higher degree by those countries more vulnerable to climate change. As seen in the Sudanese NDC:

Sudan is already experiencing the *impacts* of climate change. Over the past three decades, climate changes have led to crop failures in traditional rain-fed farming, the backbone of the Sudanese economy. It has also led to severe *impacts* to pastoralist activities... Such *impacts* are deepening already profound poverty levels across rural communities in Sudan.

The Cambridge Dictionary defines the literal meaning of impact as “the force or action of one object hitting another”. Clearly, climate change does not operate in the same mechanical way as a car or a bullet barreling into something else. However, by building on the idea of personification through linking *impacts* with *backbone*, the Sudanese NDC still manages to create a health frame that effectively illustrates the damage already inflicted by climate change. A similar frame is presented in the Liberian NDC:

The Liberian population experiences the *impacts* of climate change in loss of livelihoods, income, and settlements, as well as increased risks for adverse health *impacts*.

As these excerpts demonstrate, climate change is clearly conceptualised as a danger, but its root cause is vaguer. As a result, we end up in a situation where we might not have an obvious villain despite there being clear victims. These victims, hurt and damaged through the actions of someone or something else, are generally left to suffer from any adverse outcomes until someone steps in to save them. Holding out for a “hero”, often placed in that role due to their financial powers.

5.3.2 Market metaphors

Analysing the NDCs, a close conceptual association between nature, climate change, finance, and policy were found in all texts. From this, three specific storylines emerged: 1) a view of nature as a resource, 2) a tendency to reframe climate change as another source of financial growth (i.e., a product), and 3) a belief that everything from climate change to oceans can be managed. Finding a more generic umbrella conceptualisation for these three stories was less straightforward. However, based on how the economy is systematically linked to scarcity and an ongoing struggle for resources (Raworth, 2017: 30), the conceptual metaphor MARKET IS A COMPETITION was selected.

5.3.2.1 Economizing nature

As previously seen, the NDCs are human centered with natural elements generally viewed through a capitalist lens. This same image was also represented metaphorically; nature elements frequently associated with market metaphors such as *resources* (Table 11):

Coastal <i>resources</i> (0/1)	Marine <i>resources</i> (1/0)	Water <i>resources</i> (17/1)
Forest <i>resources</i> (6/0)	Riverine <i>resources</i> (1/0)	

Natural <i>resources</i> (14/1)	Tree <i>resources</i> (1/0)	
---------------------------------	-----------------------------	--

Table 11. List of various “resources” found in both corpora. Tokens provided in brackets (Low/High).

Rather than emphasising humanity’s unsustainable draw on nature, the use of *resources* normalises nature and animals as something for the taking. Any obstacles preventing their usage seen as negatively affecting human wellbeing:

Despite the abundance of *natural resources* and economic growth recorded since 2013, PNG’s economy faces numerous challenges. The rugged terrain and the high costs of infrastructure hamper the exploitation and development of *natural resources*, and consequently, the formal and informal economies which support it.

In fact, the economic frame was applied even when talking about the most essential elements of life:

...*water resources* are extremely important to Sudan’s continued economic development and social cohesion.

This reframing of water from a prerequisite for life to a cornerstone of economic development is clearly destructive as it downplays humanity’s dependence on nature. From a critical perspective, another key issue – as illustrated by both these sentences – is that this way of talking about the

environment provides a simplified version of reality where everything can be made to appear as scarce. Looking at the Sudanese example, water becomes something worth fighting for with little regard to how other life forms would cope if the areas around the Nile were subjected to prolonged drought. The same reduction in complexity is further amplified when using terms such as *ecosystem services*. Once again drawing on the PNG text:

Under all three emissions scenarios, ocean acidification is projected to increase in the waters surrounding PNG... This damage will impact the health and viability of PNG's marine ecosystems, including the coral reefs that provide *ecosystem services* to communities.

Here, the issue already begins with the use of “marine ecosystems”, effectively masking the fact that PNG is home to more than 800 species of coral and that the coast south off Port Moresby has the world's highest coral diversity (Coral Triangle Center, n.d.; Nettle & Romaine, 2000: 80). Applying the concept of *ecosystem services* only amplifies this vagueness as it serves as an umbrella term for four different types of “ecological capital” (Reid et al., 2005): provisioning, regulation, cultural, and support. This inherent fuzziness would obscure even the most uniform of settings and certainly so in PNG, an unparalleled biological as well as linguistic hotspot. As an example, with more than 1000 languages still in use (Nettle & Romaine, 2000: 80), it is not hard to imagine a wide cultural diversity when it comes to the relationship between local inhabitants and their environment. In these sorts of “messy” scenarios, there is an even greater risk of nature being devalued.

5.3.2.2 Linking climate change to financial gains

Another approach to “solve” climate change, at least if we are to believe economists, can be found in quantity-based regulations or per unit taxes. These plans, which are realised in carbon caps and tradable permits, have introduced a plethora of market metaphors that have effectively helped turn climate change into a profitable venture. A key aspect of this development has been the creation of metaphorical “carbon compounds” (Nerlich & Koteyko, 2009). These compounds are lexical combinations around the word carbon, as in “carbon budgets”, “carbon credits”, and “carbon stock”, and are frequently seen in all NDCs (Table 12):

Carbon accounting (1/0)	Carbon free (0/4)	Carbon market(s) (15/3)
Carbon budget(s) (0/16)	Carbon financing (1/0)	Carbon stock(s) (10/1)
Carbon credits (1/3)	Carbon inventories (1/0)	Carbon trading (0/1)

Table 12. List of carbon compounds in the NDC featuring market references. Tokens provided in brackets (Low/High).

As such, one of Liberia’s mitigation targets was to, “Conserve all High Conservation Value-High *Carbon Stock* forests...”. While the usage of *stock* might seem insignificant at first, the fact is that it challenges the traditional values associated with forests; no longer are they simply seen as habitats or sources of food, shelter, and spiritual rejuvenation, but there is also a new value associated with carbon absorption. As such, forests become new investment venues where we see initiatives such as the 10 million tree planting program in PNG, which is partially financed by the Australian Government (WCS, 2020). Aligning with the financial stipulations set out in Article 9

of the PA, this project has been created to help mitigate climate change but also to “...improve livelihoods for local communities”. In other words, these sorts of projects are not undertaken solely for the good of the environment but also to create further economic opportunities. Similarly, energy efficiency in PNG “...presents the potential for *win-win* results...” whereas private sector actors participating in mitigation and adaptation efforts in Liberia are encouraged to partner with the government and other parties to “...*deliver a win-win* outcome for the government, communities, and businesses...”. Noticeably, none of these scenarios touches on the fact that, when based on growth, there might be winners but there will also be those who stand to lose from the process. Predictably, this connection between climate change and financial gain is by no means limited to the Low-corpus. Instead, reduced emissions are framed as an opportunity to maintain “good jobs” in the US and the Korean Emissions Trading Scheme (K-ETS) is linked to enhanced market functions. Perhaps the strongest indication that carbon has morphed into something desirable are the frequent appeals from developing countries to participate in its trade. As illustrated by the following excerpt:

Ethiopia has expressed a strong desire to participate in *carbon market* opportunities offered through the PA. Ethiopia's first NDC included has indicated an interest to participate in PA-backed *carbon markets* based on environmental integrity, robust *accounting*, and the promotion of sustainable development.

As this quote shows, we have managed to turn excess atmospheric carbon – the very thing that threatens all life –into a desirable commodity, neatly making it fit into the story of neoclassical economics and its key concepts of scarcity, efficiency, and trade.

5.3.2.3 Market metaphors to establish control

The transformation of nature and climate change into profitable units has also introduced a new aspect of control, the newly created capital supposedly requiring maintenance and management. As such, ecosystems that have so far operated successfully without human involvement are now seen as in need of supervision:

The Republic of Korea will maintain and improve its carbon sinks with sustainable forest *management*, conservation and restoration and increase forestlands by greening urban spaces.

Along with forests, different types of land and marine environments were also framed as requiring human intervention. Notably, some of these measures build on the idea of further maximising nature and carbon capital through the creation of new markets:

The Scottish Government has set out a new *Blue Economy* vision for the sustainable *management* of Scotland's seas...

While occurring in both corpora, this control aspect was found to be more prevalent in the Low-corpus where *management* was used 180 times compared to 23 times in the High-corpus. This finding is in line with those of Norgaard (2010), who notes that ecosystem monitoring is primarily promoted in developing countries. Norgaard attributes this tendency to the fact that developed countries are already highly monetised, with property rights creating additional layers of complexity. In other words, the developing world constitutes a more open, untapped, and less competitive market, free to control for those with the financial means. In terms of what is being

managed, the analysis showed that developing countries also discussed the need for “waste management”. With waste being described as a pressing problem, Liberia as an example lists one of their mitigation actions as:

Public participation and capacity building through education and awareness raising programs to enhance awareness on proper *waste management* practice by 2025...

While the core issue with a statement like this rests on the fact that humanity has managed to create a unique historical situation where our waste products are no longer beneficial to organisms at lower trophic levels, there are also clear issues relating to responsibility. As previously seen, governments and industries rarely take responsibility or are being held accountable and the same issue applies here; while the waste problem mostly rests with the consumption patterns of the rich world, liability is placed on individuals in developing countries. Even if the proposed solutions were successful, I question these sorts of interventions. Education and awareness raising in countries that have only marginally contributed to waste and GHG emissions will make little change if the developed world is still largely maintaining their current consumption patterns. For humanity to avoid irreversible harm, perhaps the thing that truly require management are the Western world’s expectations on growth along with their perspective on wellbeing.

5.3.3 Journey metaphors

If the Western world is not acknowledging their ecological debt, how is the current situation then conceptualised aside from climate change being seen as a disembodied foe or something to divide for profit? As the time and effort spent on the NDCs need to be framed as worthwhile – or the

parties could just as well withdraw from the PA – the countries frequently talk about climate change as well as their efforts to address it through journey metaphors. Journey metaphors have long been discussed within cognitive linguistics and tend to be applied to a variety of situations involving long-term activities (e.g., romantic relationships, Lakoff & Johnson, 1999: 193). As journeys are often semi-structured, and with climate change not having a well-defined “destination”, it is easy to understand why these metaphors are appealing to policy makers. Consulting the NDCorpus, 42 tokens were found between the NDCs, making it the metaphor with the highest variation. Among these metaphors, many painted a picture of the “climate journey” as being in its initial state. As seen in the UK text:

Scotland’s Heat in Buildings Strategy *sets out* the *pathway* to achieving net-zero emissions from Scotland’s buildings, and making them warmer, greener and more efficient, by 2045.

Obviously, there is a clear temporal aspect to this excerpt confirming the link between journey metaphors and long-term scenarios. However, more importantly, the combined use of *sets out* and *pathway* indicates the beginning of a journey rather than a midway point or an end. There might be a *pathway* to follow, but the first steps have not yet been taken. In those areas where a destination is perceived as closer, various forms of the noun *progression* is usually applied:

Bangladesh has made substantial *progress* in the recent past through rapid economic development and poverty reduction measures. The country is also making *progress* in sustainable development and poverty eradication.

Notably, the application of “substantial”, which could be seen as a form of graduation, indicates that the economic journey has progressed further than that of sustainable development and poverty eradication. The climate journey was also closely linked to finances as seen in the Sudanese text:

Since the submission of its INDC in 2015, Sudan has made *progress* in implementing its response to climate change within the context of addressing the country’s pressing development challenges.

In other words, and as we have seen earlier, movement is held back by financial constraints. This applies not only to domestic politics but, as seen from the PNG text, progress is also dependent on financial aid from developed countries:

Domestic budget constraints **impede** the *progress* of implementation of unsupported adaptation initiatives.

This financial aspect links to the previous *pathway* metaphor, where mitigation targets are either unconditional or conditional, meaning that the latter targets are dependent on various forms of resource transfer (e.g., technical and financial support) between developed and developing countries. As seen from the below excerpt from Ethiopia’s NDC, whether aid is provided or not is important since it can make for significant differences in terms of emissions reductions:

The unconditional *pathway* will result in absolute emission levels of 347.3 Mt CO₂eq in 2030... the conditional *pathway* decreases absolute emission levels to 125.8 Mt CO₂eq such that the combined impact of unconditional and conditional

contributions represents a reduction of 68.8% (-277.7 Mt CO₂eq) in comparison with the revised BAU emissions in 2030 (Figure 3). This ambitious *pathway* is conditional on international support and includes Ethiopia's unconditional efforts.

Once again, and as exemplified by the combination of **ambitious** and *pathway*, there was also a tendency to combine elements of positive appraisal with journey metaphors to convey a picture where all forward movement, regardless of how little had been achieved, is seen as positive (GOOD IS FORWARD). This propensity for positive self-appreciation, especially when discussing governmental actions, is perhaps best seen in the use of the metaphor *drive*:

The Australian Government is implementing a **substantial** and **rigorous** suite of new policies across the economy to *drive* the transition to net zero.

and:

Strong and **predictable** policy frameworks support private investment in innovation and deployment of carbon pollution-free technology and infrastructure, spurring markets that *drive* continued *progress*. All levels of government and the private sector will partner to *drive* and implement this NDC and create a more equitable, resilient, zero carbon future for the American people.

For the Low-corpus, *drive* was used but made dependent on the help from wealthier countries, As seen in the PNG text:

To commit to reducing GHG emission levels and to increase climate resilience, PNG will require the appropriate financial support, technology, capacity building, and a good means of coordination to *drive* the implementation of the Nationally Determined Contributions...

Metaphorically, we can think about this as the need to drive with a driving instructor – the goal only attainable if they are there to provide guidance and safety. Overall, while journeys are used to convey positive messages, the unmarked pair is negative. If we do not continue the “long and tortuous evolution of the human”, if we stop moving forward, all is lost. As such, even the JOURNEY metaphor becomes a struggle for survival, the only acceptable direction being forward or up.

5.3.4 Directional metaphors: Low as a compound

Until this point, all the metaphors covered have been what Semino (2008: 19) refers to as conventional metaphors, meaning that they are so well established that they have become lexicalized and will be found when doing a dictionary search. As such, they often go unnoticed as they no longer catch the reader’s attention on a conscious level. With directional metaphors being highly conventionalised, they become “fuzzy” (ibid: 14) and hard to distinguish even to someone analysing the text with a critical eye. Due to this more subconscious usage, spatial/directional metaphors are not always the most useful metaphors to include in CMA. However, in relation to climate change the directional metaphor *low* has come to take a unique position worthy of more

attention. Traditionally used by metaphor researchers such as Lakoff and Johnson (1980: 15) in a negative sense (e.g., low-income, or someone saying that they “feel low” when experiencing sadness), the combination of low with carbon has created a compound that has gone from a steel industry niche word to a positive buzzword used in a plethora of contexts to discuss minimal GHG emissions (Nerlich, 2012). Within the NDCs, 14 different terms were found to be used in combination with *low carbon* (Fig. 13):

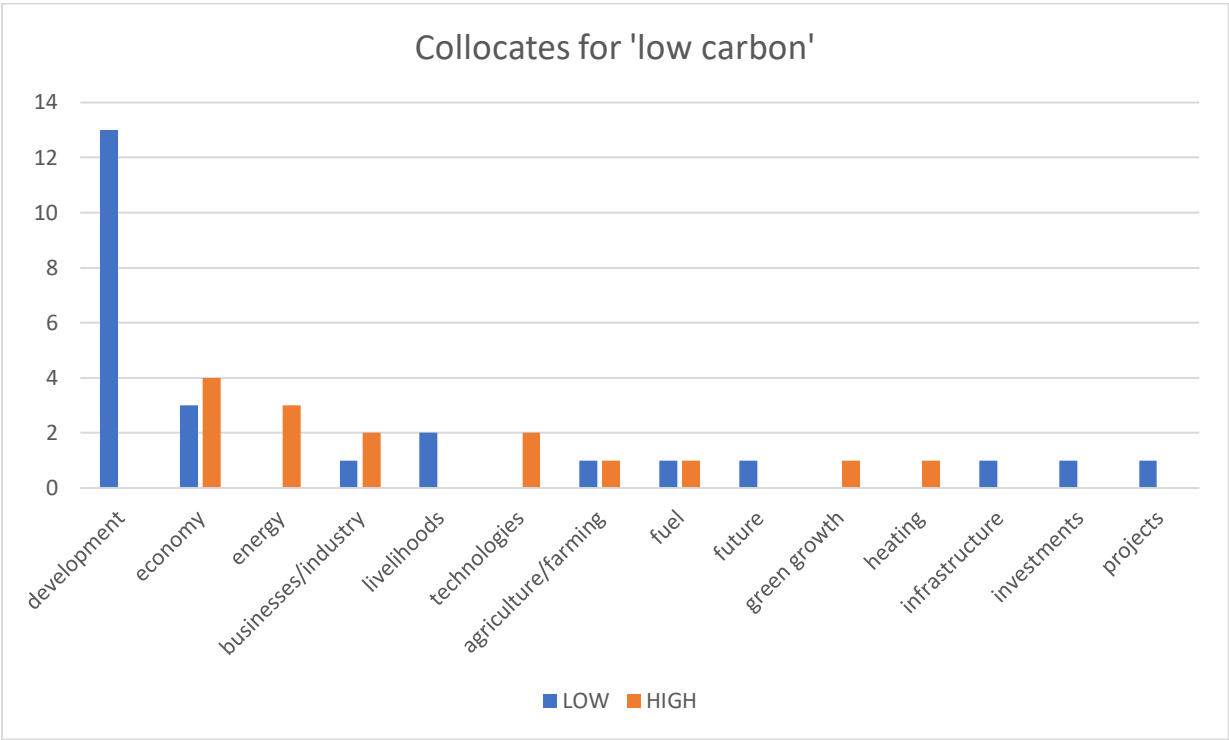


Figure 13. Lexical collocates of low carbon where GOOD IS LOW.

As seen from the above figure, “development” generated the highest number of hits (13) even though it only occurred in the Low-corpus. Considering the developing status of these countries, this can be viewed not only as a recommitment to their agreement to “sustainable development” but also reiterating their right to development as acknowledged in the PA. This finding also

highlights the changes compared to historical development, where GHG emissions used to be a non-issue they are now a key concern in contemporary development. Economy, as the second most common collocate, is used in both corpora to promote a future-oriented, market-based, solution to climate change. In the Low-corpus, the concept is once again tightly coupled to development and growth, as demonstrated in the PNG text:

The Climate Change and Development Authority [CCDA]... coordinates all climate change-related matters in PNG... CCDA works... to move towards a *low carbon economy* and achieving climate-resilient development in the country.

In the High-corpus, the UK was found to predominately connect *low carbon* with the economy. This is in line with previous findings by Nerlich (2012), who found that low carbon compounds were primarily used by broadsheet newspapers published in the UK, Canada, and Australia. Interestingly, Nerlich found less usage of these compounds in US newspapers. However, the AntConc analysis showed three different combinations in the US text: fuels, technologies, and economy. Of these, the latter also incorporated a clear moral aspect:

The United States is committed to standing with the workers and communities too often left behind — people and places that have suffered as a result of economic and energy shifts – and creating well-paid employment in the *low carbon economy*.

As this excerpt demonstrates, the government is framed as the moral hero, protecting its people from changes that are making them more financially vulnerable. Inserted into this frame, *low*

carbon becomes the unmarked opposite to challenging the status quo in ways that would endanger financial stability, thereby providing an image of a fiscally safe as well as climate responsible way forward.

5.3.5.1 Directional metaphors: The Low/High contrast

While there are plenty of examples in the NDCs indicating that *low* has taken on a new positive meaning in relation to climate discourse, it has not completely replaced the traditional orientational metaphor of HAPPY IS UP; SAD IS DOWN as first outlined by Lakoff and Johnson (1980). Instead, as pointed out by Nerlich (2012), the GOOD IS LOW metaphor is generally reserved for discourses applying to future scenarios. Talking about the present, the meaning associated with low still tends to slip back to its normal position of being something negative. As such, there are “low-income populations” in Monrovia and “low-productive animals” that need to be replaced in Bangladesh.

In addition to the negative value attached to low in the present, there is also a strong tendency to attach a positive value to anything that involves an upward movement. This inclination is verbalised through the countries’ tendencies to describe their levels of ambition and fairness using the word *highly*, but also when referring to “*high* growth rates” when talking about finances. However, this positive valuation is saliently not present when talking about the costs associated with addressing climate change:

In Switzerland, GDP per capita is *high*, signifying *high* ability to invest. At the same time, abatement costs are also *high* due to the limited availability of short-term cost-efficient mitigation potential...

While no other country was as transparent on this matter, this is by no means a mindset that is unique to Switzerland. As all the domains covered so far have shown, we seem to view climate change as an adversary that needs to be confronted, but only if finances allow it and there is no lowering of living standards. A rigidity in mindset and discourse that places us in trenches with little chance of advancement.

Chapter 6

6. Discussion

As humans have become an Earth-changing force, our footprint is now clearly imprinted upon every environment across the globe. Failing to take environmental limitations into account, instead habitually exploiting nature, the foundation upon which we have constructed our societies is beginning to sink. Starting to realise this dilemma, water no longer simply sloshing around our ankles metaphorically, the global community has begun to create nation specific plans intended to, if not stop, at least limit the submerge. However, despite applying to a plethora of environmental, geographical, and socioeconomic situations, these NDCs show a remarkable overlap in terms of how the world and climate change is being viewed. In fact, trying to summarise the texts I must admit that the following passage from Charles Eisenstein's *Sacred Economics* (2021: 7) was what first came to mind:

Today we live under a barrage of sameness, of impersonality. Even customized products, if mass-produced, offer only a few permutations of the same standard building blocks. This sameness deadens the soul and cheapens life.

Trying to understand this uniformity, the simplest explanation is of course that the NDCs have all been written on the same topic; a common problem inevitably generating linguistic commonalities. Moreover, as the texts are produced within the larger framework structure that constitutes the PA, the parties are bound to a level of stylistic sameness. While using conventional language can be seen as facilitating transparency, a structured way of conveying information obviously removes

part of the freedom (and potential motivation) associated with creative writing. As Fairclough puts it (2013: 41), members of institutions are provided “...with a frame for action, without which they could not act, but it thereby constrains them to act within that frame”. Herein lies the root of the problem as I see it – the framework containing the NDCs is itself built upon the very ideas that created anthropogenic climate change. Rather than questioning why our relationship with nature has gone so fundamentally wrong and consider the associated changes needed to limit the damage, we seem incapable of moving beyond Western-oriented views of exponential growth as paramount to wellbeing. As a result, the NDCs are not stories discussing ideas on symbiosis and collaboration, expressing concerns about the state of the environment, or even making basic attempts at adapting our expectations to this new reality. Instead, it is a fairy-tale spun around human superiority, competition, and the primacy of protecting economic values. This narrative is what causes the sameness; life becomes dull and cheapened because our collective moral compass is set on utility and our happiness is chained to endlessly making more money. As a result, while acknowledging the risks associated with climate change to various degrees, the NDCs are not the beneficial discourses they should be but rather a collection of ambiguous narratives supporting harmful standards and habits.

Vitality, part of the climate issue then becomes that our language does nothing to fight or escape these deep-rooted structures. Quite the contrary; every time an actor talks about growth and the supremacy of the economy as something natural, these stories gain further strength (Lakoff, 2010). With linear growth naturalised, we are left believing that things must and should progress along a never-ending trajectory. Moreover, as no text is a stand-alone unit, but rather pieces of an expanding “mosaic” (Orr, 2003), the language used in the NDCs is not only indicative of previous communications but will also influence future writings on the subject. If the goal is a future where

life, in all its forms, is central, how do we move away from the dominant ideology of economism? Just as everyone else, I have no truth to offer on this subject; however, it would seem a good starting point to break down the stories in the NDCs to the hegemonic components that brought us to this unsafe point in the first place. Following the analysis, we end up with the three neo-capitalist myths I have already outlined in the results: 1) the myth of separation, 2) the myth of rationalism, and 3) the myth of life as a struggle for survival. Trying to better visualise these myths, I think about these narratives as a set of interlinked boxes, all feeding into each other as well as the capitalist system responsible for climate change (Fig. 14).

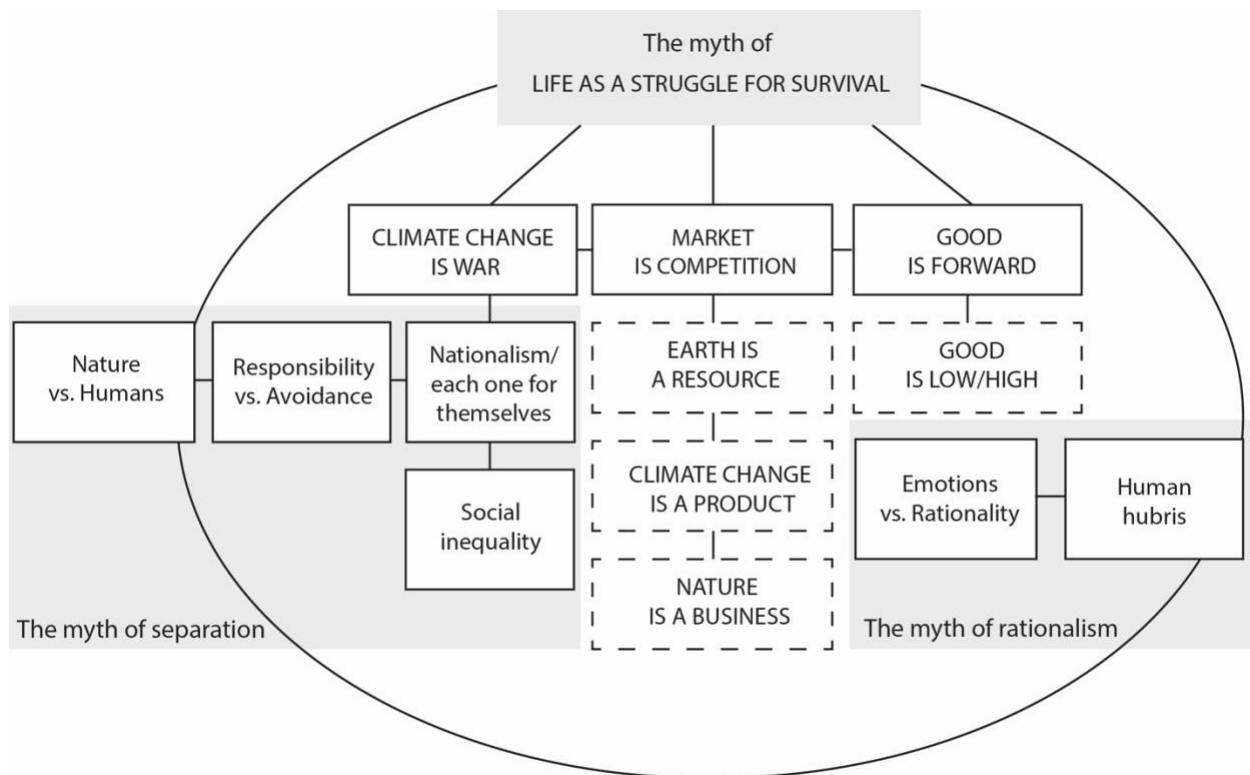


Figure 14. Conceptual map of the myths currently shaping our response to climate change.

These are the myths we need to challenge if we want to preserve Earth's life supporting properties. In the next sections, I will attempt to do this by discussing each myth in turn, using them as springboards towards painting a different way of viewing nature as well as ourselves. Let us dive right in.

6.1 The Myth of Separation

With 194 nations supposedly working towards the same goal, the primary story emerging from the NDCs is still one of stark loneliness. We seem separated from inside out. There is the split between nature and humans, an associated moral divide, and finally the division between various social actors. While all interlinked, as well as damaging on their own, let us focus first on the nature/human split and how it frames human life as a physical and moral system largely detached from that of the natural world. Not only does this outlook downplay our reliance on the environment, making it seem as if our survival is somehow disconnected from earth, but portraying nature as unimportant also removes the incentive to protect the biosphere and its life forms. In this light, with the NDCs failing to demonstrate any fellowship outside of the human sphere, it is not surprising that we neither see expressions of concern, nor a sense of duty, in relation to nature, other life forms, or even to other nations and their citizens. We have become *Homo economicus*, "...solitary, calculating, competing and insatiable..." (Raworth, 2017: 82).

How has it come to this? Why do we see ourselves as separate from other life and why do we have a stronger sense of responsibility towards "the economy" than to other living entities capable of experiencing fear and grief? The nature/human split is not a new observation and in many cases it seems to trace back to a powerful mix of Enlightenment ideas as well as religious beliefs. From an Enlightenment perspective, French philosopher René Descartes has been seen as instrumental in

portraying animals as lesser beings (Midgley, 1983: 11). Compared to the idea of man as a rational being, Descartes saw animals as machines or “automata”, incapable of any form of thinking, language, or consciousness (Cottingham, 1978). By extension, many have inferred that these ideas also meant that he considered animals as incapable of feelings. While other Enlightenment thinkers opposed this idea, these concepts still meant that animals came to fall outside the moral system we constructed for ourselves. In the words of Spinoza (1677):

...as everyone’s right is defined by his virtue, or power, men have far greater rights over beast than beasts have over men. Still, I do not deny that beasts feel; what I deny is, that we may not consult our own advantage and use them as we please, treating them in the way which best suits us...

While moving from Spinoza to the Old Testament might seem a bit of a reach, the idea of rights being dependent on someone’s “virtue” and “power” easily links with the Christian beliefs surrounding dominance as expressed in the Old Testament. In Genesis 1, God first creates earth as well as light and all life before making “mankind in his own image” (27). Blessed by God, humans were then tasked to:

...fill the earth and subdue it. Rule over the fish in the sea and the birds in the sky and over every living creature that moves on the ground.

Building on this biblical view of humans as the rulers of this world, Lakoff (2016: 105) has outlined a moral order where God might have dominance over us, but we have dominance over everything else. By God’s grace, exploitation becomes morally just as nature is seen as existing solely for our

usage. In this light, it is not surprising that officeholders are unwilling to accept responsibility as accountability becomes a token of weakness rather than strength. Vitrally, the moral order does not stop at nature, but extends throughout our societies. As we have seen from the analysis, the NDCs largely focus on national issues while simultaneously backgrounding vulnerable groups, such as women, children, and Indigenous Peoples in favour of providing space for the elite. This all builds on the same moral order where some people and places are seen as “better” or more moral than others.

As this discussion shows, the myth of separation is a powerful narrative with roots that go deep and wide, making it difficult to uproot. However, the fact remains that this myth – while it might have served a portion of humanity well up until this point – has played out its role. It is no longer beneficial even to the ones in power. As such, we need to reshape our relationship with the world to one that is more inclusive and future oriented. Simply speaking, we need to close the voids. From a language perspective, this means that we need to find ways to reconnect with nature as well as with each other, building common ground through challenging the image of a small subset of the human population as more “worthy”.

6.1.1 Language to reconnect with nature

How then do we bridge a gap that has formed over centuries, if not millennia, within the limited time frame we have allocated? The reality of course is that there is no “quick fix” to this situation; there will be no complete solution, and we will constantly encounter new issues that will add to the complexity. As an example, with an increasing amount of the world population living in cities, urbanisation will contribute to a deeper conceptual as well as physical split from nature. In response to these issues, it has been suggested that we need to work towards rebuilding our

connection to nature. Based on the ideas presented by Richard Louv (2005) and what he calls the “nature-deficit disorder” (10), environmental education is thus often brought forward as a potential solution. Considering that children are the citizens of the future, I do not object to this idea in principle. However, from a practical viewpoint it is hard to envision a situation where children – across the world – are given enough nature-time to successfully mend the existing rift. Will a one-time trip to Central Park or a tour of the local zoo truly challenge the view of nature and animals as occupying a peripheral position of moral subordination? As much of an optimist as I try to be, it seems unlikely to think that we can provide enough powerful experiences to achieve such a substantial shift. Especially if we are to achieve this in a way that is also sustainable.

Language on the other hand gives me more hope. As we have previously learned, words hold power while also being omnipresent. Available in all educational situations regardless of geographical or financial limitations, I thus believe that we can begin bridging the void by using language more consciously and the beauty is that there are so many paths to choose from. As such, we can make simple changes like incorporating animals and nature to a higher degree, creating a better balance by shifting the focus from a perspective that is largely human centered to one where other lifeforms are also given moral value. We can also draw directly on nature by presenting details that challenge the idea of animals as lesser beings, and instead highlighting the aspects of life that we all share. Hens as an example are not simply “egg laying machines”, but they are also capable of expressing 30 specific sounds of which 19 have been associated with activities and feelings such as nesting, fear, and contentment (Tefera, 2012). Like human infants, these are sounds that are learned during the early stages of life and that build on the strong nurturing bond between mother hens and their offspring. A vital bond also heartbreakingly demonstrated by the orca Tahlequah, who in the summer of 2018 made headlines around the world for carrying her

dead calf for 17 days and over 1000 miles (Cuthbert & Main, 2018). Grief so palpable it rang across the divide. Then there is the collection of books and poetry that we could draw on, Haiku as an example has been found to encourage ecological consciousness by presenting animals and nature as entities worthy of consideration (Stibbe, 2007). Or we can take a page from Mary Oliver, and her nature centred writing, who simultaneously managed to highlight the intrinsic value of all life along with a level of much needed humbleness in poems such as *When Death Comes* (1992):

...I think of each life as a flower, as
common
as a field daisy, and as singular,
...
and each body a lion of courage, and
something
precious to the earth.

6.1.2 Listening to other perspectives

Building on the idea of all life having intrinsic value, let us now switch to viewing the problem of division through a human lens. However, before going too deep into this topic, I want to briefly touch on the concept of prioritisation. As I see it, there is nothing inherently wrong with caring more deeply about your family, friends, and community. Similarly, we tend to hold stronger feelings for the land we think of as home; I am not immune to this myself and will not pretend otherwise. The issue, in my opinion, arises when we become virtually deaf to everyone and everything outside our closed sphere and when we do not find it morally objectionable to ignore those “others” on an ongoing basis. While part of this problem traces back to the Enlightenment

ideas discussed previously, some of it can also be linked to the Whorfian position of language dividing the world and influencing our perception (Stubbs, 1997). This view can perhaps easiest be expressed through quotes such as “If Aristotle had spoken Nootka (an American Indian Language), then we would have a different logic”. Applied to the NDC, and without being overly deterministic, can we really expect more than an ambivalent discourse from writers that most likely live and work in cities? If you never spend time in nature, marveling at the smaller aspects of life – from the perplexing flight of the hummingbird to the dew drops glistening on the leaves in the first shivering hours of the day – can you truly connect with nature and care about it as something separate from the economy? Moreover, do you speak the same language, and will you act the same way, as those who live closer to nature and repeatedly talk about it throughout their days? While our instinct might be to defend ourselves, it would seem more honest to admit that many of us speak more in line with thinkers such as Descartes and Adam Smith. We might not understand it, but by listening to the same old stories we are locked into damaging thought patterns. In the words of Marx (1852):

Men make their own history, but they do not make it as they please... The tradition of all dead generations weighs like a nightmare on the brains of the living.

How can we wake up from this dreadful dream? Luckily, Marx’s words are not inescapable because not everyone views the world through a lens coloured by rational and stoic ideals. In fact, there are a plethora of other stories that could spark change if those in power were just to accept that they do not hold all answers, that they must ask better questions, and that they need to listen to the answers provided. Of course, for this to happen we first need to embrace differences and

accept that common ground is not always the best way to achieve change. As expressed by Iris Marion Young (1997: 60), differences are “...resources to draw on for reaching understanding in democratic discussion rather than as divisions that must be overcome”. Different perspectives and different stories are all around us, we just need to have an open mindset and not dismiss them because they are told by people who are normally seen as belonging further down in the moral order. As an example, as well as a segue into the next section, let us consider part of the climate change experience expressed by Mi’kmaq youth Sophia Sidarous in *La Rose v. Canada* (2019):

The Climate Change Impacts Sophia is experiencing are making her and her peers question the morality of bringing children into this world. Sophia and many of her friends experience anxiety, depression and hopelessness when thinking of their future and climate change.

Depending on salmon and eel for their “...cultural and spiritual fulfillment and physical sustenance”, Sophia and her community clearly view nature as a central component not just to their financial but also their mental wellbeing. I believe that these are the sort of experiences that we all, but policy makers in particular, should listen to if we are to transform the way we view nature as well as the climate crisis. Importantly, these stories also present an opportunity to tap into Halliday’s idea of comparing Western discourse to language as used in non-Marxist settings.

6.2 The myth of rationalism

Climate change, as so clearly expressed in the above quote, has an ability to trigger distrust with our elected leaders while also touching us on a deeply emotional level. By disrupting our fundamental sense of continuity, it can create a sense of ontological insecurity (Norgaard, 2006)

and trigger heightened levels of anxiety as well as feelings of hopelessness, anger, and grief (Clayton, 2018; 2020). As a result, climate anxiety has become a global phenomenon that negatively affects people regardless of their direct vulnerability. Yet, as seen from the appraisal analysis, this is not the story being told in the NDCs. Instead, we are left with a story that simultaneously downplays the dangers as well as emotional toll of climate change while also expressing clear elements of hubris in terms of an overconfidence in the actions being taken.

The explanation for this destructive paradox can once again be traced to the Enlightenment and Descartes who considered reason to be the defining essence of what makes us human (Midgley, 1983:11). Building on this view of reason, expressions of emotion and affection became something actively discouraged as they were seen as unimportant, damaging, and unscientific (Midgley, 2004: 26). This is clearly problematic, because humans – just as animals – are not machines and while we are capable of rational thinking, we also process things on an emotional level (Epstein, 1994). As much as we try to argue that we only operate from a rational and logical perspective, we still move through life experiencing moments of joy, sadness, comfort, and fear; emotions that in turn shape our moral landscape as they influence how we prioritise certain things (Horberg et al., 2011). Without these important building blocks, the image of our lives is incomplete; like a story book that has lost too many pages, its moral guidance dissolving into nothingness. What is more, without feelings, climate action is harder to invoke since emotional thinking is associated with concrete action (Epstein, 1994). In other words, rather than shunning emotions and viewing them as the undoing of rational thought, we need to start thinking of feelings as a complementary way of processing information and making meaning. Similarly, we need to start to accept that not everything that we do is fair or particularly ambitious and that our collective hubris is hampering action. Hence, for environmental ethics to gain a foothold, we need to find ways to combine

emotion and reason while simultaneously acknowledging that much of what we do is environmentally unethical.

6.2.1 Reintroducing emotions

While emotions have been erased from the NDCs, this does not mean that we as readers have an emotionally detached relationship with the texts. Instead, some of us might read them with a sense of relief, happy to see that there does not seem to be a cause for serious alarm. Others might read them more in the same ecolinguistic vein as I do, a sense of overwhelming frustration caused by how little is being done while the focus is on the economy rather than the environment. What is more, the monotony of the stories leaves me with a sense of defeat. Truly, how are we supposed to achieve change if we cannot even break away from the idea of emotions as a weakness? To challenge the rational myth and make room for feelings, I do not share Glenn Albrecht's (2019) view regarding the need to coin new emotional terms such as solastagia to express the "...lived experience of distressing, negative environmental change". This is not to say that I am against the establishment of new words, but I am a proponent of simpler, less jargon filled language when it comes to highly abstract topics. In addition, I find it a stretch to believe that policy makers will happily adopt newly coined terms when they cannot bring themselves to express basic emotions such as fear or anger. As such, I believe that the words we already have at our disposal are largely sufficient, we just need to make a conscious effort to normalise feelings and to actively use them when speaking on these issues. As previous research has shown that political elites play an important role in affecting public feelings (Shao & Hao, 2020), one way that this could be achieved is for political and environmental leaders to make a conscious effort to incorporate emotions. While not the radical action we need, it would still challenge the status quo by inspiring others to

follow suit. In terms of looking for inspiration, Greta Thunberg does an excellent job of connecting her personal emotions to the moral responsibilities of political leaders (NPR, 2019):

You say you hear us and that you understand the urgency. But no matter how sad and angry I am, I do not want to believe that. Because if you really understood the situation and still kept on failing to act, then you would be evil. And that I refuse to believe.

Greta's statement is also valuable in that it aims at collaboration as she clearly does not want the in-groups and out-groups associated with the rescue narrative. Similarly, the language used by Christiana Figueres (de Ferrer, 2021) is excellent in that it combines feelings with responsibility:

I was up at the ice cap and I had to move away from everyone else and deal with my grief and my own anger. Anger at my own generation...it's [my] generation that has caused this.

While these examples provide hope, we still need to see this practice become standard while also filtering down from the macro-political level to the micro-level. As part of this transition, we also need to make sure that we share positive emotions in addition to the negative ones; gradually building our repertoire of beneficial discourses.

6.2.2 From hubris to humility

It is of course ironic that the NDCs, linguistically constructed around the idea of humans as rational beings, still present a parallel story built around an overinflated self-image of humans as morally

superior. Especially as we seem to put our faith in our ability to keep manipulating a system that has already reached its limits while simultaneously ignoring externalities. As Sadler-Smith and Akstinaite (2022) points out, this relationship highlights one of the many moral issues that come with climate change, the fact that someone eventually will be left to face the problems we have created. From this perspective, it would thus seem more moral to acknowledge the fact that we have grossly overestimated our abilities while simultaneously underestimating our dependence on nature. However, for this to happen we need to move from hubris to humility. Building on Hulme's (2014) ideas surrounding virtue ethics, I believe that we can shift the discourse to one that is more beneficial by incorporating a few important steps. First, also linking to the previous section, our elected leaders need to start incorporating virtue into the way they speak. For public understanding, they need to make clear that humans are the root of the climate crisis and that our current actions are insufficient; something that can easily be achieved by including terms associated with negative affect. Second, leaders can inspire positive change by taking a long-term leadership role while simultaneously highlighting the damage associated with short term narratives. Third, we need to normalise responsibility by calling out environmental wrongs rather than protecting industry representatives and investors out of the fear of losing capital. Crucially, we also need to call out instances when responsibility is backgrounded or erased. From the perspective of the NDCs, this means that the parties should be required to evaluate their contributions to create a better balance between virtues and vices. As part of this exercise, parties should also be asked to look beyond their own contributions to identify ways in which other countries have handled some issues better than what they are currently doing. While this will undoubtedly be a task that many might find objectionable, the UK NDC is encouraging in that it already includes one such example:

During its COP26 Presidency, the UK sought to... learn from and amplify the good practices of other countries and observer organisations.

While just a small step forward, and decidedly vague, this quote shows that humility is still alive. We just need to nurse it, along with the other beneficial stories already covered, while also challenging the impulse to turn everything around us into a competition where the goal is always to gain, never to give.

6.3 The myth of life as a struggle for survival

As the analysis shows, the NDCs are not simple stories centering around climate change being rooted in past and present human actions. Instead, our focus is financial with climate change framed as an opportunity to capitalise on emissions through new jobs and markets. Linguistically, these stories are expressed in WAR and MARKET metaphors, with the latter repeatedly linked to positive metaphorical representations of directions. While these findings expose a gap between how climate change is conceptualised and the real impact it has on the world, they are not surprising. In contexts involving problems, whether drugs, cancer, or unemployment, WAR is a frequent key metaphor (Semino, 2008: 100). This applies especially to Western countries, with similar patterns reported in previous studies (e.g., Atanasova & Koteyko, 2017). Like WAR, the MARKET metaphor has also become integral to climate discourses and their interlinked moral choices (e.g., Cojanu, 2008). Historically, this tendency goes back to the 1990s when economists and ecologists first started to collaborate on ways to help the public conceptualise their relationship to nature while also building support for conservation efforts (e.g., Daily, 1997). While well-meaning and eye-catching at first, market metaphors have gradually been linked to destructive

behaviours as they have turned ubiquitous (Norgaard, 2010): nature and ecosystems becoming synonymous with capital, climate change morphed into an economic opportunity, and poor countries turning into tools to offset the problems caused by the rich world.

While viewing the world through these frames might have come to feel natural to many of us, it introduces several aspects that are damaging from an environmental as well as a human perspective. First, it creates a “...systemic undertow of competition...” (Lietaer, 2002) or what is referred to as a Darwinian frame by Charteris-Black (2004: 138). This competitive aspect is dangerous because it obscures the fact that animals as well as people can be so much more than just opponents. With compassion, connectedness, and collaboration often perceived as being in direct opposition to this frame (Kleinlogel & Dietz, 2014), the competitive – and supposedly rational – mindset helps deepen the moral divides we have already seen. Furthermore, the combination of unrestrained competition and viewing the planet as a resource sets the stage for conflict. In the words of Eisenstein (2021: 255), “War is an unavoidable accompaniment to an economic system that demands growth”. Combined, these aspects all come together to form the conceptual key LIFE IS A STRUGGLE FOR SURVIVAL. The consequences of relating to the world through this metaphor is not to be ignored as trivial. Not only does it tell a story based on scarcity and greed, but it also legitimises relationships build on competition and the survival of the fittest as morally superior. From this perspective it is not wrong to use nature to build wealth or continue to hold the developing world to their debt payments even though any repayments will inevitably be drawn from the limited “natural capital” that is left. In fact, what it achieves is cementing the power structures that have brought us to this place; the rich world molding the poor into their image, blind or indifferent to the consequences (Lakoff, 2016: 84). To ignite change, it would thus

seem as we need to change our perception of the world along with climate change. Once again citing Eisenstein (2021: 162):

If we want to outlast the multiple crises unfolding today, let us not seek to *survive* them. That is the mindset of separation; that is resistance, a clinging to a dying past. Instead, let us shift our perspective toward reunion and think in terms of what we can give. What can we each contribute to a more beautiful world?”

In other words, it is time we start viewing nature, animals, and those less fortunate than us as something that we not only take from, or compete with, but that we also give to. Going from life as an endless struggle for “more”, to lives filled with gratitude for what we already have. For that to happen, we need new metaphors to support our stories.

6.3.1 Finding other metaphors to build upon

On a planet where so much of life relies on symbiotic relationships, we must ask ourselves why we so often fail to see others – animals as well as humans – in the role that they could play as partners. I believe that the answer to this question partly lies in the metaphors through which we view the world. As we have already discussed, both WAR and MARKET metaphors are damaging in that they do nothing to bridge the rifts identified in the NDCs. With both metaphors being highly versatile, providing an easy way to talk about climate related problems, we use them habitually. Gradually, this has made it challenging to think of other ways to talk about climate change and the planet. What is life if not a battle to secure resources? The answer to this question will obviously vary depending on who you ask, as metaphorical variation has a geographical aspect (Kövecses, 2005), but for me the response builds on a conceptualisation that I first outlined in 2019 (Chvostek,

2019). Rather than thinking about the planet as a commodity (EARTH IS A RESOURCE), I suggested that we should train ourselves to view the planet through the metaphor EARTH IS HOME. This is a conceptualisation that has been found to resonate with climate experts as well as the public (Thibodeau et al., 2017), and its advantages lie in its simplicity, its versatility, and the fact that homes are frequently associated with a sense of wellbeing and feelings of happiness and safety. It establishes a basic level of gratitude, and the frame has gained a strong global footing thanks to Greta Thunberg's speech at the 2019 World Economic Forum: "I am here to say, our house is on fire". However, despite its positive aspects, I now consider this metaphor too simplistic. Living in a world characterised by plural experiences, as well as structural inequalities, climate change is clearly something we face from different positions. Hence, building on the HOME metaphor, the image of a village might be a better conceptualisation – some of us will live in homes that are costlier and more secure whereas others will live in less valuable homes that are more exposed and vulnerable. There will be neighbours that we find morally upstanding, with whom we get along, and others that we despise or simply fail to register. It is a dynamic environment that builds on cooperation, where peace only exists if we put our differences aside and work in the same direction.

Of course, the metaphor EARTH IS A COMMUNITY is not a prescriptive one; it would be presumptuous to suggest a universal metaphor when the human experience is so varied. It is as reasonable as expected that some might already have other metaphors resonating on a deeper level. However, if we were to start thinking about earth more as a community on an intercultural level, we need to do so in a way that is inclusive. Chiefly, we cannot repeat old mistakes by turning the earth community into one solely inhabited by humans or one that is run as a business. To make space for animals, we need to challenge the moral order and our view of animals as well as other people. We need to foster a sense of kinship. As a first step in this process, I believe that we need

to challenge ourselves not to use animal metaphors when judging other humans. By calling someone a *pig* or a *snake* we are not simply insulting that person, we feed into the myth of separation by picturing animals as the darker counterpart of our moral selves (Midgley, 2004: 200). What is more, these sorts of metaphors help reinforce social exclusion as well as justifying violence directed at certain ethnic groups (e.g., Kellow & Steeves, 1998), thereby nourishing the myth of life as a struggle for survival. Being creative creatures, I am sure we can find many innovative metaphors that build on non-dehumanising attributes to substitute the ones currently in use (e.g., *moneybags* instead of *fat cats*). However, this might be one of those instances where metaphors are not the most helpful way to approach the problem. Rather, we might want to return to the domain of attitude and judgement, calling someone who takes without giving for what they are – manipulative, callous, and greedy.

6.4 Create Your Own Story

Most of the discussion so far has been on a macro-political level, but that does not mean that the micro-level is any less important. As such, I want to close with a brief note on what all this means for the vast majority of humans who will never be in that highly privileged place of having their voices heard at a UN meeting or having a journal publish their ideas. As we have seen repeatedly in the NDCs, money has become an integral, if not dominant, part of how we view the world. In the same vein, there is no question that many of the sustainable measures currently presented to us as individuals are connected to money. Until there are state funded installs of solar panels on each residential building the money for a system comes from your pocket. Even something that has a low upfront cost, such as starting a kitchen garden, or keeping a couple of chickens, is based on private financing through the ownership of land. At least in the Western world, “a sustainable

lifestyle” has thus become a mark of privilege. The way we speak though, that is free. No one will charge you a per usage cost for switching one metaphor for another or have you sign a mortgage for expressing emotions. In a world where almost everything comes with a price tag, I believe that we can use our language to start freeing ourselves from the economic frame while also paving the way for a new worldview built on something other than coins and cheques. This however requires that we also close the door on some long-held “truths”. We are not separate entities, decoupled from nature and responsibility. We do not operate on reason alone. We understand the world through metaphors and the metaphors we choose matter. The other stories – those that build on separation, reason, and an insatiable struggle for “more” – are the myths that lock us into a lifestyle that is truly unsustainable. It is those stories that keep us, not everything else, caged, ultimately feeding nothing but our dissatisfaction and demise. In the words of Robert Frost in *The Bear* (1928):

The world has room to make a bear feel free;
The universe seems cramped to you and me.
Man acts more like the poor bear in a cage,
That all day fights a nervous inward rage...

Trying to free ourselves, individually as well as communally, I believe that we all need to question our own role in the climate crisis while also reclaiming our language. In terms of responsibility, today’s environmental ethics are complicated by the fact that our threshold for what we accept in terms of environmental degradation is constantly shifting (Soga & Gaston, 2018). As a guidance for what behaviour is morally appropriate, we can turn to what Hahn et al. (2012) refers to as “Nature Language”. By paying attention to the way we speak we can divide our experiences of

nature into three different patterns: 1) the wild, patterns based on interacting with the wild natural world such as fishing for salmon using traditional methods, 2) the domestic, such as fishing from a motorboat, and 3) the perverse, such as overharvesting using bottom trawling. If your language leans towards the harmful and the impoverished, your behaviour needs to change towards the wild and domestic. If you can shift towards these more beneficial narrative patterns, share these interactions. Tell your own stories based on your love for nature and the care for it that you hold. In the end of the day, these might be the stories that spark the change we have yet to see. The stories that make us finally perceive the bounty that surrounds us, the gift that is life. When that day comes, I believe that we will no longer need documents such as the NDCs – the knowledge carried within each one of us and shared with the generations following in our footsteps.

Chapter 7

7. Conclusion

Climate scientists are clear, our unsustainable lifestyles are endangering life as we know it. However, this is not the take-home message that emerges when summarising the NDCs. Instead, while some nations refer to climate change as a “crisis”, the authors seem to have collectively built these documents around a set of ambiguous stories that reinforces damaging environmental behaviours. With human life pictured as an orderly installation – largely free of the chaos that is nature – we have detached from the non-human environment to the point where we seem indifferent to what is happening to other living beings whether they inhabit the land, the sea, or the air. There is no urgency in terms of ceasing the stripping of land for minerals or fuel, nor any remorse or guilt for the damage we have already inflicted upon animals as well as fellow humans. Equally problematic is the fact that we seem to have decoupled climate change from affect, pushing our emotions aside while highlighting our abilities and feeding into human hubris. From this, a story emerges that builds on competition and adversaries, where it is morally sound to think along the lines of “less for you is more for me”. Life painted as a never ceasing, lonely, fight for survival. Combined, these are the three myths of separation, rationalism, and struggle that have guided our movements since the Enlightenment period. It is the liberal environmentalist story (Jernnäs & Linnér, 2019), and it is life built on the echoes of voices from a time before we even began to quantify the effects of carbon dioxide on the climate. In other words, it is a story that has run its course and now needs to be rewritten to serve more than a subset of humanity, shifting our focus from protecting and enhancing economic wealth to working towards planetary wellbeing.

Ridding ourselves from the societal/cultural myths that have guided us so far, we now need new ways of seeing and perceiving life; we need stories built not around money but around environmental ethics. Stories involving the complex relationship between nature and humans, and stories taking place outside the money generating system to which we have become accustomed. Stories that involve emotions, replacing hubris with humility. Stories building on new conceptualisations while challenging old ones as well as our individual experiences of nature. These are the stories I believe that we need if we are to redraw our future (Fig. 15) and reach a state of Leubh; growing love and appreciation by finding happiness in the concept of just enough. Or borrowing a proverb from the world's currently happiest people, and the language I heard at my mother's knees, "Onnellisuus on se paikka puuttuvaisuuden ja yltäkylläisyyden välillä". Translated from Finnish into: Happiness is a place between too little and too much.

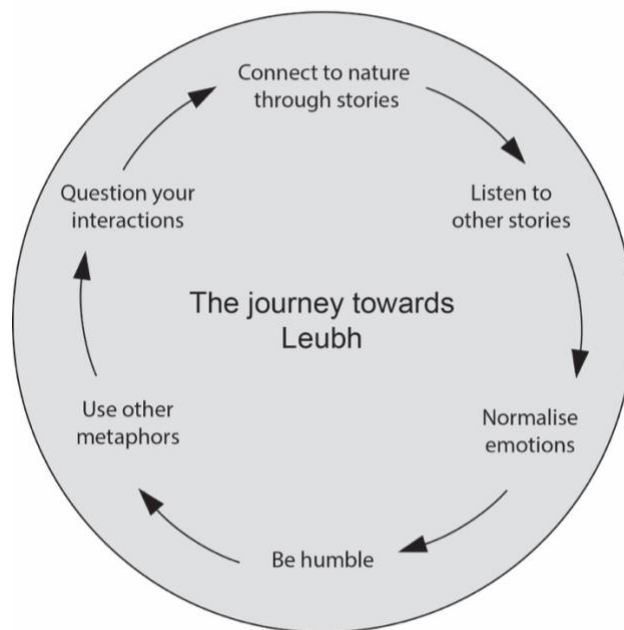


Figure 15. The six steps towards Leubh, where we use language to foster a mindset of love and appreciation for the natural world.

8. References

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