Ecological modernisation? An ecolinguistic analysis of German, Canadian and European techno-fix approaches to climate change.

Ökologische Modernisierung? Eine ökolinguistische Analyse deutscher, kanadischer und europäischer Techno-Fix Ansätze zum Klimawandel

by

Matthieu David Aaron Martin

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

Analyzing how climate change is situated in 'discourse,' the socially constituted and constitutive use of language, can tell a great deal about how the human subject sees itself in relation to nature and what problematic elements of the social realities it may consequently reproduce. The discourse analyzed here in a corpus of five publications, two Canadian, one German, and two EU, more precisely exemplifies a discourse of "ecological modernisation" which Jänicke (2008) defines as "systematic eco-innovation and its diffusion" (p. 557). In other words, it is the techno-fix approach of creating advanced technology to solve ecological problems. Two research questions have guided the inquiry: first, how does the way in which Canadian, German, & EU political elites address climate change reflect human beings' relation to nature? Second, what social and ecological reality may this kind of discourse and its corresponding ethical claims encourage and/or continue to constitute? Drawing from Fairclough's (2015) critical discourse analytical methods as well as elements from Stibbe's (2021) ecolinguistic framework, the analysis is organized according to five primary cognitive discourse structures: metaphor, framing, evaluation, salience & erasure. It is shown that the discourse portrays responses to climate change as a wartime journey toward an attainable destination against the conceptualized opponent of "climate change." Moreover, the corpus discourse frames action and nature through a capitalist lens and prioritizes economic growth and technological advancement while discursively erasing elements of the non-human world. It is argued that the ethically intertwined discourse of ecological modernisation as represented in the corpus promotes a social reality that is ecologically ambivalent, appearing at face value to reconcile environmental problems but with a technological and discursive approach which nonetheless reinforces the exploitative relationship between industrial human society and nature.

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Dedication

Pour Chloé. Dans l'espoir que tu voies un monde qui est plus gentil vers ce qui se trouve au dessous, au dessus et au sein de nous tous.

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List of Abbreviations

DEK: "Klimaschutzplan 2050: Klimaschutzpolitische Grundsätze und Ziele der Bundesregierung"

EUK: EU Kommission: "Mehr Ehrgeiz für das Klimaziel Europas bis 2030. In eine klimaneutrale Zukunft zum Wohl der Menschen investieren." (European Commission, 2020).

EUS: "Saubere Energie für alle Europäer", Europäische Kommission (Publications Office, 2019)

HEE: "A Healthy Environment and a Healthy Economy" (Government of Canada, 2020)

PCF: "Pan-Canadian Framework on Clean Growth and Climate Change" (Government of Canada, 2016)

We are using the wrong language….We have a lot of genuinely concerned people calling upon us to 'save' a world which their language simultaneously reduces to an assemblage of perfectly featureless and dispirited 'ecosystems,' 'organisms,' 'environments,' 'mechanisms' and the like. It is impossible to prefigure the salvation of the world in the same language by which the world has been dismembered and defaced.

Wendell Berry, *Life is a Miracle*

1. Introduction

In the words of the above quote, nature writer Wendell Berry acknowledges the significance of language to the social realities it shapes and by which it is shaped. What he points to specifically is a way of representing the non-human world in distorted ways which distance humans from other species. This *erasure* of the Other in the language use of a text represents one of the foci of my analytical framework, which I apply to how climate change is understood, framed, and spoken about in a corpus of multi-state publications. By describing language in terms of right and wrong, Berry also points to the embeddedness of ethical considerations within climate discourse. However, the discourse I will analyze is more precisely described as a discourse of "ecological modernisation" which Jänicke (2008) defines as "systematic eco-innovation and its diffusion" (p. 557). In other words, it is the techno-fix approach of creating advanced technology to solve ecological problems. Government plans to address climate change in this way represent an argument *for* this approach, and as Fisher and Freudenburg (2001) put it, "the lynchpin of the argument [is that] environmental problems can best be solved through *further* advancement of technology and industrialization" (p. 702). The argument for an eco-innovation approach also relies on and is intertwined with ethical claims for what the right, responsible, dutiful, and moral thing to do is. Discourses of ecological modernisation represent a metaphorical ethical 'arena' or 'playing field' on which decisions to take action are based or played out. My thesis is a study of such a discourse, and I conduct a linguistic analysis of various features contained within a corpus of government publications, some of which may shape social reality in ecologically problematic ways.

Reading the provincial climate action plan of Newfoundland and Labrador in an earlier research project ultimately provided the impetus to choose to study the language use of climate

action in publications of state and multi-state levels of government. Government policy shapes our social reality in practical ways, but also discursively through the communication of its plans in these documents. Considering its prominent role in discourse, and in climate discourse in particular, the content of the corpus thus lends itself to and fits within the research objectives of a field of research called Critical Discourse Analysis (CDA). More specifically, the corpus is suitable for an ecolinguistic approach because of the shared focus of each publication on climate change mitigation, an ecologically pertinent topic. What all publications in the corpus have in common is their shared focus, to differing extents, on technologies needed to produce low-emission or low-carbon sources of energy, working towards the goal to reduce global warming and reduce the negative effects of anthropogenic climate change. Analyzing how climate change is situated in the 'discourse,' the socially constituted and constitutive use of language, can tell a great deal about how the human subject sees itself in relation to nature and what problematic elements of the social realities it may consequently reproduce. Without tending toward reductionist or deterministic claims and conclusions, I hope to attempt answers to my research inquiry, which is twofold: first, how does the way in which Canadian, German, & EU political elites address climate change reflect our relation to nature? Second, what social and ecological reality may this kind of discourse encourage and/or continue to constitute?

 In "Why It Matters How We Frame the Environment", Lakoff (2010) necessitates using language that makes sense in the already existing system of "frames" of discourse recipients, which is a concept I will explain in Chapter 2. This is where it makes a great deal of sense for policy makers seeking to reduce emissions to use language that triggers economic framing systems. If the facts of our ecological problems are not communicated in terms of the systems of frames of the corporate world, then these facts may be ignored, and the business-as-usual

paradigm will continue to dominate. This attests to the immense power of the global economy and the importance of framing climate change to activate those framing systems that already exist in order to mobilize corporate actors to change. However, given the immense power of economic interests, stressing this point highlights that it is all the more necessary to reframe how we conceptualize climate change (and nature in general) in a way that simultaneously relates to already existing frames and promotes a more eco-centric social reality. The ethically intertwined discourse of ecological modernisation as represented in the corpus promotes a social reality that is ecologically ambivalent, appearing at face value to reconcile environmental problems but with a technological and discursive approach which nonetheless reinforces the exploitative relationship between industrial human society and nature.

Beginning first with the theoretical and conceptual groundwork, I will introduce the field of Critical Discourse Analysis, elaborate on the concept of discourse, define ethics and morals for the purpose of this study, and provide the theoretical basis for an analysis of language in politics. I will then give a detailed explanation of the discourse structures in focus. Subsequently in Chapter 3, I begin by introducing the corpus, continue to lay out the methodological approach including a response to potential biases and close with what will follow in the analysis. Next, based on the corpus discourse, I will discuss discourse features in the analysis which reveal ethical claims, anthropocentric attitudes and what is deemed important and unimportant in the context of a climate change response plan. I will achieve this in four sub-chapters focusing on metaphor, framing, evaluation and salience & erasure. Throughout the analysis I emphasize certain words and phrases in the provided excerpts to draw attention to linguistic elements of special interest. The discussion following the analysis will summarize the findings from the analysis, connect to other elements of the social and ecological context, discuss the limitations of

the project, and propose areas of further research. Finally, I will conclude with some final thoughts and suggestions for action.

      In critiquing the discourse and ethical claims represented in the corpus, I am operating from an ethical perspective as the analyst. To make my sociopolitical position explicit, as is common in the field of Critical Discourse Analysis, I will briefly describe the ecological philosophy (ecosophy) comprising my own ethical framework and analytical bias. The ecosophy guiding this thesis draws from Deep Ecology, which "recognises the intrinsic worth of humans, animals, plants and the natural world, that is, their value beyond direct, short-term use for humans" as well as Social Ecology which takes social justice within human society into account (Stibbe, 2021, p. 13). Lastly, my position also comes from an ethic of care, based on feminist ethics (see Peterson, 2001), which involves empathy for other human and non-human beings.

2. Theoretical Framework and Conceptual Background

2.1 The Field of Critical Discourse Analysis

   I will analyze the documents within the corpus drawing on theory and methods of an interdisciplinary field called "Critical Discourse Studies" (CDS) and specifically with an ecological linguistic approach, but I will consistently use the term Critical Discourse Analysis or CDA. While van Dijk has observed that scholarly work in CDA has increasingly included philosophical, theoretical, methodological, and practical developments beyond the focus on applied analysis, what I am doing here *is* an analysis, and so CDA is therefore the relevant initialism (quoted in Flowerdrew & Richardson, 2018, p. 2). The assumptions grounding my analysis relate more generally to the (1979) work of Roger Fowler, *Language and Control*, as well as that of Kress & Hodge (1979) in *Language as Ideology*, who set out to reveal the underlying ideologies in the language use of society through linguistic analysis. Building on linguist Michael Halliday's theory of systemic functional linguistics (SFL), this approach distinguished itself from the more "mainstream" linguistics and became known as Critical Linguistics. Critical Linguistics in time developed into "Critical Discourse Analysis" or CDA, in which field texts are analyzed with special consideration for the social context in which they are produced and interpreted. In his (2015) book on CDA, *Language and Power*, Norman Fairclough goes further to adopt the view that CDA has *wider objectives* than to merely analyse and criticize certain discourses. Taking this stance, he explicitly states:

   We might simply accept that there are various versions of CDA, but I shall take the view

   that CDA ought to have these wider objectives: it needs to have them if it is to make the

   serious contribution that it is capable of making to a critical social science which can help

us address the situation that we are in and the huge problems that face us. (Fairclough,

2015, p. 5).

This social problem-oriented agenda relates directly back to the problem-responsive agenda of

critical theory in the mid-20th century. Since its beginnings as a burgeoning field, CDA today

has evolved into a highly interdisciplinary approach to social science and humanities research.

But what is meant by the term 'critical'? As Fairclough sees it, "being critical is not just

identifying features and types of discourse which are open to criticisms of various sorts (e.g. are

false, or manipulative), it is also asking: *why* is the discourse like this?" (Fairclough, 2015, p. 7).

However, being 'critical' has been misinterpreted by some scholars. CDA as well as

ecolinguistics, has faced criticism for focusing too much on deconstructing negative discourses,

leading to the inception of what is called Positive Discourse Analysis (PDA) (Bartlett, 2018).

However, replacing "critical" with "positive" reveals that PDA was 'founded' based on the

misconception that criticality implies negativity, when really, it is about investigation of socio-

or ecolinguistic phenomena in a self-reflexive manner. It is also deemed "critical" because of the

goal to unveil ideological processes and power relations reflected in and reinforced through texts

(Fairclough, 2003). But this Marxist-leaning approach is situated within a theorising of ideology

that assumes the analyst's critique to stand outside ideology, representing a more valid truth. In

response to this tendency Teun van Dijk points out that making one's own biases explicit is

essential to CDA: "Unlike much other scholarship, CDA does not deny but explicitly defines and

defends its own sociopolitical position. That is, CDA is biased and proud of it" (van Dijk, 2001,

p. 96). This mirrors how Wodak understands the "C" in CDA, explaining that "basically,

`critical' is to be understood as having distance to the data, embedding the data in the social,

taking a political stance explicitly, and a focus on self-reflection as scholars doing research"

(Wodak, 2001, p. 9). Part of taking an explicit stance and self-reflecting, as I will further explain, involves acknowledging that CDA itself is discourse too.

2.2 The Concept of Discourse

Language, and language in textual form to be precise, is indeed the object of study for CDA, but it is language conceptualized specifically as a social practice, a.k.a. *discourse*. Why CDA researchers specify their object of study in this way pertains to how discourse differs from other understandings of language use in linguistics. Swiss linguist Ferdinand de Saussure famously made the distinction between *langue* (language) and *parole* (speech). To elaborate on Saussure's distinction, I will rely on Norman Fairclough's summary in the seminal book *Language and Power*. Fairclough explains that Saussure considered *langue* to be "a system or code which is prior to actual language use", and *parole* was understood as the *langue* in use. Like Saussure, Chomsky saw the primary concern of linguistics as the study of the more theoretical and idealized *langue*.

> Linguistic theory is concerned primarily with an ideal speaker-listener, in a completely homogeneous speech community, who knows its language perfectly and is unaffected by such grammatically irrelevant conditions as memory limitations, distractions, shifts of attention and interest, and errors (random or characteristic) in applying his knowledge of the language in actual performance. (Chomsky, 1965, p. 3)

Moreover, Saussure's concept of *parole* is unsatisfactory for the research aims of CDS or sociolinguistics in general, because *parole*, according to Saussure, is determined solely by the individual person. This notion regards language use as separate from human society, while in fact sociolinguists have shown that the varying language use in society is not individually determined, but rather is socially determined. That is, the way people use language "varies

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according to the social identities of people in interactions, their socially defined purposes, social setting, and so on" (Fairclough, 2015, p. 54). A general definition of language found in *The Oxford Companion to the English Language* accounts for aspects of both of the Saussurean terms *langue* and *parole* as it defines language as a "human system of communication" (*langue*) which "can be embodied in other media such as writing, print, and physical signs", that is language being used, as in the concept of *parole* ("Language," 2018). But what is missing, and what compels the use of the term *discourse* is that defining language in such a way does not treat the embodiment of language in spoken, written or other media as socially determined or socially constitutive.

In the introduction to her (2004) book, *Discourse*, Sara Mills points out that while the use of the term discourse has practically become "common currency" in a variety of disciplines, "it is often the term within theoretical texts which is least defined" (p. 1). As far as defining the term here goes, I have established a working definition of discourse, with reference to Norman Fairclough, as language as a social practice, i.e. socially determined language use in society. Collaboratively, Fairclough and fellow CDA scholar Ruth Wodak provide the following detailed definition:

> CDA sees discourse – language use in speech and writing – as a form of 'social practice'. Describing discourse as social practice implies a dialectical relationship between a particular discursive event and the situation(s), institution(s) and social structure(s) which frame it: The discursive event is shaped by them, but it also shapes them. That is, discourse is socially constitutive as well as socially conditioned – it constitutes situations, objects of knowledge, and the social identities of and relationships between people and groups of people. It is constitutive both in the sense that it helps to sustain and reproduce

the social status quo, and in the sense that it contributes to transforming it. Since

discourse is so socially consequential, it gives rise to important issues of power.

Discursive practices may have major ideological effects – that is, they can help produce

and reproduce unequal power relations between (for instance) social classes, women and

men, and ethnic/cultural majorities and minorities through the ways in which they

represent things and position people. (Fairclough & Wodak, 1997, p. 260).

In addition to speaking about discourse in general, we can refer to specific discourse*s*, e.g. an

economic discourse, a gender discourse, an environmental discourse, etc. We can identify or

recognize these specific discourses based on common linguistic and other semiotic structures

(pertaining to signs and symbols) that convey particular values and beliefs about the world (see

Flowerdrew & Richardson, 2018, pp. 2-3). Also significant to the concept of discourse is how it

relates to the concept of *ideology*. Flowerdrew and Richardson (2010) describe the relationship

between discourse and ideology as an 'underpinning', whereby ideologies underpin or underlie

discourses, defining ideologies as "sets of beliefs and values belonging to particular social

groups" (p. 3). In *Framing Discourse on the Environment*, Richard Alexander (2009) defines

ideologies similarly as "systems of meaning, value and belief" (p. 13). Furthermore, Kress &

Hodge (1979) call ideology a "systematically organized presentation of reality" which involves

language, "and presenting anything in or through language involves selection" (p. 15). In

summary, ideology denotes values and beliefs shared among specific groups in society, and any

given discourse constitutes social reality in ways that correspond to the values and beliefs of an

ideological framework. However, pertaining to Flowerdrew & Richardson's (2010) implied

spatially oriented relationship 'between' ideology and discourse, CDA generally claims that

discourse produces our social reality rather than merely reflects it. It is both socially constitu*ted*

and socially constitu*tive*. If ideology is understood as underpinning discourse and as something that gives rise to discourse, this treats them as separate phenomena. The 'underpinning' relationship implies that discourse emerges as the product of a separate process called 'ideology', rather than the social reality being the product of discourse, contradicting a central tenet in CDA that ideologies *are* discourses in and of themselves. In my approach to analyzing the corpus, I will take a more discourse theory-oriented approach in line with Foucauldian notions of discourse as opposed to the more Marxist, ideology-oriented approach for two reasons. First, the ideology-theory approach has traditionally regarded the scientist in a truth-speaking position above the falsities of the ideological Other. Referencing Louis Althusser and Terence Eagleton, Mills elaborates on how ideology theory, and Althusser's work especially, assumes that the theorist or analyst offers a presumably 'objective' critique. Mills points out that, in this way, "ideology is often characterised as false consciousness or an imagined representation of the real conditions of existence; the position from which this falseness is apprehended is that of critique and stands outside ideology" (Mills, 2004, p. 29). On the other hand, Foucault, as Mills explains, does not presume to stand outside ideology and speak the truth, but rather is aware of his embeddedness in a contemporary discursive framework. Kress & Hodge (1979) also critiqued this notion of scientific truth, pointing out that science too is ideological: "Science is a systematization from a point of view: so is a political ideology. Political ideology is liable to project fantasy versions of reality, but science deals in hypothetical constructs whose status is not always so very different" (6). And in the case of critical discourse analysis, Fairclough asks the question, "but what is CDA itself *but* discourse?" (Fairclough, 2015, p. 9). Therefore, my own analysis of discourse is discourse itself, and as such is inevitably ideological. Second, discourse theory based on Foucauldian ideas offers more explanatory power in its acknowledgement of the

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complexities of interdiscursive relations. Mills compares Marxist theorists' and Foucault's understandings of language and how it figures in society. She quotes Foucault: "'As history constantly teaches us, discourse is not simply that which translates struggles or systems of domination, but is the thing for which and by which there is struggle' (Foucault, 1981: 52–53)" and "'discourse transmits and produces power; it reinforces it, but also undermines it and exposes it, renders it fragile and makes it possible to thwart it.' (Foucault, 1978: 100–1)." (Mills, 2004, p. 38; p. 40). Not only is my analysis a discourse itself, and as such is ideological, it is embedded in a larger discursive struggle which seeks ecological justice. By critiquing the discourse in the corpus, I am hoping, in a modest way, to render the dominant ecological modernisation discourse 'fragile' and make it possible to 'thwart' a potentially ecologically destructive or ambivalent "story to live by" found therein.

2.3 Ethics and Morals Defined

Ethical concepts and notions of morality are central to the argument and object of analysis discussed in this thesis. In the climate change response plans forming the corpus, there is a great deal of proposing what *should* and *must* be done, presenting the response as a *responsibility* and *obligation* to future generations. The words in emphasis, in relation to specific examples in the corpus, demonstrate a certain ethical point of view. For this reason, it is crucial to describe the working definitions of ethics and morals. But rather than merely regurgitate encyclopedic information in isolation, I will define the terms in relation to each other. According to British philosopher Simon Blackburn, ethics entails "the study of the concepts involved in practical reasoning: good, right, duty, obligation, virtue, freedom, rationality, choice" ("morality," 2016). Ethics has also been defined as "the body of knowledge that involves determining right and wrong conduct" and "the branch of philosophy dealing with distinctions

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between right and wrong, with the moral consequences of human actions" ("ethics," 2019; "ethics," 2018). Also making explicit mention of morality within a definition of ethics, Park & Allaby define ethics as "the philosophical study of moral values and rules, that inform decisions about wrong and right" ("ethics," 2017). But what is the difference between an ethical framework and a moral one, between a person's ethics and their morals? Intriguingly, Blackburn states in an entry on morality that "the morality of people and their ethics amount to the same thing" ("morality," 2016). Clearly the terms are tightly bound together. A concise definition of morals from Michael Kent helps clarify a possible way of understanding the two concepts' relationship to each other. Kent sees morals as "principles of behaviour based on the concepts of right and wrong" ("morals," 2006). Describing the examples of pre-marital cohabitation and homosexuality, Porta (2018) points out, albeit in a rather generalizing fashion, that morals can also change and have changed over time ("morals," 2018). In brief, concepts of right and wrong, according to previously mentioned definitions, are *ethical* concepts. Morals then, could be said to be rules for how we behave based on notions of what we consider right, wrong, dutiful, virtuous, responsible, and so forth. Vocabulary which 'moralizes' therefore calls attention to these rules of how to behave based on the relevant ethical concepts.

2.4 Language in the Political Realm

Since the data I have collected consists primarily of government publications, and thus fit the political category, considering language in politics is especially relevant to my analysis. To a great extent, social (and thus ecological) phenomena are inextricably tied to the political arena. Though one might critically question the phrasing "social (and thus ecological) phenomena" by asking: Is it not true that we are in fact not *eco*-logical at all, but rather are *ego*-logical, or anthropocentric, which is to some extent why we are dealing with the environmental issues we

face? To briefly explain, what I mean by "social (and thus ecological) phenomena" pertaining to politics is that humans are living things who depend on the Earth's ecosystems to survive, just as the blade of quack grass or the beluga whale does. Therefore, we are ecological beings at least in that sense of the term. Our societies, then, also depend on our ecosystems. So social phenomena are inherently ecological phenomena because so too are we. Politics in particular, a social phenomenon where language use abounds, represents a site of discourse that is particularly significant in terms of the social and consequently ecological "effects" that language use has. Paul Chilton writes: "political actors recognise the role of language because its use has effects, and because politics *is* very largely the use of language, even if the converse is not true — not every use of language is political" (Chilton, 2004, p. 14). Also noting the linguistic core of politics, Heiko Girnth begins his book *Sprache und Sprachverwendung in der Politik* with the following point:

> Sprache ist nicht nur irgendein Instrument der Politik, sondern überhaupt erst die Bedingung ihrer Möglichkeit. Für die politischen Akteure geht es darum, politische Handlungen zu begründen, zu kritisieren und zu rechtfertigen, die eigene Position argumentativ zu stützen und glaubwürdig zu vertreten. In den Printmedien, im Fernsehen, im Rundfunk und im Internet wird über das politische Tagesgeschehen informiert, werden politische Sachverhalte kommentiert und bewertet. Dies alles geschieht mit und durch Sprache. (Girnth, 2015, p. 1)[1]

Girnth also makes explicit that when he refers to language in politics, he is referring to *linguistic acts* in politics. He continues by defining politics, examining multiple definitions, and points out Walther Dieckmann's definition of politics as particularly suitable to the study of political

[1] see Appendix D i. for translation

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linguistics. Dieckmann views politics as "staatliches oder auf den Staat bezogenes Reden" (cited in Girnth, 2015, p. 1).[2] The suitability of this definition lies first in its inclusion of individuals and groups in society who may make reference to state affairs as opposed to politics being seen as exclusively a matter of governing elites. Second, it acknowledges language use's inherent place in the realm of politics. As could be said of just about any human intellectual endeavour, without politics, there is still language, but without language, there is no politics.

The language used in politics typically belongs to what Heiko Girnth calls 'the political lexicon' (das politische Lexikon). 'Lexicon' here is a technical term for a 'set of vocabulary'. This can refer to the level of the individual person's 'lexicon', that of a group or institution in society or a branch of knowledge (see Merriam-Webster, "Lexicon"). The 'political' lexicon then represents politically relevant words that form a section of vocabulary within the broader lexicon of a language (see Girnth, 2002, p. 47). Girnth points out that it is very difficult, if not impossible, to draw clear boundaries between a political lexicon and the lexica of other branches of knowledge in society. While Paul Chilton's statement in the quote above that, "not every use of language is political" may be true, Girnth has argued that almost every use of language at least has the potential to be used politically, even highly specialized vocabulary. He explains this politicization process with the medical term "Präimplantantationsdiagnostik" (PID) (preimplantation genetic diagnosis) used in a speech in 2001 given by Johannes Rau, President of Germany from 1999 to 2004. Along with the use of other bio-medical terms like genetisch (genetic), Befruchtung (fertilisation), and Embryo, Rau asks whether a human embryo that is intended to be artificially implanted should be allowed to be scanned for genetic defects prior to implantation. If such a scan were to be allowed, it could mean choosing not to see the viable

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[2] see Appendix D ii. for translation

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embryo through to its gradual development into a small human being, revealing its situation in the larger 'pro-life vs. pro-choice' debate. Once perhaps thought to exist outside the political lexicon, the example of "PID" shows that very field- or discipline-specific vocabulary can become politically relevant through their use in politics.

Girnth, as Kress & Hodge (1979) have done, highlights the act of selecting words and expressions in presenting reality linguistically: "Der Politiker als handelnder Akteur steht täglich vor vielfältigen Selektionsentscheidungen, die sich für ihn in der Frage bündeln: Wie benenne ich was wie für wen in welcher Kommunikationssituation?" (Girnth, 2002, p. 47).[3] A specific discourse represents the product of those selection decisions, so we can therefore trace these words back to an ideology or ideologies to which they conform. Some words possess what Walther Dieckmann calls "ideologische Polysemie" (ideological polysemy), a kind of lexical ambiguity in which certain words are shared across different ideologies and whose interpreted meanings appear in parallel with one another in language (see Dieckmann, 1969, p. 71). The example Dieckmann gives in this chapter, and on which Girnth builds, is 'democracy'. Simply put, democracy can mean slightly different things depending on who is speaking and how democracy figures in their ideological framework. Words that are ideologically polysemous, as well as words that are more ideologically specific, exist within what is called an *Ideologievokabular* (ideological vocabulary) within a given political lexicon. Words within this set of vocabulary are what Girnth describes as "ideologiegebundene Wörter" (ideology-bound words) and have three dimensions: the denotative, the evaluative, and the deontic. The denotative aspect refers to how a word is characterized, the evaluative, whether it is considered positive or negative, and the deontic, the extent to which there is implied obligation attached to such a word.

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[3] see Appendix D iii. for translation

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Democracy, for example, can be characterized a form a government (denotative), is perceived as positive or negative (evaluative), and may be thought of as an institution that *should* or *should not* be implemented (the modal verb "should" implyies obligation, therefore pertaining to the deontic dimension). A significant element of the deontic part of an ideologically-bound word is the call to action. If a speaker believes that democracy "should be implemented", this reflects a prompt or call to do something. What *should* or *must* be done quickly reveals how something is evaluated and what the underlying value and belief system is,, i.e. the ideology, to which that something is bound. But considering that my approach aims to be more discourse theory-oriented rather than ideology-theory oriented, we might build on Girnth's theory and instead speak of *discourse-bound* vocabulary, which figures in a particular *discursive* rather than *ideological* framework. This is relevant to my study, because I will demonstrate how the corpus presents a discourse that is *bound* to ecological modernisation, which reveals positive evaluations of economic growth and suggests that what should or must be done will involve tackling environmental problems with technology.

2.5 Discourse structures *"We Live By"*

What we believe, what we value, and how we understand and perceive the world around us is inseparable from our thoughts, our words, and forms our conceptual system. We "live by" our conceptual system, meaning that it guides our behaviour. It is from Lakoff and Johnson's (1980) book title that Arran Stibbe received the inspiration for the expression "stories we live by" in the title of *Ecolinguistics: Language, Ecology, and the Stories We Live By*. Here, 'stories' is used in the sense of "cognitive structures in the minds of individuals which influence how they think, talk and act", and Stibbe (2021) defines the "*stories we live by*" as "stories in the minds of multiple individuals across a culture" (p. 6). The relation of discourse and recipient requires

some clarification. Of course, as some scholars point out, the influence of certain discourses should not be reduced to a linguistic deterministic view, which assumes the discourse recipient to be a passive vehicle of behaviour-altering ideology. Regarding how this in turn influences how humans interact with the environment, Breeze maintains:

> It is uncontroversial to assume the existence of a significant relationship between discourse and people's view of reality. However, it is equally obvious that in a globalised world people are exposed to many different discourses, and that they learn to navigate them, ignoring many, accepting some, rejecting others. (Breeze, 2013, p. 508)

In response, I would first point out that Breeze assumes that "they", i.e., the people in the globalised world, have equal opportunity to learn to "navigate," "ignore," "accept," or "reject" different discourses, which is unlikely. While people may not be passive recipients of discourses, some people may be more susceptible to influence from certain discourses than others.

Rather than demonstrate some linguistic determinism related to ecological issues, ecolinguistics aims to empower more people to achieve that capability to resist ecologically-destructive discourses (Stibbe, 2021). The primary means of encouraging this criticality is through revealing cognitive discourse structures as they manifest in linguistic texts. In this way, ecolinguistics exemplifies a socio-cognitive approach, or perhaps rather, an *eco*-cognitive approach. Regarding the former, Teun van Dijk explains that Socio-Cognitive Discourse Studies (SCDS) "not only makes explicit the fundamental role of mental representations, but also shows that many structures of discourse itself can only (completely) be described in terms of various cognitive notions, especially those of information, beliefs or knowledge of participants" (van Dijk, 2018, p. 28). He then lists a number of discourse structures that can be described in cognitive terms. Several of them, such as appraisal, frames, and metaphors, to name a few, will

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be the focus of my analysis and are explained in the next section. The other "crucial step further" in the SCDS approach includes what is called the "*cognitive interface*" between discourse and society, which takes into account the *minds* of language users. "Stories" in the way Stibbe uses the term, are discourse structures that exist in the minds of language users. The analyst can problematize underlying stories based on linguistic features in the discourse and argue whether it promotes an ecologically destructive, ambivalent, or beneficial discourse. Thus, the *cognitive interface* in question from an ecolinguistic point of view is that involving discourse and *ecology*, rather than solely discourse and society.

2.6 Conceptual Background and Review of Scholarship for the Analysis

In order to provide an overview of the scholarship to which my analysis contributes, I will first explain the concepts of metaphor, framing, evaluations, salience and erasure. In accordance with each of these discourse structures, I will tie in the relevant works that have informed and inspired the study. How I came to identify the specific metaphors, framings, evaluations, and foci of salience and erasure will be the subject of my methodological approach in the next chapter. Closing the review of concepts and scholarship, I will illustrate how my study is unique in its approach and in what way it contributes to the field of ecolinguistics.

i.) Conceptual Metaphor Theory

Analysing the discourse found in my corpus invites special attention to numerous *conceptual* metaphors. Some are common to all texts in the corpus, and some are more exclusive. Here, I will provide some background on the theory of conceptual metaphor on which I ground a significant portion of the analysis. To begin with a seminal work in conceptual metaphor, Lakoff and Johnson's (1980) *Metaphors We Live By* provided new scholarship in the field of cognitive

linguistics on the role that metaphors play in our everyday lives, arguing that they are fundamental to our conceptual system:

> The concepts that govern our thought are not just matters of the intellect. They also govern our everyday functioning, down to the most mundane details. Our concepts structure what we perceive, how we get around in the world and how we relate to other people. Our conceptual system thus plays a central role in defining our everyday realities. (Lakoff & Johnson, 1980, p. 3)

Sometimes called cognitive metaphor theory, conceptual metaphor theory rests on the basic principle that a metaphor operates in the thinking of an individual's mind (i.e., cognition). Specifically, the underlying theoretical argument is that a metaphor connects one conceptual 'domain' to another conceptual 'domain'. Alice Deignan (2010) defines a conceptual domain as an "area of meaning, such as the ideas associated with CLEANLINESS AND DIRT" (p. 44). Deignan also notes that it is commonplace in conceptual metaphor research to use small capital letters to denote either the domain(s) or the metaphor(s) that the researcher is describing. This area of meaning or *domain* encompasses "sets of linked entities, attributes, processes and relationships" which are organized in our mind *lexically*, that is, "expressed in language, through words and expressions" (44). For instance, a metaphor like PANDEMIC IS WAR involves two conceptual domains: a.) WAR and b.) PANDEMIC in which conceptual elements of the PANDEMIC are understood in terms of conceptual elements of WAR. Expressions such as 'the *battle* or *fight* against COVID-19' and '*frontline* workers' are some examples of this conceptual metaphor. The first conceptual domain (WAR) includes words and expressions like *fight*, *battle*, *frontline*, *attack*, *defend*, *hit*, etc. and is known by the term *source domain*. This is the area of meaning from which terms are sourced in order to describe the *target domain* (PANDEMIC), comprising lexical items

such as *virus*, *COVID-19*, *vaccine*, *epidemiology*, *spike protein*, and so forth. What is meant by 'understanding' the target domain in terms of the source domain is also worth clarifying. When the target domain is 'understood' using terms from the source domain, this means that certain words or expressions form what Zoltàn Kövesces refers to as "sets of systematic correspondences between the source and the target" in the sense that certain elements of the source domain *correspond* to elements in the target domain (Kövesces, 2002, p. 6). The technical term for these sets of corresponding elements between domains is "mappings." So, when someone 'declares' that humanity is 'battling the (corona)virus', terms of the source domain WAR ('declares' (as in declaration of war) and 'battling') are *mapped onto* the target domain of PANDEMIC (the 'virus'), which represents the area of meaning this individual is trying to describe. A particularly intriguing aspect of the conceptual metaphorical process is what is called the *principle of unidirectionality*, whereby "the metaphorical process typically goes from the more concrete to the more abstract but not the other way around" (ibid.). According to this principle, it is typical to find a metaphor structured so that the relatively abstract domain of PANDEMIC is understood in terms of the relatively more concrete terms of WAR, but finding a metaphor that maps more abstract terms onto more concrete terms would not be as common. If a conceptual metaphor such as WAR IS PANDEMIC were to exist, a hypothetical example might relate to how more and more countries became involved in World War II as though war spread throughout the world like a disease. Newspaper headlines might state something along the lines of 'the deployment of troops is *spreading* like *chickenpox*' in which war is understood to behave like a disease (reflecting a fascinating underlying ideological framework that could be revealed). However, such a (hypothetical) example would be considered atypical from the perspective of the empirically-based principle of unidirectionality. Instead, cognitive linguists argue that we

tend to map terms of the more concrete domain onto the abstract domain in the metaphorical process. So far, the type of conceptual metaphor described represents what is called a *structural metaphor*, where the concept of a target domain is understood by the vocabulary and structure of the source domain, i.e., the source domain conceptual system metaphorically *structures* the concept of the target domain.

Additional types of metaphor relevant to my analysis are 1.) *ontological metaphors*, which are "ways of viewing events, activities, emotions, ideas, etc., as entities and substances" and 2.) *orientational metaphors*, which "give a concept a spatial orientation", (Lakoff & Johnson, 1980, p. 25; p. 14). Lakoff & Johnson explain the experiential basis at the core of our largely metaphorically structured thought processes, pointing out that "as in the case of orientational metaphors, basic ontological metaphors are grounded by virtue of *systematic correlates within our experience*" (58). In other words, our physical experiences in the world which become our concrete conceptual domains function as the foundation to understand more abstract concepts. Regarding the abstract concepts of ethics and morality as it pertains to the metaphor ETHICAL IS CLEAN, I draw on ideas from Mary Douglas' (1960) *Purity and Danger*. Also key to my analysis is Omar Lizardo's (2012) work on metaphors, which relates conceptual metaphor to Douglas' ideas regarding cleanliness and moral purity. With respect to ecological issues and metaphor, Raymond et al. (2013) explored the use of the term "ecosystem services" and its link to what they refer to as the economic production metaphor. Identifying how nature in particular is conceptualized, Ponton (2015) conducts an ecocritical analysis of metaphors such as NATURE IS A SYSTEM, NATURE IS A SICK PATIENT and NATURE IS A COMMODITY. More specific to the discourse of climate change, Asplund's (2011) study of metaphors in Swedish agricultural media discussed the occurrence of *game metaphor* (CLIMATE CHANGE IS A GAME), *war*

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metaphor (CLIMATE CHANGE IS WAR) and greenhouse metaphor (EARTH IS A GREENHOUSE).

Conceptualizing climate change using military terminology has also been a focus of numerous

other studies (Romaine, 1996; Cohen, 2011; Atanasova & Koteyko, 2017; Flusberg et al., 2017).

Other metaphors such as PLANET IS A BODY and PLANET IS A MACHINE have been the subject of

Nerlich & Jaspal's (2012) investigation of geoengineering discourse in which they identify

metaphors in discourse proposing the use of technology such as reflective panels to redirect

sunlight back into space to limit global warming. Shaw & Nerlich (2015) criticize this approach,

arguing that it is reductionist in that "climate change becomes a plumbing problem, a problem of

technology and money (economy)" (p. 38). In addition to reductionist approaches and

oversimplification, Kövecses (2002) points out that metaphors tend to highlight certain aspects

of the source domain, which are mapped onto the target domain, while others remain hidden.

This is one primary way in which the concepts of metaphor and salience and erasure (explained

later) are intertwined. I will demonstrate that not only are certain metaphors made salient in the

corpus, there is salience and erasure within the metaphors themselves.

ii.) Frames and Framing

I will use the term "frame" here in the sense of a "package of knowledge about an area of

life" (Stibbe, 2021, p. 40). These packages of knowledge include "semantic roles, relations

between roles, and relations to other frames" (Lakoff, 2010, p. 71). Fram*ing*, then, refers to the

process of creating a frame in discourse to structure how a specific area of life is understood.

Framing and metaphors are very similar concepts and are often used interchangeably in

scholarship. We might recall that metaphors are typically defined as consisting of a source

domain, a relatively more concrete area of life, and a target domain, the more abstract area of life

we are trying to understand in the vocabulary and structure of the source domain. Framing

essentially *does* the same thing, and 'does' is the operative word here because framing is a verb and denotes some extent of action. Metaphor, on the other hand, is a noun referring to a cognitive structure that is the result of or pertains to a specific framing. The metaphorical process could be said to be a way of framing or a framing *device*. What is of interest to my study of the ecological modernisation discourse of the corpus is how climate change and nature itself are being framed: how are climate change and nature understood using a "package of knowledge" from another area of life? The ways of framing climate change as an economic opportunity has also been identified by Jänicke (2008), who investigates the paradoxical 'merging' of environment and economy in ecological modernisation discourse. Dahl & Fløttum (2019) explored the different framings of climate change among energy companies, concluding that Total (France) primarily frames climate change as a corporate responsibility, Suncor (Canada) as a business risk, and Statoil (Norway) as a business opportunity. The economic opportunist approach also harkens back to the time of Thatcher, whose framings of climate change as a global problem and an economic opportunity represented discursive strategies that Carvalho (2005) argues are in line with neoliberal principles. Regarding the connection to ethics, Sabet (2014) relates framing to morality and pro-environmental behaviour, examining different framings of climate change mitigation policies. Two of the framings Sabet discusses are the economic opportunity framing as well as the ethical obligation frame. Both of these frames appear intertwined in my own corpus, conveying the obligation, duty and necessity to grow the economy with technological advancement for future generations. Sabet identifies these as separate framings, but I intend to demonstrate their entanglement with one another with evidence from the corpus.

iii.) Evaluations

Alexander (2009) boldly draws the connection between framing and evaluation in his observation that "it is increasingly accepted that representations of the 'natural' world are socially constructed: that all representations and presentations of 'facts' involve 'evaluation'" (p. 3). The theoretical basis for analyzing evaluative language is grounded in appraisal theory (White, 2004; Martin & White, 2005; Martin & Rose, 2007). Linguistic research applying appraisal theory pays close attention to words called *appraisal items* like 'good' or 'bad', 'happy' or 'sad,' to name a few, which convey certain attitudes in spoken or written language. Appraisal items represent one of the linguistic features that comprise *appraisal patterns*, that is, "clusters of linguistic features which come together to represent an area of life as good or bad" (Stibbe, 2021, p. 79). One of the premises of ecolinguistics is that these patterns of appraisal underlie thinking of certain areas of life as either positive or negative, which in turn influences how we treat the planet's ecosystems. A major appraisal pattern that appears in the corpus, and which has been identified in scholarship such as Ferguson's (2015) paper, is the ECONOMIC GROWTH IS GOOD evaluation. The rationale that is tightly linked and often cited in conjunction with this appraisal pattern is the use of GDP as a yardstick for human well-being, but Ferguson also criticizes the validity of GDP as a measure of well-being, a bandwagon of critique occupied by myriad other papers (Cavalletti & Corsi, 2016; Costanza et al., 2009; Giannetti et al., 2015; Kubiszewski et al., 2013; Stiglitz et al., 2010). To connect evaluations to metaphor, ECONOMIC GROWTH represents an example of the conceptual metaphor of ECONOMY IS A PERSON, assuming that the economy is conceptualized as a living entity that is attributed the property of growth (such as a person). Growth itself often connotes a positive process and is rooted in culturally coherent orientational metaphors. Lakoff & Johnson (1980) explain: "orientational metaphors give a concept a spatial orientation; for example, HAPPY IS UP. The fact that the concept HAPPY is

oriented UP leads to English expressions like 'I'm feeling *up* today.'" (14). Another example of such a metaphor on which we base our physical and social experience is GOOD IS UP, which is also reflected in a German expression such as "Daumen *hoch*" (literally: thumbs 'high'), an expression that communicates well-being or approval. The concept of growth is also orientationally experienced, which aligns with the GOOD IS UP metaphor. As bipedal creatures, we normally grow taller as we reach adulthood, i.e. we grow *up*. And in the realm of plants, particularly in gardening and agriculture, many plants like the apple tree, wheat plant or the celery stalk grow upwards, and that plant growth in turn sustains our lives. Generally, then, combining GOOD IS UP and GROWTH IS UP often yields the evaluation GROWTH IS GOOD. Even the growth of a malignant brain tumour, while bad for an individual's chance of survival, is still good from the tumour's point of view. When speaking of the evaluation ECONOMIC GROWTH IS GOOD, it begs the question: good for whom? As an economic phenomenon claiming to foster human prosperity at the expense of other living beings, the answer typically tends toward humans and the global capitalist economy.

iv.) Salience and Erasure

Besides evaluations, critical analysis of discourses of ecological modernisation can apply the concepts of "salience" and "erasure," that is, who and/or what takes centre stage in the discourse (salience), and who and/or what has been marginalized (erasure). This line of inquiry aims to provide answers pertaining to the concepts of *salience*, "a story in people's minds that an area of life is important or worthy of attention," and *erasure*, "suppression, backgrounding, exclusion, abstraction, and, in general, any means by which texts draw attention away from certain participants or areas of life," respectively (Stibbe, 2021, p. 160; p. 141). Erasure has also been defined as a "form of exclusion or marginalization, particularly in relation to identity

categories" and "exclusion" as "an aspect of social actor representation where particular social actors do not appear in a text or as part of a discourse" (Baker and Ellece, 2011 p. 40). Van Leeuwen (2008) specifies between two main types of erasure: *suppression* (entirely absent from the discourse) and *backgrounding* (absent from one part of a text but appearing later on) (p. 29). In the discourse of ecological modernisation, Everett & Neu (2000) point out the erasure of certain groups of people as an unintended consequence. Regarding the erasure of the non-human, Kahn (2001) analyzed scientific language in which the agent of harm is erased through the passive construction and the harmed non-human beings are constructed as affected participants.

The value of a quantitative presentation in relation to salience actually pertains to framing and basic understandings of cognition. To elaborate on the importance of observing what is made salient and repeated, I will quote Lakoff, who puts it succinctly.

> Since political ideologies are, of course, characterized by systems of frames, ideological language will activate that ideological system. Since the synapses in neural circuits are made stronger the more they are activated, the repetition of ideological language will strengthen the circuits for that ideology in a hearer's brain. And since language that is repeated very often becomes ''normally used'' language, ideological language repeated often enough can become ''normal language'' but still activate that ideology unconsciously in the brains of citizens—and journalists. In short, one cannot avoid framing. The only question is, whose frames are being activated—and hence strengthened—in the brains of the public. (Lakoff, 2010, p. 72).

Language made salient and what is *foregrounded* or *activated* in discourse will thus reinforce certain cognitive circuitry and ways of thinking about the human and non-human world. To make the connection between salience and ethics, I will elaborate with a quote from naturalist

Aldo Leopold who writes: "We can be ethical only in relation to something we can see, feel, understand, love, or otherwise have faith in" (Leopold, 1979, p. 214). Discursive erasure implying that something is unimportant and not worthy of attention distances the social actor from that thing to the point where it becomes increasingly difficult for it to enter a realm of ethical consideration.

v.) Wherein Lies the Niche

Although I am employing multiple elements from Stibbe's (2021) framework, my study is different in the application of these discourse structures to guide an analysis on one single, multi-state, bilingual corpus. In this way, it is more specific, narrowing in on a small set of publications. Though compared to many of the scholars whose work I integrate and whose work informs and inspires my study, my approach is quite diverse in the attention to multiple discourse structures as opposed to only metaphor, only framing, only evaluations or only salience and erasure. Therefore, this thesis offers a unique approach to identify a wide estuary of linguistic structures in both German and English in a more narrow canal of ecological modernisation discourse.

3. Methodological Framework

3.1 Introducing the Corpus: A Selection of Multi-governmental Publications

In order to compile a body of texts that represent ecological modernisation discourse in Canada and Germany (and Europe), I have put together a corpus consisting of five publications in total: the "Pan-Canadian Framework on Clean Growth and Climate Change" (PCF), "A Healthy Environment and a Healthy Economy" (HEE), "Saubere Energie für alle Europäer" (EUS), "Mehr Ehrgeiz für das Klimaziel Europas bis 2030: In eine klimaneutrale Zukunft zum Wohl der Menschen investieren" (EUK), and "Klimaschutzplan 2050: Klimapolitische Grundsätze und Ziele der Bundesregierung" (DEK). I will use the initialisms PCF, HEE, EUS, EUK and DEK, respectively, corresponding to each document for writer's convenience and reader's ease. Canadian documents will be cited in English, but they are of course accessible in both French and English. The European Union documents, originally written in English and translated into German (as well as other EU languages), will be cited in German alongside Germany's climate action plan.

i.) "Pan-Canadian Framework on Clean Growth and Climate Change" (Government of Canada, 2016) & "A Healthy Environment and a Healthy Economy" (Government of Canada, 2020) (PCF & HEE, respectively)

The Pan-Canadian Framework is an 86-page document representing Canada's climate action plan, which began with the "Vancouver Declaration on Clean Growth and Climate Change" on March 3rd, 2016. The plan represents a collaboration between the Government of Canada, provincial and territorial governments, consultation with Indigenous peoples and other members of the Canadian public. On April 22nd the "Let's Talk Climate Action" website was launched: "the working groups heard solutions directly from Canadians, through an interactive website, in-person engagement sessions, and independent town halls" (PCF, 2). On September

27th the website was closed, and the plan was announced in December. However, Saskatchewan and Manitoba did not sign on, refusing to abide by the federal government's imposition of a nation-wide carbon tax (Cheadle, 2016). Both provinces instead went on to release their own plans independent of the Pan-Canadian Framework (see Government of Manitoba, 2017; Government of Saskatchewan, 2017). By implementing their plan, the federal government hopes to "grow [the] economy while reducing emissions and building resilience to adapt to a changing climate" (PCF, "Forward"). "A Healthy Environment and a Healthy Economy" represents the updated or "strengthened" Canadian climate plan, which was announced in December, 2020. While the two plans are very similar in structure and focus, the 2020 plan places more emphasis on affordability of renewable energy in both the home and in public and private transportation. It also advocates for more nature-oriented projects to foster more ecologically holistic resilience in communities as opposed to achieving resilience primarily via economic growth and financial prosperity.

ii.) "Saubere Energie für alle Europäer", Europäische Kommission (Publications Office, 2019) (EUS)

Part of the European Green Deal and available in six languages (Spanish, English, French, German, Italian, Polish), the EU's "Saubere Energie" publication presents the advantages of the EU's new green deal regulations with regard to energy. The energy department of the European Commission is responsible for the EU's energy politics and is tasked with securing "sichere und nachhaltige Energie zu wettbewerbsfähigen Preisen" for Europe (Europäische Kommission, 2021). Advantages are highlighted in terms of the environmental, economic, security, consumer, and international level long-term benefits (EUS, p. 1). The document, signed by Directorate-General for Energy, Dominique Ristori, and EU-Commissioner

for climate politics and energy, Miguel Arias Canete, was completed in March of 2019 and later published in the publications office of the EU on July 26th, 2019 (Publications Office, 2019).

iii.) "Klimaschutzplan 2050: Klimaschutzpolitische Grundsätze und Ziele der Bundesregierung" (DEK)

Finished in November of 2016 following the 2015 Paris Agreement, *Klimaschutz 2050* outlines measures to be taken by the German Bundesregierung in order to reach "Klimaneutralität" by 2050. A later review and updating of the plan will involve input from states, municipalities, industry, civil society and citizens: "*Überprüfung und Fortschreibung des Klimaschutzplans selbst erfolgen auch zukünftig in einem gesellschaftlichen Diskursprozess unter breiter Beteiligung der Länder, Kommunen, Wirtschaft, Zivilgesellschaft und Bürgerinnen und Bürger*" (DEK, p. 79). The publication can be found on the Bundesregierung's "Bundesministerium für Umwelt, Naturschutz und nucleare Sicherheit" website (Bundesministerium, 2016).

iv.) EU Kommission's: "Mehr Ehrgeiz für das Klimaziel Europas bis 2030. In eine klimaneutrale Zukunft zum Wohl der Menschen investieren." (European Commission, 2020). (EUK)

The final publication of the corpus represents the European Commission's communication on their 2030 Climate Target Plan, which aims to cut GHG emissions by 55% by 2030, working towards climate neutrality by 2050. In March of 2020, the commission welcomed input in a public consultation phase, receiving over 4,000 contributions which informed the plan's development. On September 17th, 2020 the plan was publicly announced to the EU parliament (European Commission, 2020). As stated on the website, its objectives are threefold: 1. "Set a more ambitious and cost-effective path to achieving climate neutrality by 2050," 2. "Stimulate the creation of green jobs and continue the EU's track record of cutting greenhouse

gas emissions whilst growing its economy" and 3. "Encourage international partners to increase

their ambition to limit the rise in global temperature to 1.5°C and avoid the most severe

consequences of climate change" (European Commission, 2020).

3.2 CDA Approach with Ecolinguistic Flair

Beginning first with the more general field of CDA, I will outline a version of CDA that I

have chosen to guide my analysis. Then I will further explain what my ecolinguistic approach

entails by outlining the framework I have chosen to structure the analysis. Lastly, I will describe

the analytical process in detail as it pertains to the selected features of the discourse.

Fairclough views CDA as consisting of three main elements or steps: critique,

explanation and action. He explains, "CDA combines **critique** of discourse and **explanation** of

how it figures within and contributes to the existing social reality, as a basis for **action** to change

that existing reality in particular respects" (Fairclough, 2015, p. 6). He uses the example of "the

discourse of modern universities" as the focus of critique, accompanying an explanation of how

it figures within the "marketization of universities" as a basis for changing this trend (for reasons

the analyst would make explicit). In line with this general approach, I will **critique** the climate

discourse within the German, Canadian and EU government publications, **explain** how it figures

within the movement to address ecological issues with economic growth and technological

advancement, as a basis for **action** to resist shallow environmentalism which seeks primarily to

adapt capitalism to global warming, rather than promote social reform.

To be clear, being 'critical' in analyzing discourse does not entail being negative, as the

common sense usage of the word implies, but rather questioning linguistic phenomena that are

taken as a given (Wodak, 2013, p. xxii). 'Critically' questioning linguistic phenomena is a

critique of the social realities, and Fairclough construes this critique as both *normative* and

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explanatory. A normative critique "does not simply describe existing realities but also evaluates them, assesses the extent to which they match up to values that are taken (contentiously) to be fundamental for just or decent societies (e.g., certain requisites for human well-being)" (Fairclough, 2013, p. 178). The explanatory step in the critique involves explaining the social reality, "showing [it] to be effects of structures or mechanisms or forces which the analyst postulates and whose reality s/he seeks to test out" (Ibid.). Guiding this critique is a system or pattern called dialectical reasoning, which is a form of practical argumentation. The form of practical argumentation Fairclough describes contains four premises: "a Circumstantial premise which represents an existing state of affairs," "a Goal premise which specifies an alternative state of affairs as [the] goal," which is based on the "Values premise (the values and concerns one is arguing from)" and finally, a "Means-Goal premise which claims that the advocate line of action in the conclusion (or Claim) of the argument is a means of achieving the goal" (Fairclough, 2018, p. 16). However, I think it is important to tread lightly when proposing specific alternatives, because it risks detracting from the rigour of the analysis to critique the existing social reality only to then suggest an unrealistic utopia (or dystopia, for that matter).

In the same chapter, Fairclough posits that "the values and goals in CDA follow from its critical aims, including for instance the value of social justice and the goal of a just society" (Ibid.). Ecolinguistics has similar critical aims, but whose values and goals have an ecological emphasis, viewing environmental justice as a form of social justice, i.e., justice that is more ecologically oriented with the goal of both a just society and a just ecology. Ecolinguistics as a field of inquiry has its distant roots in Einar Haugen's (1971) concept of *ecology of language* or *language ecology*, who describes it thus: "language ecology may be defined as the study of interactions between any given language and its environment" (Haugen, 1971 [1972, 325],

quoted in Eliasson, 2015, p. 6). Steffensen & Fill (2014) recount the differing interpretations of what exactly a "language environment" is in the history of ecolinguistics. Reminding readers that the categorization they provide is by no means a rigid or separate distinction, they list the interpretations of language as inhabiting the environments of a *symbolic* ecology, a *natural* ecology, a *sociocultural* ecology, and a *cognitive* ecology (p. 7). Interestingly, all four of these environments of language are relevant to the scope of this thesis, which engages to some extent with all of language's 'environments'. For instance, I have identified *cognitive* discourse structures in the corpus, which manifest in the *symbolic* representation of textual language (letters and words as symbols of meaning), in order to investigate how this reflects and reinforces aspects of human *sociocultural* reality, which in turn influences the *natural* ecology in which human beings live and on which humans depend. This relational approach to language study runs parallel with the theoretical assumption of ecolinguistics today, which is that "how we think has an influence on how we act, so language can inspire us to destroy or protect the ecosystems that life depends on" (Stibbe, 2021, p. 1). To structure my own analysis, I will mirror elements of Stibbe's (2021) framework, which identifies and distinguishes between certain forms of stories represented and reproduced in discourse. These forms or types of *stories we live by* are cognitive discourse structures that manifest linguistically in various media. The forms of stories Stibbe lists are: ideology, framing, metaphor, evaluation, identity, conviction, erasure, salience, and narrative (p. 17). These 'forms of stories' are cognitive discourse structures and represent parts of the aforementioned *cognitive* ecology in which language 'lives' and will be explained below. They are cognitive in that they guide individual perception of social reality. It is possible to gain insights into how these cognitive structures work via linguistic analysis, that is, how they appear in the *symbolic* environment of certain texts.

3.3 Responding to Analytical Bias

In the book's concluding musings on theory, Stibbe (2021) responds to criticisms of ecolinguistics and CDA in general: "Critical Discourse Analysts are sometimes accused of consciously or unconsciously selecting data in order to make a political point (Breeze 2013), a criticism which can equally be applied to ecolinguists" (p. 208). In this (2013) paper that Stibbe refers to, Ruth Breeze discusses several criticisms CDA has faced for its methods, and in particular, how some CDA researchers obtain their data (Widdowson, 1998). Breeze summarizes Widdowson's criticism of a lack of impartiality in data collection in the following excerpt:

> By focusing on particular lexical items, or by focusing on certain grammatical features (passives, nominalisations), it is possible to reach certain conclusions about ideology in the text. But, he asks, is this legitimate? Given that these features have been chosen, he feels, more or less randomly, because the researcher feels intuitively that they will provide results that have ideological meaning, it is possible that the rest of the text, which may contain contradictory data, is ignored. (Breeze, 2013, p. 503).

This lack of impartiality in data collection and the focus on certain aspects within that data leads to "analytical bias," which has also garnered criticism from scholars (Toolan, 1997; Stubbs, 1997). I have aimed to be impartial in the following ways. As already explained in the previous chapter, it was the search for other government publications that featured the use of the [CLEAN/*SAUBER*-noun]-collocation, which led me to select the publications for my corpus. But I did not only choose documents who featured it to a great enough extent to confirm some preconceived suspicion. Aware of the need to prevent the prevalence of a confirmation bias, I have included publications such as the EUK document, which feature it very infrequently, and the DEK document, which does not mention clean/*sauber* at all. As a result, I have found other

points of comparison between the publications in the corpus, thereby opening up the range of relevant linguistic features and deepening the analysis. In order to minimize partiality and analytical bias in my analysis, I will shed comparative and contrastive light on the selected linguistic features in the discourse. With respect to lexical frequency, for instance, I will provide quantitative data tables that feature lexical items like "biodiversity/*Biodiversität*" and "ecosystem/*Ökosystem*" in addition to words such as "economy/*Wirtschaft*," "market/*Markt*," and "technology/*Technologie*." It also serves to reduce the analytical bias to take a combined quantitative/qualitative approach. Qualitative examples will provide context and an unadulterated presentation of the text, whereas the quantitative side will offer a sense of scale of presence pertaining to each linguistic feature described. Providing quantitative data will also strengthen my claims and help avoid unintentional cherry-picking. The data tables I will provide throughout the analysis at times focus on the frequency of only certain vocabulary (that pertaining to a specific metaphor, for example). At other times, the tables allow comparisons of different but similar linguistic features between the five texts that form the corpus. For accurate comparison of lexical items or *tokens* across the corpus, I have derived a simple frequency quotient, which equals the number of tokens divided by a given document's number of pages. The resulting quotient represents the average number of tokens per page, often expressed as a decimal, which provides me with a measure of the relative frequency with which a particular lexical item or collocation appears. For example, the word *Markt* (market) appears across the corpus, including in the German (DEK) and European (EUK) plans. *Markt* comes in at 52 tokens in the former but only 16 tokens in the latter. But because Germany's plan is longer (92 pages in total) than the EU's plan (30 pages in total), *Markt* actually appears nearly just as frequent in both publications with a DEK quotient of 0.57 and a EUK quotient of 0.53. It is therefore possible to compare how

much emphasis is placed on certain topics based on the relative frequency of a corresponding lexical item.

3.4 Analytical Methods in Detail

I have chosen the discourse structures of framing, metaphor, evaluation, erasure and salience in relation to the texts within my corpus. Very much in line with Fairclough's CDA praxis, ecolinguistics, according to Arran Stibbe's method, roughly follows a four step process: 1. Forming a corpus comprising "prototypical texts produced and used by a certain group in society," 2. Linguistically analyzing the texts within the corpus, 3. "Expos[ing] the underlying ideologies that these [linguistic] features convey" and 4. Comparing the underlying story to the ecosophy of the analyst (Stibbe, 2021, p. 30). Comparison to the analyst's ecological philosophy enacts the intention to make one's sociopolitical position explicit, to acknowledge the values underlying the normative critique of the existing social reality.

The first step has already been addressed with the introduction of my corpus. They are prototypical in genre as climate action plans and prototypical in the categorical sense since they exemplify discourses of ecological modernisation. As for how I came to choose the specific vocabulary, or the *tokens*, in these publications, what piqued my interest as noted in Chapter 1 was the dominance of the [CLEAN-noun] collocation over other terms such as sustainable and renewable, first identified in the province of Newfoundland & Labrador climate action plan and then later on in the Pan-Canadian Framework document. Hoping to conduct a comparative analysis using Germany's climate response plan, I searched the *Klimaschutz 2050* for the word "sauber," expecting to see the same phenomenon and saw merely one result, which referred to clean water. But when I searched other terms such as "*Energie*," "*Wirtschaft*" and "*Entwicklung*" whose English equivalents appeared frequently in the Canadian publication (PCF), they too

seemed to be quite frequently mentioned. I confirmed my initial gut feeling regarding their frequency with further searches in the document. At this point, I had at least some point of comparison. When I came across the updated Canadian plan as well as the European publications looking for other exemplars, it was quite clear that the economy and the development of technology became a common thread to tie a corpus together. In my analysis, I will therefore look at individual tokens first, based on their frequency in the corpus.

The subsequent section will focus on metaphors. Contextually relevant metaphors in my corpus include the ETHICAL IS CLEAN and the ECONOMY IS A PERSON metaphors as co-existent in the [CLEAN-noun] collocation, which can be retraced to the interconnection of cleanliness and ethics/moral order (Lizardo, 2012; Douglas, 1960). The emphasis on technological innovation to reduce emissions led to inclusion of this metaphor in the analysis. Examples in the corpus speaking of the application or development of technologies to reduce emissions were chosen to demonstrate conceptualizing the planet as an entity repairable by humans. I also came across the CLIMATE CHANGE IS WAR metaphor, similar to the ARGUMENT IS WAR metaphor discussed discussed in Lakoff & Johnson's (1980) book, in multiple journal articles in my research (Romaine, 1996; Cohen, 2011; Atanasova & Koteyko, 2017; Flusberg et al., 2017). Curious to what extent it appeared in my corpus, I began searching for terms such as "fight" and "Krieg," also finding the term "deployment" relevant to this way of understanding climate change action. In the analysis of the metaphors I have identified and included in the chapter, I elaborate in their respective contexts of climate action plans on a.) what the techno-fix approach promoted by ecological modernisation discourse reveals about how the issue of climate change and the planet are viewed and b.) how they are grounded in ethical claims.

Subsequently, the analysis will focus on frames/framing. Framings were generally identified by noticing the repeated use of tokens used in conjunction with each other in context such as, for example, "climate change" or "*Klimawandel*" along with "opportunity" and "challenge" or "*Herausforderung*" as well as vocabulary such as "natural resource" and "*Naturkapital*." I will discuss frames and framings after metaphor as the concept of framing is much easier understood after the more specific and in-depth exploration of conceptual metaphors, which operate similarly.

The 'how' of the sub-chapter on evaluations begins with the appraisal patterns GROWTH IS GOOD and more specifically ECONOMIC GROWTH IS GOOD. The latter pattern manifests in the salience of growth and in how it is described. Through reading and document searches, I identify a focus on GDP in the corpus, which I connected to the contested correlation with human well-being. Additional evaluations pertaining to progress and tax incentivization will also form part of the analysis.

Beginning with salience, there were a wide range of words that were noted as repeatedly appearing in my reading of the publications. Many of these were noted and are presented in Table 7. But I had no point of comparison for words like "technology," "innovation," "emissions," "economy," so I identified a small list of less economically-specific terms like "Biodiversität" and "Natur." This provided a more meaningful presentation of the discourse structure of salience and erasure for reasons Stibbe points out which I will quote at length.

> The concept of erasure only becomes meaningful when an analyst surveys the universe of elements that have been excluded, declares that one of these elements is important, that it is being 'erased' from consciousness, and argues that it should be brought back into

consideration. What that 'something important' is depends on the goals and interests of

the analyst. (Stibbe, 2021, p. 141).

Having two elements of a comparative relationship, for instance between "technology" and

"nature" offered quantitative evidence for what was made more salient than the other. Discussing

salience and erasure after the other discourse structures allowed me to make connections

between salient linguistic features and previously discussed metaphors, framings, and

evaluations. The purpose of this last section of the analysis is to observe and explicitly state what

social actors prioritize and leave out or mask in a climate response plan. As David Abram

eloquently puts it: "our attention hypnotized by a host of human-made technologies that only

reflect us back to ourselves, it is all too easy for us to forget our carnal inherence in a more-than-

human matrix of sensations and sensibilities" (1996, p. 22). Calling attention to what is salient

and erased is thus a work of re-minding and remembering who we are as ecological beings,

connected and intertwined with a non-human world.

4. Analysis

<u>4.1 Metaphor</u>

The first linguistic feature of the discourse in focus is really a linguistic *manifestation* of underlying conceptual metaphors. The metaphors I have identified and will discuss in varying detail include ETHICAL IS CLEAN, ECONOMY IS A PERSON, SOLVING CLIMATE CHANGE IS A JOURNEY, PLANET IS A REPAIRABLE ENTITY, and CLIMATE CHANGE IS WAR. The former *two* are found in a single construction, in which the adjective "clean/sauber" modifies nouns such as "economy/Wirtschaft", "technology/Technologie", "energy/Energie", and so forth. The [CLEAN-noun] collocation appears in the corpus primarily in the Canadian publications, the EU's Saubere Energie document, and to a lesser extent in the EU's climate plan. Interestingly, it does not appear once in Germany's Klimaschutz *2050* plan. In the first conceptual metaphor, ETHICAL IS CLEAN, ethics are understood in terms of cleanliness. Terms such as "clean/sauber" and inversely "dirty/schmutzig" form the more concrete *source domain* which are 'mapped onto' the more abstract *target domain* of ethics. Ethical concepts such as duty, obligation, right & wrong, responsibility, etc. are relatively *abstract*, meaning that they are not something experienced by our physical senses. Cleanliness and dirtiness, on the other hand, are tangible bodily experiences and as such are *concrete*. A large part of why something is considered clean or dirty, as Mary Douglas pointed out in her seminal work *Purity and Danger* (1966), has to do with order and disorder. Douglas writes that "if we can abstract pathogenicity and hygiene from our notion of dirt, we are left with the old definition of dirt as matter out of place" (27). She then elaborates with a few examples. In one of the examples, Douglas points out that a shoe is not necessarily dirty in itself; but putting shoes on the dining room table may be considered dirty, because the shoe's position breeches common notions of order in the home. Drawing from Douglas' notions

of cleanliness and order and applying conceptual metaphor theory, Omar Lizardo argues that

morality is structured by conceptual metaphors. In the discussion of his (2012) paper, he explains

that the "use of dirt and clean as metaphors for moral order and disorder can be traced to an

underlying conceptualization of dirt and cleanliness as ordered and disordered arrangements of

concrete settings" (Lizardo, 2012, p. 389). Examples he uses to support his argument occur in

"rule-governed settings" where the metaphor typically appears. For example, in the "rule-

governed setting" of the law or courtroom one may encounter a "dirty" lawyer. Or in a sports

game such as hockey, a slash to the back of the leg would be seen as a "dirty" move that violates

the "clean" conduct of the game. Similarly, a drug addict in recovery who has successfully

abstained from drug abuse may be described as "clean" because recovering from drug abuse is

typically considered to be a moral social practice. If we think of morality as a system of order,

that is, a moral order, then individuals or activities that uphold what is 'right' or 'good'

behaviour in that order can be characterized as 'clean'. Conversely, 'dirty' individuals are those

who disrupt that moral order and subsequently earn an immoral status. Kövecses (2002) dissects

the English idiom *have clean hands* into an example of metonymy (THE HAND STANDS FOR THE

ACTIVITY) and the metaphor ETHICAL IS CLEAN, mentioning the examples *to have blood on

one's hands* and *to be caught red-handed*. Generally speaking, hands that are covered in blood

are not considered "clean" in the concrete, hygienic sense. Though abstract ethical understanding

derives from the condition of bloody hands being the result of unethical behaviour.

The ETHICAL IS CLEAN metaphor covers the first part of the CLEAN-noun collocation. The

second metaphorical process within can be termed the ECONOMY IS A PERSON metaphor. Social

actors in climate discourse often describe the economy in terms of cleanliness. By referring to a

country's economy as a *clean* economy, I propose that we are ascribing an ethical status to a type

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of economy or economic activities that adhere to a set of principles of what is considered right or good behaviour - an ethical order, if you will - in the context of climate change. Based on the corpus I will demonstrate that the economy is identified as an entity. Second, I claim that the entity, since it is intertwined with the ETHICAL IS CLEAN metaphor, is personified, conceptualized as an entity that is ascribed human traits.

> Together, we have developed a Pan-Canadian Framework on Clean Growth and Climate Change. This is Canada's plan to address climate change and grow the **clean economy** (PCF, p. 6).

> Damit die Wirtschaftskrise wirksam bewältigt und gleichzeitig die Vorteile des beschleunigten Übergangs zu einer **sauberen** und nachhaltigen **Wirtschaft** ausgeschöpft werden können, müssen diese Ambitionen auch in vollem Umfang in den Aufbau- und Resilienzplänen der Mitgliedstaaten ihren Niederschlag finden. (EUK, p. 2).

Referring to ontological metaphors, i.e., "ways of viewing events, activities, emotions, ideas, etc., as entities and substances," Lakoff & Johnson (1980) explain that when we describe our experiences as entities or substances, "we can refer to them, categorize them, group them, and quantify them —and, by this means, reason about them" (25). The concrete domain of the human body is thought of in terms of cleanliness, and as explained above, consequently receives ethical status. This concrete, bodily experience of cleanliness with ethical implications is then mapped onto the abstract domain of the economy. By ascribing socially constructed notions of right and wrong, good and bad to an economy, we are personifying it, that is, describing it as possessing human traits despite the fact that it itself is a human-made social construct. If we consider terms such as technology, energy, growth, etc. to fall under the umbrella of "economy", since they are presented as such in the discourse, then they are thus parts of the body of the metaphorical

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PERSON, the economy. Technologies, then, might be the limbs, money, the food, and growth, the increasing size of the PERSON's belly, if you will. The ETHICAL IS CLEAN metaphor and the ECONOMY IS A PERSON metaphor thus both underlie collocations like "clean energy" or "saubere Energie" and "clean technologies" or "saubere Technologien" found in the corpus. They are extensions of the umbrella metaphor ECONOMY IS A PERSON which are personified with human ethical concepts through the ETHICAL IS CLEAN metaphor.

One may cast doubt on the ethical element's presence in these expressions and instead counter that "cleanliness" is 'only' descriptive and refers to the ppm of GHG emissions in the atmosphere. Pointing this out highlights the ambiguity of the term and demonstrates the tendency to (mis-)take elements within a nonetheless metaphorical domain as 'real,' 'only descriptive' and 'objective' and thus "mistaken for reality itself" (Larson, 2011, p. 8). Even if and when cleanliness refers implicitly or explicitly to air pollution, the ethical implications remain because climate mitigation discourse portrays reducing GHG emissions as the 'right' or 'good' thing to do in order to prevent the myriad negative consequences of anthropogenic climate change. To go back to Douglas' and Lizardo's works, making something dirty is considered immoral behaviour in general, because one thereby produces ethical *dis*order. Treating the metaphoricity here as 'dead' and thus insignificant reveals that they may on the contrary be all the more significant, because they appear as common sense. What's more, the ethical dimension of cleanliness is coherent with other linguistic features in the discourse. In the publications that comprise the corpus, there is a strong presence of obligation, using language such as "Pflicht" or "Verpflichtung" (obligation) and the deontic modal verb "müssen" (must).

Table 1: Selected deontic vocabulary by publication.

Token(below)/Publication(right)	PCF	HEE	DEK	EUS	EUK
must/have to/müssen	6(**0.07**)	15(**0.19**)	123(**1.34**)	18(**0.69**)	74(**2.47**)

responsibility/Verantwortung	8(**0.09**)	9(**0.11**)	10(**0.11**)	2(**0.08**)	6(**0.20**)
duty, obligation/Pflicht, Verpflichtung, verpflicht*	0(**0**)	0(**0**)	22(**0.24**)	7(**0.27**)	7(**0.23**)

"Clean" therefore is not the only ethically relevant feature in the discourse and represents one of

several linguistic features that aim to incite action because it is considered the right thing to do.

The following examples situate some of the above lexical items in context.

> Die Verpflichtungen im Klimaschutz ernst zu nehmen gehört für Deutschland auf der europäischen und der internationalen Ebene zum Selbstverständnis. (DEK, p. 30).

> Global demand for clean technologies is significant and increasing. Fostering and encouraging investment in clean technology solutions can facilitate economic growth, long-term job creation, and environmental **responsibility** and sustainability. (PCF, p. 37).

> Wir haben die **Verantwortung**, entschlossen im Interesse künftiger Generationen zu handeln. (EUK, p. 3).

> Given the abundance of natural resources in Canada, the Government of Canada has a great responsibility to provide leadership for nature. (HEE, p. 75).

> [Canadians] also want a future where their kids and grandkids have avoided the worst outcomes associated with unchecked climate change, and can enjoy greater access to clean air and water. (HEE, p. 5).

The first example includes the use of Verpflichtungen (obligations) in a more general sense,

while the next three examples clearly convey a sense of responsibility to either act in the interest

of future generations of humankind or in a supposedly environmentally responsible way. The last

example presented above, similarly appealing to future generations, represents an intriguing

contrast with metaphorical uses of the [CLEAN-noun] collocation used elsewhere in the data. One

difference between this instance above and the more frequent [CLEAN-noun] collocation that

refer to economic properties is that designating "air" and "water" as clean is much more

concrete. We can picture clean air as the absence of smog, clean water as blue rather than murky

with contaminants. Some instances of cleanliness that appear in the EU Energie publication refer to the planet, promoting "saubere Energie" (clean energy) in order to attain a "sauberen Planet" (clean planet). One might point out that it would be unlikely that the planet is understood here to be moralized. It is more likely that people would understand this to refer to less pollution. So, what is the difference? Embedded as they are in an argument, "saubere Energie" and "sauberer Planet" inhabit different premises in the argumentation of the EU Energie document. If we recall from the methodology chapter, Fairclough (2018) explains the concept of practical argumentation process as containing four premises: a Circumstantial premise, a Goal premise based on a Value premise and a Means-Goal premise (see Fairclough, 2018, p. 16). The EU Energie document exhibits a somewhat similar argumentation pattern. "Sauberer Planet," a relatively more concrete state-of-affairs, inhabits the Goal premise. A 'clean' planet is the Goal (which is based on certain Values). The "saubere Energie" element, however, inhabits the Means-Goal premise (how we get there), which is relatively more abstract as it involves economic processes such as investment in renewables, carbon trading, fiscal policies to provide incentive, etc. Combining these two premises forms an argument along the lines of 'we must implement technologies that produce "saubere Energie" (Means-Goal) in order to have a "sauberen Planet" (Goal) to live on.' In order to effectively convince people that "saubere Energie" is how we achieve the Goal, or that the Goal is worth achieving at all, social actors draw on the aforementioned moralizing elements of the discourse (ethical metaphors and lexical choices that imply obligation or responsibility) to propose a course of action. Nonetheless, the planet too is ascribed a moral standing through its embeddedness with the ETHICAL IS CLEAN metaphor. The Goal of a 'clean' planet will be the result of a 'clean' way to address climate

change, and the discourse contained in the corpus implies the obligation to use advanced technology in order to achieve this.

In a (2012) analysis of geoengineering discourse, Nerlich & Jaspal point out the presence of the conceptual metaphor PLANET IS A BODY in their corpus, illustrating with examples such as 'cool the planet by shading it from the sun' (See Nerlich & Jaspal, 2012, p. 137). While this conceptual metaphor occupies a much smaller presence in my corpus compared to ECONOMY IS A PERSON (or BODY), there are a few relevant occurences of this metaphor as well.

> Let us be driven by the opportunity to create a **healthier planet** and economy that we can pass along to our children and grandchildren with confidence and pride. (HEE, p.5)

> Entwicklung zu einem **sauberen Planeten** für alle (EUS, p. 18).

> Die EU-Taxonomie für ein nachhaltiges Finanzwesen, der EU-Standard für grüne Anleihen und die Klimaschutz-Referenzwerte werden neben anderen Initiativen eine entscheidende Rolle dabei spielen, besser an die Bedürfnisse der Realwirtschaft angepasste Investitionen zu fördern – zum **Wohle des Planeten** und der Gesellschaft. (EUK, p. 26).

There are overall very few obvious occurrences of the PLANET IS A BODY metaphor in my data and even fewer that mention a "clean planet" as the ideal goal. In these few instances achieving a 'cleaner' planet may be interpreted in the more concrete, non-pollutant sense, but the planet may also be moralized like the economy in the more dominant metaphor. Further research examining occurrences of "clean Planet" or "sauberer Planet" in a different corpus could reveal its relation to the PLANET IS A SICK PATIENT metaphor identified in the same (2012) paper by Nerlich & Jaspal. In such cases, the "clean" or "sauberer" planet might be conceptualized as a recovering drug addict that used to be a "A SICK PATIENT" due to 'carbon poisoning' but thanks to climate change mitigation, it is now 'getting clean.'

Table 2: Selected tokens corresponding to SOLVING CLIMATE CHANGE IS A JOURNEY metaphor

Token(below)/Publication(right)	PCF	HEE	DEK	EUS	EUK

Way to/Weg zu	2(**0.02**)	0(**0**)	14(**0.15**)	4(**0.15**)	3(**0.10**)
Way/Weg	1(**0.01**)	3(**0.04**)	38(**0.41**)	12(**0.46**)	13(**0.43**)
Path/Pfad	12(**0.14**)	14(**0.18**)	38(**0.41**)	2(**0.08**)	2(**0.07**)
Milestone/benchmark/Meilenstein/Maßstab	13(**0.15**)	7(**0.09**)	29(**0.32**)	2(**0.08**)	5(**0.17**)
Progress/Fortschritt	15(**0.17**)	20(**0.25**)	16(**0.17**)	2(**0.08**)	6(**0.20**)
Forward/vorwärts, nach vorne, usw.	9(**0.10**)	15(**0.19**)	0(**0**)	0(**0**)	1(**0.03**)
Future/Zukunft	19(**0.22**)	37(**0.47**)	46(**0.5**)	4(**0.15**)	6(**0.20**)
Goal/Ziel	17(**0.20**)	35(**0.44**)	333(**3.62**)	42(**1.62**)	117(**3.9**)
Total	**1.01**	**1.66**	**5.58**	**2.62**	**5.10**

SOLVING CLIMATE CHANGE IS A JOURNEY is another metaphor that appears in the corpus, which conceptualizes finding the solutions to climate change as a journey. This metaphor is closely linked to the more basic metaphor identified by Lakoff & Johnson, LIFE IS A JOURNEY (See Lakoff & Johnson, 1980, p. 45). It manifests itself in use of vocabulary such as way/Weg, Path/Pfad, future/Zukunft, Meilensteine (milestones), forward and progress/Fortschritt and working towards achieving a goal/ein Ziel erreichen. Here are some examples of the metaphor from the corpus.

> Deswegen schlägt die Kommission vor, den derzeitigen Emissionssenkungs**pfad** zu ändern, um bis 2050 Klimaneutralität zu erreichen" (EUK, p.2).

> Ein ausgewogener, realistischer und wohlüberlegter **Weg** zur Klimaneutralität bis 2050 setzt die **Ziel**vorgabe einer Emissionssenkung um 55 % bis 2030 voraus. (EUK, p. 2).

> Der **Weg** der EU zu nachhaltigem wirtschaftlichem Wohlstand und zu Klimaneutralität (EUK, p. 8).

...**auf dem Weg** zu einem treibhausgasneutralen Deutschland (DEK, p. 13).

So kann Deutschland einen nachhaltigen Wachstums- und Investitions**pfad** einschlagen (DEK, p. 19).

Pathway to meeting Canada's 2030 target (PCF, p. 45).

It will also require a series of plans and reports to support accountability and transparency and help ensure Canada hits all of its **milestones on the way** [to] its **goal** to achieve a prosperous net-zero economy by the year the 2050. (HEE, p. 9).

As several of these examples point out, the way, path or pathway typically leads to a 'destination' such as "wirtschaftlicher Wohlstand" (economic well-being), "Klimaneutralität" (climate neutrality), or Canada's 2030 target. The metaphor is also consistent with the practical argumentation pattern which involves a means of achieving a goal, whereby re-structuring the economy to be more 'climate-neutral' will get us 'on the way' to the 'destination' of a certain GHG emissions level. So if we are conceptualizing climate action as a journey, are we traveling on foot or in a vehicle of sorts? This is where the ECONOMY IS A PERSON metaphor and the SOLVING CLIMATE CHANGE IS A JOURNEY metaphor may intersect as a sort of conceptual blend. Fauconnier & Turner (2002) point out that "in blending, structure from two input mental spaces is projected to a new space, the blend" within what they call a "conceptual integration network" (p. 47). Let's say, for example, that renewable energy technology represents the body's legs. If we stretch our imagination somewhat to visualize the economic body as walking on two wind turbines for its legs, the turbine steps lead in the right direction toward the destination of climate neutrality (or meeting whatever emissions goal is specified). But of course, this analogy has its limits. Sometimes 'the' economy refers to Canada's economy, Germany's economy, or the European economy, and at other times, there is mention of the global economy. Pertaining to this ambiguity and the limitations of metaphor, Therese Asplund writes, "while each metaphor may

yield important insight, no single metaphor can tell the whole story; metaphorical structuring is thus said to be partial, meaning that, when a source domain is applied to a target domain, only certain aspects come into focus" (Asplund, 2011, p. 6). What doesn't "come into focus" here is how the various national economies relate to one another and to the global economy on their journey.

This inter-economic complexity thus represents an abstract element in the target domain of economics that the source domain of the bodily experience has not yet mapped, though it is unlikely that the global economy is conceptualized as one entity moving towards its destination. This would reflect a similar frame to the metaphor present within the phrase 'we are all in the same boat', which has been used in relation to the coronavirus pandemic (Goldenberg, et al., 2020). But as British writer Damian Barr pointed out, this doesn't account for the reality of inequality experienced during the global health crisis (Noonan, 2020). We are not all in the same boat, but rather in different boats, some more luxurious and spacious, some heaving with people going overboard and drowning. However it could be said that we are in the same *storm* (see Stibbe, 2021, p. 61). It is therefore similarly problematic to conceptualize the solution to climate change as a destination reachable by one global economic body because it ignores the unequal capacities of economies worldwide to reach emissions targets. Evidence from the corpus suggests that German, Canadian and EU political actors have an awareness of this risk for financially well-off individuals and nations to exclusively succeed, while the financially poor get "left behind".

> Canadians want secure jobs and careers that will last not just tomorrow but in 2030, 2040 and beyond. They want to see a growing middle class where **no one is left behind**. (HEE, p. 7).

> Verteilungsaspekte müssen angegangen werden, um sicherzustellen, dass **niemand zurückgelassen wird**. (EUK, p. 7).

This aspect of the metaphor is also present in the United Nations Sustainable Development goals in which the UN declared in 2015 that "as we embark on this great collective journey, we pledge that no one will be left behind" (UN 2015, p. 3). As is implied in the quote from the updated Canadian plan, "no one" refers to citizens of the national body of Canada, but in the European plan, it is unclear who "niemand" refers to. Is it reference to 'poorer' nations of the EU or low-income populations within EU-member states? Similarly ambiguous, "no one" in the UN's publication may refer to both the individual *and* state levels.

Regardless of who the economic bodies are that are approaching the 'destination', the dominant means of achieving that goal, as indicated by the discourse in the corpus, is to be achieved through the implementation of new technologies.

> Canada will remain globally competitive through innovation, including through the **development and promotion of innovative technologies** with the potential to address climate change globally. (PCF, p. 9).

> Gemeinsam mit den anderen führenden Industrienationen haben wir uns bereits im Juni 2015 beim G7-(Gruppe der Sieben-)Gipfel in Elmau verpflichtet, unseren Teil dazu beizutragen, im Laufe dieses Jahrhunderts eine Dekarbonisierung der Weltwirtschaft zu erreichen, auch durch die **Entwicklung und den Einsatz innovativer Technologien**. (DEK, p. 10).

> **Digitale Technologien** werden entscheidend dazu beitragen, dass die EU Klimaneutralität erreicht und weltweit ihre Wettbewerbsfähigkeit stärkt. Die digitale und die grüne Wende müssen sich gegenseitig verstärken. (EUK, p.4).

Emphasizing the techno-fix approach to 'solving' climate change reveals another conceptual metaphor, namely that the PLANET IS A REPAIRABLE ENTITY. Nerlich & Jaspal also identified this metaphor, which they call the PLANET IS A MACHINE metaphor, in their (2012) analysis on geoengineering discourse. The premise of this framing of climate change is that the planet is a broken machine that we can fix with the "deployment" or "Entwicklung und Einsatz" of the

latest human-made gadgetry. From an ecolinguistics point of view, this conceptual framework that approaches ecological problems with more, albeit different, industrial output is problematic and reveals a disconnect between humanity and its non-human surroundings. The Earth is *in fact* a host of complex living ecosystems and not a mechanical entity that needs more efficient parts to keep it running smoothly. Problematizing a nearly identical metaphor NATURE IS A MACHINE, Arran Stibbe writes:

> There are various kinds of machine[s] that nature or the planet are equated with, including a clock, a factory, a computer, or a spaceship. The first problem with the metaphor is that machines consist of an assembly of parts, and can be fixed through repair or replacement of the defective part without having to consider the system as a whole. This allows for misplaced optimism that a techno-fix such as carbon capture and storage, nuclear fusion, hydrogen cars, or geoengineering could solve environmental issues without any change to the larger social and cultural systems which underlie all the issues. (Stibbe, 2021, p. 64).

Such a metaphorical framing ultimately benefits the economic bodies that profit from the techno-fix. Linking metaphor and discursive strategies, Carl Jon Way Ng (2018) points out that "discourse participants may intentionally deploy particular metaphors to frame topics in self-advantageous ways in discursive contexts where objectives are reasonably fixed, like in a debate or promotional campaign" (p. 218). This is essentially what is happening in the climate discourse of my corpus as well. The government publications' rhetoric is very much of promotional nature, marketing a product to the public, and the product they are advertising is the technological means of addressing, or rather, 'fixing' climate change.

An intriguing aspect of the PLANET IS A REPAIRABLE ENTITY metaphor is how it intersects with the CLIMATE CHANGE IS WAR metaphor. The latter has been identified in numerous analyses (Cohen, 2011; Romaine, 1996; Asplund, 2011), including the security concerns within climate discourse linked to this same conceptual metaphor (Oels & von Lucke, 2015; von Lucke et al., 2016). Below are some examples from the corpus that illustrate the CLIMATE CHANGE IS WAR metaphor in the corpus.

> Die EU steht im weltweiten **Kampf gegen den Klimawandel an vorderster Front**, und die Kommission setzt sich entschlossen dafür ein, dass die EU jetzt weitere Maßnahmen ergreift. (EUK, p. 1).

> Alle 196 Vertragsparteien der Klimarahmenkonvention haben sich auf ein gemeinsames Ziel und Vorgehen **im Kampf gegen den Klimawandel** verständigt. (DEK, p. 10).

> The governments of Québec and Canada intend to collaborate in the following priority areas in order to **fight climate change** and allow clean economic growth. (PCF, p. 62).

> Canada's mining sector continues to be a constructive partner in the **fight against climate change**. (HEE, p. 34).

> Canada is a key producer of many minerals such as aluminum, cobalt, nickel, copper, lithium and graphite that will be required for the global **deployment of clean technologies** such as batteries, solar panels and windmills. (HEE, p. 23).

Terms such as Kampf, Front, fight, deploy, and the syntactic construction of [fight *against* X], which identifies a clear opponent, all belong to the more concrete source domain of WAR. And at least in the more recent wars, opponents 'deploy' advanced technology (fighter planes, tanks, bullets, bombs, machine guns, etc.). In the 'war' of climate change, governments and their economies intend to instead deploy batteries, solar panels and windmills to fight the enemy that threatens biodiversity, food security, financial security, and human social and cultural life. So while it is true that the CLIMATE CHANGE IS WAR metaphor is of a more forceful, violent, oppositional spirit as opposed to the more 'tinkering' spirit of the PLANET IS A REPAIRABLE ENTITY metaphor, they are both conceptualizations that reflect a technology-oriented approach to

solving ecological issues. An interesting example from the EU's climate plan publication regarding the energy section views decarbonization as the key or "Schlüssel" to climate neutrality (Klimaneutralität).

> Die Dekarbonisierung sowohl des Energieangebots als auch der Energienachfrage ist der Schlüssel zur Klimaneutralität. (EUK, p. 5).

Following this conceptual logic, the technology required for "Dekarbonisierung" will lead to an 'unlocking' of sorts. But what are we unlocking precisely? If we link the idea of 'unlocking' to the domains of machines, war, and technology, something like an enigma machine emerges as a suitable term connecting these domains. Another aspect of conceptual integration networks as Fauconnier & Turner (2002) describe a concept they term "generic spaces." Using their terminology, the two metaphors PLANET IS A REPAIRABLE ENTITY and CLIMATE CHANGE IS WAR would act as the "inputs" and the common domains are located in these generic spaces. The enigma machine represents a "cross-space mapping," which "connects counterparts in the input mental spaces" (p. 41).

I propose then that a new conceptual metaphor could be identified in climate discourse in which evidence for both the PLANET IS A REPAIRABLE ENTITY metaphor and the CLIMATE CHANGE IS WAR metaphor exists. This new combo-metaphor might be called something like FIGHTING CLIMATE CHANGE IS CODE which has CLIMATE CHANGE as its target domain and CODE as the source domain. Consider the following example from the HEE publication: "When nature is protected, climate benefits can be unlocked" (HEE, p. 52). If humans defend and "protect" nature in the war against climate change, the benefits will be gradually 'cracked' and humans will begin to win the war as the benefits of decryption unfold.

Table 3: Lexical items corresponding to blended metaphor, FIGHTING CLIMATE CHANGE IS CODE.

Token(below)/Publication(right)	PCF	HEE	DEK	EUS	EUK

key/Schlüssel	44(**0.51**)	17(**0.22**)	4(**0.04**)	3(**0.12**)	3(**0.10**)
unlock/entriegeln, entsperren, freischalten	1(**0.01**)	7(**0.09**)	0(**0**)	0(**0**)	0(**0**)
fight/Kampf, Bekämpfung, bekämpfen	4(**0.05**)	11(**0.14**)	4(**0.04**)	7(**0.27**)	5(**0.17**)
strategy/Strategie	52(**0.60**)	46(**0.58**)	93(**1.01**)	19(**0.73**)	25(**0.83**)

In this conceptual system, future technological advancement would represent an enigma machine that needs to be effectively implemented to break the mystery of the symbolic enemy, climate change, in order to win the war. Although, like encrypted war communication, carbon is but one, albeit significant, part of a much larger context. A metaphor such as FIGHTING CLIMATE CHANGE IS CODE thus fits with the heavy emphasis placed on CO2 emissions and decarbonization that is evident in the corpus.

4.2 Framing

The first way of understanding climate change using the vocabulary from a different area of life, i.e., a different *frame*, is the framing I have called CLIMATE CHANGE INACTION COSTS MONEY, which involves climate change responses being understood in terms of finances. Framing climate change in this way is not exactly metaphorical, but rather represents one way of understanding the consequences of not addressing climate change. Framing climate change inaction in this way highlights how not responding to climate change costs money.

> **Die langfristigen wirtschaftlichen Störungen und die negativen sozialen Folgen von Untätigkeit** wären erheblich kostspieliger als kurzfristige Investitionen in ambitionierte Klimaschutzmaßnahmen. (EUK, p. 2).

> Dabei muss mitbedacht werden, dass individuell verursachte Umweltschäden und **unterlassener Umweltschutz der Gesellschaft und der Wirtschaft zumeist höhere Kosten verursachen** als jene, die mit der Fortentwicklung des Steuer- und Abgabensystems verbunden sind. (DEK, p. 72).

> **COSTS OF INACTION**: According to the Canadian Institute of Climate Choices, the number and **cost** of catastrophic weather events this past decade alone - from flooding

across the prairies and southern Ontario (2013-2018), to wildfires in Alberta and British Columbia (2011-2018), to severe weather damaging Canadian farms (2018) – were twice as high as those recorded in the previous decades together. Insured losses alone totaled over **$18 billion** between 2010-2019. (HEE, p. 7).

In his (2014) book *Don't Think of an Elephant!*, Lakoff argues that frames "shape the goals we seek, the plans we make, the way we act, and what counts as a good or bad outcome of our actions" (Lakoff, 2014, p. xi). From the textual evidence it is clear that what counts as a 'bad' outcome of our *in*action is that it will cost money. And not only that, it will cost *more* money than climate action. Since the good outcome of action is more money relative to not acting, the corresponding framing then might be CLIMATE CHANGE ACTION SAVES MONEY. This is consistent with what Shaw & Nerclich (2015) have observed, namely that "results show that global science-policy discourses...aim to govern this world according to economic principles of cost-benefit analysis" (p.. 34). Framing climate change in this way makes it clear that a major goal in acting is to 'benefit' financially. Triggering the same financial profit/MONEY frame, framing CLIMATE CHANGE AS AN ECONOMIC OPPORTUNITY equally regards the current ecological predicament as a way to make money. While indeed very similar to the CLIMATE CHANGE INACTION COSTS MONEY framing, it places a more positive emphasis on profit and economic growth as opposed to emphasizing costs and the risks of losing profit. So rather than a CLIMATE CHANGE ACTION SAVES MONEY framing, framing climate change as an economic opportunity suggests that climate action *makes* money.

> **Acting on climate change** will reduce risks and create **new economic opportunities** and good jobs for Canadians. There is already a global market for low-carbon goods and services worth over **$5.8 trillion**, which is projected to keep growing at a rate of 3 percent per year. **Clean growth opportunities** will benefit all sectors and regions. (PCF, p. 1).
> As investors, consumers and governments increasingly base their decisions on environmental sustainability, taking **climate action now is a critical economic**

opportunity that will maintain and create Canadian jobs, and make the economy more resilient and more competitive. (HEE, p. 7).
Klimaschutz ist dann gleichbedeutend mit dem **Gewinn an wirtschaftlicher Leistungs- und Wettbewerbsfähigkeit**. (DEK, p. 17).
Die beispiellose wirtschaftliche Reaktion Europas auf COVID-19 bietet eine **einmalige Gelegenheit**, **den Übergang zu einer klimaneutralen Wirtschaft zu beschleunige**n, indem wir in die notwendige Umgestaltung **investieren** und sicherstellen, dass diese gerecht und sozial fair ist. (EUK, p. 1).

In various forms, whether it is a chance for investment, an avenue to create jobs, or gaining economic efficiency and competitiveness, it is evident in much of the corpus that climate change is positively framed as an opportunity that benefits the economy. Environmental policy and economic interests, once thought to be at each other's throats, now appear to stroll hand-in-hand towards climate neutrality. Also having observed this trend in their data, Shaw & Nerlich point out in their (2015) paper that "there is a very strong sense that climate change mitigation is no longer in opposition to the imperative of economic growth, but instead is becoming a driver of growth and a source of competitive advantage." (38). This framing has also been identified in the energy sector where corporations frame climate change as a business strategy. Investigating this phenomenon, Dahl & Fløttum analyzed reports by Total (France), Statoil (Norway), and Suncor Energy (Canada). They found that Total framed climate change primarily as a corporate responsibility, Suncor Energy as a business risk, and Statoil viewed it mostly as a business opportunity. Although each company viewed climate change primarily in different ways, the authors did find evidence from all three reports acknowledging the opportunities to profit (Dahl & Fløttum, 2019).

Viewing climate change as an opportunity to invest in and profit from new technologies is at the heart of ecological modernisation discourse. Jänicke (2008) notes that "in general, an environmental problem proves politically less difficult to resolve if a marketable solution exists" but concludes his argument by warning against the marketable "win-win solutions" that claim to

solve ecological problems while simultaneously boosting the economy (557). Instead, he calls

for *structural* solutions, meaning "'ecological structural policy' that imposes non-technical

solutions in [the] form of changes in the structure of supply and demand" in order to both change

the structure of industry and "deeply affect established interests and behavioural structures"

(563). As for behavioural change, I would agree with Mayar Sabet's perspective, who in her

(2014) analysis of competing framings in pro-environmental behaviour (PIB) initiatives, points

out that sustainable behavioural change hinges upon being "motivated by the right reasons"

(Sabet, 2014, p. 105). What the "right" reasons are exactly depends on the ethical considerations

in question, but "right" given the context likely belongs within a more eco-centric ethical

framework. So, if our framing of climate change is motivated by profit-margins and promoted by

a cost-benefit discourse, are we encouraging behavioural change for the "right" reasons or the

"wrong" reasons? In doing so, the risk is that we might "reinforce the values that contributed to

environmental destruction in the first place" (Stibbe, 2021, p. 43).

The more 'neutral' side of the opportunistic approach to climate change mitigation views

climate change as a *challenge*. While less overtly positive in connotation, 'rising to the

challenge' in a call of duty for humanity nonetheless strikes a similarly hopeful tone to that of

seizing an economic opportunity. Both highlight the chance to profit or overcome the challenges

and obstacles via investment and innovation.

> Die **Herausforderung des Klimawandels** muss als umfassendes Investitions- und
> Modernisierungsprogramm für die deutsche Volkswirtschaft genutzt werden.
> Versorgungssicherheit sowie bezahlbaren und wettbewerbsfähigen Energiepreisen
> kommt dabei der gleiche Stellenwert zu wie nationalen Emissionsminderungszielen.
> (DEK, p. 27)

> Angesichts der globalen **energiepolitischen Herausforderungen des 21. Jahrhunderts**
> hat die EU bei der Umstellung auf saubere Energie eine Führungsrolle inne: Es gilt, ein
> sichereres, wettbewerbsfähigeres und nachhaltigeres Energiesystem aufzubauen, um **die**

existenzielle Herausforderung unserer Zeit – den Klimawandel – zu bewältigen. (EUS, p.3)

Additionally, the Canadian Council of Forest Ministers is working on the establishment of the Canadian Wildland Fire Strategy, with **climate change highlighted as a key challenge**. (PCF, p. 35).

More than ever, over the last months of the COVID-19 pandemic, Canadians have shown that they are innovators and problem solvers, capable of finding solutions to **the world's greatest challenges**. (HEE, p. 31)

Darüber hinaus ist die **Klimakrise** untrennbar mit dem weltweiten Biodiversitätsverlust verbunden, weswegen Lösungen konsequent auf beide **Herausforderungen** abzielen müssen. (EUK, p. 3).

An intriguing aspect of this framing is how the 'challenge' of climate change itself is framed. From top to bottom, the challenge(s) identifies as a "Investitions- und Modernisierungsprogramm", both "energiepolitische" and "existenzielle", "key", one of the world's "greatest", and as a crisis inseparable (untrennbar) with biodiversity loss. The framing of the challenge in these textual examples demonstrates an anthropocentric focus on elements of the economy, policy, and scales of significance ("key" and "greatest") as well as the link to an*other* challenge (Biodiversitätsverlust). One may question the anthropocentric premise at work here and counter this claim by suggesting that the existentialist aspect may inclusively refer to the non-human world as well. But this is unlikely given the use of the possessive pronoun "unser" (our), indicating the emphasis on human existence. And although loss of biodiversity is mentioned in the EU's climate plan, the claim that the "Klimakrise" and "Biodiversitätsverlust" are "untrennbar" is contradicted by treatment of the two as separate challenges ("beide Herausforderungen") given that the word "Herausforderung" here is marked plurally. Linguistic evidence such as this reflects a mentality that ignores an ecological reality of causal relationships, where the actions of one species affects the existence of another. Human activity is causing climate change, and our exploitative and pollutive activities in addition to the climate

change we are causing is leading to biodiversity loss. Climate change and loss of biodiversity are thus causally related aspects of the common issue of humanity's ecological impact, rather than two separate challenges that we face.

Another and more generally common frame that persists in the data is the NATURE IS A COMMODITY framing. This way of viewing the non-human world that sustains our lives as 'resources' to fuel the economic supply and demand is pervasive throughout the corpus. It is worth noting that the frame even appears in scholarship (Romaine, 1996; Welsch, 2020; Wanner, 2015 are some examples). In the data table below, I have recorded the relative frequency of some prominent terms within the NATURE AS COMMODITY framing in the corpus.

Table 4: NATURE AS COMMODITY framing frequency based on selected tokens

	PCF	HEE	DEK	EUS	EUK
Resource/Ressource	20(**0.23**)	37(**0.47**)	43(**0.47**)	1(**0.04**)	9(**0.30**)
natural resource(s)/natürliche Ressourcen	4(**0.05**)	10(**0.13**)	4(**0.04**)	0(**0**)	1(**0.03**)
(raw) materials/Rohstoff(e)	3 (waste- x2, advanced- x1) (**0.03**)	9 (building- x4, Plastics-, construction-, low-carbon-, lightweight) (**0.11**)	51(**0.55**)	0(**0**)	5(**0.17**)
natural capital/Naturkapital	0(**0**)	1(**0.01**)	0(**0**)	0(**0**)	1(**0.03**)

Some initial observations can be pointed out from this table. Germany's DEK publication and Canada's HEE plan feature "resource" or "Ressource" with the same frequency, but Canada's plan calls them 'natural' more often. This descriptor is redundant to begin because do 'resources' come from anywhere else *but* nature? This reveals the rhetorical purpose of 'natural' as 'greenspeak.' According to the *A Dictionary of Environment and Conservation* greenspeak is "most commonly used to describe the use of environmental terms and language by individuals or

groups who are intent on portraying themselves and their causes as pro-environmental, even

when they are not" ("greenspeak," 2017). Table 5 below provides a comparative view of

vocabulary in addition to using "nature" which function as greenspeak.

Table 5: 'Greenspeak' words by publication.

Publication (right)	PCF	HEE	DEK	EUS	EUK
Selected Lexical Item (below)	No. (of total occurrences) & (**Frequency**) **Quotient**	No. & **Quotient**	No. & **Quotient**	No. & **Quotient**	No. & **Quotient**
Clean/Sauber	281(**3.26**)	199(**1.51**)	0(**0**)	71(**2.73**)	11(**0.37**)
Green/Grün	17(**0.20**)	32(**0.41**)	0(**0**)	2(**0.08**)	18(**0.60**)
Sustainable/Nachhaltig	23(**0.27**)	40(**0.51**)	150(**1.63**)	14(**0.54**)	65(**2.17**)
Renewable/Erneuerbar	64(**0.74**)	18(**0.23**)	127(**1.38**)	140(**5.38**)	59(**1.97**)
Climate-/eco-friendly/Klimafreundlich	0(**0**)	0(**0**)	23(**0.25**)	0(**0**)	0(**0**)

Sustainable/nachhaltig and renewable/erneuerbar are most consistent and omnipresent

throughout the corpus, whereas clean/sauber is more variable, as it does not appear in the DEK

document, which instead features the term "Klimafreundlich." While the DEK document

features neither "grün" or "sauber," the terms "nachhaltig" and "erneuerbar" appear in much

greater quantity. Likely to be accounted to the primarily energy-focused nature of the EUS

document, it is noteworthy to point out the extent to which energy is described as "sauber" and

"renewable" *over* "grün," despite the connection of the EUS publication to the EU's green deal.

The EU's Saubere Energie (EUS) document also features nearly none of the selected vocabulary

from Table 4, which may also be attributed to its focus on energy specifically, using vocabulary

such as "Energiequellen" and "Technologien" rather than resources or natural capital. In the

examples that follow, various linguistic features corresponding to the NATURE AS COMMODITY

frame demonstrate both how we see nature as well as how we position ourselves in relation to it.

The first textual examples from the EU's climate plan highlight humanity's entitlement to the

commodities that nature provides, or which nature is framed as being in itself.

> "Wird der sich anbahnenden Klimakrise nicht Einhalt geboten, so wird dies existenzielle
> Folgen für **unsere natürliche Umwelt**, **unsere** Gesundheit und **unsere** Lebensgrundlage
> haben, die weit über die derzeitige Gesundheitskrise hinausgehen werden. (EUK, p. 1).

> EU Klima. 7. "Kurz gesagt, durch ehrgeizigere Klimaschutzziele der EU für 2030
> entstehen sowohl wirtschaftliche Chancen als auch **eine sauberere und gesündere
> Umwelt für die Bevölkerung**, wenn wir uns bis 2050 stetig der Klimaneutralität
> annähern. (EUK, p. 7).

> Canada is blessed with a bounty of **natural resources**, from agriculture, fisheries, metals,
> minerals, oil, natural gas, renewable energy sources, and wood. The **wealth they have
> provided** has afforded **Canadians** an enviable quality of life throughout this country's
> history. In 2019, Canada's resource sectors directly **employed 880,000 people**,
> representing **11.5% of the economy**. (HEE, p. 34).

> The **benefits** of **land** restoration are 10 times higher than the **costs**. (HEE, p. 54).

> Das gilt auch für andere Handlungsfelder transformativer Umweltpolitik wie etwa den
> Schutz der **natürlichen Ressourcen** und die verstärkte Substitution fossiler durch
> nachhaltig erzeugte biogene **Rohstoffe**. (DEK, p. 15)

In addition to the anthropocentric focus on human health (Gesundheit) and human livelihood

(Lebensgrundlage), the human possession of and control over nature is emphasized through the

use of the first-person possessive pronoun 'our' (unser) in the first example. In the second

example, climate protection measures are said to result in a cleaner and healthier environment

(sauberere und gesündere Umwelt), but *for* the human population (für die Bevölkerung). The

intention then is not to protect nature because it has intrinsic value, but rather so that we can use

it for our own wants and needs. This is exemplified in the only occurrence of "Naturkapital" in

the EUK document as well, where the need to protect the "Naturkapital der EU " is explicitly for

the purpose of providing for the EU population (see p. 1). The third example from the Canadian

context presents nature as the provider of capital wealth and a source of economic prosperity and

the fourth mirrors the cost-benefit discourse that assigns monetary values to land care. This mirrors what Douglas Ponton identified in government publications in the UK in a (2015) paper, namely, the quantifiable value of nature in monetary terms. The first excerpt from the (HEE) Canadian plan reduces the "agriculture, fisheries, metals, minerals, oil, natural gas, renewable energy sources, and wood" to a quantitative representation of a 11.5% portion of the economy, further demonstrating the commodification of nature in the corpus.

In a paper examining the framing of ecosystem service assessments with the conceptual metaphor of economic production, Raymond *et al*. (2013) argue that although framing nature as a provider of 'goods and services' for human use is at times appropriate, it can dominate over other ways of framing human and non-human relationships. One of the critiques they outline of the economic production metaphor (which views nature as a commodity) is that it "implicitly deemphasizes the notions that organisms and ecosystems are important in and of themselves" (p. 537). The dominance of the NATURE IS A COMMODITY frame also makes known the anthropocentric or 'ego-logical' view of humanity's place in the non-human world. If nature is viewed as a stock of resources that we should protect for the primary reason of saving ourselves and our economic interests from peril, we imply that we are the more important and superior living beings. The so-called 'ego-eco' meme (see Appendix A) provides a visual illustration that contrasts the two primary anthropocentric and ecocentric viewpoints. The shapes are also significant, as the triangle narrows to *man*'s position on top of a hierarchy (above the female figure, which sits at the same level of a whale), while the circle forms more of a web. The typical framing, at least as far as can be discerned from the corpus, privileges the NATURE IS A COMMODITY frame. Even within a plan to foster biodiversity, for instance in the EU's climate plan, nature is commodified.

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Mit der **Biodiversitätsstrategie**, der Strategie „Vom Hof auf den Tisch", der geplanten Forststrategie, dem EU-Plan zur **Wiederherstellung der Natur** und der neuen Anpassungsstrategie werden unter uneingeschränkter Achtung der **ökologischen Grundsätze** für die Förderung von Biodiversität weitreichende politische Maßnahmen zum Schutz und zur **Stärkung der natürlichen Senke** und **Widerstandsfähigkeit der Wälder** der EU gegenüber dem Klimawandel, zur **Wiederherstellung geschädigter Flächen und Ökosysteme** und zur Wiedervernässung von Feuchtgebieten sowie zur Förderung der Bioökonomie, einschließlich der Verwendung langlebiger Holzprodukte, ergriffen. **Der Sektor muss im Rahmen einer klimaneutralen Wirtschaft für eine wachsende Weltbevölkerung Lebens- und Futtermittel sowie Werkstoffe bereitstellen**." (EUK, p. 19-20).

At first glance, at least until the last sentence, the above excerpt appears to demonstrate making other organisms salient for their own sakes. There is talk of a biodiversity strategy, natural restoration, attention to ecological principles, the strengthening of natural sinks (i.e., carbon sinks, see "Senke," DEK, p. 89), forest resilience, and the restoration of damaged ecosystems. Though upon reaching the paragraph's final sentence, it is made explicit that all these interventions are framed (im Rahmen) within a human economy and so nature appears to be at the disposal of a growing world population. Nature's value becomes reduced to foodstuff and animal feed for humans and the domesticated species over whom industrialized human societies exert control.

4.3 Evaluations

While it is apparent from the section on framings that climate inaction and emissions are negatively appraised, which may turn out to be ecologically beneficial to some extent, a prominent evaluation in the corpus, as well as in 'Westernized' societies in general, is the evaluation that ECONOMIC GROWTH IS GOOD.

Sie kann Impulse für ein **nachhaltiges Wirtschaftswachstum** geben und die Energiewende beschleunigen. (EUK, p. 4)

Es ist möglich, die Emissionen zu senken und gleichzeitig ein **BIP-Wachstum** sowie einen Nettozuwachs an Arbeitsplätzen im Energiesektor zu erzielen. (EUS, p. 4).

So kann Deutschland einen **nachhaltigen Wachstum**s- und Investitionspfad einschlagen. (DEK, p. 19).

Eine Politik für **stabiles Wachstum**, nachhaltigen Strukturwandel und zukunftsorientierte Regionalentwicklung muss Grundlage für den zu bewältigenden Transformationsprozess sein. (DEK, p. 40).

Pan-Canadian Framework on **Clean Growth** and Climate Change: Canada's Plan to Address Climate Change and **Grow the Economy**. (PCF, Title).

Based on the Government's projections, the proposed actions outlined in this plan will – once fully implemented – enable Canada to exceed its current 2030 target. Environment and Climate Change Canada's analysis...shows that this can be done while maintaining **strong GDP growth**. (HEE, p. 60).

There are several features of interest from this collection of excerpts from the corpus. First, there are multiple adjectives which bolster the positive evaluation of economic growth. The table below shows the adjectives used to describe growth or "Wachstum" in the corpus.

Table 6: Parts of speech describing "growth" or "Wachstum" in the respective publications.

PCF [growth =	HEE	DEK	EUS	EUK
clean = 58 economic = 15 GDP = 1 business = 1 further = 1	economic = 8 clean = 7 projected = 1 business = 1 domestic = 1 GDP = 1	nachhaltig = 1 stabil = 1 Produktions- = 1 -im Luftverkehr = 1 -im ökologischen Landbau = 1	BIP = 1 -szunahme = 1 Investitions- 1 nachhaltig = 1	Wirtschafts- = 5 nachhaltig = 2

Lexical items such as "clean," "nachhaltig" (sustainable), "strong," and "stabil" (stable) act as appraisal items to convey the positive representation of economic growth. Alexander (2009) calls these positive words "purr-words", which he defines as "positively sounding or euphemistic words" and describes that when they come together in a text, they can have a cumulative effect to give the reader a "self-assured, unquestioning and practically incontestable perspective" (140). Second, specifying the economic growth as an increase in Gross Domestic Product (GDP) or "Bruttoinlandsprodukt" (BIP) follows economically coherent orientational metaphors such as

MORE IS UP and GOOD IS UP, which means that typically MORE IS GOOD. Though it is important

to be clear what MORE refers to. In the data, MORE more often than not implies a continual

increase in material production and consumption. The transition to renewable energy sources

requires the "innovation"/"Innovation", "development"/"Entwicklung" and "deployment" of

more technologies, which consequently requires *more* mining for various metals such as lithium

for electric car batteries. But if we change our thinking to change what we mean by MORE, as

Charles Eistenstein has suggested in his (2011) book *Sacred Economics*, we can trigger the

already-existing MORE IS GOOD frame, but in a way that encourages protecting and regenerating

life on Earth. Ferguson (2015) mirrors this call for a shift, pointing out that the MORE could still

refer to economic growth but to sectors that are more socially and ecologically beneficial to

grow. As an example from the corpus of specified sector growth, the German government's

climate plan proposes growth in organic agriculture.

> Im Vordergrund sollen Vorschläge stehen, die zu mehr Wachstum im ökologischen Landbau
> führen und die Nachhaltigkeitsleistungen des ökologischen Landbaus weiter verbessern.
> (DEK, p. 65).

Otherwise in the corpus, insofar as I have been able to determine, growth is unspecified.

Ironically, the predominant focus on economic growth in climate discourse occurs alongside

commitment to human well-being in spite of GDP long having been critiqued for its adequacy in

measuring human well-being (Cavalletti & Corsi, 2016; Costanza et al., 2009; Giannetti et al.,

2015; Kubiszewski et al., 2013; Stiglitz et al., 2010). For instance, Gianetti et al. (2015)

problematize GDP as an indicator of human well-being and discuss alternative measuring

systems in detail, explaining that part of the origin of GDP relies on the notion that economic

growth is synonymous with human well-being. Stiglitz et al. (2010) point out how well-being is

in fact multidimensional. On one hand they indeed list "social connections and relationships"

among other indicators not accounted for through GDP. On the other hand, there is no mention of ecological connections and relationship to nature. While they include "environment (present and future conditions)" as a dimension of well-being that GDP excludes, the term 'environment' alone is ambiguous and could refer to an individual's local ecosystems or their work environment, family environment, etc., or all of the above. While government actors may mean well, GDP/BIP is largely inadequate as an effective measure of a human population's well-being.

Use of the compound noun "Investitionspfad" in the first excerpt from Germany's plan is consistent with the PROGRESS IS GOOD evaluation. Investment itself is generally regarded as a profitable and financially savvy move depending on the risk assessment. The term is also used within the metaphor TIME IS MONEY, giving rise to expressions like 'to invest one's time', which is positively viewed compared to the expression 'to waste one's time.' So a path of investment/Investitionspfad implies a step, i.e., progress, toward a favourable or positively viewed 'destination'. Forward movement on a path is also 'progress' in the most basic physically tangible sense of the word.

> This is an ambitious plan – a plan that will fundamentally accelerate **environmental and economic progress** in Canada. (HEE, p. 64).

> Der Klimaschutzplan wird in regelmäßigen Abständen fortgeschrieben. Dabei wird auch überprüft, ob der **technische Fortschritt und ökonomische Entwicklungen**, die heute noch nicht vorhergesehen werden können, sowie die in diesen Minderungskorridoren abgebildete Sektorkopplung Anlass zur Neujustierung zwischen den Korridoren geben. (DEK, p. 33).

> Es werden indikative **Meilensteine** für 2030, 2040 und 2050 mit messbaren **Fortschrittsindikatoren** festgelegt. (EUK, p. 24).

Words such as accelerate, development, progress, milestones as well as lexical items mentioned in the SOLVING CLIMATE CHANGE IS A JOURNEY metaphor come together to produce the

cumulative effect Alexander (2009) spoke of with regard to purr-words. In this case, the cumulative effect is a positively connoted communication of forward directionality. Compared to notions of 'backwardness,' forward directionality generally evokes positive associations. While it is true that progress is not measured solely by GDP, being often measured in relation to countries' proximity to GHG emission reduction targets, social actors still construct the diorama of intended climate action against the backdrop of economic prosperity. This poses a challenge for policymakers and is where an evaluation somewhere along the lines of TAXING POLLUTION IS GOOD provides incentives in order to both reach those targets and achieve economic prosperity. An example from Germany's action plan illustrates a few linguistic features of this pattern.

> Schließlich soll geprüft werden, wie das **Steuer- und Abgabesystem** in Deutschland **schrittweise weiterentwickelt** werden kann, damit die **Klimaschutzziele 2050 erreicht** werden. Die Bundesregierung wird die **ökonomischen Anreize für die Verursacher stärken**, die Umweltbelastung zu senken und in Richtung **nachhaltiger Produktions- und Konsumweisen zu steuern**. Dazu werden **klimaschädliche Anreizwirkungen verschiedener Steuern** betrachtet. (DEK, p. 9).

This single excerpt contains numerous positively marked linguistic features. Hoping to be "schrittweise weiterentwickelt," the German tax system (Steuer- und Abgabesystem) is embedded in the PROGRESS IS GOOD evaluation, progress that leads to achieving "Klimaschutzziele," conveying a positive notion of achieving a goal. The German government will also 'strengthen' (stärken) economic incentives (ökonomische Anreize) and review incentivizing effects (Anreizwirkungen) of various taxes that are harmful to the climate. While apparently effective in the short-term, incentivizing actors to behave in an ecologically beneficial way with money alone contradicts the claims to 'sustainability/Nachhaltigkeit" in the discourse. How 'sustainable' can it really be to tell people the story that the value of protecting our ecosystems should be measured primarily in monetary terms?

4.4 Salience & Erasure

Beginning first with salience, I will provide a quantitative presentation of the data to illustrate the relative frequency of selected words in the corpus. By making observations from Table 7 (Appendix B) we can begin to identify a "salience pattern," "a linguistic or visual representation of an area of life as worthy of attention through concrete, specific and vivid depictions," which we can then further develop by relating the lexical items to their context of use (Stibbe, 2021, p. 160).

I have lumped the most common eco-words together in the last row to highlight how the frequency quotient of 'eco'-words compares to other terms with relatively high lexical frequency. For example, we can see that in Germany's Klimaschutz 2050 plan, whose title explicitly refers to protecting the climate, even the terms "Markt" and "Innovation" appear more often than all of the 'eco'-related words combined. One observation from the table reflects the common disconnect between our consumption and its origins. While the EUS publication deals with "saubere Energie," there is no mention of where it ultimately comes from, i.e., somewhere within an ecosystem. In a more energy specific discourse as in the "Saubere Energie" document, this lack of source acknowledgement represents the disconnect many people have between the electricity they consume and from whence it comes.

The discourse in the corpus emphasizes capitalist values of economic growth and innovation in the guise of ecological modernisation, which, if we recall from the framings sub-chapter, covers "systematic eco-innovation and its diffusion" (Jänicke, 2008, p. 557). The quantitative data, then, demonstrates the ideological language that is most present, most likely to trigger associated frames, and consequently, that which strengthen the corresponding neural circuits in discourse recipients' brains. To get a better view of the top-frequency tokens doing

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this cognitive work, I have organized the top three most frequent items from each publication in Table 8 below.

Table 8: Ranked Lexical Items in Order of Descending Frequency

Ranking	PCF	HEE	DEK	EUS	EUK
First	Emissions	Economy	Wirtschaft	Wirtschaft	Emission(en)
Second	Growth	Emissions	Emission(en)	Investition	Wirtschaft
Third	Technology	Investment	Technologie	Markt	Investition

We can observe from this table that "Emissions/Emissionen" tops the list as the lexical item appearing most often from the selected tokens in 80% of the corpus (takes fifth place in the EUS publication). Greenhouse gas (GHG) emissions, and CO2 emissions specifically, appears to have been chosen as a highly salient aspect of climate change mitigation. After all, humanity's activities across the economic sector produce the GHG emissions that are changing the climate, so it seems like a logical correlation. However, focusing on the emissions produced by economic activities represents a reductionist view of climate change. I am, however, not implying economics has no place in climate change mitigation, but rather that other essential areas of society become underrepresented as policy makers frame it so dominantly in relation to economic processes. To quote Shaw & Nerlich in their (2015) paper:

> This is not to deny the relevance of economics to climate policy making, but it has been argued that justice and ethics...and democratic decision-making principles...are equally important frames for governance of climate change. Suggesting that climate change is primarily an economic problem reduces the policy space for these alternative framings and the resultant marginalisation of these less expert, technical frames undermines efforts

being made elsewhere to build strong positive public engagement. (Shaw & Nerlich, 2015, p. 34).

To build on Shaw & Nerlich's critique further, I would argue that governance which seeks both social *and* ecological justice is also pushed to the margins by the problematically disproportionate focus on both reduceing emissions and growing the economy. After all, ecological justice is social justice to a large extent. In addition to this aspect of anthropocentrism, human health and well-being constitute another salient feature of the discourse in the corpus, demonstrated below with a few qualitative examples.

> Mehr Ehrgeiz für das Klimaziel Europas bis 2030. In eine klimaneutrale Zukunft **zum Wohl der Menschen investieren**. (EUK, part of document title).

> Klimaschutz- und Energiepolitik unterstützen die Luftqualitätspolitik bei der Verbesserung der **Gesundheit der Menschen** in der EU. (EUK, p. 6).

> As with pandemic preparedness, the earlier Canada takes action to address climate change, the more effectively the country can reduce its risk and protect the **health and safety of Canadians**. (HEE, p. 7).

Though as outlined in the latter portion of the sub-chapter on framings, it is questionable whether economic growth is the most effective way to 'invest' in human well-being to begin with. Nonetheless, making human well-being salient reflects a focus on human beings and what Romaine refers to as the "GREAT CHAIN OF BEING" metaphor, which as she explains, is underpinned by the Judeo-Christian tradition that has traditionally viewed humans as a superior species since humanity, or *man*, rather, had been made in God's image (Romaine, 1996). In Paul Kingsnorth and Dougald Hine's (2009) manifesto of *The Dark Mountain Project*, they note the danger in living by the story of 'human centrality' or human exceptionalism:

> What makes this story so dangerous is that, for the most part, we have forgotten that it is a story. It has been told so many times by those who see themselves as rationalists, even

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scientists; heirs to the Enlightenment's legacy – a legacy which includes the denial of the role of stories in making the world. (*The Dark Mountain Project manifesto*).

Making human well-being so salient in the context of a global ecological crisis, in spite of intentions to reduce the carbon footprint, reflects and promotes the continued dissemination of the story of human centrality. But what about features that are less important? What is missing? What is placed second, what is placed last? From the title of section two of the EU's climate plan, called "Die wirtschaftlichen und sozialen Vorteile ehrgeizigerer Klimaschutzziele," we can observe that ecosystems, other species in those ecosystems and biodiversity as a primary advantage or "Vorteil" of more ambitious climate action are completely absent from this section's scope. This form of erasure is what Stibbe calls "*the void*, where 'something important' is completely excluded from a text" and is one of myriad examples in which other species inhabiting our ecosystems experience erasure, reflecting a mentality that regard the non-human world as less worthy of attention in government plans to address dire ecological circumstances, which directly affects the non-human world (Stibbe, 2021, p. 144). One of the forms of erasure appears within the commodification of nature, in which plant and animal species are lumped together in what are called mass-nouns such as 'wood' or "Holzprodukte" as opposed to naming individual tree species. The linguistic process of producing mass-nouns is called hyponymy.

> Dynamischer Komplex von Gemeinschaften aus **Pflanzen**, **Tieren** und **Mikroorganismen** sowie deren nicht lebender Umwelt, die als funktionelle Einheit in Wechselwirkung stehen. (DEK, p. 88).

> Im Sektor Landnutzung, Landnutzungsänderungen und **Forst**wirtschaft (LULUCF) der EU werden sowohl Treibhausgase emittiert als auch CO2 im Boden und in **Biomasse** gespeichert. (EUK, p. 13).

> Aufgrund der Kohlenstoffspeicherung in **Holzprodukten** wurden etwa zwei Millionen Tonnen CO2-Äquivalent eingebunden. (DEK, p. 67).

A Healthy Environment and a Healthy Economy: Canada's strengthened climate plan to create jobs, support people, communities, and **the planet**. (HEE, document title).

In the last example, the human species is identified through use of the word 'people' but everything else falls under the umbrella term, 'planet.' The planet consequently acts as a symbol of the great Other to which we relate. But we cannot truly relate in a meaningful way to such an abstract designation. There is no tangible, vivid, bodily experience evoked. Regarding the other examples, to use a relevant idiom here, we simultaneously "can't see the forest for the trees" (not able to see the bigger picture by focusing primarily on CO2 and the economy) and "can't see the trees for the forest" as demonstrated by the erasure of individual tree species lumped under one mass-noun 'wood' or "Holzprodukte" or "Holzbiomasse" (EUK, p. 14). The latter examples are even more reflective of the economic production metaphor. Stibbe, speaking of the English language context, explains how a noun-phrase such as "ecosystem services" or in the case of German, "biogene Ressourcen" (DEK, p. 74) consists of a *head* and a *modifier* (see Stibbe, 2021, p. 147). "Produkt" and "Biomasse," then, form the head of their respective compound noun. Grammatically speaking, the noun-phrase or clause within which the noun-phrase exists is typically about the *head* and not about the *modifier*. Individual tree species therefore experience a double-layered erasure in these examples. First, they are hidden or distorted behind the mass-noun classifications of 'wood,' "Holz," or "Pflanzen". This lacks any vivid visual we might experience by reading or hearing about the flaky, white bark of a paper birch or the jagged edges of deep burgundy leaves of the sugar maple in late fall, and so it distances us and disconnects us from the tree species as well as the individual trees themselves. This represents another type of erasure known as "*the mask*, where it is erased but replaced by a distorted version of itself" (Stibbe, 2021, 144). Second, they are placed at the periphery of the phrase or clause in which they are textually represented. Especially entrenched as they are in an economic production

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metaphor, their intrinsic value as living organisms is overshadowed by their utility as economic commodities. Erasure of this kind fits with an observation by Horkheimer & Adorno in *Dialectic of Enlightenment*. They lay out in their first chapter how enlightenment's mission to search for knowledge via an enquiry into nature is linked to human mastery over nature. In the process, as nature becomes the object of scientific inquiry, it is "stripped of qualities, becomes the chaotic stuff of mere classification, and the all-powerful self becomes a mere having, an abstract identity" (Horkheimer & Adorno, 2002, p. 6). The Enlightenment's legacy thus manifests not only in "the denial of the role of stories in making the world" as Kingsnorth & Hine claim. It is also realized in the way other species are represented in the discourse, connecting the pattern of erasure to an anthropocentrism rooted in enlightenment ideals of rationality, objectivity, and a scientific process which "subdues the abundance of qualities" (Ibid.).

Agency, another form of erasure at the grammatical level, pertains to this corpus as well. This acts as a form of erasure, because the human element that is causing climate change is often missing. We talk more often about climate change as an entity that acts upon us, rather than consistently acknowledge our agentic role in the destructive activities that are causing it in the first place. If X does Y to Z, then it is clear who is responsible for Y being done to Z, but if we omit X and phrase it as Y was done to Z, the agent, X, is absent, and thus erased. Some examples from the corpus demonstrate how climate change is framed as a threat. This strips humanity of the agentic role of being responsible for the changing climate and poses humanity as a victim, when really, industrial human society is the perpetrator, and the non-human world is victimized by human greed and excess. For example, the Pan-Canadian Framework begins the plan's

introduction by acknowledging anthropogenic climate change (the impacts of which are highly anthropocentric, by the way):

> The science is clear that **human activities are driving unprecedented changes in the Earth's climate**, which pose significant risks to **human health, security, and economic growth**. (PCF, p. 1).

Though from that point on, climate change is either something that is agentic itself or represents an entity or object that is acted upon versus being the product or result in a causal relationship as it is identified above. While anthropogenic climate change is acknowledged here, it comes back to being about the human being. The consequences of human industrial civilization are framed to threaten and pose risks to *our* livelihood, rather than the livelihood of the non-human world. Not only do other species become existentially erased via extinction, their endangerment due to our ways of life are discursively represented as subordinate to the threat to our own survival.

The first two examples in the next collection of excerpts illustrate climate change's role as the subject in a sentence, where it is specifically characterized as a threat and a costly force. The latter examples show climate change in a subject position as well, but in the passive voice.

> Canada must manage its impacts without losing ground on the growing threat that **climate change** presents to Canadians' health and to the economy. (HEE, p. 7).

> **Climate change** could cost Canada $21-$43 billion per year by 2050, according to 2011 estimates from the National Round Table on the Environment and the Economy. (PCF, p. 1).

> Für die Senke bestehen erhebliche Risiken durch die zunehmenden negativen Auswirkungen von Naturgefahren **aufgrund des Klimawandels**, wie Bränden und Schädlingen, sowie der steigenden wirtschaftlichen Nachfrage nach forstwirtschaftlicher Biomasse – Faktoren, die auch der biologischen Vielfalt schaden. (EUK, p. 14).

> Stadt und Umland müssen stärker durch Grünzüge miteinander verbunden werden, die zugleich als Frischluftschneisen fungieren. Begrünte Bauwerke (Dach, Fassade) und eine geringere Versiegelung von Flächen mildern die **negativen Folgen des Klimawandels** ab. (DEK, p. 45)

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In the EU example, the conjunction "aufgrund" implies a causal relationship, in which climate change is responsible for the negative effects of natural disasters. In the German example, "Klimawandel" is not implied to be responsible, as the genitive case here instead denotes possession. However, "Klimawandel" becomes a sort of 'intermediary' disconnecting humanity from its role in causing the above-mentioned negative consequences. Instead of human activities causing negative consequences, the negative consequences are mentioned solely in conjunction with the subject, *Klimawandel*. This creates a distorted picture of what is required in order to promote effective change. Repeatedly, we understand climate change to be something to act upon in various ways, adapt to, and blame. We project our action toward a conceptual enemy in a flurry of technological innovation rather than directing the attention inwards to ourselves to incite social and cultural change.

Another significant aspect of the anthropocentric character of the discourse pertains to attributes and roles which are described in conjunction with German, European, and Canadian governments. Each publication in the corpus portrays each political body as a leader, role model, or pioneer of some sort. I will call these portrayals discursively constructed Subjects, capitalizing the "S" in Subject to distinguish between the discursive category and the grammatical category discussed above. I argue that climate change mitigation consequently becomes more about these constructed Subjects and detracts from the focus on addressing ecological issues.

> **Weltweite Führungsrolle Europas** im Bereich Energie und Klimaschutz. (EUS, a chapter title, p. 3).

> Nur wenn hochindustrialisierte Länder wie Deutschland den Beweis antreten, dass das Erreichen der nationalen Klimaschutzziele den wirtschaftlichen und industriellen Erfolg des Landes nicht negativ beeinträchtigt, **werden uns andere Länder folgen**. (DEK, p. 17).

...die Unternehmen und Industrie in der **EU weltweit zu Wegbereitern** machen würde. (EUK, p. 3).

So gibt **Europa** allen anderen Regionen der Welt **ein praktisches Beispiel** dafür, wie die Verwirklichung der Ziele des Übereinkommens von Paris zu einer wohlhabenderen, faireren, resilienteren und gesünderen **Welt führen** wird. (EUK, p. 8).

Canadian clean technology companies receive international recognition for their innovations every year. **Canadian ingenuity** is creating electric transit buses and carbon-free aluminum. With **Canadian expertise** in low-carbon and sustainable solutions, Canada can take part in growing global markets and build strong international partnerships as the global economy transforms. (HEE, p. 7).

As the European, German, and Canadian Subjects are constructed as cutting-edge leaders in the journey to solving climate change, the journey becomes less about the Other (climate change, the planet, other species) and more about the Subject and its economic body. To elaborate on a similar construction of the Subject which promotes ecologically destructive behaviour, we can compare the Subject construction pattern of the climate leader/pioneer with the messages conveyed in men's health magazines. The idealized male body appears bursting with muscle. Stibbe (2021) points out in his investigation of this identity construction that it "fits in with the much larger story of the individual dedicated only to self-gain, which appears in neoclassical economics and is one of the defining stories of modernity" (p. 117). We can observe this image in the text of Germany's climate plan, in which Germany predicts that other countries will follow their example, similar in the way that some men aim to follow the muscular image displayed on magazine covers. In this case, the climate discourse in the corpus becomes the 'magazine' cover, expecting other countries to buy-in and follow their example. Stibbe outlines some of the problems of this idealized form of masculinity from an eco-critical point of view, namely that meat consumption is often purported to be the ticket to big muscles, which in turn supports an ecologically destructive animal product industry. If we conceptualize the economic Subject as a body, the eco-innovative industrialization could then be said to be its muscles. But if we get

those 'muscles' by further consuming and exploiting the Earth's ecosystems, then this construction of the Subject may invite other countries to participate in ecologically harmful activities.

Self-identifying as leaders or pioneers in eco-innovation, the economic bodies armoured with cleantech figures in a discourse that also makes protection salient. The guiding questions in this section of the analysis are who is protecting whom, and who from? To answer these questions, I searched "protect" or "Schutz" in each publication and took note of what was being protected, and when explicitly mentioned, who from (vor wem). The results of my search are collected in Table 8 in Appendix C. There appears to be a great deal of emphasis on protection of nature for no specified reason: protection of "natural areas" (PCF, p.1), "protect 25% of Canada's land and 25% of Canada's oceans by 2025, working towards 30% of each by 2030" (HEE, p. 55), "Naturschutz" (DEK, p. 9), "Klimaschutz" (EUS, p. 6), and "Klimaschutz" (EUK, p. 27). When nature or the climate is the affected object being protected, it is often not specified *who against*. In the German plan, "Klimaschutz" occurs 447 times in the 92 page document and 27 times in the 30 page EUK document, but one can only speculate that the intention is to protect "the climate" against the GHG emissions of industrialized human society. To contrast with this speculative threat figure, human communities and their infrastructure need protection *against* climate change and/or its consequent effects, according to the Canadian plans.

> Federal, provincial, and territorial governments will partner to invest in traditional and natural infrastructure that reduces disaster risks and **protects Canadian communities from climate-related hazards** such as flooding and wildfires. (PCF, p. 35).

> In York Region, Ontario, the Government is investing over $10 million to plant over 400,000 trees to enhance urban areas and urban forests. This will help **protect over 1.2 million residents from extreme heat, flooding and erosion**, while also sequestering carbon and providing better air quality. (HEE, p. 65).

Similarly, the EUK necessitates the protection and strengthening of the resilience of natural sinks and European forests "gegenüber dem Klimawandel" (EUK, p. 19). Many occurrences in the corpus either feature a protection of the climate with no explicit enemy, opponent, or threat, while others point to climate change or the worsening natural disasters as that enemy, which fits with metaphors that view climate change as a game or war. In addition to the link to these metaphors, the way of framing nature as a commodification appears within some of the protection examples. In the more recent Canadian plan (HEE), there are contradictory intentions to protect land against capitalist pursuits of a ski resort, but simultaneously aims to protect nature *for* Canadian economy rather than for its own intrinsic value (p. 55 and p. 57, respectively). Similarly when nature is framed as the protected entity in the German plan, it is commodified in the phrasing "Schutz der natürlichen Ressourcen" (DEK, p. 15, p. 50, p. 84). However, the plan also frames it as "Schutz der natürlichen Lebensgrundlagen," which appears to frame nature differently, more as a basis of our livelihood rather than something to exploit. There is also emphasis on the protection of moorlands, forests, and both land and sea ecosystems, acknowledging the diversity in nature as opposed to a more abstract "*Planet*". So, while there are also some more positive implications for protecting nature that indeed appear in the document, they contradict the examples in which nature is commodified. If we think back to a cognitive linguistics perspective, the commodification frame will predominantly activate and strengthen the neural circuitry of discourse recipients, since this framing of nature as a commodity is made more salient.

Coinciding with the emphasis on protection in the corpus is the concern for safety/security or *Sicherheit*. While providing a rough sketch of post-war Europe's growing awareness of ecological problems in *Framing Discourse on the Environment*, Richard Alexander

describes some of the more alarming effects of pollution experienced by different parts of Europe.

> Once there was smog and moreover deadly fog in London. Along came acid rain, killing forests in Scandinavia and elsewhere. Chernobyl blew up in 1986. So pollution, nuclear power, as well as nuclear bombs generally disconcerted large numbers of people. 'Something needs to be done' was the watchword of the 1970s and 1980s. (Alexander, 2009, p. 3).

Corresponding to this concern in the corpus, particularly with respect to nuclear power, is the term "sicher" in the German and European plans (DEK, EUK, & EUS). Salience of this matter to governance is also reflected in Germany's environment ministry's title, *Bundesministerium für Umwelt, Naturschutz und nukleare Sicherheit* as well as the European Commission's energy policy focus of "secure, sustainable, and competitively priced energy for Europe" (BMU, 2016; *Energie*). "Sicherheit" appears 25 times in Germany's DEK document (**0.27**), 7 times in the EUK document (**0.23**),and 20 times in the EUS document (**0.77**). In the Canadian documents of the corpus, "safety" in HEE publication refers either to the coronavirus pandemic (public health issue) or safety from natural disasters, occurring 6 times (**0.08**). In the PCF document, "safety" occurs 3 times (**0.03**) and refers to winter road and sea-ice safety and safe infrastructure (standards of building codes). The safety element to the energy discourse therefore does not appear to be as present in the Canadian context as it is in Europe. Considering the historical context in Europe, it is likely that the emphasis on "sicher," "Sicherheitspolitik" and "Versorgungssicherheit" represents a socially constituted discourse feature with ties to a geographically close nuclear disaster, thereby activating a specific nuclear safety frame among discourse recipients. Reassuring the public of the plan's safety/reliability in this way represents

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an extension of the positive and environmentally ethical representation of an eco-innovation approach.

Nuclear power is a controversial topic in Europe and has faced particularly strong opposition in Germany. Approximately 30,000 protesters stood up against the construction of a nuclear power plant in the town of Wyhl am Kaiserstuhl, which was never built and instead became a nature reserve by 1995 (Isenson, 2009). An even larger protest of 100,000 people, facing 10,000 police officers, opposed the construction of the Brokdorf plant near Hamburg on February 28th of 1981 (Ibid.). Even before the Chernobyl disaster in 1986, there was clearly a strong resistance to nuclear power. Once thought to be "the ultimate energy source, freeing mankind from reliance on dirty and expensive fossil energy," disasters such as that on Three Mile Island, Chernobyl and Fukushima Daiichi greatly influenced public opinion (Elliott, 2017, p. 1). This shift reflects Porta & Last's definition of morality in the introduction, in which they sketch a few examples of how what is considered "moral" can change over time. Their examples of pre-marital cohabitation and public homosexuality demonstrate how something which was once considered 'immoral' became more morally acceptable over time. The nuclear energy example similarly exemplifies this process, albeit inversely, whereby the once-thought-to-be 'clean' energy from nuclear reactors became more and more widely accepted as 'unclean' as evidence for its risks and damages grew. Therefore, it is unsurprising in this context, especially for EU and German governments, to place emphasis on not only 'clean' or 'renewable' or 'sustainable' energy and technology, but *safe* options that will not replicate biohazardous, radioactive catastrophes.

5. Discussion

      To summarize my findings, I began the analysis with an explanation of how the metaphors ETHICAL IS CLEAN and ECONOMY IS A PERSON inhabit collocations like "clean economy" or "*saubere Wirtschaft*." These constructions convey a particular ethical take on climate action, one that is not impervious to critique as demonstrated in the analysis, since pursuits that from one perspective seem "clean" or "*sauber*" can be said to have a 'dirty' side too. The metaphor SOLVING CLIMATE CHANGE IS A JOURNEY provides evidence that the economic 'person' achieves progress by moving forward in the journey toward emissions targets. And intertwined with this conceptualization of climate action as a journey is the CLIMATE CHANGE IS WAR metaphor, revealing that governments intend to strike these *targets* with the deployment of the weaponry of renewable energy technologies to win the war. Based on the framings CLIMATE CHANGE INACTION COSTS MONEY, CLIMATE CHANGE ACTION SAVES MONEY, CLIMATE CHANGE AS AN ECONOMIC OPPORTUNITY, CLIMATE CHANGE AS A CHALLENGE, and NATURE IS A COMMODITY, there is evidence to problematize a state of affairs in which the represented government's plan incentivizes action to protect nature only then to further exploit it in order to protect human society. Subsequently, the evaluations ECONOMIC GROWTH IS GOOD, PROGRESS IS GOOD, TAXING POLLUTION IS GOOD further demonstrate the positive appraisal of capital growth and how it informs incentives, motivations and policies in relation to pollution. While some might argue the beneficial nature of politics' attempts to reinforce negative appraisals of pollution because it is 'bad for business,' such appraisal patterns are negotiated according to capitalist principles. The implication of this line of thinking is that whenever action or inaction falls outside of these considerations, but such inaction or action may have ecologically beneficial consequences, there is no motivation to act if it does not provide financial

capital. The dominant focus on technology and economic processes, explored in the next section, shows simultaneously what is deemed important and unimportant.What tends to be erased are certain social and environmental costs associated with the techno-fix approach such as the risk of deepening world inequalities, and reduction of CO_2 on one hand yet still commodifying nature on the other. Moreover what is revealed with these discourse structures is the focus on the human over other species. The implication of this, particularly with respect to the ethical dimension is that "representing animals as objects erases them as living beings and removes them from the sphere of moral consideration" (Stibbe, 2021, p. 149). This is where what is discursively made salient and what is discursively erased bears relevance to the ethical considerations conveyed through metaphors of moral purity and impurity alongside the linguistic presence of ethical concepts. In relation to discussing this discourse structure in particular, I aimed to execute a kind of *re-minding*, which Stibbe explains to entail "explicitly calling attention to the erasure an important area of life in a particular text or discourse and demanding that it be brought back into consideration" (Stibbe, 2021,p. 160). Bringing an area of life, line of action or species brings these other foci into ethical consideration in turn provides a different perspective on what should or must be done. I will continue the discussion by exploring the topic of ethical consideration, showing the discourse of ecological modernisation to metaphorically be a kind of ethical playing field. Section 5.2 follows with a discussion of the reductionist focus on carbon and the risk of promoting dystopian social realities. In sections 5.3 and 5.4, I will connect the commodification of nature to creationist discourses and critically question the idealized goal of neutrality, respectively. Finally, I will explore topics for further research, first more specifically in the German language context in section 5.5, i.) and then in the Canadian context in sub-section ii.).

5.1 Discourse of Ecological Modernisation: An Exclusive Ethical Playing Field?

The CBC recently featured an article titled "Canada should donate AstraZeneca vaccines, or we'll 'have blood on our hands': doctor," representing a concrete example of the idiom *to have blood on one's hands* already mentioned in the analysis. The title pertains to ethics in two ways. First, the deontic modal verb "should" reflects what Girnth described as the deontic dimension of an *Ideologievokabular*, which incites or calls for some sort of action (*zu etwas auffordern*). What *should* be done has its basis in a certain ethical standpoint, i.e., what the right thing to do is, what one is obligated to do, what the responsible thing to do is, all come down to the person's ethics. The outcome of not doing so, that is, not doing what *should* be done will result in *having blood on one's hands*, an idiom that has its metaphorical basis in the conceptual metaphor ETHICAL IS CLEAN. Dr. Zain Chagla, the doctor referenced in the article's title, is quoted in the article saying: "If we're not going to take care of our global partners, something's going to happen, variants are going to emerge, and we're going to have blood on our hands with people that died" (Fenn, 2021). If one were to insert [natural disasters] instead of "variants," this quote could just as easily apply to climate change. It would be suitable because, like the coronavirus pandemic, climate change disproportionately affects certain countries (Petkova, 2016). Even within countries, certain populations are disproportionately affected, as the HEK document acknowledges.

> Greenhouse gas emissions originating from Indigenous communities are modest –
> estimated at less than one million tonnes per year across the country. In contrast, when
> compared to other segments of Canadian society, the impacts of climate change on
> Indigenous peoples are disproportionately greater. (HEK, p. 67).

While passages in the corpus promise to move forward in the journey toward climate goals so that "no one is left behind," I pointed out in the analysis how the conceptualizing within

the SOLVING CLIMATE CHANGE IS A JOURNEY and ECONOMY IS A PERSON metaphors fail to account for different countries with varying levels of industrialization achieving climate goals. Who is on the battlefield in the fight against climate change? According to Romaine, even war itself may be understood metaphorically: "We understand war as a competitive game, like chess, or as a sport, like football or boxing" (Romaine, 1996, p. 178). Asplund (2011) also identifies conceptualizations of climate change as both a war and a game. A significant aspect of this overlap is that the 'battlefield' and the 'playing field' or 'playing board' all exist within what Omar Lizardo has termed 'rule-governed settings like "games, contests or political institutions" (Lizardo, 2012, 371). He discusses how the metaphors MORAL PURITY IS CLEANLINESS and MORAL IMPURITY IS UNCLEANLINESS are enacted in these settings, which become ethical arenas, in which ethical considerations, accusations, points of view, etc. are played out, negotiated and displayed. Similarly, using terms of cleanliness and uncleanliness to describe economic activities in the context of climate change represents a moralizing process in the discourse that communicates something subtly different to descriptors such as sustainability or renewable. That difference lies in its ascription of a moral standing. Citing Rozin (1997), Brian Lowe (2010) explains this "moralization" as "the process through which activities, practices, phenomena, objects and subjects acquire a moral standing that transcends personal preference or mere cultural convention" (p. 294). However, 'sustainable' and 'renewable' are nonetheless entrenched in an ethical discourse, occurring alongside the premise that the livelihood of future generations is at stake, thus evoking ethical questions of responsibility, duty and obligation. They too take part in this moralization process. Building on the Girnthian idea of an "Ideologievokabular," we might say that the terms sustainability and renewability form part of a "Moralvokabular," with more specific ties to the discourse of ecological modernisation's ethical

propositions in the corpus. The question then pertains both to opponents and allies on a battlefield as well as who the players are on the ethical playing field of discourses of ecological modernisation. In Newell and Paterson's (2010) prediction of "decarbonized dystopia," those who get left behind in the journey on the playing field may leave technologically advanced climate neutral populations with 'blood on their hands' as they stand more resilient and better adapted than the rest.

5.2 Climate Change: Only a Matter of Time...and Carbon

If we recall from Table 8 in the salience/erasure section of the analysis, economy or "Wirtschaft" and emissions or "Emissionen" (primarily CO2) appeared first and second most frequently out of the selected lexical items in four of the five publications in the corpus. In response to these emissions causing rising average global temperatures, the publications reveal governments' intentions to 'decarbonize' the economy, another salient intention. The older Canadian plan features virtually no mention of decarbonisation, speaking more of carbon pollution, a collocation with 42(**0.49**) appearances, whereas the updated HEE plan does reflect a greater focus on decarbonisation and approximately half as much explicit mention of "carbon pollution" (freq. 21(**0.27**)).

Table 10: decarb*/Dekarb* and carbon trade/Emissionshandel frequency

	PCF	HEE	DEK	EUS	EUK
decarb*/Dekarb*	1(**0.01**)	14(**0.18**)	25(**0.27**)	11(**0.42**)	15(**0.50**)
emissions/carbon trad*/cap and trade/Emissionshandel	13(**0.15**)	1(**0.01**)	31(**0.32**)	1(**0.04**) (Emissionsobergrenze)	19(**0.63**)

Of interest here, entwined with the proposed eco-innovation to reduce emissions, is the salience of a system of investment called carbon trading, emissions trading or "Emissionshandel," a concept appearing to a variable extent across the corpus. While the emissions trading idea goes

back decades, it wasn't until the Kyoto Protocol in 1997 that a global framework for 'trading' emissions was introduced (Böhm et al., 2012). Since 2005 the Emissions Trading System in Europe has set caps for how many emissions corporations are allowed to emit each year. Companies who emit less than the yearly cap have an allowance, the leftover amount of emissions they could have emitted. Companies who exceed the emissions cap can buy those allowances, hence, "cap and trade," as it is also known (European Commission, 2014). This provides a financial incentive for companies to produce fewer GHG emissions because, for one, exceeding the cap requires them to spend money on allowances in order to avoid being penalized, and second, corporations can make a profit by emitting less because they can sell their allowance on the market.

This is one of the generally agreed upon ways for countries to 'decarbonize' their economies, a reorganization of capitalism Newell & Paterson (2010) call "climate capitalism." A significant criticism of this marketable solution promoted in climate discourse and its relevance to the scope of this discussion is the alignment with and reinforcement of the NATURE IS A COMMODITY framing. In their (2010) book, *Climate Capitalism: Global Warming and the Transformation of the Global Economy*, Newell & Paterson make it clear that "[they] are not endorsing a blind faith in capitalism to adequately address climate change" (p. 7). They too express skepticism toward carbon offsetting.

> These sorts of responses to climate change are also highly problematic of course. Many readers will already have prejudices against, or at least worries about, treating the atmosphere like a commodity to be bought and sold, or about buying carbon offsets to enable the rich to continue their high-consuming lifestyles with a clear conscience. We share these worries. (p. 9).

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But they nonetheless see some version of climate capitalism that still seeks growth as the most realistic outcome, as capitalism would otherwise collapse. To what extent then is the global economy "transformed," as implied in their book title? Böhm et al. (2012) argue that climate capitalism is not a transformation, but rather represents an adapted organization of capitalism that further deepens the inequalities between the Global North and the Global South, favouring elites (p. 17). To be fair, Newell & Paterson (2010) indeed acknowledge this effect as a limitation of climate capitalism and include in one of their predicted outcomes what they call "decarbonized dystopia" (p. 169). This further demonstrates the contradictions that abound in the ethical playing field of climate discourse. On one hand, government regulations allow for the corporate world to buy their ethical status, and money becomes the soap to clean the dirty hands of polluting corporations. On the other hand, the 'dirty' side of reducing emissions in this way is framing the air we breathe as another commodity subject to capitalist exploitation and the continuation or deepening of social inequalities across the globe. Newell & Paterson (2010) also acknowledge the significance of the ethical questions within climate discourse: "despite often being talked about as a scientific question, climate change is first and foremost a deeply political and moral issue," which, of course, plays out in language (p. 7).

5.3 Creationist Discourse and the Commodification of Nature

Besides the risk of reinforcing inequalities between humans, the critique of anthropocentrism, particularly concerning the NATURE IS A COMMODITY framing, reflects the discursive reinforcement of a human dominance over the non-human. I suggest the commodification of nature, which appears across the corpus, may be more distantly and deeply rooted in religious creationist discourses, even though vocabulary connoting religious discourses comes up in trace amounts. Elaborating on this connection between religion and ecology, David

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Korten (2006) discusses several "imperial meaning stories," i.e., creation stories disseminated by the "imperial elites of the Western Christian tradition" (p. 246). One such story is the "biblical meaning story," which indoctrinates the belief that "Life on Earth is but a way station to the afterlife" and promotes a hierarchy which regards "God over human rulers, rulers over their subjects, humans over nature, men over women, white races over other races" (p. 247). Supporting Korten's claim regarding male superiority, an example from the New Testament states, "For man was not made from woman, but woman from man. Neither was man created for woman, but woman for man" (ESV Bible, 2001, 1 Corinthians 11:8-9). As for humans over the non-human world the creation story in the bible corresponds with Korten's argument as well: "And God blessed them. And God said to them, "Be fruitful and multiply and fill the earth and subdue it, and have dominion over the fish of the sea and over the birds of the heavens and over every living thing that moves on the earth" (*ESV Bible Online*, 2021, Genesis 1:28). And it is not only the Christian/Jewish creation story that reflects an anthropocentric view. Horkheimer & Adorno (2002) point out the parallel to the Olympian religion, quoting Genesis in the Hebrew bible, "and let them have dominion...over all the earth," and the Ancient Greek poet Archilochus "O Zeus, Father Zeus, yours is the dominion of the heavens; you oversee the works of men, both the wicked and the just, and the unruly animals, you who uphold righteousness" (p. 5). God's blessing of humans with the non-human beings corresponds to an example from the HEE publication, which depicts Canada as being "*blessed* with a bounty of natural resources, from agriculture, fisheries, metals, minerals, oil, natural gas, renewable energy sources, and wood" (HEE, p. 34, my emphasis). A noteworthy part of this excerpt is the passive sentence "Canada is blessed." Who is "Canada" and who is doing the blessing? "Canada" here likely stands in for the human citizens of the corresponding geographic and political entity, representing an example of

the metonymy CANADA STANDS IN FOR THE INHABITANTS. It is likely that "Canada" represents

solely human inhabitants and not both human and non-human given the mention of the economic

resources consumed by and for human society. Regarding the latter question, while impossible to

say definitively, it is likely that, given the prevalence of Christian traditions in Canadian history,

as well as that of colonial parents Britain and France, "Canada" is presupposed to have been

'blessed' by none other than God theirself. What makes this significant, and relevant, to the rest

of the corpus is not the particular vocabulary. After all, blessed or "gesegnet," does not appear in

the corpus apart from the example above. Rather it is the coincidence of creationist discourse

with the NATURE IS A COMMODITY framing, exemplifying this narrative of dominance and

dominion over nature that is common across the corpus. Although of course, as Gregory

Bassham (2021) explains in his summary of eco-critical perspectives on Christianity, some

critics overstate the ecologically destructive influence of the Christian worldview. There are

other non-Christian countries' with suspect environmental records too, and certain aspects of

Greek and Roman thought have "significantly contributed to Western anthropocentric attitudes"

(p. 25). Moreover, world religions like Judaism and Christianity are very diverse and neither all

denominations nor all faith practitioners remain ambivalent. Counter-narratives like that of the

Christian stewardship (Jenkins, 2008), eco-kosher (Waskow, 1992), and eco-halal (Abdul-Matin

& Ellison, 2010), viewing eco-unfriendliness as a breach of the belief system, seek instead to

take care of God's, or Allah's, creation rather than dominate, *subdue*, and exploit it. While

appearing to align with a creationist discourse that views the Earth as a place to master and

control, the HEE document also describes Canada as "the steward of some of the world's most

critical natural environments" (HEE, p. 52). The question now is whether this is a matter of

simple contradiction or if the discourse here reveals a distorted version of stewardship that

nonetheless frames nature as a commodity.

5.4 The Goal of Climate 'Neutrality.'

　　Strangely, viewing the source of human livelihood as commodities to fuel the economic

body can be continually described as a 'sustainable' development strategy. And along with the

electricity renewed by the sun, the wind, and the waves through innovative technologies, so too

does this story of human dominance and commodification of nature become renewed. While

what is proposed to be sustained and renewed is problematic, they offer reassurance that the plan

will work. In tune with these reassuring purr-words, which uphold solutions in the face of the

menacing enemy of climate change, the concept of neutrality garners significant attention in the

plans. It appears most often in European publications within the corpus, most frequently in the

DEK and EUK publications. Embedded within the SOLVING CLIMATE CHANGE IS A JOURNEY

METAPHOR Chapter 4 of DEK document is titled "Der Weg zum treibhausgasneutralen

Deutschland". Neutrality, according to the document's introduction, refers to a 100% reduction

in net emissions relative to 1990 levels.

Table 11: Frequency of neutral-related terminology in the corpus.

	PCF	HEE	DEK	EUS	EUK
-neutral*/ -N/neutral*	6, carbon-, , revenue- (**0.07**)	4, carbon-, revenue-, (**0.05**)	90, treibhausgas-, THG-, CO2-, klima-, aufkommens-, Technologien- (**0.98**)	10, CO2-, klima-, (**0.38**)	46, klima-, technologischen-, treibhausgas- (**1.53**)

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The Bundesregierung intends to achieve this 100% reduction to net zero emissions by 2050.

Though what is ambiguous and misleading about the talk of neutrality is whether Germany will

actually emit zero emissions by then or have zero emission status based on their carbon

offsetting in the EU's emission trading system or in CDM markets globally. Böhm et al. cite the example of Land Rover in their (2012) article, who claimed in 2011 that their new vehicles were carbon neutral (p. 5). Without an understanding of how carbon offsetting works, most might assume that the company has impressively managed to reorganize its operations to emit zero emissions. However, this was not the case. Land Rover claimed this neutrality based on the money put into low-carbon projects through an organization called ClimateCare, meanwhile still polluting and exploiting to manufacture vehicles sold to customers which also burn further fossil fuels. While German, Canadian and EU governments may not use neutrality in this same way as a deceitful marketing tool, it is hard to know for certain due to its ambiguous nature.

In addition to conveying a sense of objectivity and rationality, which are highly valued concepts in modern scientific thinking, it is important to remember that the talk of climate neutrality and carbon neutrality is entangled with the conceptualization of climate change as war. This connection to the CLIMATE CHANGE IS WAR metaphor provides a springboard for additional lines of inquiry such as, for example, what does the war look like at the conceptualized destination or point in time of carbon neutrality? Do we envision a sort of armistice with our conceptualized enemy, the climate? Take Wikipedia's definition of armistice, for instance: "An armistice is a formal agreement of warring parties to stop fighting. It is not necessarily the end of a war, as it may constitute only a cessation of hostilities while an attempt is made to negotiate a lasting peace" ("Armistice," 2021). Will neutrality spawn an armistice to stop deploying more green weaponry, or will "treibhausgasneutrales Deutschland" become a neutral country in an ongoing war, manifesting as a sort of wartime ambivalence? Sweden and Spain during WWII, for example, while neutral, traded with Germany, enemy of the allies and served their own interests (see Åmark, 2015; Preston, 2015). All to say, that as a concept, even though carbon-,

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GHG-, climate-neutrality carries a positive connotation in the discourse, it lacks transparency in its ambiguity and appears inherently ambivalent. Promoting neutrality as the goal of climate action may unknowingly promote further ecological ambivalence, reproducing a social reality that normalizes ecologically beneficial practices alongside more destructive ones.

5.5 Suggestions for Future Research and Action

i.) Clean/Dirty-, *Sauber/Schmutzig*-dichotomy in Germany's Environmental Discourse

A significant feature of the discourse and the social reality, arising from the diversity of points of view and moral principles is the existence of ethical dichotomies such as clean and dirty, pure and impure, righteousness and sin. Further research exploring the effect these dichotomizations have on social reality, or simply how they play out on their own respective ethical playing fields, could deepen understanding of human responses in times of crisis.

The purpose of this section is to outline directions for future research. Although the use of "sauber" appears merely once in the DEK Klimaschutz 2050 document, there are other texts in the German language which exemplify the "sauber/schmutzig" dichotomy in ecological modernisation discourses. In December of 2019, the broadcast company WDR (Westdeutscher Rundfunk) released a video featuring a children's choir singing a satirical version of the classic children's song, "Meine Oma fährt im Hühnerstall Motorrad" (my grandmother drives a motorbike in the chicken coop). In this version, instead of ending with "meine Oma ist ne ganz patente Frau," (my grandmother is quite a clever lady), the chorus ends "meine Oma ist eine alte Umweltsau" (my grandmother is an old environmental female pig) (Gaisenkersting, 2020). WDR's intention was merely to satirize the intergenerational conflict regarding environmental problems, but it instead provoked media attention and protests. Some critics went as far as claiming WDR instrumentalized the children's choir for political aims (Joffe, 2020). The ethical

implication in this satirical 'insult' is multi-layered. Not only are pigs typically dirty thereby evoking a frame of moral impurity, they are seen as lesser creatures who are symbols of greed that are fed the unwanted leftovers (reflected in the idiom *to eat like a pig*). With an exception being the German expression "Schwein haben," in which the pig is a symbol of fortune, labelling someone else as "Schwein" is commonly received as an insult. The irony here is that using this insult relies on notions of human superiority. The very anthropocentrism which gave rise to the Umweltsau's habits depicted in the song is precisely that which an eco-critical satire seeks to critique and discourage. Creating satire reliant on anthropocentric norms may serve to reinforce rather than dismantle them.

Several of the song's lines are especially relevant to moralization in climate discourse. For instance, the choir ends their performance with a famous quote from Swedish activist Greta Thunberg: "We will not let you get away with this." *To get away with something* is another example of a moralizing idiom. It describes a situation in which a person who has done something unethical does not get punished or is not held accountable for their actions. Along similar lines, the song's last lines in German demonstrate notions of moral purity and impurity: "Meine Oma fliegt nicht mehr, sie ist geläutert, geläutert, geläutert. Stattdessen macht sie jetzt zehnmal im Jahr 'ne Kreuzfahrt, meine Oma ist doch keine Umweltsau." (Der Pilger, 2019). Oma is 'purified' (geläutert) because she no longer uses airplane travel, but instead she goes on ten cruises per year, yet is somehow still not an Umweltsau. This satirizes the hypocrisy of claiming to be 'pure' in one regard, but at the same time 'impure' in another. But simply based on the former, the symbolic Oma can claim not to be an Umweltsau. Analogous to how the satirical critique of the Umweltsau is reliant on anthropocentrism, speaking of ethically suspect activities using the term 'dirty' stands on a normalized depreciation of the soil all humans trod

and depend on. Cynthia Rosenfeld calls this normalized use of language "Earth-blaming," which draws on "a metaphor we use to describe a state of undesirable uncleanness" (Rosenfeld, 2019, p. 9). Again, the problematization of ecologically destructive activities reproduces a pattern of language use which reflects and reinforces negative associations with nature. Considering this example in relation to the corpus allows one to ask some important questions. Does the commitment to reducing emissions via technological innovation and economic growth exemplify an essentially similar contradiction to Oma's choice to cruise rather than travel by air? Will 'Western' countries like Germany and Canada be considered "doch keine Umweltsau" despite evidence to the contrary?

The Umweltsau satire could equally apply to the 'sustainable,' 'renewable,' or 'clean' technologies mentioned in the corpus because, like 'clean,' both terms conceal contradictory aspects of the technologies or activities they describe. While renewable energy technologies produce electricity from renewable sources such as wind, sun, gravity, waves, and geothermal energies, they nonetheless rely on the exploitation of non-renewable substances. Moreover, regarding sustainability, humanity can only 'sustain' the production of these technologies as long as the material 'resources' last, as they will require constant maintenance and replacement over time. Many have voiced criticism toward renewable energy technologies, which are often marketed as "clean," pointing out the contradiction of their reliance on "dirty" energy. For example, the *Deutsches Institut für Wirtschaftsforschung* (DIW) featured a commentary titled "Schmutzige Braunkohle für saubere E-Autos? Brandenburg vor einem Dilemma," thereby questioning the 'cleanliness' of electric cars powered by coal-fired electricity (von Hirschhausen, 2019). Other titles point out similar contradictions, for example, from *Das Erste*: "Das schmutzige Geheimnis sauberer Windräder" (the dirty secret of clean wind turbines), from the

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Frankfurter Allgemeine: "Die schmutzigen Seiten der Solarenergie" (the dirty side of solar energy) and the *Berliner Morgenpost*: "Im Kongo sieht man die schmutzige Seite der Elektro-Autos" (One sees the dirty side of electric cars in the Congo) (Das Erste, 2011; Heeg, 2010; Koch, 2017). Framing technologies as entities capable of having a 'clean' side and a 'dirty' side reflects the personification within the ECONOMY IS A PERSON metaphor identified in the analysis. These paradoxical titles mirror the idioms *to have a bad side* or *to have a dirty side*, or in the case of the title from *Das Erste*, *to have a dirty little secret*. Except for the idiom *to have a bad side*, which is more specific to an individual's facial aesthetic, the expressions have sexual implications. While this may not be as true today, sexuality has long been generally considered a private matter in parts of Western culture, a topic and activity best kept hidden from public discourse. Foucault eloquently elaborates in *The History of Sexuality*.

> On the subject of sex, silence became the rule. The legitimate and procreative couple laid down the law. The couple imposed itself as model, enforced the norm, safeguarded the truth, and reserved the right to speak while retaining the principle of secrecy. A single locus of sexuality was acknowledged in social space as well as at the heart of every household, but it was a utilitarian and fertile one: the parents' bedroom. The rest had only to remain vague; proper demeanor avoided contact with other bodies, and verbal decency sanitized one's speech. And sterile behaviour carried the taint of abnormality; if it insisted on making itself too visible, it would be designated accordingly and would have to pay the penalty. (Foucault, 1978, p. 4).

Similar to the way that sexuality is repressed to private, intimate social and sexual intercourse, it appears that climate discourse at times hides the 'dirty' side of the technologies, which are proposed as ethically sound activities to support and develop. Though today, secret sex and/or

adultery would be the more valid contemporary analogy. Pointing out the 'dirty' side of technological innovation then might be the environmentally relevant equivalent of blasphemy.

In line with 'dirtiness' and moral impurity, ecologically destructive behaviour has also been conceptualized as a sin. Referring to Max Ölschläger's (1995) work, *Postmodern Environmental Ethics*, Tirosh-Samuelson points out that "postmodernist environmental ethicists have acknowledged, for millennia, humans have framed the meaning of nature in terms of religious narratives" and "from this religious perspective, the current environmental crisis is interpreted as a sign of human sinfulness" (Tirosh-Samuelson, 2016, p. 107; 108). The title of a photography piece on the Austrian newspaper *Kurier*, "Überraschende Top Ten der Umweltsünder: Dass die USA nicht viel für die Umwelt tun, scheint logisch - aber auch Dänemark ist in der WWF-Liste der 'Bösen' zu finden," exemplifies this interpretation, viewing those environmental sinners (Umweltsünder) as on a 'list of the evil ones' (Bösen) (Peternel, 2012). Another article from *Neues Deutschland* draws attention to the inequality issue within the climate crisis, calling the rich, who, according to a cited Oxfam-report, contribute far more relative pollution than poorer populations, "Umweltsünder" (*Reiche Umweltsünder*, 2020). Calling ecologically destructive actors "Umweltsünder" constructs a morally impure Subject in the ethical playing field of climate discourse. Interested in the potential implications this Subject construction may have in promoting change, Judith Pape investigated how a phenomenon called 'green guilt,' accompanying Subject constructions of this sort, figures in the social-ecological transformation. Pape argues that the green guilt discourse hardly ever encourages pro-environmental behaviour, but rather represents a phenomenon of powerlessness and hopelessness (Pape, 2019). While it may seem more conducive to social change to focus critique on the human agent versus the common attention paid to "climate change" as an entity to be acted upon (see

Analysis), discursive constructions of the sinful Subject may primarily incite unproductive feelings of guilt. Other means of motivating social actors to change may be more effective.

ii.): The 'Dirty' Side of Hydroelectricity in Canada: A Colonialist Pursuit

Further research could also be explored on the intersection between discourse of ecological modernisation and colonialism, particularly as it pertains to hydroelectricity in Canada. According to the *Bundesverband Deutscher Wasserkraftwerke*, hydroelectricity accounted for 3.5% of the gross electricity consumption in 2019 (BDW, n.d.). Across the pond in Canada, hydroelectric dams produced 59.6% of all generated electricity in 2018, seventeen times the 2019 percentage in Germany (Government of Canada, 2020). The portion of electricity produced by hydroelectric projects in each country roughly fits with the salience of hydropower across the corpus, as the term "Wasserkraft" does not appear once in the German or European plans, while, in the Canadian plans, the terms hydroelectricity and hydropower combined appear 9 times between the PCF and HEE documents. "Hydropower" or "hydroelectricity" is described therein as "renewable," a source of "clean electricity" in the older PCF document (pages 70 & 57), and "abundant" and "clean" in the more recent HEE publication (pages 18 & 26). Given the evidence, hydroelectricity is presented in a thoroughly positive light occurring alongside vocabulary such as "renewable" and "abundant" in addition to the conceptual metaphor MORAL IS CLEAN within collocations like "clean electricity" and "clean hydropower." As is consensus regarding conceptual metaphor, certain aspects here are emphasized, while others remain hidden and unspoken.

Alongside the abundant electricity produced by hydroelectric dams, these 'clean' projects cause an unfortunately 'abundant' release of methylmercury released downstream where it is ingested by aquatic species. Hunting the fish ingesting this mercury compound is an essential

part of many Indigenous peoples' sustenance and ways of life, which 90% of Canadian hydroelectric dam projects threaten (Burrows, 2016). For example, following the construction of the Muskrat Falls dam in Labrador, the anticipated methylmercury levels will threaten local Inuit communities' way of life, as the neurotoxin enters traditional foods such as brook trout and seal (Cox, 2019). Broken promises and unsatisfactory consultation also appear to be in abundance. In Northern Manitoba, despite promises of prosperity amid 1970s hydroelectric project development, locals were "displaced from their lands, traditional economies were decimated, and many communities were plunged into poverty" (Brake & Brandson, 2018). Regarding the Site C dam project in British Columbia, the UN Committee on the Elimination of Racial Discrimination warned Canada that the unsatisfactory consultation process with local Indigenous nations may violate an agreement known as the "International Convention on the Elimination of All Forms of Racial Discrimination" signed 50 years ago (The Canadian Press, 2019). Furthermore, in the public inquiry to the Muskrat Falls project, "Muskrat Falls: A Misguided Project," commissioner LeBlanc reported that the Innu of Ekuanitshit received unsatisfactory consultation (LeBlanc, 2020). Despite the ethically-sound appearance based on the salience of its cleanliness, renewability and abundance, hydroelectric projects in Canada essentially exemplify "ecological imperialism," a concept coined by critical theorist Alfred Crosby. In his (1986) book *Ecological Imperialism: The Biological Expansion of Europe*, he proposes that "colonization was not only a form of cultural and political tyranny, it was also a form of environmental terrorism" (Buchanan, 2010). Positively communicated hydroelectricity appears in the corpus without acknowledgment of the aforementioned 'dirty' sides of this source of renewable energy. In this way, the negative environmental impacts, as well as the Indigenous people they directly affect, become discursively erased.

5.6 Limitations of this Study

        My study is limited in several ways as concerns the corpus of selected publications. First, the scale is relatively small at only five publications. Although the EU is represented in two of the five documents, it does not represent the diversity of discourses of all European or EU member countries. Plans of individual countries may vary considerably in the discourse structures they present. Second, the study is fairly ahistorical. While I did include two different plans from Canada, the rest of the publications are temporally fixed with no prior or post versions as points of comparison. My study does not track discourse from a certain point in history such as Geneva in 1979 to Kyoto in 1997, for instance. Questions pertaining to how discourses of ecological modernisation changed after Kyoto and then later on after Paris in 2015 and why could provide valuable insights. In this way, it is biased toward the "synchronic" (focusing on a certain point in time), rather than the "diachronic" (paying attention to development through time). Third, there are cultural limitations. With respect to levels of industrialization and the capacity to fund and develop new technology to reduce emissions, Germany, Canada, and many other EU countries are quite similar. But what does the discourse look like elsewhere and in an even more multilingual corpus? And if there is indeed a risk of deepening inequalities between the 'Global North' and the 'Global South,' studying the climate discourses of representative countries could contribute to research aimed at avoiding such dystopian outcomes.

        With respect to methodology, I have relied on the presence of specific tokens to demonstrate the extent to which respective discourse structures appear in the corpus. However, there could still be additional instances of the specified metaphors, framings, evaluations and salient and erased features, which does not correspond directly to the tokens highlighted in the

analysis. The frequency of selected tokens was also calculated based on a words per page ratio. Since the number of words per page in each document varies somewhat, the frequency data provides only an approximation of the amount of occurrences of each word or phrase.

Finally, this is not a participant-based study of individual perception, but rather is an analysis of a discourse containing particular discourse structures which can guide individual perception. A primary purpose of this study, and of ecolinguistics as Stibbe (2021) sees it, is to increase awareness of ecologically problematic discourses, so that they can be resisted and changed. What social actors actually perceive or how they respond to and engage with certain discourses of ecological modernisation is beyond the scope of this analysis and is best left for further research and a different disciplinary approach.

6. Summary and Final Thoughts

Discourses comprise human social realities to a large extent and social realities consist of discourses. Studying the discourse of ecological modernisation as manifested in a humble corpus consequently offers a deeper understanding of the social reality it promotes. The use of language in the German, Canadian and European publications presents one version of what should or must be done, what is good, what is moral or right, but it is not the only way for the discourse to take form. There are other perspectives, other viewpoints interacting on the ethical playing field of discourse, a site of struggle, play, or war, depending on your preferred metaphor. Ethically-tied dichotomies occupy the field as the rules of the game, borders in a war against an imagined enemy.

And on this ethical playing field, the rules of the game lead the way to a future where nature is seen as a commodity to be exploited for human consumption. I have demonstrated that this aligns with the anthropocentric character of the discourse, and the implied human superiority mirrors the same attitudes conveyed in creationist discourses. Even when biodiversity and protection of nature is emphasized, based on the analysis, what is made salient alongside these concepts is their function as a stock of resources for human consumption. Also in line with this commodification, framings of inaction and action reinforce economically instrumental valuing of nature, as governments provide financial incentives linked to 'sustainable' initiatives. Framing climate change as a profitable economic opportunity or challenge to conquer promotes a cost-benefit analysis discourse which views nature primarily through a capitalist lens. On one hand, it makes sense from a rhetorics and cognitive linguistic perspective to emphasize the profitability of climate action, given the immense polluting power of the corporate world. As Horkheimer & Adorno put it, "the individual is entirely nullified in face of the economic powers" (Horkheimer

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& Adorno, 2002, p. xvii). On the other hand, this discourse orientation reproduces social realities with problematic ecological effects. But in terms of change it may not simply be a matter of completely altering these frames, as George Lakoff elaborates.

> Many people have in their brain circuitry the wrong frames for understanding ''the real crisis.'' That is, they have frames that would either contradict the right frames or lead them to ignore the relevant facts. Those wrong frames don't go away. You can't just present the relevant facts and have everyone erase significant circuitry in their brains. Brains don't work that way. What is needed is a constant effort to build up the background frames needed to understand the crisis, while building up neural circuitry to inhibit the wrong frames. That is anything but a simple, short-term job to be done by a few words or slogans. (Lakoff, 2010, p. 74).

In order to live by a new story, in order to incite structural change, a more effective strategy may be for social actors to continue to build up these 'background frames,' in activism, education, and politics. Establishing and strengthening these different ways of understanding the world through language is at the heart of the discursive struggle Foucault referred to. Take evaluations, for instance. Instead of a struggle against the metaphor MORE IS GOOD (remember, metaphor is a framing device, hence its relevance to Lakoff's quote here) and propose that MORE IS BAD, we can take Charles Eisenstein's advice and simply change what more refers to. More *what*? Currently though, as the corpus shows, recent climate plans are in line with the capitalist appraisal of economic growth as good. Part of the justification of this involves the myth that GDP boosts human well-being, a remarkably anthropocentric trait of plans to address a global environmental issue. By promoting an appraisal pattern that positively evaluates economic growth as good, governments and their economies also appear to capitalize on a crisis. Although

"capitalizing on a crisis" is a relatively negative way of framing it. We wouldn't say the same about a great deal of social entrepreneurship, even though one might similarly claim that social entrepreneurs 'capitalize' on social problems. But this, of course, would misconstrue its purpose. Since its primary mode of operation is non-profit, social entrepreneurs do not seek to capitalize in the same profit-driven way as do other corporate models (see Loney & Braun, 2016, p. 11). Instead, social entrepreneurs embody a "solutions economy" or comprise the "solutions sector" which Loney defines as "essentially about solving social and environmental problems by using market forces" (p. 9). Could it not be argued then that German, Canadian and European governments merely intend to do the same? It certainly could. However, the discourse reveals the view that climate change is the challenge, the opportunity, the opponent and enemy, i.e., it is the problem. Were it the problem to which a solution was needed, then, yes, Germany, Canada & the EU's economies might earn their spots in the "solutions sector" of the global economy. However, I argue that climate change is not the only problem we should be addressing. Climate change is a symptom of much older underlying sociocultural problem(s). These problems are the discourses and the social realities they (re)produce and reinforce, reflected in discourse structures such as those highlighted in this thesis. Such 'stories' may encourage behaviour that is more ecologically ambivalent than beneficial, as the social reality adopts the character of Oma, who enjoys her tenth cruise of the year but in her abstinence of air travel is "doch keine Umweltsünderin." Researchers, activists, and concerned community members hoping to avoid renewals of ecologically ambivalent or destructive social realities should look at the language use constituting these realities. They may discover, as Wendell Berry has done, that the problem is more so the use of the "wrong language" in the attempt to do the 'right' thing.

References

Abdul-Matin, I., & Ellison, K. (2010). *Green Deen: what Islam teaches about protecting the planet* (1st ed.). Berrett-Koehler Publishers.

Abram, D. (1997). *The Spell of the Sensuous*: *Perception and Language in a More-Than-Human World.* Vintage Books.

Alexander, R. J. (2009). *Framing discourse on the environment: A critical discourse approach*, Routledge, https://doi-org.proxy.lib.uwaterloo.ca/10.4324/9780203890615

Åmark, K. (2015). Sweden: Negotiated neutrality. In R. Bosworth & J. Maiolo (Eds.), *The Cambridge History of the Second World War* (The Cambridge History of the Second World War, pp. 350-374). Cambridge: Cambridge University Press. doi:10.1017/CHO9781139524377.018

Armistice. (2021). In *Wikipedia: The Free Encyclopedia*. https://en.wikipedia.org/wiki/Armistice

Asplund, T. (2011). Metaphors in climate discourse: an analysis of Swedish farm magazines, *Jcom*, *10*(04), A01. https://doi.org/10.22323/2.10040201

Atanasova, D., & Koteyko, N. (2017). Metaphors in Guardian Online and Mail Online Opinion-page Content on Climate Change: War, Religion, and Politics. *Environmental Communication*, *11*(4), 452–469. https://doi.org/10.1080/17524032.2015.1024705

Baker, P. and Ellece, S. (2011). *Key terms in discourse analysis*. New York: Continuum.

Bartlett, T. (2018). Positive discourse analysis. In J. Flowerdew & J. E. Richardson (Eds.), *The Routledge Handbook of Critical Discourse Studies*, (pp. 133-147). Routledge.

Bassham, G. (2021). *Environmental ethics : The central issues*. ProQuest Ebook Central https://www.google.com/url?q=https://ebookcentral.proquest.com/lib/waterloo/reader.action?docID%3D6407965&sa=D&source=editors&ust=1626975566838000&usg=AOvVaw3_YYz6X-NJ5sWhWIzXEQT_

Böhm, S., Misoczky, M. C., & Moog, S. (2012). Greening Capitalism? A Marxist Critique of Carbon

    Markets. Organization Studies, 33(11), 1617–1638. https://doi.org/10.1177/0170840612463326

Brake, J. & Brandson, A. (2018, September 18-21). Power failure: The impacts of hydro dams in

    Northern Manitoba. *APTN News*. https://www.aptnnews.ca/power-failure-the-impacts-of-hydro-

    in-northern-manitoba2/

Breeze, R. (2011). Critical Discourse Analysis and Its Critics. *Pragmatics: Quarterly Publication of the*

    International Pragmatics Association, *21*(4), 493–525. https://doi.org/10.1075/prag.21.4.01bre

Buchanan, I. (2010). Ecological Imperialism. In *A Dictionary of Critical Theory*, Oxford University

    Press. https://www-oxfordreference-

    com.proxy.lib.uwaterloo.ca/view/10.1093/acref/9780199532919.001.0001/acref-

    9780199532919-e-210?rskey=ZpLgBi&result=210

Bundesministerium für Umwelt, Naturschutz und nukleare Sicherheit. (2016). *Der Klimaschutzplan*

    2050: Die deutsche Klimaschutzlangfriststrategie. https://www.bmu.de/themen/klima-

    energie/klimaschutz/nationale-klimapolitik/klimaschutzplan-2050/

Bundesverband Deutscher Wasserkraftwerke (BDW). (n.d.). *Wasserkraft in Zahlen*. Retrieved July 7th,

    2021, from https://www.wasserkraft-deutschland.de/wasserkraft/wasserkraft-in-zahlen.html

Burrows, L. (2016, November 14). *Human health risks from hydroelectric projects*. The Harvard

    Gazette.https://news.harvard.edu/gazette/story/2016/11/human-health-risks-from-hydroelectric-

    projects/

Carvalho, A. (2005). Representing the politics of the greenhouse effect: Discursive strategies in the

    British media. *Critical Discourse Studies*, *2*(1), pp. 1-29. DOI: 10.1080/17405900500052143.

Cavalletti, B., & Corsi, M. (2018). "Beyond GDP" Effects on National Subjective Well-Being of OECD

Countries. *Social Indicators Research*, 136(3), 931–966. https://doi.org/10.1007/s11205-016-

1477-0

Cheadle, Bruce. (2016, December 9). Pan-Canadian climate plan announced without Saskatchewan,

Manitoba. *The Canadian Press*. https://globalnews.ca/news/3118115/national-climate-policy-

plan-moving-along-despite-concerns-from-provinces/

Chilton, P. (2004). *Analysing political discourse: Theory and practice.* Routledge,

https://doi.org/10.4324/9780203561218

Chomsky, Noam. 1965. Aspects of the Theory of Syntax. Cambridge, MA: MIT Press.

Cohen, M.J. (2011). Is the UK preparing for "war"? Military metaphors, personal carbon allowances,

and consumption rationing in historical perspective. *Climatic Change* 104, 199–222.

https://doi.org/10.1007/s10584-009-9785-x

Costanza, R., Hart, M., Talberth, J., & Posner, S. (2009). Beyond GDP: The need for new measures of

progress beyond GDP: The need for new measures of progress. *The Pardee Papers, 4*, 1–47.

Cox, S. (2019, May 22). Mercury rising: how the Muskrat Falls dam threatens Inuit way of life. *The

Narwhal*. https://thenarwhal.ca/mercury-rising-muskrat-falls-dam-threatens-inuit-way-of-life/

Dahl, T. & Fløttum, F. (2019). Climate change as a corporate strategy issue: A discourse analysis of

three climate reports from the energy sector. *Corporate Communications: An International

Journal*, *24*(3), 499-514. https://doi.org/10.1108/CCIJ-08-2018-0088

Das Erste: Norddeutscher Rundfunk. (2011, April 28). *Das schmutzige Geheimnis sauberer Windräder*.

https://daserste.ndr.de/panorama/archiv/2011/windkraft189.html

Deignan, A. (2010). The cognitive view of metaphor: Conceptual metaphor theory. In L. Cameron & R.

Maslen (Eds.), *Metaphor analysis : Research practice in applied linguistics, social sciences and*

the humanities (pp. 44-56). Studies in applied linguistics (London, England). Oakville, Conn.: Equinox Pub.

Dieckmann, W. (1975). *Sprache in der Politik: Einführung in die Pragmatik und Semantik der politischen Sprache*. (2. Auflage), Heidelberg Winter.

Dieckmann, W. (1969). *Sprache in der Politik: Einführung in die Pragmatik und Semantik der politischen Sprache*. Heidelberg Winter.

Der Pilger. (2019, December 30). *Der WDR Kinderchor singt „Meine Oma ist 'ne alte Umweltsau* [Video]. YouTube. https://www.youtube.com/watch?v=8AQD50V-ONw

Douglas, M. (1966). *Purity and danger: An analysis of concept of pollution and taboo*. Routledge.

eGo-centric VS eCo-centric. (2018, March 30). Permatree Ecuador. https://www.permatree.org/permaculture/ego-centric-vs-eco-centric/

Eisenstein, C. (2011). *Sacred economics: Money, gift, and society in the age of transition*. Berkeley: Evolver Editions.

Eliasson, S. (2015). The birth of language ecology: interdisciplinary influences in Einar Haugen's "The ecology of language." *Language Sciences* (Oxford), 50, 78–92. https://doi.org/10.1016/j.langsci.2015.03.007

Elliott, D. (2017). Nuclear power : past, present and future . Morgan & Claypool Publishers. https://doi.org/10.1088/978-1-6817-4505-3

ESV Bible, The Outreach New Testament, Large Print (2001). Crossway.

ESV Bible Online. (2021). Crossway. https://www.esv.org/Genesis+1/

ethics. (2019). E. Jeanes (Ed.), In *A Dictionary of Organizational Behaviour*. Oxford University Press. Retrieved 22 Jul. 2021, from https://www-oxfordreference-

com.proxy.lib.uwaterloo.ca/view/10.1093/acref/9780191843273.001.0001/acref-9780191843273-e-92.

ethics. (2018). In M. Porta & J. Last (Eds.), *A Dictionary of Public Health* (2nd ed.). Oxford University Press. Retrieved 16 Aug. 2021, from https://www-oxfordreference-com.proxy.lib.uwaterloo.ca/view/10.1093/acref/9780191844386.001.0001/acref-9780191844386-e-1391?rskey=1Wfawp&result=1

ethics. (2017). C. Park & M. Allaby (Eds.), In *A Dictionary of Environment and Conservation*. Oxford University Press. Retrieved 22 Jul. 2021, from https://www-oxfordreference-com.proxy.lib.uwaterloo.ca/view/10.1093/acref/9780191826320.001.0001/acref-9780191826320-e-2722.

European Commission. (2020). *2030 climate target plan*, EU Climate Action and the European Green Deal. https://ec.europa.eu/clima/policies/eu-climate-action/2030_ctp_en

European Commission. (2020, September 17). *State of the Union: Commission raises climate ambition and proposes 55% cut in emissions by 2030.* https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1599

European Commission. (2014, March 19). *The EU Emissions Trading System Explained* [Video]. YouTube. https://www.youtube.com/watch?v=fJrFSLfaeeE

Europäische Kommission.(2021). *Energie*. https://ec.europa.eu/info/departments/energy_de

Everett, J. & Neu, D. (2000). Ecological modernization and the limits of environmental account? *Accounting Forum*, 24(1), 5-29.

Fairclough, N. (2018). CDA as dialectical reasoning. In J. Flowerdew & J. E. Richardson (Eds.), *The Routledge Handbook of Critical Discourse Studies*, (pp. 13-25). Routledge.

Fairclough, I. (2018). Deliberative discourse. In J. Flowerdew & J. E. Richardson (Eds.), *The Routledge Handbook of Critical Discourse Studies*, (pp. 242-256). Routledge.

Fairclough, N. (2015). *Language and power* (3rd ed.), Routledge.

Fairclough, N. (2013). Critical discourse analysis and critical policy studies. *Critical Policy Studies*, *7*(2), 177–197. https://doi.org/10.1080/19460171.2013.798239

Fairclough, N. (2003). Critical Linguistics. In *International Encyclopedia of Linguistics*. : Oxford University Press. Retrieved 13 May. 2021, from https://www-oxfordreference-com.proxy.lib.uwaterloo.ca/view/10.1093/acref/9780195139778.001.0001/acref-9780195139778-e-0257.

Fairclough, N. & Wodak, R. (1997) Critical discourse analysis. in: van Dijk, Teun A. (Ed.) *Discourse as Social Interaction*. London: Sage, pp. 258–284.

Fauconnier, G., & Turner, M. (2002). The way we think : conceptual blending and the mind's hidden complexities. Basic Books.

Fenn, K. (2021, May 18). Canada should donate AstraZeneca vaccines, or we'll 'have blood on our hands:' doctor. *CBC radio*: *The Current*. https://www.cbc.ca/radio/thecurrent/the-current-for-may-18-2021-1.6030754/canada-should-donate-astrazeneca-vaccines-or-we-ll-have-blood-on-our-hands-doctor-1.6031565?fbclid=IwAR2r7s3C-9OAU36YEBNgFs2_z46rIi9KeBpDNcv7nVG6vPuohrR1AAQuTSI

Ferguson, P. (2015). The green economy agenda: business as usual or transformational discourse? *Environmental Politics*, *24*(1), 17-37. DOI: 10.1080/09644016.2014.919748

Fisher, D. & Freudenburg, W. (2001). Ecological modernization and its critics: assessing the past and looking toward the future. *Society & Natural Resources*, 14(8), 701-709.

Flusberg, S. J., Matlock, T., & Thibodeau, P. H. (2017). Metaphors for the War (or Race) against

    Climate Change. *Environmental Communication*, *11*(6), 769–783.

    https://doi.org/10.1080/17524032.2017.1289111

Foucault, M. (1978). *The history of sexuality* (vol. 1). Translated by Robert Hurley. Pantheon

    Books.https://suplaney.files.wordpress.com/2010/09/foucault-the-history-of-sexuality-volume-

    1.pdf

Fowler, R. (1979). *Language and Control*. Routledge & K. Paul.

Gaisenkersting, D. (2020, January 11). Germany: Response to satirical children's video exposes self-

    censorships of the media. *World Socialist Web Site*.

    https://www.wsws.org/en/articles/2020/01/11/vide-j11.html

Giannetti, B. ., Agostinho, F., Almeida, C. M. V. ., & Huisingh, D. (2015). A review of limitations of

    GDP and alternative indices to monitor human wellbeing and to manage eco-system

    functionality. *Journal of Cleaner Production*, 87, 11–25.

    https://doi.org/10.1016/j.jclepro.2014.10.051

Girnth, H. (2015). *Sprache und Sprachverwendung in der Politik : eine Einführung in die linguistische*

    Analyse öffentlich-politischer Kommunikation (2., überarbeitete und erweiterte Auflage.). De

    Gruyter.

Girnth, H. (2002). *Sprache und Sprachverwendung in der Politik : eine Einführung in die linguistische*

    Analyse öffentlich-politischer Kommunikation. Max Niemeyer Verlag, Tübingen.

Greenspeak. (2017). In *A Dictionary of Environment and Conservation* (3rd ed.). Oxford University

    Press.

Goldenberg, S., Eisenberg, A., & Muoio, D. (2020, March 31). 'Everybody's in the same boat':

    Coronavirus drives New York's hospitals to breaking point. *Politico New York*.

https://www.politico.com/states/new-york/city-hall/story/2020/03/31/everybodys-in-the-same-boat-coronavirus-drives-new-yorks-hospitals-to-breaking-point-1269943

Government of Canada. (2020). *A Healthy Environment and a Healthy Economy*. https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/climate-plan-overview/healthy-environment-healthy-economy.html

Government of Canada. (2020). *Electricity facts*. https://www.nrcan.gc.ca/science-data/data-analysis/energy-data-analysis/energy-facts/electricity-facts/20068

Government of Canada. (2016). *Pan-Canadian Framework on Clean Growth and Climate Change*.https://www.canada.ca/en/services/environment/weather/climatechange/pan-canadian-framework.html

Government of Manitoba. (2017). *Made-in-Manitoba Climate and Green Plan*. https://www.gov.mb.ca/climateandgreenplan/index.html

Government of Saskatchewan. (2017). *Saskatchewan's Climate Change Strategy*. https://www.saskatchewan.ca/business/environmental-protection-and-sustainability/a-made-in-saskatchewan-climate-change-strategy/saskatchewans-climate-change-strategy

Heeg, T. (2010, October 14). Die schmutzigen Seiten der Solarenergie. *Frankfurter Allgemeine*. https://www.faz.net/aktuell/wirtschaft/unternehmen/entsorgung-die-schmutzigen-seiten-der-solarenergie-1579062/nach-20-bis-30-jahren-muessen-11062269.html

Horkheimer, M., Adorno, T. W., & Schmid Noerr, G. (2002). *Dialectic of enlightenment : philosophical fragments*. Stanford University Press.

Isenson, N. (2009, September 10). *Nuclear power in Germany: A chronology*. Deutsche Welle. https://www.dw.com/en/nuclear-power-in-germany-a-chronology/a-2306337

Jänicke, M. (2008). Ecological modernisation: new perspectives. *Journal of Cleaner Production*, *16*(5), 557–565. https://doi.org/10.1016/j.jclepro.2007.02.011

Jenkins, W. (2008). *Ecologies of grace: Environmental ethics and Christian theology* . Oxford University Press.

Joffe, J. (2020, January 15). Kinderlied as Kulturkampf. *Zeit Online*. https://www.zeit.de/politik/2020-01/umweltsau-skandal-wdr-satire-empoerung-folgen?utm_referrer=https%3A%2F%2Fwww.google.com

Kahn, M. (2001). The passive voice of science: Language abuse in the wildlife profession. In: A. Fill and P. Mühlhäusler, eds. *The ecolinguistics reader: language, ecology, and environment.* London: Continuum, 232-240.

Kingsnorth, P. & Hine, D. (2009). *The Dark Mountain Project manifesto.* Retrieved from: http://dark-mountain.net/about/manifesto

Koch, H. (2017, October 6). Im Kongo sieht man die schmutzige Seite der Elektro-Autos. *Berliner Morgenpost*. https://www.morgenpost.de/wirtschaft/article212151931/Im-Kongo-sieht-man-die-schmutzige-Seite-der-Elektro-Autos.html

Korten, D., 2006. *The great turning from empire to Earth community.* San Francisco: Berrett-Koehler.https://learning-oreilly-com.proxy.lib.uwaterloo.ca/library/view/the-great-turning/9781576755396/Epub_9781576755396_23.html

Kövecses, Z. (2002). *Metaphor: a practical introduction*. Oxford University Press.

Kress, G., & Hodge, R. (1979). *Language as Ideology*. London: Routledge and Kegan Paul.

Kubiszewski, I., Costanza, R., Franco, C., Lawn, P., Talberth, J., Jackson, T., et al. (2013). Beyond GDP: Measuring and achieving global genuine progress. *Ecological Economics, 93*, 57–68.

Lakoff, G. (2014). *Don't think of an elephant!: know your values and frame the debate: the essential guide for progressives*. White RIver JUnction, VT: Chelsea Green.

Lakoff, G. & Johnson, M. (1980). *Metaphors We Live By*. Chicago.

Lakoff, G. (2010). Why it matters how we frame the environment. *Environmental Communication*, 4:1, 70-81, DOI: 10.1080/17524030903529749

Language. (2018). In McArthur, T., Lam-McArthur, J., & Fontaine, L. (Eds.), *The Oxford Companion to the English Language.* Oxford University Press. Retrieved 11 May. 2021, from https://www-oxfordreference-com.proxy.lib.uwaterloo.ca/view/10.1093/acref/9780199661282.001.0001/acref-9780199661282-e-682.

Larson, B. (2011). *Metaphors for environmental sustainability.* Yale University Press.

LeBlanc, R. D. (2020). *Muskrat Falls: A misguided project. Commission of inquiry respecting the Muskrat Falls project. Volume 1: Executive summary, key findings and recommendations*, Newfoundland and Labrador. https://www.gov.nl.ca/iet/files/Volume-1-Executive-Summary-Key-Findings-and-Recommendations.pdf

Leopold, A. (1979). *A sand county almanac and sketches here and there.* Oxford: Oxford University Press.

Lizardo, O. (2012). The conceptual bases of metaphors of dirt and cleanliness in moral and non-moral reasoning. *Cognitive Linguistics*, *23*(2), 367-393. DOI 10.1515/cog-2012-0011

Loney, S., & Braun, W. (2016). *An army of problem solvers : reconciliation and the solutions economy*. Shaun Loney.

Lowe, B. M. (2010). The creation and establishment of moral vocabularies: Why moralizing and moral vocabularies matter. In S. Hitlin & S. Vaisey (Eds.), *Handbook of The Sociology of Morality*

Handbook of the Sociology of Morality, (pp. 293-312). Springer New York.

    https://books.scholarsportal.info/en/read?id=/ebooks/ebooks2/springer/2011-02-

    17/2/9781441968968

Martin, J.R., & Rose, D. (2007). *Working with discourse: meaning beyond the clause.* London:

    Bloomsbury.

Martin, J. R., & White, P. R. R. (2005). *The language of evaluation: appraisal in English*. Palgrave

    Macmillan.

Merriam-Webster. (n.d.). Lexicon. In *Merriam-Webster.com dictionary*. Retrieved May 20, 2021, from

    https://www.merriam-webster.com/dictionary/lexicon

Mills, S. (2004). *Discourse*, Routledge.

morality. (2016). In S. Blackburn (Ed.), *The Oxford Dictionary of Philosophy*. Oxford University Press.

    Retrieved 22 Jul. 2021, from https://www-oxfordreference-

    com.proxy.lib.uwaterloo.ca/view/10.1093/acref/9780198735304.001.0001/acref-

    9780198735304-e-2075.

morals. (2018). In M. Porta & J. Last (Eds.), *A Dictionary of Public Health*, Oxford University Press.

    Retrieved 22 Jul. 2021, from https://www-oxfordreference-

    com.proxy.lib.uwaterloo.ca/view/10.1093/acref/9780191844386.001.0001/acref-

    9780191844386-e-2921.

morals. (2006). M. Kent (Ed.), In *The Oxford Dictionary of Sports Science & Medicine*. Oxford

    University Press. Retrieved 22 Jul. 2021, from https://www-oxfordreference-

    com.proxy.lib.uwaterloo.ca/view/10.1093/acref/9780198568506.001.0001/acref-

    9780198568506-e-4425.

Nerlich, B. and Jaspal, R. (2012). Metaphors we die by? Geoengineering, metaphors, and the argument from catastrophe. *Metaphor and Symbol*, 27(2), 131-147.

Newell, P. & Paterson, M. (2010). *Climate Capitalism: Global Warming and the Transformation of the Global Economy*. Cambridge.

Ng, C. J. W. (2018). Metaphor. In J. Flowerdew & J. E. Richardson (Eds.), *The Routledge Handbook of Critical Discourse Studies*, (pp. 215-227). Routledge.

Noonan, P. (2020, April 23). What comes after the Coronavirus storm? *Wall Street Journal*. https://www.wsj.com/articles/what-comes-after-the-coronavirus-storm-11587684752

Oels, A., & Von Lucke, F. (2015). Gescheiterte Versicherheitlichung oder Sicherheit im Wandel: Hilft uns die Kopenhagener Schule beim Thema Klimawandel? *Zeitschrift Für Internationale Beziehungen, 22*(1), 43-70. Retrieved May 12, 2021, from http://www.jstor.org/stable/24587971

Pape, J. (2019). Schuld und Sühne im Anthropozän. *Soziologie Und Nachhaltigkeit*, *5*(2), 177-209. https://doi.org/10.17879/sun-2019-2586

Peternel, E. (2012, May 16). *Überraschende Top Ten der Umweltsünder*. Kurier. https://kurier.at/politik/ueberraschende-top-ten-der-umweltsuender/870.261/slideshow

Peterson, A. L. (2001). *Being human ethics, environment, and our place in the world*. University of California Press. https://doi.org/10.1525/9780520926059

Petkova, E. (2016, Feb 12). *The disproportionate consequences of climate change*. National Center for Disaster Preparedness. https://ncdp.columbia.edu/ncdp-perspectives/the-disproportionate-consequences-of-climate-change/

Ponton, D. (2015). The natural choice? Metaphors for nature in a UK government white paper. *Language & Ecology*. http://ecolinguistics-association.org/journal/4563035324

Preston, P. (2015). Spain: Betting on a Nazi victory. In R. Bosworth & J. Maiolo (Eds.), *The Cambridge History of the Second World War*, pp. 324-349. Cambridge: Cambridge University Press. doi:10.1017/CHO9781139524377.017

Publications Office of the European Union. (2019). *Saubere Energie für alle Europäer*. https://op.europa.eu/en/publication-detail/-/publication/b4e46873-7528-11e9-9f05-01aa75ed71a1/language-de

Raymond, C. M., Singh, G. G., Benessaiah, K., Bernhardt, J. R., Levine, J., Nelson, H., Turner, N. J., Norton, B., Tam, J., & Chan, K. M. A. (2013). Ecosystem Services and Beyond: Using Multiple Metaphors to Understand Human-Environment Relationships. *Bioscience*, 63(7), 536–546. https://doi.org/10.1525/bio.2013.63.7.7

Romaine, S., 1996. War and peace in the global greenhouse: metaphors we die by. *Metaphor and Symbolic Activity,* 11(3), 175-194.

Rosenfeld, C. (2019). From prometheus to gaea: A case for earth-centred language. *Language & Ecology*. http://ecolinguistics-association.org/journal/4563035324

Rozin, P. 1997. Moralization. In A. M. Brandt, and P. Rozin (Eds.), *Morality and Health: Interdisciplinary Perspectives*, (pp. 379-402). New York: Routledge.

Sabet, M. (2014). 'MORAL OFFSET.' *Critical Discourse Studies*, *11*(1), 95–116. https://doi.org/10.1080/17405904.2013.829115

Shaw, C. & Nerlich, B. (2015). Metaphor as a mechanism of global climate change governance: A study of international policies, 1992-2012. *Ecological Economics*, *109*(1), 34-40. https://doi.org/10.1016/j.ecolecon.2014.11.001

Steffensen, S. V., & Fill, A. (2014). Ecolinguistics: the state of the art and future horizons: Ecolinguistics: the Ecology of Language and the Ecology of Science. *Language Sciences* (Oxford), 41, 6–25.

Stibbe, Arran (2014). An ecolinguistic approach to critical discourse studies, *Critical Discourse Studies*, vol. 11, (1), pp. 117-128, DOI:10.1080/17405904.2013.845789

Stibbe, Arran (2018). "Critical discourse studies and ecology." In J. Flowerdew & J. E. Richardson (Eds.), *The Routledge Handbook of Critical Discourse Studies*, (pp. 497-509). Routledge.

Stibbe, Arran (2021). *Ecolinguistics: Language, ecology and the stories we live by.* (2nd ed.). Routledge.

Stiglitz, J. E., Sen, A., & Fitoussi, J.-P. (2010). *Report by the commission on the measurement of economic performance and social progress*. Paris: Commission on the Measurement of Economic Performance and Social Progress.

Stubbs, M. (1997) Whorf's children: Critical comments on critical discourse analysis. In A. Ryan, and A. Wray (Eds.), *Evolving models of language*. Clevedon: Multilingual Matters, pp. 100-116.

The Canadian Press. (2019, January 15). UN Committee warns that Site C dam may violate Indigenous rights agreement. *CBC News*. https://www.cbc.ca/news/canada/british-columbia/un-site-c-dam-indigenous-rights-agreement-1.4978411

Tirosh-Samuelson, H. (2016). Ethics. In J. Adamson, W. A. Gleason & David Pellow (Eds.), *Keywords for Environmental Studies* (pp. 106-109). New York University Press. ProQuest Ebook Central https://ebookcentral.proquest.com

Toolan, M. (1997) What is critical discourse analysis and why are people saying such terrible things about it? *Language and literature*, (*6*)2, 83-102.
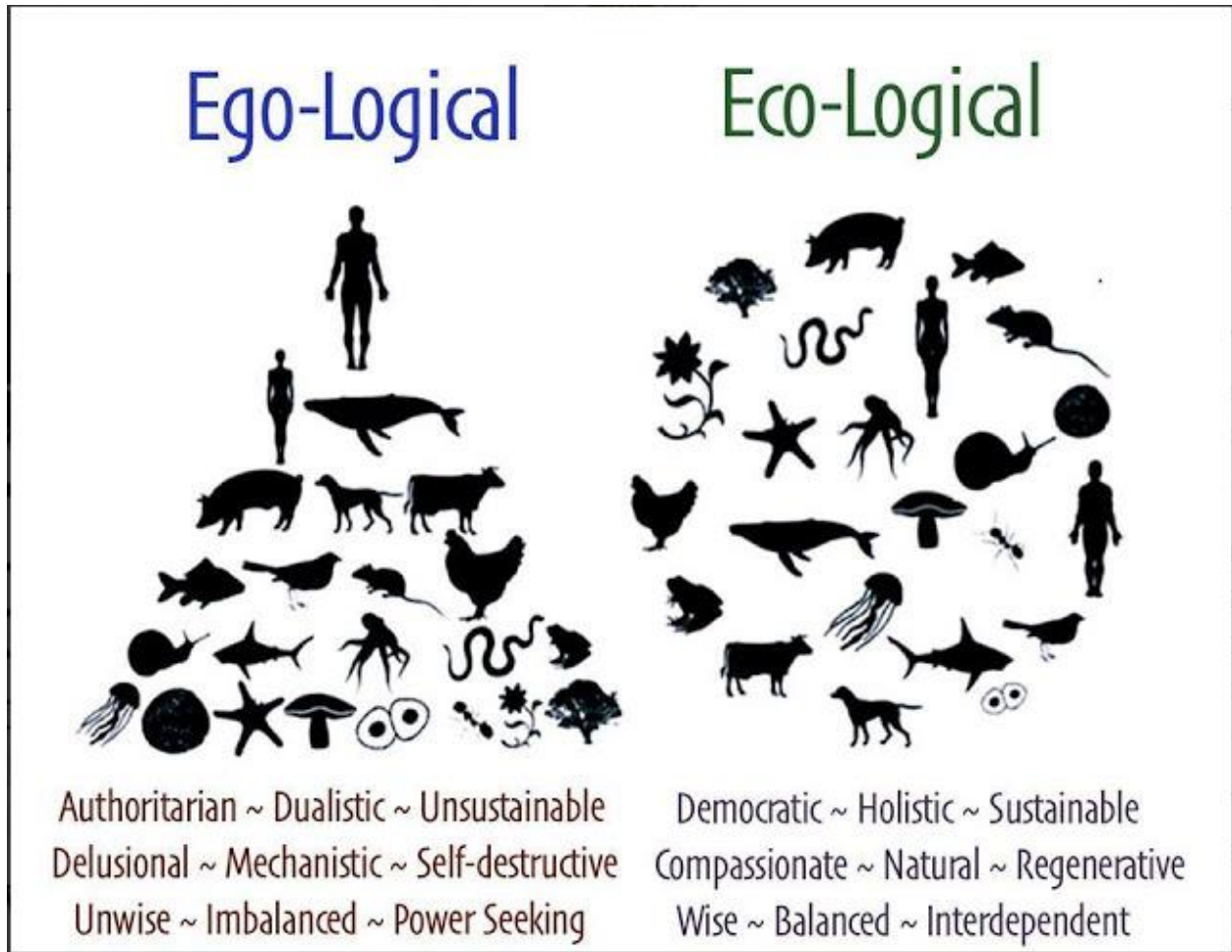
UN, 2015. *Transforming our world: the 2030 Agenda for Sustainable Development*. United Nations.

    https://sustainabledevelopment.un.org/post2015/transformingourworld/publication

van Dijk, T. (2001). Multidisciplinary CDA: A plea for diversity. In R. Wodak & M. Meyer (Eds.),

    Methods of critical discourse analysis (pp. 96-119). SAGE. https://books-scholarsportal-

    info.proxy.lib.uwaterloo.ca/en/read?id=/ebooks/ebooks2/pda/2011-12-

    01/1/8698.0761961534#page=103

van Dijk, T. (2018). Socio-cognitive discourse studies. In J. Flowerdew & J. E. Richardson (Eds.), *The*

    Routledge Handbook of Critical Discourse Studies, (pp. 26-43). Routledge.

van Leeuwen, T. (2008). *Discourse and Practice: New Tools for Critical Analysis*. Oxford University

    Press. https://doi.org/10.1093/acprof:oso/9780195323306.001.0001

Von Hirschhausen, C. (2019, December 10). Schmutzige Braunkohle für saubere E-Autos? Brandenburg

    vor einem Dilemma. *DIW Berlin*.

    https://www.diw.de/de/diw_01.c.700866.de/publikationen/wochenberichte/2019_50_6/schmutzi

    ge_braunkohle_fuer_saubere_e-autos__brandenburg_vor_einem_dilemma__kommentar.html

Von Lucke, F., Diez, T., & Wellmann, Z. (2016). Klimakämpfe: Eine komparative Studie der

    Versicherheitlichung von Klimawandel. *Zeitschrift Für Internationale Beziehungen, 23*(2), 112-

    143. Retrieved May 12, 2021, from http://www.jstor.org/stable/26429487

Wanner, T. (2015) The new 'passive revolution' of the green economy and growth discourse:

    Maintaining the 'sustainable development' of neoliberal capitalism. *New Political Economy*,

    20(1), 21-41. DOI: 10.1080/13563467.2013.866081

Waskow, A. (1992). What is eco-kosher? *Jewish Quarterly*, *39*(4), 5–10.

    https://doi.org/10.1080/0449010X.1992.10705881

Welsch, H. (2020). Moral foundations and voluntary public good provision: The case of climate change. *Ecological Economics*, 175, 106696–. https://doi.org/10.1016/j.ecolecon.2020.106696

White, P. (2004). Subjectivity, evaluation and point of view in media discourse. In: C. Coffin, A. Hewings, & K. O'Halloran (Eds.), *Applying English Grammar.* London: Hodder Arnold, pp. 229-246.

Widdowson, H. (1998) The theory and practice of Critical Discourse Analysis. *Applied Linguistics*, (*19*)1, 136-151.

Wodak, R. (2013). Critical discourse analysis . SAGE.

Wodak, R. (2001). The discourse-historical approach. In R. Wodak & M. Meyer (Eds.), *Methods of critical discourse analysis*. SAGE. https://books-scholarsportal-info.proxy.lib.uwaterloo.ca/en/read?id=/ebooks/ebooks2/pda/2011-12-01/1/8698.0761961534#page=71

Appendices

Figure 1: (eGo-centric VS eCo-centric, 2018)

Table 7: Quantitative Presentation of Economic and Ecological Tokens

Publication (right)	Pan-Canadian Framework (PCF)	Canada's, *A Healthy Environment and a Healthy Economy* (HEE)	Germany's *Klimaschutz-plan 2050* (DEK)	EU Commission-'s *Saubere* (clean) *Energie* (EUS)	EU Commission-'s *Klimaplan 2030* (EUK)
Selected Lexical Item (below)	No. (of total occurrences) & (**Frequency**) **Quotient**	No. & **Quotient**	No. & **Quotient**	No. & **Quotient**	No. & **Quotient**
Technology/Technologie	155(**1.80**)	110(**1.39**)	96(**1.04**)	19(**0.73**)	26(**0.86**)
Growth/Wachstum	170(**1.98**)	31(**0.39**)	9(**0.10**)	14(**0.54**)	9(**0.30**)
Market/Markt	47(**0.55**)	23(**0.29**)	52(**0.57**)	24(**0.92**)	16(**0.53**)
Competition/Wettbewerb	25(**0.29**)	40(**0.50**)	35(**0.38**)	21(**0.81**)	12(**0.4**)
Innovation	74(**0.86**)	56(**0.71**)	67(**0.73**)	15(**0.58**)	7(**0.23**)
Investment/Investition	110(**1.28**)	127(**1.61**)	78(**0.85**)	34(**1.31**)	45(**1.5**)
Economy/Wirtschaft	123(**1.43**)	238(**3.01**)	320(**3.48**)	36(**1.38**)	115(**3.83**)
Progress/Fortschritt	15(**0.17**)	20(**0.25**)	16(**0.17**)	2(**0.08**)	6(**0.20**)
Emissions/Emissionen	251(**2.92**)	202(**2.56**)	285(**3.10**)	20(**0.77**)	163(**5.43**)

Development/ Entwicklung	141(**1.64**)	107(**1.35**)	236(**2.57**)	11(**0.42**)	26(**0.87**)
Modernisation/Modernisierung	7(**0.08**)	3(**0.04**)	28(**0.30**)	12(**0.46**)	32(**1.07**)
Ecology/Ökologie/Biodiversity/Biodiversität/Ecosystem/Ökosystem *combined*	9(**0.10**) (1 ecolog-, 2 biodiversity 6 ecosystem)	25(**0.31**) (11 biodiversity, 14 ecosystem(s))	41(**0.45**) (28 ökolog-, 4 biodiversität-, 9 ökosystem-)	0(**0**)	15(**0.50**) (7 ökolog-, 6 biodiversität-, 2 ökosystem-)

Table 9: Protection discourse vocabulary

	protect/*Schutz*	
PCF	who/wen & against/from/vor	Natural areas (1), Carbon sinks (1), "Protect Canadians from climate change risks" (p. 27), Human health & well-being (5), Public health (1), vulnerable regions (2), "protect against floods" (2) (p. 35), "protects Canadian communities from climate-related hazards such as flooding and wildfires" (p. 35), "prevention and protection infrastructure against certain natural disasters linked to climate change" (p. 62), the ozone layer.
HEE	who/wen & against/from/vor	"protect 25% of Canada's land and 25% of Canada's oceans by 2025, working towards 30% of each by 2030" (p. 55), "700 km2 in the Jumbo Valley, putting an end to a three-decade-long battle to develop the valley as a ski resort" (p. 55), unique places, "Canada must protect more nature– for the health and well-being of Canadians, and for Canada's economy." (p. 57), oceans (Oceans Protection Plan), "protect over 1.2 million residents from extreme heat, flooding and erosion" (p. 65), "protect the cities of Surrey and Delta and the Semiahmoo First Nation from coastal flooding" (p. 65), biodiversity, natural environment, ozone layer, the planet, nature, "the health and safety of Canadians" (2) (p. 7), "protect and create jobs now and into the future" (p. 8), natural areas, Canadians' health, the natural environment, "protecting against the risk of industrial facilities moving from one region to another to avoid paying a price on carbon pollution" (p. 30), "protect and grow jobs in the industrial sector" (p. 35), jobs, "protect the land, water and air that farmers depend on for their long-term sustainability" (p. 45), "protect us against flooding, storm surges, and erosion" (p. 52), "protect the Arctic's last year-round sea ice" (p. 54), "glass sponge reefs off the coast of British Columbia" (p. 54),
DEK	who/wen & against/from/vor	Klimaschutz (447), Naturschutz (9), "Schutz der natürlichen Ressourcen" (3) (p. 15, p. 50, p. 84), "Schutz der natürlichen Lebensgrundlagen" (p. 62), "Schutz von Moorböden und die Klimapotenziale der natürlichen Waldentwicklung" (p. 67), "Schutz von Moorböden" (p. 67), "Schutz, Wiederaufbau und nachhaltiger Bewirtschaftung der Wälder" (p. 69), "Schutz des Dauergrünlandes auf kohlenstoffreichen Böden" (p. 70), "Der Schutz kohlenstoffreicher Böden ist für den Klimaschutz von hoher Bedeutung" (p. 70), "Schutz von Moorböden" (p. 71), "Schutz des Klimas" (2) (p. 10, p. 62), "Schutz der Meeres- und

		Landökosysteme sind für den Klimaschutz von zentraler Bedeutung" (p. 23), "Effektiver Carbon-Leakage-Schutz" (p. 24).
EUS	who/wen & against/from/vor	Klimaschutz (6) "Darüber hinaus hat die EU auch neue Regeln für die Überprüfung und Überwachung ausländischer Direktinvestitionen erlassen, die es Europa ermöglichen, seine grundlegenden Interessen zu schützen und gleichzeitig einer der offensten Investitionsräume weltweit zu bleiben" (p. 17). "Gut integrierte Netze sind nicht nur der beste Schutz vor einem möglichen Infrastrukturausfall in einem EU-Land" (p. 10). "Die verbesserten Vorschriften bieten ihnen mehr Flexibilität und besseren Schutz" (p. 14).
EUK	who/wen & against/from/vor	Klimaschutz (27), "Schutz und zur Stärkung der natürlichen Senke und Widerstandsfähigkeit der Wälder der EU gegenüber dem Klimawandel" (p. 19), "Schutz und die Stärkung der Widerstandsfähigkeit kritischer Infrastruktur" (p. 23).

Appendix D: Translations

    i.   Language is not just some political instrument. For political actors, it is a matter of establishing, criticizing, and justifying political actions, of supporting one's own position with arguments and of representing it convincingly. The print media television, radio and the internet provide information about current political events and comment on and evaluate political issues. This all happens with and through language. (Girnth, 2015, p. 1, my translation)

    ii.   Discourse of or pertaining to the state. (cited in Girnth, 2015, p. 1, my translation)

    iii.   The politician [or any individual in society], as an acting [social] actor, stands daily before myriad selection decisions, that can be summed up for him/her in the question: how do I designate what, such as, for whom and in which communicative situation?" (Girnth, 2002, p. 47, my translation).