Methodological guide for working with emotions

**Raili Marling, Susanna Soosaar, Anna Durnová,
Sarah Helena Schäfer**

CiDAPE

Climate, Inequality & Democratic Action:
The Force of Political Emotions

Funded by
the European Union

Disclaimer

This project has received funding from the European Commission under the HORIZON Research and Innovation Actions Grant, No 101132327. The document reflects only the authors' views. The European Union is not liable for any use that may be made of the information contained herein.

Dissemination level

PU – Public

Type

Other

CIDAPE
Climate, Inequality, and Democratic Action: The Force of Political Emotions

Methodological guide for working with emotions

Deliverable D1.4

Authors: Raili Marling[1], Susanna Soosar[1], Anna Durnová[2], Sarah Helena Schäfer[2]

[1] University of Tartu
[2] University of Vienna

Due date: March 2025

Table of Contents

Executive Summary

This methodological framework offers a systematic approach for analysing emotions in environmental and climate discourse. Drawing on linguistic analysis of appraisal and discourse analysis, it provides researchers with tools to understand how emotional meanings are constructed in texts and how they influence audience engagement with climate issues.

Our framework focuses on how emotions are constructed through language rather than merely expressed by it. From this perspective, emotions in discourse are not simply representations of internal feeling states but function as ways of positioning oneself and others in social space. The analysis of emotions in climate discourse thus entails not merely cataloguing individual emotional expressions but also understanding how emotion functions as a discursive practice that shapes social reality and, potentially, collective action.

The methodological guide provides tools to examine emotions across lexical, grammatical, discourse, and contextual levels; provides practical steps for identifying and categorizing emotional expressions and evaluation; accounts for both directly stated emotions and those invoked through various linguistic means; considers how institutional, cultural, and genre contexts shape emotional meanings; and traces how emotions unfold and accumulate across texts. It is intended to be adaptable, allowing researchers to combine it with methodological approaches from their own disciplines.

1 Emotion in Discourse

1.1 Introduction

The socio-political dimension of collective emotions has been extensively studied within the sociology of emotions (for overviews see Bericat, 2015; Jasper, 2011). In the context of our project, the research suggests that for climate action to occur, it is not enough to know something; one must also have an emotional connection to that knowledge (Bergman Blix & Wettergren, 2018). Research in social geography (Bondi, 2006), political science (Durnová, 2019), international relations (Bleiker & Hutchinson, 2014; Koschut, 2017), citizen engagement studies (Thompson and Hoggett, 2001) and feminist epistemology (Ahmed, 2004) highlights the meaning-making capacity of emotions (Durnová, 2022). Organizing the everyday through meaningful "feeling rules" (Hochschild, 1979), emotions frame how values and identities are understood and represented as legitimate. This meaning-making capacity is also a point of concern in cultural sociology where emotions are understood as key elements in the analysis of cultural meanings and the symbolic construction of social life (Alexander, 2003).

Emotions are not only psychological phenomena contained within individuals, but socially constructed, discursively negotiated, and culturally embedded processes (Wetherell, 2012; Alba-Juez & Thompson, 2014; Alba-Juez & Mackenzie, 2019). As emotions are both represented and created through texts, they can be considered as a part of "discursive practice" (Bednarek, 2008, p. 24). Analysing emotion in discourse reveals how social actors position themselves and others, negotiate relationships, construct identities, and engage with cultural values and norms (Bednarek, 2008; Alba-Juez & Mackenzie, 2019).

In research contexts, emotions can be studied as representations. Within different types of data – from interview transcripts and social media content to political speeches and news coverage – emotions are mediated through language and texts use their genre-specific means to both convey and evoke emotions. That is, emotions are both represented and created through texts. Within texts, representations of emotions do not only rely on an overtly recognizable emotional lexicon but are constructed through various overt and covert discursive strategies and linguistic choices.

This is where we must also consider *evaluation*: the subtle expression of attitudes, values, and stances that shape how texts position speakers and audiences (Martin & White, 2005). Evaluation operates dynamically, evolving through interaction – through lexical patterns, grammatical structures, figurative language, and framing – rather than residing statically in words. This makes understanding the linguistic and discursive tools used in texts vital for understanding climate emotions and broader political emotions. Linguistic appraisal analysis (developed by Martin & White, 2005, and later refined by e.g., Bednarek, 2008) offers resources for analysing these evaluative patterns.

As micro-level linguistic choices accumulate, they are used to construct meso-level discourses and macro-level ideologies. Norman Fairclough (2013, p. 71) notes that "[i]deology is most effective when its workings are least visible." Covert strategies for invoking emotion matter because emotions are inextricably linked to power. It is thus necessary to analyse power hierarchies to uncover who gets to express which emotions, whose emotions are legitimized or delegitimized and, through that, how emotions are used to legitimize certain positions. By studying textually represented emotions, we can reveal how subjects and objects are positioned and how certain frameworks of "the normal" are established. Discourse analysis provides tools to trace how texts build ideologically significant emotional meaning not just through what is stated explicitly but also through what remains implicit or even what is absent.

The present methodological paper proposes a discourse-analytical framework rooted in linguistics and adapts it for use interdisciplinary contexts within the CIDAPE project. In order to develop **Interpretive Emotion Analysis** (cf. Durnová, 2018 and 2022), we integrate elements from the **Strong Program of cultural sociology** (Alexander & Smith, 2001), **linguistic appraisal analysis** (Martin & White, 2005), and **Critical Discourse Analysis** (CDA). This will allow us to explore how emotions are embedded within textual data and how they shape knowledge production and meaning-making processes.

The tools our methodology provides will enable researchers to:

- Identify emotion
- Understand how emotion functions, that is, how it establishes certain moral positions, reinforces power relations
- Analyse how textual representations shape various discourses related to climate change

- Examine how emotions are expressed, performed, negotiated, contested in various contexts

Below, we first outline the theoretical framework of the methodology, introduce the approaches that form the basis of our methodology, and finally propose a set of specific textual tools that can be adapted to the needs of a variety of research approaches that tackle textually represented emotions.

1.2 Discourse, and society: the theoretical background for analysing emotion

Within Critical Discourse Analysis (CDA), discourse is conceptualized as a form of "social practice," implying a dialectical relationship between discursive events and the broader social structures that shape them (Fairclough & Wodak, 1997, p. 258). Central to our framework, then, is the view that discourse functions both "as a form of knowledge" and a "form of social action, as something people do to, or for, or with each other" (van Leeuwen, 1993, p. 193). For our study on climate emotions, we need to be attentive to both facets. Recognizing that discourse can reproduce society and culture, but also potentially transform it (see Fairclough and Wodak, 1997, p. 273), we will examine how climate change discourse can both elicit emotional responses and mobilize them toward policy outcomes.

Our approach is built on a social constructionist view of language. As Roger Fowler (1991, p. 94) argues, "language provides names for categories, and so helps to set their boundaries and relationships; and discourse allows these names to be spoken and written frequently, so contributing to the apparent reality and currency of the categories." Through repetition, language naturalizes "socially constructed categories" until they become "natural common sense" (Fowler, 1991, p. 105). Building on this, we treat texts as dynamic semantic fields that enact social reality through linguistic choices (Schwartz-Shea & Yanow, 2012). Texts are not isolated objects but sites where values, beliefs, and power relations are negotiated. This negotiation occurs through discourse – the interconnected systems of texts and practices that circulate meaning. Understanding discourse as simultaneously representing and constructing reality means accepting that no singular 'truth' exists – only multiple, discursively constituted social realities and intersubjective truths about events (Schwartz-Shea & Yanow, 2012).

To account for the complexity of how language both reflects and constructs social reality, Norman Fairclough (1995) proposes an interconnected threefold model of discourse, consisting of social practice (the broader social and political structures shaping meaning-making), discourse practice (how texts are produced, circulated, and interpreted), and text (the concrete linguistic/semiotic features). These levels align roughly with Halliday's three metafunctions of language – ideational (constructing knowledge), interpersonal (negotiating social relations), and textual (organizing discourse) – all of which operate simultaneously in texts (Fairclough, 1995, p. 131).

Our framework integrates these dimensions to analyse not only how emotions are linguistically encoded but also how they function as social and political acts. Fairclough's threefold model requires an integrated analytical approach that consists of description, interpretation and explanation. The analytical cycle moves from the micro-level description of linguistic strategies to interpretation of discursive practices, culminating in critical explanation of how these practices interact with broader structures of power and ideology:

- **Description** tackles the textual level of discourses and describes the specific linguistic forms employed in texts (vocabulary, grammar, textual organization) (Fairclough, 1992, p. 75). It should be noted that our framework adopts a deliberately broad definition of "text" that extends beyond traditional written documents and includes any instance of written, spoken, or multimodal language use (conversations, written documents, social media posts, interviews, speeches, etc.).
- **Interpretation** focuses on the level of discursive practice, that is, the socio-cognitive processes of production and interpretation of discourses. This dimension forms the core of our **Interpretive Emotion Analysis** framework, revealing the discursive role of emotions and their political, cultural and ideological functions in shaping narratives.
- **Explanation** analyses the level of social practice, that is, the relationship between the particular discursive practices and wider social practice.

The dialectical relationship between text, discursive practice, and social practice allows us to trace how emotions function at multiple levels: as linguistic features encoded in texts, as elements of meaning-making processes, and as social forces that shape climate policy responses. Moving beyond traditional views that treat

emotions as purely subjective experiences, our approach positions them as discursively constructed phenomena. The following section will elaborate on how emotions specifically manifest in texts and discourse, building on a theoretical CDA-inspired groundwork.

1.3 Emotion in text and discourse: how to recognize and code emotion

Rather than static states, **emotions in discourse** unfold as dynamic processes that develop and change over time (Alba-Juez and Mackenzie, 2019, p. 16). They permit positioning oneself and others in social space. Speakers and writers can **convey** emotions by expressing their own feelings or those of others they describe. Alternatively, they can **evoke** emotions by prompting the audience to feel something without directly stating an emotion. This second function is particularly important in climate discourse, where texts often aim to generate genuine emotional engagement that leads to action. The analysis of emotions in climate discourse is thus not merely about cataloguing individual emotional expressions but about understanding how emotion functions to shape social reality and, potentially, collective action. This shifts attention from questions about speakers' "true" emotional states to questions about how emotion functions rhetorically and interactionally (see Martin and White, 2005, p. 261).

A fundamental distinction in analysing emotions in discourse is between what Monika Bednarek (2008, 2009) terms "emotion talk" and "emotional talk." **Emotion talk** refers to the lexical expression of emotion through words that explicitly denote emotional states. **Emotion*al* talk**, in contrast, refers to expressions that signal emotion without explicitly naming it. These include various verbal and non-verbal, linguistic and non-linguistic features (Bednarek, 2008, p. 11). This distinction is not always clear-cut in practice. Many utterances combine both types of expression—for example, the sentence "I'm so worried about the future of our planet!" explicitly names an emotion, "worried," (emotion talk), while also including elements that intensify the emotional expression, "so" and the exclamation mark (emotional talk) (see Alba-Juez & Mackenzie 2019, p. 5).

The choice between emotion talk and emotional talk often reflects genre conventions and communicative purposes (see Bednarek, 2008; Martin & White, 2005). For example, academic reports about climate change tend to minimize explicit emotion terms while still conveying urgency through emotional talk strategies. Climate activist rhetoric, in contrast, may freely employ both emotion talk and emotional talk to mobilize supporters. Understanding these patterns helps us identify how different stakeholders position themselves emotionally in relation to certain climate-related issues.

Analysis of emotions also requires attention to **actors** participating in the creation of emotions in discourse. Martin and White (2005, 46) call "the conscious participant experiencing the emotion [as] an Emoter**,** and the phenomenon responsible for that emotion a Trigger." While the primary agents of emotional responses are humans, the **emoter** can also be an object, institution, or even an abstract concept, that is, anything that is capable of being attributed with emotion. A **trigger** is a phenomenon or event that is responsible for eliciting or causing the emotional response of the emoter. It can be another person or an object and can range from an actual situation (e.g., an interaction with someone) to potential or hypothetical situations, abstract ideas or conditions (e.g., a projected global rise of temperatures, an injustice, an opinion, a memory).

Another important distinction is between **authorial and non-authorial emotion**. Bednarek (2009, p. 409) distinguishes between instances where speakers or writers express their own emotions (authorial emotion, where Emoter = Speaker) and instances where they describe the emotional experiences of others (non-authorial emotion, where Emoter ≠ Speaker). Tracking these patterns reveals how texts attribute emotional meanings and position different actors in relation to climate emotions.

The dynamic, process-oriented nature of emotions in discourse, as well as their role in positioning speakers and shaping social reality, closely parallels the concept of **evaluation** in language. Evaluation, like the expression of emotion, serves an inherently interpersonal function by conveying attitudes, feelings, beliefs, and values that negotiate relationships between speakers/writers and their audiences (Alba-Juez & Thompson, 2014). Emotion and evaluation co-occur and reinforce one another. Analysing evaluation helps reveal how texts construct relationships between speakers/writers and their audiences, how they negotiate solidarity despite differences in viewpoints, and how they naturalize particular value positions in discourse.

Just as emotions unfold over time through both explicit "emotion talk" and implicit "emotional talk" (Bednarek, 2008), evaluative meanings emerge through interaction and are realized through a spectrum of linguistic resources, ranging from explicit attitudinal lexis (**inscribed evaluation**) to more implicit means that invoke assessment through ideational content, lexical metaphor, or contextual triggers (**invoked evaluation**)

(Martin & White, 2005; see section 2.4 below). Evaluation is thus not limited to individual words but operates across discourse, creating patterns of meaning that colour texts and guide reader interpretations (Martin & White, 2005; Thompson, 2014). When a climate scientist describes certain findings as "alarming," for example, they are not merely offering a neutral assessment but engaging in interpersonal positioning that invites readers to share a particular evaluative stance.

One of the main challenges in emotion analysis involves navigating the inherent ambiguity of emotional meanings. Emotion categories have indistinct boundaries, and their meanings may vary significantly depending on the context (Martin & White, 2005, p. 52). For example, the term "concern" in climate discourse can range from mild worry to deep anxiety. It is the **context** that "can tells us which specific emotion is at stake" (Bednarek, 2009, p. 404). This means that emotion analysis must consider both textual cues and broader social, cultural, and institutional contexts that shape emotional meanings.

The cultural dimension of emotional and evaluative language is particularly evident in what Macken-Horarik and Isaac (2014, p. 84) call "bonding icons"—culturally charged references that "have the power to evoke responses because of the weight of cultural experiences they import into a text." In environmental discourse, references to events like "Hurricane Katrina," or ongoing situations, "logging the Amazon rainforest" function as such bonding icons, importing complex evaluative associations that may trigger emotional responses without explicit evaluative language. Since emotions are "a profoundly culturally sensitive business," analysis of any kind of evaluation in language needs to account for this sensitivity (Macken-Horarik & Isaac, 2014, p. 84). Terms like "crisis," "emergency," or "challenge" carry different emotional valences depending on whether they appear in governmental reports, corporate communications, or opinion articles by various stakeholders.

1.4 Identifying the reader position

While the ambiguity of emotional and evaluative meanings may complicate efforts to systematically identify and categorize emotions in discourse, it also shows that emotions are negotiated in the space between expression and reception. Texts do not simply express evaluative meanings but actively work to **position readers** in relation to these meanings. Texts also support various interpretations of their evaluative meanings, particularly when evaluations are invoked rather than inscribed. Martin and White (2005, p. 162) argue that texts provide "a set of possible meanings" where certain interpretations are "significantly more favoured and hence more probable than others", depending on readers' social positioning. Martin and White (2005, p. 62) distinguish between "individual and social subjectivity—between readers as idiosyncratic respondents and communities of readers positioned by specific configurations of gender, generation, class, ethnicity and in/capacity." Different social groups may bring distinct evaluative frameworks to texts based on their varied life experiences and value systems (Macken-Horarik & Isaac, 2014, p. 83)

How emotions are embedded in textual data directly influences knowledge production and the construction of meaning in discourse. As meaning is not fixed or static in texts but actively created by language users, there are several possible **decodings** to each encoded meaning (Hall, 1980). Texts actively construct what Martin and White (2005, p. 231) call "a particular ideal audience," often assuming "a large degree of likemindedness between author and projected reader." Readers, for their part, frequently "go to such texts, not to be persuaded to new points of view, but rather to gather material in support of views they already hold" (Martin & White, 2005, p. 229). This dynamic is particularly relevant in environmentally polarized contexts.

The meanings encoded into the texts by the producers can never be entirely symmetrical to the decodings, however, because language users use their frameworks of knowledge and social positioning to make sense of the meanings presented. In addition to the dominant or **preferred decodings**, then, there are also **negotiated and oppositional decodings** (see Hall, 1980). Developing Hall's encoding-decoding model, Martin and White (2005, p. 62) identify three types of reading positions with regard to decoding emotions in texts. **Compliant** readings accept the evaluative framework presented by a text, while **resistant** readings challenge them (Martin & White, 2005, pp. 62, 206). **Tactical** readings selectively engage with parts of a text's evaluative framework for specific purposes. This is a "typically partial and interested reading, which aims to deploy a text for social purposes other than those it has naturalised" (Martin & White, 2005, p. 62). Our framework will focus on uncovering the preferred meanings, but will also show the contestations of meaning, as both can be of potential ideological significance.

When analyzing texts, particularly those with implicit emotions and evaluation, Martin and White (2005, p. 62) emphasize the importance of "declar[ing] whether one is reading a text compliantly, resistantly or tactically." They foreground that evaluative meanings emerge through specific reading positions rather than existing as fixed textual properties. This reflexive approach recognizes that researchers themselves participate in the meaning-making process, their contextual knowledge, cultural positioning, and disciplinary background inevitably influencing which emotional meanings become visible in analysis.

The linguistic specificity of this type of analysis needs to be stressed as well. The following section introduces linguistic appraisal analysis, which provides the tools needed to investigate how climate emotions are discursively constructed and negotiated in discourse. We primarily draw from research and resources in English, but there may be significant differences in how emotions are encoded in other languages and what discursive repertoires circulate in different cultural contexts. Thus, the framework we introduce below may require modification when applied to texts in other languages.

2 Linguistic Appraisal Analysis – Categorizing Emotional Expression

Martin and White's (2005) framework of linguistic appraisal offers a systematic approach to understanding how language construes attitudes, interacts with diverse perspectives, and adjusts the strength of evaluations across different communicative contexts. This method's structured categorization of evaluative language makes it particularly suited for analysing how climate emotions are discursively produced.

Martin and White's (2005) appraisal system subdivides appraisal resources into three interrelated systems: attitude, engagement, and graduation. The linguistic analysis of appraisal builds on the understanding that meaning potentials are encoded into texts that readers have to decode (Martin & White, 2005, p. 25; c.f. Hall 1980). It thus examines how texts construct ideology, power and/or solidarity. Through this lens, evaluation becomes a means of community building – **texts work to align readers with particular value positions and the social groups associated with them**.

It should be noted that we have made strategic terminological adaptions to Martin and White's (2005) approach. Most significantly, we replace their term "affect" with "emotion" to maintain consistency with our theoretical framework and glossary and to make a clear distinction between the pre-cognitive "affect" of affect theory and the linguistically encoded "emotions". This distinction is methodologically important because our framework focuses specifically on how emotions are constructed and negotiated in discourse, not on pre- or non-linguistic phenomena.

2.1 The attitude system – mapping emotional and evaluative positioning

The **attitude system** provides "a framework for mapping feelings as they are construed" in texts (Martin and White, 2005, p. 42). Within the attitude system, Martin and White (2005) identify three major domains: affect, judgment, and appreciation. Affect (labelled **emotion** within our theoretical framework) marks emotional reactions and disposition (e.g., happy/sad, confident/anxious). **Judgment** deals with evaluation of human behaviour, and includes resources for evaluating behaviour according to normative principles (e.g., ethical/unethical, competent/incompetent). **Appreciation** concerns evaluations of things, processes, and natural phenomena (e.g., beautiful/ugly, significant/insignificant). Each domain covers a different type of evaluation, though they are interconnected through what Martin and White (2005, p. 45) describe as a "**institutionalised feelings**," where direct feelings are reconstrued as evaluations of behaviour (judgment) or things (appreciation). The three constitute a system of related evaluative meanings that often blur at their boundaries (Thompson, 2014, p. 50). While all three domains – emotion, judgment, and appreciation – involve evaluation, the **emotion** subsystem is central to analysing how feelings are expressed linguistically. It deals with the most direct form of evaluation – how we feel about something.

Emotional lexis can be classified according to several parameters. Below, we combine Martin and White's (2005) original categories (un/happiness, in/security, and dis/satisfaction) with Bednarek's (2008) subsequent refinements. The resulting emotion categories are:

- **Un/happiness**: Martin and White (2005, p. 49) describe this category as covering "emotions concerned with 'affairs of the heart'—sadness, hate, happiness and love." This remains central in Bednarek's model as well, representing what most people first think of as emotions.

- **In/security:** This category concerns "emotions concerned with ecosocial well-being—anxiety, fear, confidence and trust" (Martin & White, 2005, p. 49). Bednarek (2008, p. 160) makes the oppositions clearer, suggesting that " in/security feelings relate to disquiet (for example uneasy, anxious, afraid, fear) or quiet (for example reassured, comforted, at ease, blithely) as well as distrust (for example reserve, emotional withdrawing, suspicious) or trust (for example confide, trust, believe in)."
- **Dis/satisfaction:** This category "deals with our feelings of achievement and frustration in relation to the activities in which we are engaged including our roles as both participants and spectators," with key emotions related to "telos (the pursuit of goals) – ennui, displeasure, curiosity, respect" (Martin & White, 2005, p. 50).
- **Dis/inclination**: Bednarek (2008, p. 165) introduced this category to avoid overlap between fear as disinclination and fear as insecurity in the original model. It categorizes emotions "not in terms of a positive (desire) or negative (fear) emotion, but rather with respect to polarity, referring to desire (volition) and non-desire (non-volition)."
- **Surprise/Anticipation:** This category covers emotions related to surprise or unexpectedness. Bednarek (2008, p. 161) presents surprise as a distinct emotion as it "is not culturally construed as negative" and thus does not fit neatly into the positive/negative binary of the other categories.

The meaning and categorization of emotion terms may vary significantly depending on context. Bednarek (2008, p. 167) emphasizes that this system of categorizing emotion terms should be understood as "fuzzy" as the boundaries remain unclear and blurring and blending between categories is frequent. What constitutes "anger" or "happiness" may differ across cultural contexts, institutional settings, or historical periods. Even within a single text, the significance of emotion terms may shift as the context evolves (Martin & White, 2005, p. 52). This potential contextual variation means that the study of emotion terms should remain sensitive to how emotions are construed in specific contexts.

The second domain of attitude, **judgment**, evaluates human behaviour and character against shared social norms. Where emotion expresses personal feelings directly (e.g., "I'm angry about climate inaction"), judgment converts these into normative assessments that reinforce communal standards through what Martin and White (2005, p. 45) term "institutionalized feelings." These evaluations function as implicit prescriptions about "how we should behave or not" (Martin & White, 2005, p. 45). For example, labelling climate inaction as "irresponsible" (judgment) rather than "disheartening" (emotion) shifts the focus from individual emotion to collective moral expectations.

Martin & White (2005) have divided judgment into two broad categories, each with its own subcategories:

- **Social esteem** concerns personal judgments that express admiration or criticism of individuals without necessarily moral implications. According to Martin and White (2005, p. 52), judgments of social esteem "have to do with 'normality' (how unusual some-one is), 'capacity' (how capable they are) and 'tenacity' (how resolute they are)." These judgments tend to be regulated informally through everyday social interactions, like chat, gossip or humour (Martin & White 2005, p. 52).
- **Social sanction** encompasses judgments with moral or ethical implications and serious consequences for non-compliance (Martin & White 2005, p. 52). Social sanction is further divided into two subcategories of veracity, which has to do with truthfulness and honesty, and propriety, which assesses ethical behaviour and moral standing (see Martin & White 2005, p. 52-53).

It should be noted that, as with emotion, even within a single culture, the meaning of evaluative terms can vary significantly depending on the specific context of use and explicitness.

Appreciation, like judgment, institutionalises emotional responses by ascribing value to objects, phenomena, and experiences (Martin & White, 2005, p. 45). According to Macken-Horarik and Isaak (2014, p. 74), among the three attitude domains, "appreciation is the most sensitive to context." For example, what counts as positive appreciation in scientific discourse (e.g. "a robust methodology") may differ significantly from aesthetic appraisal in literary criticism (e.g. "a compelling narrative"). By tracing evaluative patterns of appreciation, we can expose how texts construct implicit hierarchies of worth, directing attention toward specific qualities while backgrounding others.

The boundaries between these three domains are often indistinct in actual texts. An evaluation like "Climate scientists are alarmist" occupies an ambiguous position—it could be interpreted as judgment (evaluating the scientists' ethical behaviour) or as appreciation (evaluating the quality of their research). There is also considerable movement between the three domains, as one type of evaluation is transformed into another. For example, expressions of climate anxiety (emotion) might be reconstrued as assessments of environmental re-

sponsibility (judgment) and then as evaluations of sustainability initiatives (appreciation). This kind of movement creates evaluative sequences across texts, with one type of evaluation influencing how readers interpret others. These ambiguities are not analytical problems but rather reflect how evaluative language works in practice, with meanings often deliberately left open to multiple interpretations.

2.2 The engagement system and intertextual dynamics

The **engagement system** provides a framework for understanding how speakers and writers position themselves in relation to other voices and viewpoints in discourse. Grounded in Bakhtin's dialogic perspective, this system recognizes that all communication occurs against a backdrop of what has been said before and potential responses (Martin & White, 2005, p. 94). Even seemingly straightforward statements take a stance in relation to other possibilities. Thus, analysing engagement within texts reveals "whether [speakers/writers] present themselves as standing with, as standing against, as undecided, or as neutral with respect to these other speakers and their value positions" (Martin & White, 2005, p. 93).

The fundamental distinction in engagement is between uncontested (monoglossic) expressions (bare assertions that do not acknowledge alternatives) and contested (heteroglossic) expressions (those that recognize the existence of alternative positions). **Uncontested** expression constructs a communicative context with "no dialogistic alternatives" that would "need to be recognised, or engaged with" (Martin & White, 2005, p. 99). The effect of such assertions varies depending on whether they are positioned as taken-for-granted background information or as focal points for discussion. Taken-for-granted propositions are presented as established information. These assertions have "the strongly ideological effect of construing for the text a putative addressee who shares this value position with the writer/speaker" (Martin & White, 2005, p. 101). **Contested** statements acknowledge alternative positions and can either **contract** the dialogic space (challenging or restricting alternatives) or **expand** it (making room for diverse viewpoints) (see figure 3.4 in Martin & White, 2005, p. 133)

Another important aspect of engagement is its focus on how texts position readers. Engagement strategies "write the reader into the text" by constructing an implied audience with particular viewpoints and expectations (Martin & White, 2005, p. 95). Texts construct relationships of **alignment** or **disalignment** between the author, the reader, and various value positions. This process of positioning is fundamental to how texts build solidarity with readers; although solidarity is not necessarily a matter of agreement but rather, a recognition of a diversity of viewpoints as legitimate.

2.3 The graduation system – measuring the evaluative force of emotions and meanings

The **graduation system** represents the third major component of linguistic appraisal, concerned with how evaluative meanings can be amplified or diminished in discourse. Graduation captures how evaluations exist along a continuum of intensity and precision rather than as absolute values. Similarly to engagement, the graduation system serves a dialogistic function in discourse. Martin and White (2005, p. 94) note that graduation resources "enable speakers/writers to present themselves as more strongly aligned or less strongly aligned with the value position being advanced by the text and thereby to locate themselves with respect to the communities of shared value and belief associated with those positions."

Graduation operates along two axes, force and focus. The first axis, **force**, deals with graduation according to intensity or amount and includes intensification (scaling qualities or processes (e.g., "slightly disappointed," "utterly devastated")) and quantification (scaling entities in terms of amount and extent (e.g., "a few concerns," a recent discovery, "a small gap")). The second axis, **focus**, addresses graduation according to prototypicality and precision of category boundaries. Focus includes instances of sharpening (amplifying "investment by the authorial voice in the value position" (e.g., "a true crisis," "genuine concern")) and softening, which signals "a lessening of the speaker/writer's investment in the value position" (e.g., "kind of worried") (Martin & White, 2005, p. 139). By adjusting the force or focus of evaluations, speakers and writers signal their degree of investment in particular stances and their relationship to others who might hold similar or different positions.

2.4 Invoked and inscribed appraisal

The **directness** with which evaluative meanings are expressed in texts varies. **Inscribed appraisal** refers to explicitly evaluative language that directly communicates an assessment through clearly attitudinal lexis (Martin and White, 2005, p. 221; see also p. 61). For example, a phrase like "the devastating impacts of global warming" explicitly conveys a negative evaluation through the adjective "devastating." **Invoked appraisal** encompasses the various ways evaluation can be implied rather than explicitly stated. In these cases, texts communicate evaluative meanings without using overtly attitudinal language (Thompson, 2014, p. 51).

Invoked appraisal can be triggered by figurative language. For example, describing rising temperatures as "skyrocketing" provokes a more alarmed response than simply stating they have "increased". Metaphorical expressions like "drowning in plastic waste" provoke stronger evaluative responses than literal descriptions. Evaluation may be invoked through various lexico-grammatical resources that flag or "connote attitude rather than denote it" (Martin & White, 2005, 66). For example, the word 'surprisingly' in the sentence "surprisingly, emissions continued to rise" only hints at an evaluative stance without directly expressing it.

Finally, evaluation can also emerge from ideational content alone, where the selection of presented information guides readers toward particular conclusions. While emotion terms are most often used for **conveying** emotion, they can also **evoke** emotion. For example, the statement "The company released 50,000 gallons of oil into the river" affords negative judgment without explicitly condemning the action. Implicit evaluation is particularly important for understanding how texts can evoke emotions without naming them directly. By presenting specific facts, details, or scenarios—especially those with strong cultural associations or moral implications—texts can trigger emotional responses without explicit evaluative language. A report detailing the projected extinction of familiar species, the displacement of vulnerable communities, or the irreversible loss of ecosystems does not need to explicitly mention "fear," "grief," or "outrage" to evoke these emotions. The careful selection and presentation of content positions readers emotionally through the activation of shared cultural values and knowledge (Macken-Horarik & Isaac, 2014, p. 76; Martin & White, 2005, pp. 66-67)

2.5 Interaction of appraisal systems in climate discourse

In texts, emotional meanings emerge from the **interaction** of attitude, engagement, and graduation resources. Consider the statement, "While many citizens are understandably anxious about the economic impacts of new regulations, we cannot ignore the truly devastating consequences of inaction." Here, attitude resources ("anxious," "devastating") combine with graduation ("understandably," "truly") to amplify emotional stakes, while engagement shifts from dialogic expansion ("many citizens") to contraction ("cannot ignore"), acknowledging, then overriding dissent. The interaction of these systems in the example sentence creates a complex evaluative positioning that acknowledges public concerns while establishing the overwhelming importance of climate action. The text first validates citizens' emotions (anxiety), creating alignment with those who may be sceptical about climate policy. It then shifts to a contractive stance ("cannot ignore") coupled with graduation ("truly devastating") to position these economic concerns as ultimately less significant than climate impacts. The interactions of appraisal resources need to be considered in analysis (Martin & White,2005, p. 159). Understanding these interactions requires attention to how patterns of attitude, engagement, and graduation **develop across texts**, not just within individual clauses or sentences (Macken-Horarik & Isaac, 2014, p. 80).

3 Discursive Analysis of Emotion

This section examines emotion in discourse at two interdependent levels: its **linguistic construction** through appraisal resources (attitude, engagement, graduation) and its **discursive function** within Fairclough's (1995) triad of text, discursive practice (see Table 1). Where appraisal analysis systematically traces how emotions are encoded in lexical and grammatical choices, Fairclough's model reveals how these linguistic features operate as social actions—legitimizing certain policies, naturalizing ideological positions, or mobilizing collective responses. Our framework thus moves beyond cataloguing emotional expressions to explain *how* and *why* they gain persuasive force in climate politics—whether by amplifying urgency through intensified emotion ("catastrophic warming"), managing dissent through dialogic contraction ("no credible alternative"), or aligning audiences with normative judgments ("irresponsible delay").

Fairclough's three-dimensional model provides a framework for analysing discourse at different levels, each of which can be explored by using tools from the appraisal system. At the **text description level**, we examine the specific linguistic features that contribute to emotional meanings either through emotion talk (explicit emotion terms) and/or emotional talk (implicit emotional expressions). This level of analysis concerns the identification and categorization of appraisal resources (i.e., attitude, engagement and graduation). At the **discursive-interpretive level,** we consider how these linguistic features relate to the broader textual context. This involves examining how genre conventions, institutional contexts, and audience expectations shape the construction and interpretation of emotional meanings. At the **structural-explanation level**, we can explore how the patterns identified in the text and discursive levels contribute to the reproduction or transformation of broader social structures, ideologies, and power relations. This involves considering how appraisal resources are used to legitimize or challenge particular ways of understanding and responding to climate change, and how they intersect with wider cultural, political, and economic factors.

TABLE 1: LEVELS OF ANALYSIS

Dimension	Focus	Key Question	Appraisal Connection
Text-Description	Linguistic features and patterns	How are emotions linguistically realized in the text?	Primary focus on identifying and categorizing appraisal resources
Discourse-Interpretation	Discursive contexts and practices	How do emotions function within discursive contexts?	Analysis of how appraisal resources operate within discourse, while taking into account genre, intertextuality, and production contexts
Sociocultural Practice-Explanation	Broader social structures and ideologies	How do emotions reflect and shape social structures?	Examination of how appraisal patterns relate to power, ideology and social change

This guide can be adapted to suit different research objectives and text types. For example, depending on text types and research objectives, researchers can adopt either a broader approach (examining evaluation as a whole) or a narrower approach (focusing specifically on emotion terms). Both approaches offer valuable insights into how emotional meanings function in environmental discourse, and researchers may select or combine them based on their specific research questions.

3.1 Description of text

The text-description level involves a close analysis of the linguistic features of the text. At this level, the goal is to identify and describe how specific **language choices** (e.g., vocabulary, grammar, metaphors, appraisal resources) construct emotional and evaluative meanings. This level is primarily concerned with the "what" of the text: what is being said, how it is being said, and what emotional or evaluative effects are created through these linguistic choices.

The first step is to clarify whether the focus will be on analysing emotion talk (explicit emotion terms) or emotional talk (implicit emotional expressions). This decision will guide the selection of specific analytical tools and categories. **To identify emotion talk**, we look for words that directly refer to emotional states, considering different forms of emotion terms (adjectives, verbs, adverbs, and nouns) and paying attention to both positive and negative emotions. **To identify emotional talk**, we look beyond direct references to emotions and focus on linguistic cues that evoke or express emotions implicitly (such as tone, figurative language, rhetorical devices, sentence structure, punctuation, etc.

Once instances of emotion talk and emotional talk have been identified, we can analyse how these expressions function within the text using Martin & White's (2005) appraisal framework. This involves examining the use of attitude, engagement, and graduation resources. In addition, we examine specific lexical and grammatical features that contribute to the construction of emotions in the text, drawing on Fairclough's (2013)

linguistic tools. These features shape the emotional tone of the text, position the writer in relation to the audience, and construct representations of responsibility and blame for emotional states.

After analysing individual instances of emotion talk and emotional talk, we can consider the cumulative effects and patterns across the text as a whole. This involves identifying recurring emotions or emotional patterns, examining the distribution of emotions across different stages or sections of the text, considering the overall emotional tone or trajectory of the text, analysing how different emotional expressions and resources interact and reinforce or contradict each other, and comparing the patterns in the text to those found in other texts we're examining.

3.1.1 Emotion talk

Proceeding from Bednarek's (2008) terminology, emotion talk refers to the explicit expression of emotion through the use of specific emotion terms that directly name or label specific emotional states ("angry," "happy," "sad," "worried," "hopeful," "frustrated," "proud," "ashamed," etc.). While emotion is conveyed in various ways," Martin & White (2005, p. 45-46) explain it is most often realized through forms such as:

- Quality (adjective): "I am happy about that"
- Process (verb): "The news pleased me"
- Comment (adverb): "Happily, he agreed to help"
- Nominalization: "His joy was evident to all"

When analysing emotion terms in texts, several key aspects should be considered:

- **Type of emotion terms:** Texts may employ a wide range of emotion terms, each with its own specific connotations and intensity. For example, "worried," "anxious," "fearful," and "terrified" all fall under the broader category of fear-related emotions but convey different levels of intensity and specific shades of meaning. For an example of categorizing types of emotion terms, see section 2.1. above.
- **Polarity:** Emotion terms can be classified as positive (e.g., "happy," "excited," "proud") or negative (e.g., "sad," "angry," "disappointed"). Analysing the balance between positive and negative emotion terms can provide information about the overall emotional tone of the text.
- **Intensity**: Emotion terms can vary in their intensity, from mild (e.g., "concerned") to strong (e.g., "outraged"). The intensity of the emotion terms used helps to understand the force of the emotions being expressed or created.
- **Time-scale**: Emotions can be presented as ongoing states (e.g., "I am worried about climate change") or as temporary or episodic experiences (e.g., "The recent climate report made me feel anxious"). Analysing the temporality of emotion terms can provide insights into how emotions are positioned in relation to specific events or situations.
- **Attribution**: Emotions can be attributed to various sources, such as the author of the text (authorial emotions), specific individuals or groups mentioned in the text (non-authorial emotions), or generalized others (e.g., "Many people are concerned about climate change"). Examining the attribution of emotions can reveal how responsibility and alignment are constructed in the text.
- **Collocation and clustering of emotion terms**: Emotion terms may appear in close proximity to each other or in specific patterns throughout the text. Analysing the collocation and clustering of emotion terms can inform us about the co-occurrence and interaction of different emotion terms.

3.1.2 Emotional talk

Emotional talk operates through implicit linguistic strategies that convey or evoke emotional meaning without explicitly naming specific emotions in three interdependent layers: 1) lexical choices, 2) grammatical patterns, 3) discursive positioning through engagement and graduation systems, as well as patterns of emotions, emoters and triggers.

At the most immediate level, emotional talk operates through implicit evaluative lexis that conveys affective meaning without explicit emotion labels. This includes the strategic use of ideologically contested vocabulary (words that create ideological emotional valences), figurative language (metaphors, similes, euphemisms, and other strategies that evoke emotional responses through imagery rather than direct naming), and evaluative

clustering (unusually high number of references, with near-synonyms, to the same phenomenon) (see Fairclough, 2013, pp. 92-93).

Construction of emotional meaning is equally shaped by **grammatical choices** (see Fairclough, 2013, p. 93). For example, relations of **agency** reveal who acts and who is acted on, as well as the types of processes (actions, events or attributions) that predominate in texts. Not all participants are animate, although agents tend to be (Fairclough 2013, p. 101). This is most explicitly revealed through the use of the **active** or the **passive** (cf government raised taxes vs taxes were raised). This tool is particularly useful for conveying responsibility and assigning blame—and hence can be productive also in the analysis of textual representation or withholding of emotion (e.g., bureaucratic texts tend to avoid emotion and hence use more passive, in the process also often eliding the agent or responsible party in climate related topics). Another useful grammatical category is **nominalization**, that is, turning a process with an agent (somebody who does) and a patient (to whom something is done) into a noun or noun phrase (the phrase "the government raised taxes" may become a "tax increase"). **Modality** marks the writers or speaker's authority, with regard to others involved in the interaction but also to truth or probability (e.g., through the choice of words "may", "might", must", "can" (Fairclough 2013, p. 105). **Pronouns** convey relations of power and solidarity (Fairclough 2013, p. 106). The use of "inclusive we" (the writer and the reader, as a member of a broader public) creates solidarity and "exclusive we" (the writer and some other person(s) but not the reader) authority. However, it is also used in texts to build an implicit sense of consensus or common sense among the audiences.

By analysing patterns of actors (see section 1.3) across climate discourse, we can identify how different genres of text distribute agency and construct emotional responsibility and causality. For example, academic texts about climate change may minimize authorial affect (e.g., "Communities expressed concern about flooding"); policy texts may try to balance authorial affect (e.g., "We are committed to addressing this challenge") with non-authorial affect (e.g., "The public is increasingly worried"); activist texts frequently foreground authorial affect (e.g., "We are outraged by continued inaction"); media reports often attribute emotions to various social actors while maintaining varying degrees of emotional distance (e.g., "activists disrupted traffic during rush hour" suggests an indirect condemnation of the activists).

Emotional meaning in texts emerges not through isolated linguistic choices, but through the layered accumulation of grammatical and evaluative patterns that reinforce one another across clauses, sentences, and entire discourses. Analysing emotional talk requires tracking how appraisal resources and grammatical choices *co-pattern* across texts and genres, not just cataloguing local instances.

To identify and analyses emotional talk in a text, one should thus consider:

- The use of **engagement resources** (see section 2.2), such as modality and attributions, examining how the text positions the author's voice in relation to other voices and alternative positions.
- The use of **graduation resources** (see section 2.3), such as intensifiers and hedges, and how they modulate the strength and specificity of emotional expressions. Reflect on how these choices may shape the implicit emotional tone of the text.
- **Grammatical choices, such as active vs. passive voice, nominalization, and pronoun use** and analyse how these choices may impact the attribution of agency, responsibility, and emotional alignment between the text and the reader.
- The use of **figurative expressions** and how these convey emotions or evoke emotional responses.
- The **cumulative effect** of the emotional talk throughout the text, considering patterns of emotions terms interact and the accumulation of emotional meanings across the text.

3.1.3 Analysing the text level

The text-description level forms the foundation of our framework. The first step is to clarify whether the focus will be on analysing emotion talk (explicit emotion terms) or emotional talk (implicit emotional expressions). This decision will guide the selection of specific analytical tools and categories. **After analysing individual instances of emotion talk and emotional talk, we should consider the cumulative effects and patterns across the text as a whole**. This involves identifying recurring emotions or emotional patterns, examining the distribution and attribution of emotions across different sections of the text, considering the overall emotional tone or trajectory of the text, analysing how different emotional expressions and resources reinforce or contradict each other, and comparing the patterns in the text to those found in other texts.

In order to develop a systematic description of how emotions are constructed and expressed at the textual level in climate discourse, it is productive to consider the following questions:

- What patterns of **emotion talk** (explicit emotion terms) and **emotional talk** (implicit emotional expressions) can be identified in the text? Do these **convey** or **evoke** emotion?
- What kind of patterns of **agency attribution** can be identified in the text and who are the actors?
- How are **appraisal resources**, such as attitude, engagement, and graduation used in the text
- Are there instances of **ideologically contested vocabulary**, overwording or rewording, ideologically significant meaning relations, euphemisms, or metaphors that contribute to the emotional content of the text?
- How do the **grammatical choices** in the text (e.g., active vs. passive voice, nominalization, pronouns, modality) shape the representation of emotions, agency, responsibility, and causality?
- What patterns of **inscribed** (explicit) and **invoked** (implicit) evaluations can be identified in the text, and how do they contribute to the overall emotional tone?
- What **cumulative emotional patterns** or trajectories emerge across the text as a whole, and how do different linguistic resources interact to create these effects?

As an illustration of the above, consider the following fragment from an opinion article on Estonian National Broadcasting news portal (published 17.03.2025)

Countries referred to as "banana republics" are those whose economies rely on the short-sighted and cheap sale of their natural resources. Once these resources are depleted, economic crises and poverty inevitably follow. Typically, such nations are former colonial territories where the economy and politics were largely controlled by corporations from the colonial power.

Now, in pursuit of quick, easy and short-term profits, Estonia has fallen into the same trap with its economic policy development.

For about a decade now, Estonia has been overharvesting its forests. Our forest reserves are shrinking, biodiversity is declining and the carbon stored in trees and soil is being released into the atmosphere. The European Union's carbon fines, which could reach into the hundreds of millions of euros, may ultimately wipe out the profits — profits that have primarily lined the pockets of private enterprises. However, the costs will have to be borne by society as a whole.

/.../ The loss of natural habitats, the depletion of freshwater reserves and the diminished capacity to mitigate climate change will all be burdens shouldered by the Estonian people.

For the benefit of Estonia's economy, we should take the opposite approach. We must foster innovation and support knowledge- and technology-intensive small-scale production. The wealth of the Estonian people can only be increased by advancing industries that create high added value, based on our strong education system, scientific expertise and hard work — not by exploiting our natural resources.

Instead of building factories and mines that consume vast amounts of natural resources, we should focus on sectors that create long-term prosperity and preserve our environment for future generations.

Although emotion talk is limited, the text has an overtly emotional tone because it employs **emotional talk** through ideologically contested vocabulary ("banana republics," "trap," "overharvesting") that creates antagonism and evokes negative emotions. The text shows some evaluative clustering ("quick, easy and short-term profits," "depleted," "shrinking," "declining"), revealing preoccupation with resource depletion. While the fragment does not use core emotion terms, terms like "short-sighted" and "cheap sale" establish negative judgment. This judgment pattern continues throughout with the focus on "overharvesting" forests and the critique that profits have "primarily lined the pockets of private enterprises." These negative judgments are contrasted with positive judgments and positive appreciation in the final paragraphs, where "innovation," "knowledge- and technology-intensive" approaches, and "strong education system, scientific expertise and hard work" are presented as morally superior alternatives. Graduation resources amplify emotion through intensification ("primarily," "vast amounts") and quantification ("tens of thousands of hectares"), while engagement resources are primarily uncontested when presenting environmental degradation as fact.

Agency is attributed through active voice when discussing exploitation ("Estonia has been overharvesting") but shifts to passive voice when discussing consequences ("costs will have to be borne"). Minimizing human agency and presenting exploitation of resources as a systematic failing, "Estonia," as the primary actor in the text, both suffers from poor policies and is actively making poor choices. In the third paragraph, "forest reserves" and "biodiversity," emerge as entities affected by the "overharvesting" conducted by "Estonia." The passive construction "profits that have primarily lined the pockets" obscures specific human agents benefiting

from exploitation, while "society as a whole" is positioned as the actor that will bear the costs of these policies. Metaphorical expressions ("fallen into the same trap") evoke emotional responses by connecting Estonia's situation to exploited countries, creating cumulative emotional patterns already presented earlier in the text.

3.2 Interpretive emotions analysis (IEA)

At the discursive-interpretation level, the focus shifts from the text itself to the broader context in which it is produced. At this interpretive level, we examine how the text functions within specific communicative practices by analyzing its genre, intended audience, and communicative purpose. Interpretation focuses on the "how" of the text: how it is shaped by and simultaneously shapes discursive conventions, how it strategically positions readers, and how different audiences might interpret its content.

Fairclough (2013, p. 117) argues that "the relationship between text and social structures is an indirect, mediated one." This means that texts don't exist in isolation but are embedded within broader discourses and social contexts that shape how they are understood. The interpretation of evaluative and emotional meanings depends heavily on **cultural and contextual knowledge** that readers bring to the text. As Thompson (2014, p. 51) points out, evaluation serves as a "powerful resource for maintaining values" that are so deeply embedded in a culture that they need not be explicitly stated. This implicit communication of values "can, of course, also be deployed manipulatively, since it may be harder for readers and hearers to resist values which are assumed but not overtly expressed."

Interpretation, therefore, emerges from the interaction between "what is in the text and what is 'in' the interpreter" (Fairclough 2013, p. 118). The latter category includes **background knowledge** and common-sense assumptions that bring together the text and the **situational context**. To analyze this relationship, Fairclough suggests examining "what's going on, who's involved, what relationships are at issue, and what's the role of language in what's going on" (Fairclough 2013, p. 123). Activity types represented in the texts already determine which actors are involved and how they relate to one another. For example, a climate protest may be defined as an act of civic responsibility or as a violation of public order. This framing establishes available subject positions for participants—positioning them as either concerned citizens or hooligans. These different framings significantly affect how emotional expressions within the text are interpreted and evaluated.

3.2.1 Analysing the discourse level

At the discourse-interpretation level, analysis focuses on how linguistic features function within their communicative contexts. This level requires investigating how genre conventions shape emotional expression, with attention to how texts may conform to or deviate from established patterns of emotion in environmental discourse. Analysis should focus on intertextual relationships—how texts incorporate other voices and discourses—and how institutional and social contexts enable or constrain particular emotional expressions. The positioning of readers through emotional appeals demands careful analysis, considering how texts invite specific emotional alignments and construct shared identities through strategic deployment of appraisal resources.

Crucial to discourse-level analysis is understanding how appraisal resources function collectively to create patterns that reflect power dynamics and ideological positions. By examining how engagement resources construct dialogic spaces that include or exclude certain perspectives, how attitude resources build evaluative frameworks that normalize particular emotional responses, and how graduation resources strategically amplify or attenuate emotional intensity, analysts can uncover how texts participate in broader discursive struggles around environmental issues. This level of analysis bridges textual features and sociocultural explanations by revealing how emotional expressions are shaped by immediate discursive contexts while simultaneously contributing to the reproduction or transformation of those contexts.

When it comes to analysing the discursive level, here are some key aspects to keep in mind:

Genre conventions:

- What genre is the text part of, and how do its emotional and evaluative patterns reflect or challenge the norms of that genre
- How does the genre shape the way emotions are expressed (explicit vs. implicit, direct vs. indirect)?
- How does the genre shape the way emotions are expressed (explicit vs. implicit, direct vs. indirect)?

Intertextuality:

- What other texts, discourses, or voices are explicitly or implicitly referenced in the text?

- How do these intertextual references shape the emotional tone or evaluative stance of the text?
- Does the text align with, challenge, or reinterpret these intertextual sources?

Production contexts:

- What institutional or organizational settings shaped the production of the text (e.g., scientific institutions, activist groups, government agencies)?
- How do these settings constrain or enable certain emotional expressions or evaluative stances?
- What power dynamics are reflected in the text's production context, and how do they influence its emotional tone?

Reader positioning:

- What power dynamics are reflected in the text's production context, and how do they influence its emotional tone?
- What emotional responses does the text invite from its readers (e.g., concern, urgency, pride, guilt)?
- How does the text position readers in relation to the issues it discusses (e.g., as responsible actors, victims, or bystanders)?
- Are there multiple or conflicting reader positions constructed within the text?

Reception and reading positions:

- How might different audiences (e.g., policymakers, activists, sceptics) interpret the text's emotional appeals or evaluative stances?
- What cultural or ideological assumptions might lead to compliant, resistant, or tactical readings of the text?
- How does the text's emotional tone or evaluative stance align with or challenge the beliefs and values of its intended or potential audiences?

Discursive strategies:

- How are the linguistic choices used to construct meaning and evaluative stances?
- What discursive strategies are used to evoke specific emotions or evaluations (e.g., framing climate change as a crisis, using metaphors like "climate emergency")?
- How do these strategies align with or challenge dominant discourses on the topic?

In the example paragraph presented in the previous section, we can see several important interpretive elements. The opinion article employs genre conventions that permit strong emotional and moral appeals, using evocative language and explicitly critical evaluations of resource management policies. The text strategically employs the concept of "banana republics" as an intertextual reference that recontextualizes a loaded economic term typically not applied to European countries. This intertextual framing creates an emotionally charged parallel that positions Estonia's resource management within a discourse of exploitation typically reserved for Global South contexts. The text constructs a specific reader position through its use of pronouns, shifting between third-person descriptions ("Estonia has been overharvesting") and first-person plural ("Our forest reserves," "we should take," "we must foster"). This pronoun shifting constructs a discursive strategy that first establishes objective distance when describing problems, then builds collective identity and shared responsibility when advocating solutions. Through constructing collective responsibility, the text invites the implied readers to feel outrage at the distribution of benefits (private) and costs (public) through the contrasting of "private enterprises" with "society as a whole" and "the Estonian people." Appraisal resources (see text-level analysis) are used to create a contrast between destructive short-termism and constructive long-term thinking, establishing an order of discourse where environmental and economic concerns are interdependent rather than opposing forces. This challenges dominant neoliberal discourses that typically separate economic and environmental considerations, reframing resource conservation as economically beneficial rather than costly.

3.3 Explanation of social, cultural, and political practices

The sociocultural practice-explanation level situates the text within its broader social, cultural, and ideological context. At this level, the goal is to explain how the text reflects, reinforces, or challenges larger social structures, power relations, and ideological frameworks. This level addresses the "why" of the text: why certain emotional or evaluative patterns are used, and what social or ideological work they accomplish.

For Fairclough (2013, p. 135) the stage of explanation places discourse within broader social processes, "as a social practice" that is "determined by social structures" and, in turn, potentially reproduces or undermines social structures. His main focus is social power and social struggle, both of which are also relevant for climate emotions. Fairclough (2013, 136) sees potential **determinants** and also **effects** on the **situational, institutional and societal level**. We need to be mindful of the fact that struggles can be both overt and covert in texts and discourse can be used in both normative and creative fashion, that is, it can sustain or undermine power relations.

Most importantly for our analysis, this phase of analysis allows us to determine what elements of discourse have an explicitly ideological character and whether there are any alternative ideologies present, i.e., whether we can see any ideological contestation in the material. This, in turn, will allow us to analyse how collective identities are created in texts with the help of discursive tools. **Ideologies** are not always explicit; they are often naturalized through language, making them appear as common sense rather than as contested beliefs. By analysing **appraisal patterns**, we can identify how texts reflect, reinforce, or challenge dominant ideologies. For example, a text that frames climate change as a "crisis" may reinforce an ideology of urgency and collective responsibility, while a text that emphasizes "economic growth" over environmental concerns may reflect a neoliberal ideology that prioritizes market interests. Importantly, this level of analysis also allows us to identify alternative ideologies and ideological contestation, revealing how different groups use discourse to advance their interests and challenge dominant power structures.

Discourse has a role in shaping power relations by determining who has a voice and who is marginalized. For example, texts about climate change often privilege the perspectives of scientists, policymakers, or activists while excluding the voices of marginalized communities, such as Indigenous peoples or those in the Global South, who are disproportionately affected by climate change. By examining patterns of agency attribution, engagement, and appraisal, we can uncover how texts include or exclude certain groups, and how they construct hierarchies of power and legitimacy. For example, a text that uses passive constructions to describe the impacts of climate change (e.g., "communities were displaced") may obscure the agency of those responsible, while a text that highlights the voices of affected communities may challenge dominant power structures and amplify marginalized perspectives.

Emotional expressions in discourse are not neutral; they are shaped by historical and cultural norms that dictate which emotions are acceptable or appropriate in different contexts. For example, the expression of fear or anger about climate change may be seen as legitimate in activist discourse but dismissed as alarmist in political or corporate discourse. By situating texts within their historical and cultural contexts, we can analyse how emotional norms are constructed and contested, and how they reflect broader ideological struggles. For example, a text that invokes hope and optimism about climate solutions may align with a historical narrative of technological progress, while a text that emphasizes grief and loss may challenge this narrative by foregrounding the irreversible impacts of climate change.

Martin & White's (2005) concepts of **judgment** and **appreciation** are particularly useful tools for analysing the ideological work of texts. Judgment evaluates human behaviour (e.g., "irresponsible governments"), while appreciation evaluates objects, processes, or phenomena (e.g., "sustainable development"). These appraisal resources can be used to legitimize or delegitimize certain actions, policies, or social arrangements. For example, a text that praises "green technologies" as innovative and necessary may reinforce an ideology of technological optimism, while a text that criticizes "corporate greed" may challenge the legitimacy of neoliberal capitalism.

Engagement resources, which manage the dialogic space of a text, are also crucial for understanding how texts construct collective identities and position readers within ideological frameworks. For example, a text that uses uncontested statements (e.g., "climate change is a fact") may construct a collective identity based on shared scientific knowledge, while a text that uses contested resources (e.g., "some argue that climate change is exaggerated") may acknowledge ideological diversity and invite debate. This helps analyse how texts create in-groups and out-groups, and how they position readers as allies, opponents, or neutral observers in ideological struggles.

Finally, the explanation level allows us to identify the narratives that emerge from texts and how they contribute to social change. Narratives can function as tools for constructing meaning and mobilizing action, and they often reflect broader ideological disagreements. Analysing different narratives can show how texts contribute to the reproduction of certain social structures and power relations (e.g., by positioning certain actors as heroes and others as villains).

3.3.1 Analysing social practice

The sociocultural practice-explanation level moves beyond immediate discursive contexts to examine how emotional patterns connect to broader social structures, historical processes, and ideological formations. While the discourse level asks *how* a text functions within its communicative context, the explanation level asks *why* these patterns exist in relation to wider social conditions and power structures. Analysis at this level connects textual and discursive features to economic systems, political institutions, cultural hegemonies, and historical developments. The explanation level investigates how emotional expressions in climate discourse reproduce or challenge dominant ideologies, contribute to social change, or reflect broader cultural anxieties and hopes about environmental futures. This level also addresses fundamental questions about whose emotional expressions are privileged, how emotional authority relates to social power, and how emotional patterns reflect or contest structural inequalities.

Below is a set of guiding questions for the explanation level:

Ideology:

- What dominant or alternative ideologies are reflected in the text's emotional and evaluative patterns?
- How does the text legitimize or delegitimize certain actions, policies, or social arrangements?
- What power relations are reinforced or challenged through the text's emotional appeals or evaluative stances?
- Does the text reflect or contest neoliberal, technocratic, or other ideological frameworks?

Voice:

- Whose voices are included or excluded in the text? How are marginalized communities represented (or not represented)?
- How does the text construct hierarchies of power and legitimacy (e.g., who is portrayed as responsible, who is portrayed as affected)?
- Does the text amplify or silence the perspectives of those disproportionately impacted by climate change (e.g., Indigenous peoples, Global South communities)?

Historical context and societal norms:

- Does the text challenge or reinforce dominant emotional norms (e.g., optimism vs. fear, hope vs. grief)?
- How do the text's emotional patterns align with or diverge from historical narratives about climate change (e.g., progress, crisis, apocalypse)?
- How does the text use judgment to evaluate human behaviour (e.g., "irresponsible governments," "heroic activists")? What moral values are constructed through these judgments?
- How does the text use appreciation to evaluate objects, processes, or phenomena (e.g., "sustainable development," "environmental destruction")? What aesthetic or ethical values are constructed through these evaluations?
- Do patterns of judgment and appreciation reflect or challenge dominant ideological frameworks?

Engagement and collective identities:

- How does the text use engagement resources (e.g., uncontested, contested meanings) to construct collective identities or position readers within ideological frameworks?
- Does the text create in-groups and out-groups (e.g., "we" who care about the environment vs. "they" who do not)?
- How does the text position readers in relation to the issues it discusses (e.g., as responsible actors, victims, or bystanders)?

Broader social, cultural, and political structures:

- How does the text reflect or challenge broader social structures (e.g., capitalism, colonialism, patriarchy)?
- What social, political, or cultural arrangements are legitimized or delegitimized through the text's emotional and evaluative patterns?
- How does the text contribute to discourses (climate justice, environmentalism, or sustainability)?

Turning once again to the sample fragment, we can now analyse patterns of social, cultural, and political practices embedded in the text. he text attempts to challenge neoliberal and extractive economic ideologies while promoting sustainable development alternatives. However, it still reproduces problematic narratives by

reinforcing certain dominant discourse. The text's use of the term "banana republics" reveals an inherent contradiction in its framing. The use of the term carries imperialist undertones that perpetuate hierarchical worldviews: while attempting to critique exploitative resource practices in Estonia, it inadvertently reproduces colonial narratives that have historically disadvantaged Global South economies. The appropriation of this loaded term demonstrates how deeply embedded colonial discourses remain in contemporary critiques and shows how even progressive environmental arguments can reproduce problematic power relations.

While attempting to presents a critique of profit-driven resource exploitation the text ultimately remains within the bounds of capitalist and technocratic discourse. Rather than fundamentally challenging the economic growth paradigm or suggesting degrowth/post-growth alternatives, the article advocates for "high added value" industries and "knowledge- and technology-intensive" production that still operate within market-based frameworks. This reflects technocratic assumptions about economic development that fail to question fundamental issues of consumption, resource use, and the growth imperative itself.

The text also constructs environmental protection as instrumental to economic prosperity rather than valuable in its own right, reflecting how environmental discourse has been partly subsumed by economic rationality. This demonstrates the prevalence of established discursive frameworks that prioritize economic considerations and reveals the constraints on imagination even when advocating for transformative environmental practices.

4 Concluding remarks

This document has outlined a comprehensive approach for analyzing emotion in discourse, integrating linguistic appraisal systems with Interpretive Emotion Analysis and critical discourse analysis to examine both the explicit and implicit construction of emotion in texts. By combining Fairclough's three-dimensional model with Martin and White's framework for evaluative language, we established a foundation for systematic inquiry into how emotions are linguistically encoded and socially operationalized across the following interdependent dimensions: the discursive construction and negotiation of emotions as they manifest textually; the rhetorical and interactional work performed by evaluative language in shaping discourse dynamics; the capacity of linguistic strategies to constitute, reinforce, or contest social relationships and collective identities; and the institutional and cultural aspects that condition emotional meaning-making within climate discourse (c.f. Martin & White 2005, pp. 32-34). The proposed methodology enables researchers in the CIDAPE project to trace emotional meaning across lexical, grammatical, and discursive levels while accounting for power dynamics, ideological positioning, and contextual factors that shape affective communication.

The linguistic procedures described above can be taken together in following flexible steps inspired by Durnová (2022):

Step 1: Description of emotionally significant word choices

This stage produces the description of the linguistic resources. In the attentive reading of the text special attention is given to a detailed description and classification of emotion talk and emotional talk. The analysis will cover both explicit and implicit emotions.

Step 2: Linking the emotionally significant word choices to categories of linguistic appraisal: attitude resources (emotion, judgment, appreciation), engagement resources (uncontested, contested meanings), graduation resources (force, focus) and inscribed and invoked evaluations.

Step 3: Interpretation of how the identified appraisal patterns relate the context of production/interpretation

The analysis may concern production contexts, how different audiences may interpret these emotional meanings, reader positioning and reception (potential compliant, resistant, tactical readings). Attention can be given to the strategic use of language to evoke, legitimize or delegitimize emotions. Emotional references gain significance through interaction with other discursive elements.

Step 4: Explanation of the social significance of the emotional patterns identified in the previous stages

The analysis links emotional patterns to broader social structures, power relations, or ideological frameworks and seeks to explain how they legitimize or challenge particular social or political structures and arrangements. Potential discursive struggles are also identified.

While this framework provides the theoretical and methodological grounding for emotional discourse analysis, we recognize the need for further refinement into practical analytical protocols. Researchers are encouraged to adapt these analytical resources to their specific work packages and research questions, with detailed coding guidelines available as a separate resource. Our coding guideline will offer concrete procedures for applying the framework across diverse data sets while allowing flexibility for discipline-specific modifications. By combining the theoretical foundation of our "Glossary on Climate Emotions" outlined in Deliverable D1.3 with the methodological adaptability of the current deliverable, we aim to support consistent yet context-sensitive analysis of emotional discourse within and beyond our research consortium.

References

Ahmed, S. (2004). *The cultural politics of emotion*. Edinburgh University Press.

Alba-Juez, L., & Mackenzie, J. L. (2019). Emotion processes in discourse. In J. L. Mackenzie & L. Alba-Juez (Eds.), *Emotion in discourse*. John Benjamins.

Alba-Juez, L., & Thompson, G. (2014). The many faces and phases of evaluation. In G. Thompson & L. Alba-Juez (Eds.), *Evaluation in context*. John Benjamins Publishing Company.

Alexander, J., & Smith, P. (2001). The Strong Program in Cultural Theory: Elements of a Structural Hermeneutics. In J. H. Turner (Ed.), *Handbook of Sociological Theory* (pp. 135-150). Springer US. https://doi.org/10.1007/0-387-36274-6_7

Alexander, J. C. (2003). *Social life: A cultural sociology*. Oxford University Press.

Bednarek, M. (2008). *Emotion talk across corpora*. Palgrave Macmillan.

Bednarek, M. (2009). Emotion talk and emotional talk: Cognitive and discursive perspectives. In H. Pishwa (Ed.), *Language and social cognition: Expression of the social mind* (Trends in Linguistics. Studies and Monographs 206) (pp. 395-431). Mouton de Gruyter.

Bericat, E. (2016). The sociology of emotions: Four decades of progress. *Current Sociology, 64*(3), 491-513. https://doi.org/10.1177/0011392115588355

Bergman Blix, S., & Wettergren, Å. (2018). *Professional emotions in court: A sociological perspective* (1st ed.). Routledge. https://doi.org/10.4324/9781315306759

Bleiker, R., & Hutchinson, E. (2014). Theorizing emotions in world politics. *International Theory, 6*(3), 491-514. https://doi.org/10.1017/S1752971914000232

Bondi, L. (2006). The place of emotions in research: From partitioning emotion and reason to the emotional dynamics of research relationships. In J. Davidson, L. Bondi, & M. Smith (Eds.), *Emotional geographies*. Routledge. https://doi.org/10.4324/9781315579245

Durnová, A. (2018). *The politics of intimacy: Rethinking the end-of-life controversy*. University of Michigan Press.

Durnová, A. (2019). Unpacking emotional contexts of post-truth. *Critical Policy Studies, 13*(4), 447-450. https://doi.org/10.1080/19460171.2019.1670222

Durnová, A. (2022). Making interpretive policy analysis critical and societally relevant: Emotions, ethnography and language. *Policy & Politics, 50*(1), 43-58. https://doi.org/10.1332/030557321x16129850569011

Fairclough, N. (1992). *Discourse and social change*. Polity Press.

Fairclough, N. (1995). *Critical discourse analysis: The critical study of language*. Longman.

Fairclough, N. (2013). *Language and power* (2nd ed.). Routledge.

Fairclough, N., & Wodak, R. (1997). Critical discourse analysis. In T. A. van Dijk (Ed.), *Discourse as social interaction*(pp. 258-284). Sage.

Fowler, R. (1991). *Language in the news: Discourse and ideology in the press*. Routledge.

Hall, S. (1980). Encoding/decoding. In S. Hall, D. Hobson, A. Love, & P. Willis (Eds.), *Culture, media, language* (pp. 128-138). Hutchinson.

Hochschild, A. R. (1979). Emotion work, feeling rules, and social structure. *American Journal of Sociology, 85*(3), 551-575.

Jasper, J. M. (2011). Emotions and social movements: Twenty years of theory and research. *Annual Review of Sociology, 37*, 285-303. https://doi.org/10.1146/annurev-soc-081309-150015

Koschut, S. (2018). The power of (emotion) words: On the importance of emotions for social constructivist discourse analysis in IR. *Journal of International Relations and Development, 21*, 495-522. https://doi.org/10.1057/s41268-017-0086-0

Macken-Horarik, M., & Isaac, A. (2014). Appraising appraisal. In G. Thompson & L. Alba-Juez (Eds.), *Evaluation in context*. John Benjamins Publishing Company.

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

Schwartz-Shea, P., & Yanow, D. (2012). *Interpretive research design: Concepts and processes*. Routledge.

Thompson, G. (2014). Affect and emotion, target-value mismatches, and Russian dolls. In G. Thompson & L. Alba-Juez (Eds.), *Evaluation in context*. John Benjamins Publishing Company.

Thompson, S., & Hoggett, P. (2001). The emotional dynamics of deliberative democracy. *Policy and Politics, 29*, 351-364.

Van Leeuwen, T. (1993). Genre and field in critical discourse analysis. *Discourse and Society, 4*(2), 193-223.

Wetherell, M. (2012). *Affect and emotion: A new social science understanding*. Sage Publications.