Theory guide on structural embeddedness of emotions: Glossary on Climate Emotions

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CiDAPE

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

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

Theory guide on structural embeddedness of emotions: Glossary on Climate Emotions

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Executive Summary

This theory guide serves as an inspiration for anyone aiming at understanding the emotional landscapes of democracy and is by no means extensive. In an initial attempt to lay out a theoretical basis for the study of climate emotions and how to relate them more closely to questions of inequality and democratic action, we have organised the theoretical contributions in a glossary from. This glossary has two main parts that build upon each other to provide a comprehensive understanding of the emotional dimensions of climate change: *1) Conceptualising Emotions* in the social sciences and humanities and *2) Theoretical Traditions* suitable for embedding climate emotions in CIDAPE. It is supposed to provide a theoretical orientation for CIDAPE work packages to conceptualise and theoretically embed climate emotions.

In the first part, *key terms* will help establish a shared vocabulary and highlight the dynamic, multifaceted nature of collective emotional experience. It underscores the *structural aspects* of emotions and how they are shaped by and in turn shape social, cultural, and political contexts. The section on *climate emotions* finally delves into the specific emotional experiences and responses related to climate change. The section provides a more nuanced examination of how specific climate emotions arise, are felt and expressed, and influence individual and collective responses to the environmental crisis. In the second part of the glossary, we then consider broader theoretical frameworks that can help contextualise our understanding of the emotional terrain of climate change along questions of *human-nature relationships* and *global power dynamics*.

By structuring the glossary in this layered and interconnected way, we aim to provide a frame for grappling with the complex, multidimensional nature of climate emotions and their profound implications for how we make sense of and respond to the unfolding crisis. The goal is not simply to catalogue different emotional experiences, but to situate them within a larger conceptual and political ecosystem that can inform more effective and equitable strategies for resilience, transformation, and care in a climate-changed world.

1 Conceptualising Emotions

1.1 Definitions of Emotions

1.1.1 Affect

Affect is a broad term that refers to the embodied, often unconscious or automatic responses and reactions we have to the world around us. It encompasses our capacities to affect and be affected by other bodies, both human and non-human (Gregg & Seigworth, 2010). Affect is not just an internal feeling state, but also a social, cultural, and relational phenomenon that circulates between people and structures our experiences (Berlant, 2011). It is shaped by and in turn shapes our interactions, relationships, and shared understandings of the world (Ahmed, 2004; Slaby & Mühlhoff, 2019).

Many scholars regard affect as different from emotion, which is understood as a more structured and consciously recognised feeling. Emotions are often seen as the result of affect – they are what happens when we become aware of and make meaning out of our affective responses (Wetherell, 2012). However, affect is not just pre-emotional; it also works alongside and in conjunction with emotions, thoughts, and meanings (Wetherell, 2012).

In the phenomenological current of **affect theory**, affect is not radically separated from emotion, since ultimately, they are both experiences of being and having a body (Ahmed, 2004; Schaefer, 2019). Bray and Moore (2019) propose dividing affect theory into three different approaches: 1) The psychobiological (used by thinkers such as Tompkins or Sedwick), 2) The prepersonal (used by thinkers such as Deleuze, Massumi or Clough) and 3) the cultural approach which is particularly present in feminist and critical race theories and resists the notion of categorising affects as pre-social but rather understands them as produced by cultural and historical structures of power (used by Ahmed, Berlant or Cvetkovich). According to the authors, "cultural theorists of affect are interested in how certain feelings and emotions come to be associated with certain bodies and with what consequences." (Bray & Moore, 2019)

Patterns of affect interweave the bodily, the discursive, the social, the cultural, and the historical (Wetherell, 2012). Thus, affect can help us understand how people are moved, attracted, or repelled by certain ideas, objects, or experiences (Ahmed, 2004; Wetherell, 2012). It can shed light on the often intangible, yet significant forces that shape our individual and collective behaviours, decisions, and realities. By attending to the embodied, conscious and unconscious intensities, and relational dynamics of affect, we can gain a fuller understanding of our investments in social and political structures (Ahmed, 2004; Berlant, 2011; Slaby & Mühlhoff, 2019).

1.1.2 Feeling

Feeling refers to ways in which we are affected by and respond to our environment. In everyday language, feeling and emotion are often used interchangeably. When distinctions are introduced, feeling is commonly characterised as the tangible, bodily sensation that accompanies an emotional experience. Feeling is immediate, embodied, and experienced from a first-person perspective (Thonhauser, 2019). However, feeling isn't just a private, internal experience. Feelings emerge in the context of our relationships and interactions with the world around us and are shaped by the social and cultural norms and expectations of our environment (Ahmed, 2004; Thonhauser, 2019).

Some researchers distinguish between feeling and affect, seeing feeling as the conscious, subjective experience of emotion, while affect refers to the pre-conscious sensations and impulses that drive our behaviour (Gregg & Seigworth, 2010). But others use the terms more interchangeably, seeing them as different aspects of the same embodied, relational process (Ngai, 2005). As feeling is the subjective, embodied experience of being affected by and responding to the world, feelings can be positive or negative, and can vary in intensity from mild to strong. Negative feelings, in particular, can serve as symptoms or indices of the broader conditions of precarity, alienation, and injustices that often characterise contemporary life (Berlant, 2011; Ngai, 2005).

1.1.3 Sentiment

Sentiment refers to the evaluative and affective dimensions of meaning-making processes. It encompasses the opinions, attitudes, and judgments that emerge in relation to particular objects or contexts, as well as the feelings and emotions that influence and structure these evaluations (Bens & Zenker, 2019).

Sentiment operates at a collective level. It describes the shared patterns, procedures, and rules through which groups make sense of the world, which are inextricably shaped by affective and emotional dynamics (Bens & Zenker, 2019). As Bens and Zenker (2019) explain, "sentiments contain regular patterns, orderly procedures, and rules of how sense is to be made of the world" (p. 96). In this sense, sentiment can be understood as an "evaluative regime of meaning" that governs how individuals and collectives perceive and respond to their social reality (Bens & Zenker, 2019, p. 96). Sentiments are experienced by individuals in various modes, from vague intuitions to clearly formed opinions and judgments. They coalesce into relatively stable structures that can endure over time, even as they are continually reproduced and potentially transformed through individual and collective practices of meaning-making. Sentiments play a central role in how power relations and inequalities are invoked, legitimised, or challenged.

In the context of climate change, analysing sentiment can provide insights into the evaluative and affective dimensions of climate discourse. This might involve exploring the sentiments that shape perceptions of climate risk, responsibility, and action across different groups and contexts. While traditionally applied to text, sentiment analysis can be extended to visual and audio content through multimodal techniques that analyse sentiment across different types of media (Sánchez-Rada & Iglesias, 2019). It is based on the assumption that words or groups of words carry a specific valence. The tone of a given text can also be calculated by e.g., subtracting the amount of negative words from the sum of positive words, divided by the overall word count in the text (Heidenreich et al., 2020).

1.1.4 Emotion

Emotions are discrete affective experiences characterised by specific bodily sensations, facial expressions, and behavioural impulses (Slaby & Scheve, 2019). Emotions emerge from the interaction between bodily sensations and the cultural meaning systems that frame those sensations (Ahmed, 2004). Emotions are thus not simply 'in' the individual or 'in' the object, but are relational phenomena that surface from contact and transactions between persons and their environments (Ahmed, 2004).

The affective qualities of a given situation or environment can shape the attachments and investments that individuals form, as well as the meanings they attribute to their experiences (Berlant, 2011). Emotions contribute to the construction of boundaries and identities, shaping the way in which selves and others are perceived and valued (Ahmed, 2004). Emotions thus mediate the way in which social and historical experiences are made sense of and imbued with significance (Berlant, 2011). Over time, both subjects and objects acquire emotional significance through histories of contact and the circulation of affect (Ahmed, 2004).

As emotions are shaped by cultural and relational factors, cultural norms and institutions influence the way in which emotions are experienced, expressed, and interpreted, and emotions, in turn, shape the production of identities, social meanings, and power relations (Ngai, 2005; Schlegel, 2022). Emotions influence cognitive processes such as judgement, decision-making, and information processing, and they mediate the relationship between personal experiences and broader societal structures (Schlegel, 2022).

Affective practices always involve a dynamic interplay between embodied states and the production of meaning (Wetherell, 2012). Emotions play an integral role in the construction and interpretation of meaning, at both individual and collective levels. The meaning-making capacity of emotions has important implications for understanding engagement with and in response to climate change (Wamsler et al., 2023). Positive emotions can enhance individuals' sense of agency and motivation to effect change, while negative emotions can limit one's perceived capacity to act (Wamsler et al., 2023).

1.1.5 Attachment

Attachment refers to the emotional bonds that connect individuals to other people, objects, ideas, or places. These bonds are characterised by their durability and their significant impact on an individual's emotional life and sense of self (Scheidecker, 2019). Attachments are formed through a process of investment, whereby an individual comes to see the object of attachment as holding a set of promises or possibilities for their life (Berlant, 2011).

Berlant (2011) conceptualises attachment as a form of "optimism" – a stance oriented towards the fulfilment of desire. When an individual forms an attachment, they are investing in the idea that the object of their attachment will provide them with something they want or need, such as love, security, validation, or opportunity. This optimistic orientation is not necessarily conscious; it operates at an affective level, shaping the individual's expectations and motivations (Berlant, 2011).

Ahmed (2004) contributes to the theorisation of attachment by introducing the concept of "stickiness." Emotions, she argues, do not reside within subjects or objects, but are produced through the circulation and accumulation of affective value. Certain objects or ideas become "sticky" with positive or negative affect as they are repeatedly invoked in particular contexts. When an individual forms an attachment, they are participating in this process of affective accumulation, contributing to the "stickiness" of the object (Ahmed, 2004).

1.1.6 Structural Embedding of Emotions

The structural embedding of emotion refers to the ways in which emotions are deeply intertwined with and shaped by the social, cultural, and institutional contexts in which they arise (Ahmed, 2004 & 2010). Political institutions and practices are dependent on specific forms of affectivity, which can crystallise into prevailing sentiments and emotional orientations that shape modes of governance and resistance (Slaby & Bens, 2019). Moreover, the way social structures are tied to a specific culture implies specific “feeling rules” upon which people act in certain contexts. Social life influences how emotions are managed according to existing norms and social expectations. (Hochschild, 1983)

The structural embedding of emotion is particularly evident in the way that emotions intersect with power relations and social inequalities. Emotions can be used to legitimise or challenge existing power arrangements, and are differentially produced, expressed, and regulated across social groups. Structural factors such as racism, sexism, and economic systems shape the emotional landscapes of societies, influencing which emotions are valued, who gets to express them, and how they are interpreted (Ahmed, 2004 & 2010). These emotional norms are not neutral, but reflect and reproduce social hierarchies and power relations.

In the context of climate change, the structural embedding of emotion is evident in the way that climate emotions are shaped by broader social, cultural, and economic contexts (Norgaard, 2011). The difficulty of grappling with the emotional implications of climate change is not just a matter of individual psychology, but is tied to the cultural norms and social structures that shape how emotions are experienced and expressed (Norgaard, 2011). Climate emotions are also embedded in everyday practices, decision-making processes, and sense-making procedures (Wetherell, 2012; Wamsler et al., 2023).

1.1.7 Collective Feelings

The concept of **collective feelings** highlights the role of emotions in shaping social bonds, identities, and power relations. Shared feelings can create a sense of affinity and collective immediacy, consolidating intermediary realms of affective exchange (Zink, 2019). However, these shared feelings are not necessarily about feeling the same thing, nor are they simply aggregations of individual emotions, but are generated through the circulation and exchange of affect among social bodies (Ahmed, 2004; Zink, 2019). Durkheim’s concept of **collective effervescence** further illuminates how moments of intense collective emotional experiences—such as those occurring in rituals or communal gatherings—can create a sense of shared identity and solidarity, transforming individual emotions into a collective force that reinforces social cohesion and shared purpose. Such emotional states transcend individual experiences and can foster a stronger connection to the social whole (Durkheim, 1912/1995).

Emotions function as a connecting 'skin' where the social, collective, individual, and unconscious are entangled and delineated (Ahmed 2004; González-Hidalgo & Zografos, 2019). In the context of climate change, collective feelings are not simply products of pre-existing social structures, but simultaneously produce and are produced by the power relationships that shape environmental conflicts (González-Hidalgo & Zografos, 2019; Schlegel, 2022).

The collective dimension of emotions has been increasingly recognised as important for understanding responses to climate change (Harth, 2021). Group-based emotions, such as collective guilt or empathy, can motivate collective action and support for climate policies (Harth, 2021; Brosch, 2021). This has important implications for understanding the possibilities for social transformation in response to climate change. Wamsler et al. (2023) suggest that individual and collective values, beliefs, and paradigms inform agency and action to support transformation. Attending to the affective dimensions of these collective orientations can provide insight into possibilities and alternatives for responding to climate change (Wamsler et al., 2023).

1.1.8 Emotions of Inequality

The affective dynamics of politics are not separate from, but are integral to the functioning of political institutions and practices. This highlights the need to attend to the ways in which affective relations are implicated in the reproduction of social inequalities and the governance of marginalised populations. **Emotions of inequality** refer to the affective dimensions of social structures and situations characterised by disparities in power, status, and resources based on categories such as race, class, and gender (Slaby & Scheve, 2019). Since emotions are relational, historically grounded, and central to the reproduction of power relations and hierarchies, they can be mobilised to either sustain and legitimise forms of inequality or to challenge them (Ahmed, 2004).

Emotions of inequality are implicated in the lived experience of precarity and vulnerability. The affective experience of precarity involves a sense of instability, unpredictability, and a constant need for adaptive practices (Berlant, 2011). Emotions of inequality shape the attachment to normative fantasies and the desire for stability and belonging in the face of precarity (Berlant, 2011).

Research on climate change suggests that vulnerable groups who are least responsible for environmental damage are often the most directly affected, and experience distinct emotional responses compared to more privileged groups (Harth, 2021).

1.1.9 Affective Response

Affective response refers to the physiological and psychological reactions to stimuli or events that indicate a change in an individual's emotional state (Ahmed, 2004). These responses are often immediate and pre-reflective (Ahmed, 2004). The process of recognising and interpreting one's affective responses is shaped by prior experiences and learned associations (Ahmed, 2004).

Affective responses can also be understood as embodied manifestations of shared historical conditions. Berlant (2011) suggests that individuals' patterns of response to crises are shaped by their expectations and investments in prevailing social norms and institutions. Visceral responses, in this view, are not simply automatic reactions, but are conditioned by histories of embodied practice and cultural ideology (Ahmed, 2004; Berlant, 2011).

In the context of climate change, affective responses play an important role in shaping judgments, attitudes, and behaviours (Brosch, 2021). While the global nature of climate change can often feel abstract and distant, strategies such as the use of personal stories and narratives have been identified as effective means of eliciting affective responses and increasing concern and engagement with the issue (Brosch, 2021). Emotional responses to climate change may serve to mobilise individual and collective action, but they can also lead to defensive reactions or disengagement (Brosch, 2021; Pihkala, 2022a).

The concept of "responsivity" proposed by Neimanis & Walker (2014) situates affective responses to climate change within a broader ethical and political framework. From this perspective, the capacity for responsivity is grounded in a recognition of the fundamental interconnectedness and interdependence of all human and non-human entities. Cultivating a "transcorporeal consciousness" (see Alaimo, 2008 & 2010) that attends to these relations is seen as a necessary condition for developing an expanded sense of ethical and political responsibility for the situation (Neimanis & Walker, 2014).

1.2 Climate Emotions

Climate emotions refer to the wide range of emotional states and responses that individuals and communities experience in relation to climate change (Roelvink and Zolkos, 2011; Pihkala, 2022a; Mosquera & Jylhä, 2022). Shaped by the interplay of bodily, cognitive, and sociocultural factors, climate emotions can range from fleeting and individual feelings to shared and long-term affective states that can have significant impacts on social and environmental processes (González-Hidalgo & Zografos, 2019; Harth, 2021, Verlie, 2022a). Attending to climate emotions can give insight into the barriers and facilitators of adaptive responses and drivers of climate change action at both the individual and societal level (Verlie, 2019b; Slaby & Scheve, 2019; Brosch, 2021).

Categorising climate emotions can be challenging as categories overlap and many specific emotions are interconnected. Researchers often take one of two approaches when categorising emotions: either defining them as separate, discrete entities; or situating emotions along a “valence dimension,” ranging from pleasant to unpleasant or positive to negative (Wong-Parodi & Feygina, 2021). However, boundaries between specific emotions and their positive or negative connotations can be ambiguous and context-dependent (Verlie, 2019b; Pihkala, 2020; Neckel & Hasenfratz, 2021; Kurth and Pihkala, 2022; Pihkala 2022b; Sangervo et al., 2022).

While the glossary highlights research on certain specific emotions, the discussion is organised around clusters of related terms rather than strict categorisation. Within the glossary, climate emotions are broadly clustered into those related to distress, those related to coping, and climate inaction states. Climate distress encompasses the painful and difficult feelings that arise in response to ecological destruction and loss, such as eco-anxiety and climate grief. Climate coping refers to the affective resources and strategies that promote resilience, emotional balance and sustained agency in the face of overwhelming threats. When these resources are lacking or inadequate, individuals may slip into climate inaction states, marked by a sense of helplessness, futility, or apathy that leads to disengagement and avoidance.

While these clusters are not exhaustive or mutually exclusive, they provide a framework for exploring the diverse ways in which people emotionally experience and respond to the realities of climate change. Rather than simply promoting emotional resilience or acceptance, this approach aims to cultivate affective capacities that enable individuals to bear the burden of complicity in ways that generate accountability (see Verlie, 2022a).

It is important to note that the definitions in this glossary are not intended to address the potential mental health impacts of climate change. Rather, the focus is on the functional role of climate emotions: how these emotions shape and are shaped by individuals, communities, policies, and discourses.

1.2.1 Climate Distress

Eco-anxiety, climate anxiety, and climate worry are closely related concepts that capture the emotional distress people experience in relation to ecological crises and climate change. However, there are some nuances in how these terms are defined and used in different research contexts.

Eco-anxiety is often used as an umbrella term referring to various emotions and mental states arising from awareness of environmental problems (Pihkala, 2018 & 2020). It is characterised by a sense of existential threat and being overwhelmed by the magnitude and complexity of the ecological crisis (Pihkala, 2022b).

Climate anxiety is a more specific form of eco-anxiety tied to the climate crisis and its impacts (Pihkala, 2022b). It is characterised by worry, fear, and unease about the current and future consequences of the climate crisis for oneself, others, and the planet as a whole (Ojala et al., 2021; Pihkala, 2022b). While sometimes used interchangeably with the broader concept of eco-anxiety, climate anxiety has some distinct features. It tends to be more focused on the particular threats and uncertainties associated with anthropogenic climate change, such as rising temperatures, extreme weather events, sea-level rise, and their cascading social, economic, and ecological impacts (Pihkala, 2020). **Climate worry**, on the other hand, tends to refer to a more generalised concern about climate change, involving repetitive negative thoughts about uncertain future events (Verplanken & Roy, 2013; Ojala et al., 2021). It is seen as a milder, future-oriented manifestation of climate distress compared to anxiety and is sometimes seen as a motivator for engagement and adaptive behaviour (Ojala et al., 2021).

Despite these distinctions, the boundaries between eco-anxiety, climate anxiety, and climate worry are blurry, and the terms are often used interchangeably (Pihkala, 2020; Ojala et al., 2021). Some scholars argue for understanding climate anxiety as a wide-ranging phenomenon that includes both milder worry and more severe anxiety (Pihkala, 2020; Sangervo et al., 2022).

While distressing, many forms of eco-anxiety and climate anxiety are rational, healthy, and even adaptive reactions to the existential threats posed by the ecological crisis (Verplanken & Roy, 2013; Pihkala, 2020; Hickman et al., 2021). They can serve as emotional warning systems that motivate people to seek information, reflect on their values and behaviours, and engage in problem-solving and action (Verplanken & Roy, 2013; Ojala, 2016; Pihkala, 2020). Pihkala (2020) suggests that eco-anxiety can be understood as a "practical anxiety" that prompts individuals to reflect on their values and behaviours and to seek out ways to address environmental problems. Kurth and Pihkala (2022) distinguish between maladaptive forms of eco-anxiety, which can lead to paralysis and despair, and adaptive forms of eco-anxiety, which can inspire constructive engagement with environmental issues. The challenge is to cultivate forms of climate distress that encourage adaptive coping rather than despair and inaction (Ojala, 2016; Kurth & Pihkala, 2022). This requires attending to the social contexts and psychological resources that shape people's capacity to bear and respond to these emotions (Verlie, 2019b; Ojala et al., 2021).

Ecological grief refers to the profound sadness and sense of loss people feel in response to ecological destruction and the climate crisis (Pihkala, 2022b; Neckel & Hasenfratz, 2021). It can arise from directly experienced losses, anticipated future losses, or more generalised existential threats to one's sense of place, identity, and relationship with nature (Neckel & Hasenfratz, 2021; Ojala et al., 2021).

While anxiety is future-oriented and focused on uncertain threats, grief is a response to actual or anticipated losses and involves processes of mourning and adaptation (Pihkala, 2022b; Ojala et al., 2021). Ecological grief can range from intense sorrow to more subtle sadness and is often marked by a significant moral-emotional aspect that relates to perceptions of injustice and human complicity in ecological destruction (Pihkala, 2022b; Neckel & Hasenfratz, 2021). As with eco-anxiety, the challenge is to create spaces for processing ecological grief in ways that enable resilience, solidarity, and continued engagement with the work of environmental protection and climate justice (Verlie, 2019b; Pihkala, 2022b).

Eco-anxiety, climate anxiety, climate worry, and ecological grief often co-occur with a range of other distressing emotional experiences, such as:

- **Anger** and **frustration** at the injustice of the ecological crisis and failures to address it adequately, which can be galvanising for collective action but also lead to burnout (Verlie, 2019b; Neckel & Hasenfratz, 2021)
- **Guilt** and **shame** about one's own complicity in unsustainable systems and practices (Neckel & Hasenfratz, 2021; Ojala et al., 2021)
- **Hopelessness** and **despair** about the enormity and intractability of ecological problems (Ojala et al., 2021; Pihkala, 2022a)
- Experiences of **trauma**, **shock**, and “shattered assumptions” as awareness of the ecological crisis disrupts one's worldview and ontological security (Pihkala, 2020 & 2022b)

- **Solastalgia**, which refers to the distress or emotional pain experienced due to environmental changes that affect one's home or community. It combines "solace" with "nostalgia," indicating a sense of homesickness while still being at home. People suffering from solastalgia feel a deep sense of loss and helplessness as they witness the degradation of their familiar environment (Albrecht, 2019).

These emotions are deeply entangled and can mutually reinforce one another in complex feedback loops (Pihkala, 2022a & 2022b). For example, guilt about one's environmental impacts can compound feelings of eco-anxiety, while anger at societal inaction can intensify experiences of ecological grief (Pihkala, 2022b; Neckel & Hasenfratz, 2021).

1.2.2 Climate Inaction

Ontological security refers to the fundamental sense of stability and continuity in one's identity, sustained through routines, relationships, and the predictability of everyday life (Norgaard, 2011). Drawing on Giddens (1991), Norgaard highlights the psychological and existential need for a coherent self-narrative to mitigate anxieties arising from uncertainty. The climate crisis poses a significant threat to this sense of security, as it undermines the stability and continuity of the ecological foundations upon which societies depend. Such disruptions can lead to anxiety, disorientation, and existential insecurity, prompting individuals and communities to resist change in an effort to preserve familiar social structures, even as environmental challenges intensify (Norgaard, 2011).

Eco-Paralysis refers to a state of being emotionally overwhelmed and unable to act in response to the magnitude and complexity of environmental problems (Albrecht, 2019). It is characterised by feelings of helplessness, hopelessness, and apathy and can lead to a kind of behavioural stasis or paralysis (Innocenti et al., 2023).

Eco-paralysis occurs when people recognise the magnitude of the ecological crisis but feel powerless to effect change through individual actions (Albrecht, 2019). This sense of powerlessness, often stemming from a disconnect between awareness, concern, and perceived agency, can result in a stalled response (Bright & Eames, 2022). Although it may appear as disengagement or indifference, eco-paralysis is actually driven by profound emotional distress that hinders meaningful action (Albrecht, 2019).

At the individual level, eco-paralysis may serve as a coping mechanism to defend against the pain of recognising one's complicity in ecological destruction and the prospect of irrevocable loss (Verlie, 2019b; Bright & Eames, 2021). It can be a way of shutting down emotionally in the face of an existential threat that feels too overwhelming to bear. However, while eco-paralysis may provide temporary relief from distress, it ultimately compounds the problem by inhibiting the very actions needed to address the ecological crisis (Albrecht, 2019).

Breaking through eco-paralysis requires cultivating the emotional resilience to face difficult realities and the capacity for collective action in the face of uncertainty and loss (Verlie, 2019b; Norgaard, 2011). This means creating spaces for open discussion and processing of the challenging emotions surrounding the ecological crisis, while also fostering a sense of agency, solidarity, and active hope (Ojala, 2016; Pihkala, 2018). It involves recognising that eco-paralysis is often a symptom of caring deeply and channelling that care into constructive engagement and community-building (Norgaard, 2011; Bright & Eames, 2021). Overcoming eco-paralysis is about learning to live with the pain of the ecological crisis in ways that enable responsible and compassionate action.

While eco-paralysis can be a response to the objective difficulty of addressing global ecological problems, it is also shaped by social factors. Norgaard (2011) argues that certain communities may resort to socially organised climate denial and emotional distancing to manage the threat of climate change to their worldviews and ways of life.

Climate denial refers to the state of avoiding or minimising the personal, social, and political implications of the climate crisis. It is a mode of disengagement that acknowledges the reality of climate change but fails

to translate that knowledge into appropriate action or concern (Norgaard, 2011). Climate denial can be understood as a form of socially organised apathy or numbness in the face of the climate crisis. It involves a kind of "knowing and not knowing" at the same time, where the facts of the crisis are intellectually accepted but emotionally and behaviourally minimised (Norgaard, 2011; Slaby, 2023).

Unlike the outright rejection of climate science associated with literal denial, this type of "implicatory denial" manifests as a more subtle and pervasive pattern of avoidance, distancing, and rationalisation that allows people to proceed with business as usual (Norgaard, 2011). Climate denial is often rooted in a desire to maintain the comforts and privileges of a high-carbon lifestyle in the face of its increasingly untenable implications. It reflects a reluctance to confront the profound changes that the climate crisis demands of individuals, communities, and societies, and a preference for the status quo over an uncertain and potentially destabilising future (Verlie, 2019b; Geiger et al., 2021; Slaby, 2023; Anderson, 2023).

Climate denial is enabled by a range of social and structural factors that make it easier to look away from or normalise the climate crisis. The abstractness and invisibility of climate change in everyday life, the lack of social spaces for discussing and processing its emotional impacts, and the inadequacy of available solutions and leadership all contribute to a sense of disempowerment and disengagement (Norgaard, 2011). The sheer complexity and scale of the climate crisis can already lead to a kind of paralysis or resignation in the face of its seemingly intractable entanglement with other systems of power and inequality (Norgaard, 2011). The difficulty of imagining viable alternatives to fossil-fuelled economies and cultures can reinforce a feeling that there is no real choice but to continue with things as they are, even as their destructive implications become harder to ignore (Slaby, 2023). In this sense, implicatory climate denial can be seen as a state of affective dissonance or dissociation, where the intellectual awareness of the crisis is split off from its emotional and practical significances (Norgaard, 2011). It represents a kind of desensitisation that allows people to hold the facts of climate change at arm's length, without fully integrating them into their sense of identity, responsibility, and agency.

Compared to the more intense and anguished emotions of climate distress, denial has a flattened or deactivated quality. It is a way of coping with the existential threat of the crisis by tuning out its affective signals and ethical demands. However, this defensive suspension of feeling and engagement is always precarious and prone to rupture. Climate denial requires continuous effort to maintain in the face of mounting evidence and impacts, and it can give way to more lively and turbulent emotions when its strategies of avoidance and rationalisation begin to break down (Norgaard, 2011; Slaby, 2023).

Related to eco-paralysis and climate denial is **climate boredom**, which refers to a state of detachment and lack of interest in the face of the climate crisis and its calls to action (Anderson, 2023). It is characterised by feelings of meaninglessness, tedium, and disengagement when contemplating climate change and its implications for one's life and actions (Geiger et al., 2021).

Climate boredom can arise when the demands of the climate crisis feel either too overwhelming or too trivial in relation to one's existing priorities and attachments (Anderson, 2023). It may reflect a perception that engaging with climate change is either too difficult and complex to be worth the effort, or too easy and uninteresting to command attention (Geiger et al., 2021). Climate boredom can coexist with a background awareness of the seriousness of the problem, but it puts that awareness on hold in favour of more immediately gratifying or absorbing concerns (Anderson, 2023). In this sense, it represents a kind of suspension or deferral of the urgent demand for action that typically accompanies framings of climate change as an emergency. It allows people to proceed as if climate change is not happening or does not require anything of them, enabling a temporary escape from the affective burden of the crisis (Anderson, 2023).

1.2.3 Climate Coping

Climate coping is the capacity to adapt to and cope with the emotional challenges of the climate crisis in ways that sustain wellbeing and agency.

Climate resilience refers to the ability of individuals and communities to recover from and adapt to the psychological stressors associated with climate change (Easton-Gomez et al., 2022). It involves cultivating the emotional resources and skills needed to maintain a sense of efficacy, meaning, and engagement in the face of ecological adversity.

Building climate resilience involves addressing the intricate interaction between individual and contextual factors that influence people's vulnerability and ability to cope with climate-related distress (Easton-Gomez et al. 2022). At the individual level, this may involve developing intrapersonal skills such as emotional intelligence, cognitive flexibility, and the ability to find meaning, while also leveraging external resources like social networks and community support (Easton-Gomez et al., 2022).

Like many of the previous emotional states, climate resilience is a dynamic process that unfolds over time in relation to changing circumstances. It involves ongoing adaptation and growth in response to evolving challenges, rather than simply bouncing back to a pre-crisis state. In this sense, climate resilience is about developing the capacity to live with and respond to the realities of a climate-changed world in generative ways (Carmen et al., 2022).

At a collective level, community climate resilience involves the ability to anticipate, prepare for, and recover from climate impacts in ways that minimise harm to public safety, health, and wellbeing. Building community resilience often requires a combination of mitigation and adaptation strategies, as well as efforts to strengthen social capital, collective agency, and equitable access to resources (Carmen et al., 2022).

Responsive forms of hope and emotional scaffolding within and between communities can play a key role in sustaining resilience by providing a sense of solidarity, shared purpose, and collective efficacy in the face of climate challenges (Carmen et al., 2022). At the same time, dominant discourses and practices around climate resilience must be interrogated for the ways they can undermine more transformative visions of change. Narrow, technocratic approaches focused on maintaining the status quo can divert attention from the deeper social, political, and economic roots of vulnerability (Ojala, 2016; Anderson, 2023).

Climate hope refers to the affective force that enables individuals and communities to envision and work towards a more just and liveable future in the context of the climate crisis. It combines a sober recognition of the severity of the crisis with a sense of agency, possibility, and commitment to action (Ojala, 2015; Kleres & Wettergren, 2017).

Climate hope is closely intertwined with other emotions like fear, grief and anger. Grappling with the threat and reality of ecological loss is often what motivates the search for hope, and effective forms of hope neither deny nor become paralysed by the more negative feelings associated with climate change (Kleres & Wettergren, 2017; Pihkala, 2018; Geiger et al., 2021).

The sources and expressions of climate hope are diverse and context-dependent. Hope may arise from trust in collective action, faith in the resilience of natural and human communities, a sense of moral duty, or a desire to honour what has been lost (Pihkala, 2018; Kleres & Wettergren, 2017; Wettergren, 2024). At a collective level, climate hope can be nurtured through responsive, mutually supportive processes where communities develop shared narratives, practices, and visions that sustain agency and possibility (Wettergren 2024). Such social processes can counteract the demoralising or immobilising socio cultural narratives (Pihkala, 2018; Wettergren, 2024).

Climate hope is distinct from blind optimism or wishful thinking (Sangervo et al., 2022). It is a form of "tragic" or "grounded" hope that acknowledges the reality of loss and suffering while still finding meaning and motivation to engage (Pihkala, 2018; Kleres & Wettergren, 2017; Ojala, 2016; Schlegel, 2022). In this sense, climate hope is an active, ethical stance rather than a passive feeling – it involves an engagement with the possibility of a better future despite the current situation (Ojala, 2015; Kleres & Wettergren, 2017; Bell et al., 2022; Schlegel, 2022; Wettergren, 2024). However, dominant institutions and discourses which often promote narrow, individualistic visions of hope that forecast a smooth continuation of the status quo, can also foreclose more expansive conceptions of social transformation from climate hope (Ojala, 2015; Bell et al., 2022).

Affective adaptation refers to the ongoing work of adjusting emotionally and relationally to the unfolding challenges of climate change (Verlie, 2019b). The concept of affective adaptation emphasises the dynamic and context-dependent nature of emotional responses to environmental challenges. It is a process by which individuals and communities adjust emotionally to changing environmental conditions, involving changes in motivational action tendencies, physiological reactions, expressions, and subjective feeling (Brosch, 2021).

Emotions are elicited when events or objects are appraised as relevant to one's concerns, and the specific "appraisal pattern" determines the quality and intensity of the emotional response (Brosch, 2021 p.16). These emotional responses, in turn, trigger motivational tendencies and behaviours aimed at managing the situation (Brosch 2021). For instance, ecological worrying can be an adaptive response when it is associated with pro-environmental attitudes and behaviours, as it can motivate proactive engagement with environmental issues (Verplanken and Roy, 2013; c.f. Kurth and Pihkala, 2022)

Developing more expansive and flexible ways of relating to a world in flux means living-with the climate crisis. Living-with is an expansive concept that describes the ongoing process of coexisting and co-becoming with the more-than-human world. The term is proposed by Blanche Verlie (2021) to capture the entire process of negotiating our shared existence with the living planet.

Verlie (2021) builds upon new materialist approaches (e.g., Alaimo, 2008; Tuana, 2008; Neimanis & Walker, 2014) to suggest a mode of being and relating that goes beyond an individualistic and anthropocentric understanding of the climate. This concept foregrounds the visceral, embodied, and affective dimensions of our entanglement with the environment as "weather-bodies," inviting us to attune to the ways in which we are constantly being shaped by and shaping the world around us (see Neimanis & Walker, 2014).

Living-with is an ongoing, emergent process rather than a static state. It requires continual adaptation, responsiveness, and mutual transformation as we navigate the complex and ever-changing realities of a climate-changed world. Crucially, it prompts us to consider the qualities of our relationships with the more-than-human, such as respect, reciprocity, accountability, and care (Verlie, 2022a). It means understanding the self as dispersed between and constantly emerging with others, rather than as a bounded, autonomous entity (Verlie, 2022a). The process of learning to live-with climate change requires facing the discomfort and distress of our complicity in ecological destruction, and using this as a catalyst for personal and collective transformation (Verlie, 2019b; Verlie, 2022a; c.f. Norgaard, 2011).

2 Theoretical Traditions

2.1 Climate Emotions in Human-Nature Relations

2.1.1 Posthumanism and Embodiment

Social studies on climate change require scholars to think about some fundamental ontological questions as to how humans should position themselves vis à vis nature. Based on Eurocentric, linear understandings of knowledge production, progress and modernity, essentialist theories have regarded humans as the central actors in the world. Critics argue that this anthropocentric worldview and the idea of humans being able to control nature has ultimately led to environmental crises in the first place (Merchant, 1980). Posthumanist approaches, on the other hand, have attempted to break down the conceptual barriers between humans and nature.

Posthumanism is a critical approach that challenges technocratic solutions to environmental problems and the assumption that humans are separate from and superior to nature. It questions traditional divisions between humans and non-humans, between nature and culture, and between subjects and objects. It emphasises "entangled intra-relating," that is, the co-constitutive relationships between the human and **the more-than-human** world, and seeks to decentre humans as the primary unit of analysis (Barad, 2007). Aligned with **new materialism**, posthumanist perspectives reject the idea of human exceptionalism and the notion of the

autonomous, rational subject that is separate from and superior to the rest of the world. Instead, both approaches understand humans as embedded within complex networks of material and discursive relations, whereby agency is distributed across human and non-human actors (Alaimo, 2010; Barad, 2007).

Fox and Alldred (2020) have proposed a posthuman approach to climate policies which positions humans as an intrinsic part of a complex, interconnected environment that includes both animate and inanimate elements. This relational approach between human and nature is grounded in new materialist ontology focusing on what different forms of matter can do in interaction rather than on their inherent qualities. Recent scholarship has begun applying posthumanist insights to understanding human responses to climate change. Boyd et al. (2023) draw on posthumanist thinking to develop new approaches to **climate anxiety**. They suggest that our emotional responses to climate change are shaped not just by human factors, but through our relationships with other species and the natural world. Drawing on **affect studies**, Verlie (2019a) has introduced the concept of **"climatic-affective atmosphere"** to emphasise how people's emotions and bodies are fundamentally entangled with the climate as a whole (c.f. Neimanis & Walker, 2014).

2.1.2 Spirituality and Environment

Related to the posthumanist critique of a human-nature dichotomy are theoretical traditions that combine more spiritual outlooks with environmentalism. **Deep Ecology**, a term coined by Arne Naess in 1972, is an environmental philosophy (or: "ecosophy", Naess's term for a personal philosophy in favour of ecological harmony) calls for a profound cultural and societal shift to recognise the intrinsic value of all living beings and ecosystems, beyond their mere utility to humans. It advocates for radical changes in social, economic, and political systems to prioritise ecological sustainability and interconnectedness. Deep ecology challenges anthropocentric worldviews, promoting a biocentric or ecology-centred perspective where humans are part of a larger, interdependent web of life. This approach has been linked to Eastern spiritual philosophies such as Buddhism (Naess, 1989/2009; Ott, 2023).

Deep Ecology is not just a theoretical outlook but also a social movement which encourages community-based actions and systemic transformations to achieve a more harmonious and sustainable relationship with the natural world (Klemmer and McNamara, 2020). As such, it critiques the current ecological crisis as being a product of modern industrialisation, the quest for economic growth and overpopulation. It further encourages the inclusion of different worldviews and cultural understandings of the natural world in order to collectively redress environmental destruction. Baard (2015) suggests that deep ecology could enhance normative frameworks to tackle climate change by challenging the anthropocentric focus of current environmental policies and encouraging sustainable practices that consider both human and non-human needs.

The link between environmental protection and spirituality has been further advanced in **Ecotheology** which examines the interplay between religious beliefs and environmental attitudes. It explores how religious traditions influence individuals' and communities' views on nature and their ecological practices. Ecotheology investigates how religious teachings can promote environmental stewardship and sustainability, as well as how faith-based communities respond to ecological crises (Kearns & Keller, 2009). By analysing these dynamics, ecotheology helps understand the role of religion in shaping environmental ethics and actions in various cultural and social contexts. This idea has been regarded within various religious contexts, both within world religions and other spiritual traditions (Jenkins et al., 2017).

Fici and Valepy (2021) suggest that ecotheology provides an "experience of **empowerment** which emerges from intimacy, regeneration, and **devotion** in the spaces and places where the earth and the divine meet." In generating **climate resilience**, Brissman (2023) suggests turning to spirituality and religion to find an "enchanted alter-tale" and question the narrow focus on economic growth which limits the climate discourse to economic concerns and technical innovation. Latour (2008) points out that ecotheology has evolved out of a reaction to the modernist evolution of Christian churches, who have promoted only the salvation of the human soul without taking into account the interconnectedness of humans and nature: "But what about non-humans? What about Creation itself? Moralistic, spiritualist, psychological, and, I would argue, scientistic definitions of religion have led theology, rituals, and prayers to turn away from the world, the cosmos, and to see nothing objectionable in the quote: 'What good would it be to possess the world, if you forfeit your soul?'

without realising that because of the urgency of the ecological crisis, the opposite is now far truer: 'What use is it to save your soul, if you forfeit the world'? Do you by any chance have another earth to go to? Are you going to upload yourself to another planet?"

Some scholars posit that spiritual frameworks such as this can provide a framework of **hope** in order to motivate climate action (Bell et al., 2022; Dalton and Simmons, 2010). They have a potential to counter **climate anxiety** by addressing existential questions (Pihkala, 2018) and promote **love** for a place, i.e., through **grieving** processes based on traditional ecological knowledge and indigenous practices (Tom et al., 2023).

All in all, **more-than-human** approaches to climate change can also be linked to movements that resist political oppression, wars or environmental destruction and which promote cultural, personal and ecological diversity as necessary prerequisites for a harmonious co-existence with the environment (Naess, 1989). Thus, inquiries into the domination over nature can be linked to theories dealing with social injustices, too (Klemmer and McNamara, 2020).

2.2 Climate Emotions in Global Power Hierarchies

2.2.1 Colonial Climate Legacies

Climate justice, emerging from the broader environmental justice movement, has developed into a multifaceted framework that examines how climate change impacts different populations across the globe. While academic literature often focuses on normative arguments and policy considerations of more elite nongovernmental organisations, a distinct grassroots discourse has emerged that prioritises local impacts and vulnerable communities, with demands for more participation of marginalised groups (Schlosberg and Collins, 2014).

Climate justice research focuses on global and local concerns, mitigation or adaptation strategies as well as distinctions to other forms of injustice. Newell et al. (2021) suggest that addressing climate injustice requires examining its root causes within the historically constituted global economic system and intersecting social inequalities. Sultana (2022) calls for a critical approach that incorporates insights from **intersectional and international feminist scholarship**. Cuomo (2011) emphasises that corporations and governments bear particular responsibility for addressing climate change due to their outsized role in creating it. Verlie's (2022b) perspective recognises that climate justice must consider not only human communities but also the complex web of ecological relationships and non-human entities affected by climate change.

The emotional dimensions of climate justice have become increasingly central to understanding both individual and collective responses to climate change. Researchers have explored various affective responses, including **moral outrage** (Antadze, 2020), **hope** (Bell, 2022), **care** (Gardner et al., 2023), and **grief** (Jones et al., 2021). Verlie's (2024) more recent work reveals how emotional responses to climate change are **shaped by racial and social privilege**, with certain communities' experiences receiving disproportionate attention and validation while others are marginalised or ignored. The uneven emotional burden of such marginalised groups have been studied with particular respect to embodiment, looking at communities that are "feeling climate change to the bone" (Wright et al., 2023), the "unbearable heaviness of climate coloniality" (Sultana, 2022) the "affective violence" experienced by some as a result of ongoing white-colonial-extractivism, directly linking emotional responses with political and systemic injustices (Verlie, 2024).

The concept of **slow violence** helps understand how climate injustice operates through gradual, accumulative processes that disproportionately affect marginalised communities. Nixon (2011, p. 2) defines slow violence as "a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space." However, scholars have challenged this presumed invisibility of climate impacts by questioning which communities and perspectives are being centred when we describe environmental harm as out of sight (Davies, 2022). For communities on the frontlines of climate change, the violence is often visible through what Davies (2018) calls **"slow observations"** – the gradual witnessing of environmental degradation over time.

Understanding climate justice through slow violence also helps illuminate the emotional dimensions of climate change. Just as environmental harm accumulates gradually, so too do emotional responses to it. This suggests that addressing climate justice requires attention not just to immediate impacts but to the slow, cumulative processes through which both environmental and emotional harm unfold. As the climate crisis continues to unfold, a nuanced understanding of climate justice becomes increasingly crucial. It provides a framework for understanding how the climate crisis impacts people across the world disproportionately but also how we can work toward more equitable and meaningful solutions. The silencing and epistemic injustice experienced by communities at the forefront of the climate crisis can be further conceptualised within frameworks on decoloniality and knowledge production.

2.2.2 Decolonising Knowledge

Drawing on a coin termed by Miranda Fricker (2009), **epistemic injustice** refers to the marginalisation of some groups' knowledge over hegemonic knowledge discourses by more powerful groups. Fricker divides epistemic injustice into testimonial and hermeneutical injustice, testimonial injustice being the case whereby a subject is wronged in their capacity as a knower in that the hearer doesn't give it credibility. Hermeneutical justice arises at a pre-communicative stage when a subject can't properly convey their experience due to lacking a social understanding of their situation. In this case the subject is unfairly disadvantaged since their social experience is rendered intelligible to others - and in some cases also to themselves (Fricker, 2009). Polhaus Jr. has extended Fricker's definition to **wilful hermeneutical injustice** (2012), positing that powerful actors often ignore epistemic injustices in order to perpetuate their dominant status - an idea which can also be linked to McGoey's concept of **strategic ignorance** (2019) on a more global scale. Such concepts can be traced back to Spivak's postcolonial critique of **"epistemic violence"** (1988) whereby colonised subjects have been forced to integrate Western knowledge systems against their will.

While Fricker's concept tends to be applied to the interpersonal level, Dotson's concept of **epistemic oppression** (2014) has broadened the focus on the exclusion of marginalised groups in knowledge production more systematically and based on existing structures of inequality. Broadening the scope even further to the geopolitical sphere and demanding a global transformation away from the hegemony of Western knowledge systems, Mitova has introduced the concept of **epistemic decolonisation** (2020).

Decoloniality and postcolonialism are both critiques of inequalities rooted in European colonialism. They challenge Eurocentric parochialism and its interpretation of modernity as linear progress. According to Bhambra (2014), both traditions have the potential to radically unsettle common processes of knowledge production in the world. While theoretically diverse in themselves, the difference between the emergence of postcolonialism and decoloniality can be explained as deriving from different geopolitical circumstances, albeit both affected by European colonialism. Postcolonialism has developed primarily in the Middle East and South Asia, including thinkers such as Edward W. Said, Homi K. Bhabha or Gayatri C. Spivak. Postcolonial studies refer especially to European colonialism in those regions throughout the 19th and 20th century, addressing both material socio-economic as well as cultural issues.

Decoloniality, on the other hand, has emerged in South America with a focus on a much longer history of ongoing European settler colonialism which resulted in the creation of the Americas in the 15th century. Thinkers include Anibal Quijano, Maria Lugones or Walter D. Mignolo (Bhambra, 2014). The epistemic resistance of these theoretical movements should be seen as "an attempt to interrupt the Western discourses of modernity through … displacing, interrogative subaltern or postslavery narratives and the critical-theoretical perspectives they engender" (Bhabha, 1994). Similarly, Lugones (2007) has argued for the possibility of a new geopolitics of knowledge by resisting dominant epistemologies which result from colonialism.

The hegemonic technocratic paradigm within which climate politics are conducted in modern societies, usually tends to discredit emotions as something opposed to reason and alternative, emotional understandings of knowledge are instead linked to more traditional indigenous or spiritual communities. This marginalisation of emotions as a form of knowledge in global politics has its roots in **Eurocentrism** and is being increasingly challenged by decolonial approaches to emotions in world politics (Hutchinson et al., 2024).

There is a case to be made to integrate the epistemic agency of emotions in debates about knowledge production (Candiotto, 2023). Scholars, among them epistemologists and sociologists, have argued that emotions are a vital part of rationality (Holland, 2007; Hubbard et al., 2001; Slote, 2014). Candiotto (2023) posits that through emotions, knowledge production is always also underlined by an ethical dimension - when researchers generate knowledge, they are situated within an environment which either inspires them (leading to 'intellectual virtues') or which negatively affects them (leading to 'intellectual vices'). **Epistemic emotions** play a big role in the climate crisis since they inform both climate action as well as climate denial. (Beran et al., 2025) The situatedness of a person in nature not only generates climate anxiety, despair or anger but also love towards a specific place (similar to the concept of "solastalgia" by Albrecht, 2019). This intimate connection to a place, says Cantiotto (2022), has the potential to inspire community-based climate action.

2.2.3 Gendered Climate Emotions

The need for intersectional approaches to climate justice becomes increasingly evident in the gendered nature of colonial legacies which led to the current environmental crisis. Within the framework of **petrocultures**, for instance, issues of resource exploitation have been linked to masculinity and climate change denial. Wilson et al. (2017) argue that "[t]he mansion of modern freedoms stands on an ever-expanding base of fossil fuel use. Most of our freedoms are energy intensive" (p. 7). Oil was discovered in 1859, and since then, it transformed everyday lives. "The sixteenfold increase in economic output over the course of the twentieth century required a seventeenfold increase in energy consumption; […] and (of course) carbon dioxide emissions" (Wilson et al., 2017, p. 5). To be modern is to burn fossil fuels, most commonly in cars and planes, single use plastics and polyester in our clothes. The mansion of modern freedoms stands on an ever-expanding base of fossil fuel use and "[m]ost of our freedoms so far have been energy-intensive" (Chakrabarty, 2009, p. 208). The geopolitics of the modern era – from colonial expansion, which was enabled by the energy from coal, to ongoing Western strategic interests in the Middle East as well as shipping networks of globalisation are directly linked to access to fossil fuels (Wilson et al., 2017). Daggett (2018) argues: "Appreciating the historic relationship between fossil fuels and white patriarchal rule is helpful in terms of understanding the authoritarian desires and anxieties aroused by the Anthropocene" (p. 29).

In the context of climate change, petrocultures can be linked to "[w]hite, politically conservative [cisgender] men, at all socioeconomic levels [which] have consistently been found to endorse climate change denial more than members of any other demographic and/or political group" (Nelson, 2020, p. 2; UNDP, 2021). While misogyny and climate denial are often treated as separate dimensions of new authoritarian movements, new research shows them to be connected. Identity on intersection of misogynist conservative masculine identity has been named **petromasculinity**: "Analysing petro-masculinity alerts us to those perilous moments when challenges to fossil-fuelled systems, and more broadly to fossil-soaked lifestyles, become interpreted as challenges to white patriarchal rule" (Daggett, 2018, p. 29).

For these climate sceptics it is not the climate that is threatened, it is a certain kind of modern industrial society built and dominated by their form of masculinity, suggesting that climate change denialism among these people is a form of **identity-protective cognition** (Anshelm and Hultman, 2014, p. 85). Instead of understanding climate denial as anti-science or anti-political Anshelm and Hultman (2014, p. 91) argue that it is rather identity based, and it is helpful to understand how climate science challenges white western masculinity, in order to fully understand this phenomenon: "Many of these people **mourn** a mythologized, idealized […] national exceptionalism, unfettered economic opportunity, and white racial supremacy" (Nelson, 2020, p. 4).

While petromasculinity can be understood as a global phenomenon, "it is also manifesting in local, specific ways" (Daggett, 2018, p. 29). Theorists of petromasculinity highlight **anxieties** about changes in the organisation of patriarchal capitalism. Kimmel (2013) terms this **aggrieved entitlement**. Though not originally formulated as a part of sociology of emotions, WP6 proposes that aggrieved entitlement can be conceptualised as a political emotion and will look into whether aggrieved entitlement is an emotion informing reactions to climate change as part of their work in the CIDAPE project.

Resistance to modern geopolitical environmental degradation, on the other hand, can be found in feminist and queer movements. **Ecofeminism** places the relationship between women and the earth at the centre of environmentalism. As a movement championed by figures like Vandana Shiva, it links feminist and ecological

thought by highlighting the shared roots of women's oppression and environmental exploitation, both of which drive environmental destruction, pointing out parallels between the oppression of women and the oppression of nature (Zein & Setiawan, 2017). Within feminism, ecofeminism has sometimes been criticised as being essentialist, however, modern ecofeminism operates mainly along **intersectional** approaches. It refers to a range of perspectives examining the interconnections between various forms of domination and how they shape environment-society relations (Cudworth, 2005; Kaijser and Kronsell, 2014). In The Death of Nature (1980), Carolyn Merchant links sexism, racism, speciesism, colonialism, mechanism, and capitalism to the historical exploitation of indigenous people, animals, and land as resources.

Offering a framework for analysing the gendered impacts of environmental destruction, ecofeminists have critiqued disproportionate burdens that climate change places on women, particularly in the Global South, where they are often responsible for securing food, water, and energy for their communities (Alaimo, 2009). Rather, they maintain the importance of attending to the lived experiences and struggles of marginalised communities, particularly women and indigenous peoples, as crucial for developing more just and sustainable ways of relating to the environment (Neimanis & Walker 2014). Ecofeminism demonstrates the **empowering** role of emotions in climate change action by pointing out, for instance, how **moral distress** could lead to an ethics of **care** towards the environment (Banwell & Eggert, 2024).

To respond to climate change beyond a narrowly defined scientific and technological understanding, Gaard (2015) has argued for a **queer, posthumanist, ecological, and feminist approach** which is unified through the intersectional lens of ecofeminism. This, she posits, helps to unmask the gendered character of first-world overconsumption and the need to transform ideologies and economies of domination, exploitation and colonialism next to advancing scientific expertise in climate action.

Queer theories, too, challenge heterosexuality and patriarchy as main obstacles to land, food, and climate justice. Pakin-Albayrakoğlu (2022) suggests that nowadays "many LGBTQ + members are fighting on two intersectional grounds: inalienable human rights and ecological balance". However, rather than focussing on the negative emotional impacts of queer minorities, she also highlights the role of empathy and resilience in "eco-queer" climate action. Further, a **queering of climate change** also suggests that the anthropocene narrative can be misleading since some humans are evidently more responsible for the climate crisis than others (Bauman, 2015). Others have argued for the potential of queer advocacy methods in sustainability communication which could challenge and broaden the discussion about climate action and social transformation (Weder & Swastika, 2021). Some studies show that LGBTQ+ people express a greater concern about climate change as a threat compared to heterosexual individuals, fearing climate change might exacerbate structural inequalities and reinforce heteronormative and discriminatory patterns (Whitley and Bowers, 2023).

References

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

Ahmed, S. (2010). *The promise of happiness*. Duke University Press.

Alaimo, S. (2008). Trans-corporeal feminisms and the ethical space of nature. In Alaimo, S. & Hekman, S. (Eds.), *Material feminisms* (pp. 237-264). Indiana University Press.

Alaimo, S. (2009). Insurgent vulnerability and the carbon footprint of gender. *Kvinder, Køn & Forskning*, 3(3-4), 22–35.

Alaimo, S. (2010). *Bodily natures: Science, environment, and the material self*. Indiana University Press.

Albrecht, G. A. (2019*). Earth Emotions: New Words for a New World*. Cornell University Press.

Anderson, B. (2023). Boredom and the politics of climate change. *Scottish Geographical Journal*, 139(1-2), 133-141. https://doi.org/10.1080/14702541.2023.2197869

Anshelm, J., & Hultman, M. (2014). A green fatwā? Climate change as a threat to the masculinity of industrial modernity. *NORMA*, 9(2), 84–96. https://doi.org/10.1080/18902138.2014.908627

Antadze, N. (2020). Moral outrage as the emotional response to climate injustice. *Environmental Justice*, 13(1), 21-26. https://doi.org/10.1089/env.2019.0038

Baard, P. (2015). Managing climate change: A view from deep ecology. *Ethics and the Environment*, 20(1), 23-44. https://doi.org/10.2979/ethicsenviro.20.1.23

Banwell, N., & Eggert, N. (2024). Rethinking ecoanxiety through environmental moral distress: An ethics reflection. *The Journal of Climate Change and Health*, 15, 100283. https://doi.org/10.1016/j.joclim.2023.100283

Barad, K. (2007). *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning*. Duke University Press.

Bauman, W. A. (2015). Climate weirding and queering nature: Getting beyond the Anthropocene. *Religions*, 6(2), 742-754. https://doi.org/10.3390/rel6020742

Bell, F. M., Dennis, M. K., & Brar, G. (2022). "Doing hope": Ecofeminist spirituality provides emotional sustenance to confront the climate crisis. *Affilia*, 37(1), 42-61. https://doi.org/10.1177/0886109920987242

Bens, J., & Zenker, O. (2019). Sentiment. In Slaby, J. & von Scheve, C. (Eds.), *Affective Societies: Key Concepts* (pp. 96-106). Routledge.

Beran, R., et al. (2025). *The philosophy of environmental emotions: Grief, hope, and beyond*. Routledge.

Berlant, L. (2011). *Cruel optimism*. Duke University Press.

Bhambra, G. K. (2014). Postcolonial and decolonial dialogues. *Postcolonial Studies*, 17(2), 115–121. https://doi.org/10.1080/13688790.2014.966414

Bhabha, H. K. (1994). *The location of culture*. Routledge.

Bonikowski, B., & Nelson, L. K. (2022). From Ends to Means: The Promise of Computational Text Analysis for Theoretically Driven Sociological Research. *Sociological Methods & Research*, 51(4), 1469-1483.

Boyd, C., Parr, H., & Philo, C. (2023). Climate anxiety as posthuman knowledge. *Wellbeing, Space and Society*, 4, 100120. https://doi.org/10.1016/j.wss.2022.100120

Bray, K. and Moore, S.D. (2019). *Religion, Emotion, Sensation- Affect Theories and Theologies*. Fordham University Press.

Bright, M. L., & Eames, C. (2021). From apathy through anxiety to action: Emotions as motivators for youth climate strike leaders. *Australian Journal of Environmental Education*, 38, 13-25.

Brissmann, I. (2023). The search for enchantment in times of climate change: Religious or spiritual responses to climate crisis. *DIALOG*, 62(4), 326-334. https://doi.org/10.1111/dial.12836

Brosch, T. (2021). Affect and emotions as drivers of climate change perception and action: A review. *Current Opinion in Behavioral Sciences*, 42, 15-21.

Candiotto, L. (2022). Loving the earth by loving a place: A situated approach to the love of nature. *Constructivist Foundations*, 17(3), 179–189.

Candiotto, L. (2023). Emotions in knowledge production. *Interdisciplinary Science Reviews*, 48(2), 312–328. https://doi.org/10.1080/03080188.2023.2179722

Carmen, E., Fazey, I., Ross, H., Bedinger, M., Smith, F. M., Prager, K., McClymont, K., & Morrison, D. (2022). Building community resilience in a context of climate change: The role of social capital. *Ambio*, 51, 1371-1387. https://doi.org/10.1007/s13280-021-01678-9

Chakrabarty, D. (2009). The climate of history: Four theses. *Critical Inquiry*, 35(2), 197–222. https://doi.org/10.1086/596640

Cudworth, E. (2005). *Developing Ecofeminist Theory: The Complexity of Difference*. Palgrave Macmillan.

Cuomo, C. J. (2011). Climate Change, Vulnerability, and Responsibility. *Hypatia*. 26(4), 690-714. DOI:10.1111/j.1527-2001.2011.01220.x

Daggett, C. (2018). Petro-masculinity: Fossil fuels and authoritarian desire. *Millennium*, 47(1), 25–44. https://doi.org/10.1177/0305829818775817

Dalton, A. M. and Simmons, H.C. (2010). Ecotheology and the Practice of Hope. SUNY Press.

Davies, T. (2022). Slow violence and toxic geographies: 'Out of sight' to whom? *EPC: Politics and Space*, 40(2), 409-427. https://doi.org/10.1177/2399654419841063

Davies, T. (2018). Toxic space and time: Slow violence, necropolitics, and petrochemical pollution. *Annals of the American Association of Geographers*, 108(6), 1537-1553. https://doi.org/10.1080/24694452.2018.1470924

Dotson, K. (2014). Conceptualizing Epistemic Oppression. *Social epistemology*, 28(2), 115-138

Durkheim, E. (1912/1995). *The Elementary Forms of Religious Life*. The Free Press.

Easton-Gomez, S.C., Mouritz, M., and Breadsell, J. K. (2022). Enhancing Emotional Resilience in the Face of Climate Change Adversity: A Systematic Literature Review. *Sustainability*, 14(2), 13966. DOI: https://doi.org/10.3390/su142113966

Fici, C. & Valpey, K.R. (2021). Introduction. *Journal of Dharma Studies,* 4, 1–4. DOI:https://doi.org/10.1007/s42240-021-00106-1

Fox, N. J., & Alldred, P. (2020). Re-assembling climate change policy: Materialism, posthumanism, and the policy assemblage. *British Journal of Sociology*, 71, 269–283. https://doi.org/10.1111/1468-4446.12734

Fricker, M. (2009). *Epistemic Injustice: Power and the Ethics of Knowing*. Oxford University Press

Gaard, G. (2015). Ecofeminism and climate change. *Women's Studies International Forum*, 49, 20-33. DOI: https://doi.org/10.1016/j.wsif.2015.02.004

Gardner, P., Williams, S., and Macdonald, A. (2023). Glued on for the grandkids: The gendered politics of care in the global environmental movement. *Sociology Compass*, 18(1). DOI: https://doi.org/10.1111/soc4.13148

Geiger, N., Swim, J. K., Gasper, K., Fraser, J., and Flinner, K., (2021). How do I feel when I think about taking action? Hope and boredom, not anxiety and helplessness, predict intentions to take climate action. *Journal of Environmental Psychology*, 76, 101649. DOI: https://doi.org/10.1016/j.jenvp.2021.101649

Giddens , A. (1991). *Modernity and Self Identity: Self and Society in the Late Modern Age*. Polity Press.

González-Hidalgo, M. and Zografos, C. (2019). Emotions, power, and environmental conflict: Expanding the 'emotional turn' in political ecology. *Progress in Human Geography*, 44(2), 1-21.

Gregg, M. and Seigworth G. J. (2010). *The Affect Theory Reader*. Duke University Press.

Harth, N. (2021). Affect, (group-based) emotions, and climate change action. *Current Opinion in Psychology*, 42, 140-144.

Heidenreich, T., Eberl, J.-M., Lind, F., & Boomgaarden, H. (2020). Political Migration Discourses on Social Media: A Comparative Perspective on Visibility and Sentiment Across Political Facebook Accounts in Europe. *Journal of Ethnic and Migration Studies*, 46 (7), 1261–1280. https://doi.org/10.1080/1369183X.2019.1665990

Hochschild, A. (1983). *The managed heart: Commercialization of human feeling*. University of California Press.

Holland, J. (2007). Emotions and research. *International Journal of Social Research Methodology*, 10(3), 195-209. https://doi.org/10.1080/13645570701541894

Hubbard , G. , Backett-Milburn , K. and Kemmer , D. (2001) . Working with emotion: Issues for the researcher in fieldwork and teamwork. *International Journal of Social Research Methodology*, 4, 119 – 137.

Hutchison, E., Bleiker, R., Bourne, J., & Hoang, Y. (2024). Decolonising affect: Emotions and the politics of peace. *Cooperation and Conflict*, 59(2), 149-170. https://doi.org/10.1177/00108367241244956

Innocenti, M., Santarelli, G., Lombardi, G. S., Ciabini, L., Zjalic, D., Di Russo, M., & Cadeddu, C. (2023). How can climate change anxiety induce both pro-environmental behaviours and eco-paralysis? The mediating role of general self-efficacy. *International Journal of Environmental Research and Public Health,* 20(4), 3085. https://doi.org/10.3390/ijerph20043085

Jenkins, W., Tucker, M. E., and Grim, J. (2017). *Routledge Handbook of Religion and Ecology*. Routledge.

Jones, L., Halstead, F., Parsons, K. J., Le, H., Bui, L. T. H., Hackney, C. R., & Parsons, D. R. (2021). 2020-Vision: Understanding climate (in)action through the emotional lens of loss. *Journal of the British Academy*, 9(s5), 29–68. https://doi.org/10.5871/jba/009s5.029

Kaijser, A. and Kronsell, A. (2014). Climate change through the lens of intersectionality. *Environmental Politics*, 23(3), 417-433.

Kearns, L. and Keller, C. (2009). *Ecospirit - Religions and Philosophies for the Earth*. Fordham University Press.

Kimmel, M. S. (2013). *Angry white men: American masculinity at the end of an era*. Nation Books.

Klemmer, C. L., & McNamara, K. A. (2020). Deep Ecology and Ecofeminism: Social Work to Address Global Environmental Crisis. *Affilia*, 35(4), 503-515. https://doi.org/10.1177/0886109919894650

Kleres, J., & Wettergren, Å. (2017). Fear, hope, anger, and guilt in climate activism. *Social Movement Studies*, 16(5), 507–519. https://doi.org/10.1080/14742837.2017.1344546

Kurth, C. and Pihkala, P. (2022). Eco-anxiety: What it is and why it matters. *Frontiers in Psychology*, 13, 1-13. DOI:https://doi.org/10.3389/fpsyg.2022.981814.

Latour, B. (2008). Will non-humans be saved? An argument in ecotheology. *Journal of the Royal Anthropological Institute*, 15(3), 459–475.

Leino, M., & Kulha, K. (2023). Hopes over fears: Can democratic deliberation increase positive emotions concerning the future? *Futures*, 154, 103246. https://doi.org/10.1016/j.futures.2023.103246

Lugones, M. (2007). Heterosexualism and the colonial/modern gender system. *Hypatia*, 22(1), 186–209.

McGoey, L. (2019). *The Unknowers: How Strategic Ignorance Rules the World*. Zed Books.

Mitova, V. (2020), Decolonising Knowledge Here and Now. Philosophical papers (Grahamstown), 49(2), 191-212.

Merchant, C. (1980). *The Death of Nature: Women, Ecology and the Scientific Revolution*. HarperOne.

Mosquera, J., & Jylhä, K. M. (2022). How to Feel About Climate Change? An Analysis of the Normativity of Climate Emotions. *International Journal of Philosophical Studies*, *30*(3), 357–380. https://doi.org/10.1080/09672559.2022.2125150

Naess, A. (1989/2009). *Ecology, Community and Lifestyle - Outline of an Ecosophy*. Cambridge University Press.

Neckel, S., & Hasenfratz, M. (2021). Climate emotions and emotional climates: The emotional map of ecological crises and the blind spots on our sociological landscapes. *Social Science Information*, 60(2), 253-271. https://doi.org/10.1177/0539018421996264

Neimanis, A. and Walker, R.L. (2014). Weathering: Climate Change and the "Thick Time" of Transcorporeality. *Hypatia*, 29(3), 558-575.

Nelson, J. (2020). Petro-masculinity and climate change denial among white, politically conservative American males. *International Journal of Applied Psychoanalytic Studies*, *17*(4), 282–295. DOI:https://doi.org/10.1002/aps.1638

Newell, P., Srivastava, S., Naess, L. O., Torres Contreras, G. A., and Price, R. (2021). Toward transformative climate justice: An emerging research agenda. *WIREs*, 12(6), DOI: https://doi.org/10.1002/wcc.733

Ngai, S. (2005). *Ugly Feelings*. Harvard University Press.

Nixon, R. (2011). *Slow violence and the environmentalism of the poor*. Harvard University Press.

Norgaard, K.M. (2011). *Living in Denial: Climate Change, Emotions, and Everyday Life*. The MIT Press.

Ojala, M. (2015). Hope in the Face of Climate Change: Associations With Environmental Engagement and Student Perceptions of Teachers' Emotion Communication Style and Future Orientation. *The Journal of Environmental Education*, *46*(3), 133–148. https://doi.org/10.1080/00958964.2015.1021662

Ojala, M. (2016). Facing anxiety in climate change education: From therapeutic practice to hopeful transgressive learning. *Canadian Journal of Environmental Education*, 21, 41-56

Ojala, M., Cunsolo, A., Ogunbode, C. A., & Middleton, J. (2021). Anxiety, Worry, and Grief in a Time of Environmental and Climate Crisis: A Narrative Review. *Annual Review of Environment and Resources*, 46, 35-58. https://doi.org/https://doi.org/10.1146/annurev-environ-012220-022716

Ott, K. (2023). Deep Ecology. In Wallenhorst, N. and Wulff, C. (Eds.) *Handbook of the Anthropocene – Humans between Heritage and Future* (pp. 33-39). Springer.

Pakin-Albayrakoğlu, E. (2022). Out and proud in the field: Eco-queers for climate adaptation. *Peace Review*, 34(1), 51–63. https://doi.org/10.1080/10402659.2022.2023429

Pihkala, P. (2018), ECO-ANXIETY, TRAGEDY, AND HOPE: PSYCHOLOGICAL AND SPIRITUAL DIMENSIONS OF CLIMATE CHANGE. *Zygon*, 53, 545-569. DOI:https://doi.org/10.1111/zygo.12407

Pihkala, P. (2020). Anxiety and the Ecological Crisis: An Analysis of Eco-Anxiety and Climate Anxiety. *Sustainability*, 12(19), DOI:https://doi.org/10.3390/su12197836

Pihkala, P. (2022a). Toward a Taxonomy of Climate Emotions. *Frontiers in Climate*, 3. DOI:https://doi.org/10.3389/fclim.2021.738154

Pihkala, P. (2022b). The Process of Eco-Anxiety and Ecological Grief: A Narrative Review and a New Proposal. *Sustainability* 14(24), DOI: https://doi.org/10.3390/su142416628

Polhaus Jr., G. (2012). Relational Knowing and Epistemic Injustice: Toward a Theory of "Willful Hermeneutical Ignorance". *Hypatia*, 27(4), 715-735.

Sánchez-Rada, J. F., & Iglesias, C. A. (2019). Social Context in Sentiment Analysis: Formal Definition, Overview of Current Trends and Framework for Comparison. *Information Fusion*, 52, 344–356. https://doi.org/10.1016/j.inffus.2019.05.003

Sangervo, J., Jylhä, K. M., & Pihkala, P. (2022). Climate anxiety: Conceptual considerations, and connections with climate hope and action. *Global Environmental Change, 76*, 102569. https://doi.org/10.1016/j.gloenvcha.2022.102569

Schaefer, D. O. (2019). The animality of affect: religion, emotion and power. In Bray, K. & Moore, S. D. (Eds.) *Religion, Emotion, Sensation- Affect Theories and Theologies*. Fordham University Press.

Scheidecker, G. (2019.) Attachment. In J. Slaby & C. von Scheve (Eds.), *Affective societies: Key concepts* (pp. 73-84). Routledge.

Schlegel, L. M. (2022). Between climates of fear and blind optimism: The affective role of emotions for climate (in)action. *GH*, 77(4), 421–431. https://doi.org/10.5194/gh-77-421-2022

Slaby, J. and Bens, J. (2019). Political affect. In Slaby, J. and von Scheve, C. (Eds.) *Affective Societies: Key Concepts*. Routledge.

Slaby, J. and Mühlhoff, R. (2019). Affect. In Slaby, J. and von Scheve, C. (Eds.) Affective Societies: Key Concepts. Routledge.

Slaby, J. and Mühlhoff, R. (2019). Affect. In Slaby, J. and von Scheve, C. (Eds.) *Affective Societies: Key Concepts*. Routledge.

Slaby, J. & von Scheve, C. (2019). *Affective Societies: Key Concepts*. Routledge.

Slaby, J. (2023). Structural apathy, affective injustice, and the ecological crisis. *Philosophical Topics*, 51(1).

Slote, M. (2014). *A Sentimentalist Theory of Mind*. Oxford University Press.

Spivak, G. C., (1988). Can the subaltern speak?. In Nelson, C. and Grossberg, L. (Eds) *Marxism and the interpretation of culture*, Urbana: University of Illinois Press, 271- 313.

Sultana, F. (2022). The unbearable heaviness of climate coloniality. *Political Geography*, 99, 102638. https://doi.org/10.1016/j.polgeo.2022.102638

Thonhauser, G. (2019). Feeling. In Slaby, J. and von Scheve, C. (Eds.) *Affective Societies: Key Concepts*. Routledge.

Tom, E., Adams, M. M., & Goode, R. W. (2023). Solastalgia to soliphilia: Cultural fire, climate change, and Indigenous healing. *Ecopsychology*, 15(4). https://doi.org/10.1089/eco.2022.0085

Tuana, N. (2008). Viscous porosity: Witnessing Katrina. In Alaimo, S. & Hekman, S. (Eds.), *Material feminisms* (pp. 85-119). Indiana University Press.

UNDP. (2021). *The Peoples' Climate Vote* (Sustainable Development Goals). [online:] https://www.undp.org/publications/peoples-climate-vote

Verlie, B. (2019a). "Climatic-affective atmospheres": A conceptual tool for a changing climate. *Emotion, Space and Society*, 33, 100623. https://doi.org/10.1016/j.emospa.2019.100623

Verlie, B. (2019b). Bearing worlds: Learning to live-with climate change. *Environmental Education Research*, 25(5), 751-766. https://doi.org/10.1080/13504622.2019.1637823

Verlie, B. (2021). *Learning to Live with Climate Change - From Anxiety to Transformation*. Routledge.

Verlie, B. (2022a). *Learning to live with climate change: From anxiety to transformation*. Routledge.

Verlie, B. (2022b). Climate justice in more-than-human worlds. *Environmental Politics*, 31(2), 297-319. https://doi.org/10.1080/09644016.2021.1981081

Verlie, B. (2024). Feeling climate injustice: Affective climate violence, greenhouse gaslighting and the whiteness of climate anxiety. EPE: Nature and Space, 7(4), 1601-1619. https://doi.org/10.1177/25148486241252734

Verplanken, B. and Roy, D. (2013). "My Worries Are Rational, Climate Change Is Not": Habitual Ecological Worrying Is an Adaptive Response, *PLoS ONE*, 8(9). DOI:https://doi.org/10.1371/journal.pone.0074708

Wamsler, C., Osberg, G., (2023). Meaning-making in a context of climate change: supporting agency and political engagement. *Climate Policy*, 23(7), 829-844.

Weder, F., & Swastika, S. (2021). Advocacy for sustainability communication: Unseen potential of queer communicators in environmental, climate change, and sustainability science. *Sustainability*, 13(24), 13871. https://doi.org/10.3390/su132413871

Wetherell, M. (2012). *Affect and Emotion: A New Social Science Understanding*. Sage Publications.

Wettergren, Å. (2024). Emotionalising hope in times of climate change. *Emotions and Society*, 1-19. https://doi.org/10.1332/26316897Y2024D000000021

Whitley, C. T., & Bowers, M. M. (2023). Queering climate change: Exploring the influence of LGBTQ+ identity on climate change belief and risk perceptions. *Sociological Inquiry*. https://doi.org/10.1111/soin.12534

Wilson, S., Carlson, A., and Szeman, I. (2017). *Petrocultures: Oil, politics, culture*. McGill-Queen's Press-MQUP.

Wong-Parodi, G., & Feygina, I. (2021). Engaging People on Climate Change: The Role of Emotional Responses. *Environmental Communication*, 15(5), 571–593. DOI:https://doi.org/10.1080/17524032.2020.1871051

Wright, S., Plahe, J. & Jack, G. (2023). Feeling climate change to the bone: emotional topologies of climate. In Jakimow, T. (Ed.) *Affect, Emotions and Power in Development Studies Theory and Practice*. Routledge.

Zein, L.F., & Setiawan, A.R. (2019). General Overview of Ecofeminism. *Environmental Science*. DOI:10.31219/osf.io/fmjgk

Zink, V. (2019). Affective communities. In Slaby, J. and von Scheve, C. (Eds.) *Affective Societies: Key Concepts*. Routledge.