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EMPIRICALLY GROUNDED CLINICAL GUIDANCE PAPER

# Environmental identity-based therapies for climate distress: applying cognitive behavioural approaches

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## Abstract

This paper describes an interdisciplinary integration of the concept of environmental identity into cognitive behavioural approaches to facilitate psychotherapy interventions for climate distress. Environmental identity encompasses one's sense of self in relation to the natural world and other species, and is an important sub-identity analogous to gender, sexual and other forms of self and social identity recognized in psychotherapy. We provide a background on the construct of environmental identity as developed in social and environmental psychology and share culturally responsive methods for mental health practitioners and the public to evoke and explore their own environmental identity. We then discuss steps to create environmental identity-based therapy interventions using cognitive and behavioural approaches for climate distress. We highlight the potential for acceptance and commitment therapy to foster mindfulness and values-based action, dialectical behaviour therapy to support emotional regulation, and radically open dialectical behaviour therapy to mitigate perfectionism and over-controlled coping styles. We also describe a composite case study of environmental identity-based cognitive behavioural therapy for an LGBTQ+ client.

## Key learning aims

(1) The paper presents new opportunities and techniques for adapting cognitive behavioural interventions in a climate conscious manner, with insights and observations from the authors based on clinical practice, which informs research into psychotherapy best practices in the context of environmental and climate issues.
(2) Readers will become familiar with the empirical basis of environmental identity drawn from theory and research in social and environmental psychology; how environmental experiences and values intersect with other forms of personal and social identity addressed in mental health practice; and culturally responsive ways to elicit environmental identity on the part of practitioners and those they serve.
(3) Readers are guided through examples of environmental identity-based cognitive and behavioural interventions including (1) promoting values-based action using acceptance and commitment therapy, (2) addressing emotional dysregulation using dialectical behaviour therapy, and (3) modifying over-controlled or perfectionistic coping styles using radically open dialectical behaviour therapy.
(4) A composite case study provides an example of environmental identity-based cognitive behavioural therapy for a 20-year-old LGBTQ+ person experiencing climate distress.

**Keywords:** acceptance and commitment therapy (ACT); cognitive behavioural therapy (CBT); dialectical behavior therapy (DBT); eco-anxiety; cco-distress; environmental identity; radically open dialectical behaviour therapy (DBT-RO)

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## Towards environmental identity-based therapies: cognitive behavioural approaches

Global climate change and associated disruptions and disasters is a pressing threat and crisis to varied peoples, landscapes, and species worldwide (IPCC, 2022), with clear psychological implications (Clayton *et al.*, 2021; Doherty and Lykins, 2024). Mental health therapists are confronting these issues in their own lives and seeking new skills to provide climate conscious therapy to the people they serve (Hoppe *et al.*, 2023; Heiman, 2024). This paper describes an innovative, interdisciplinary integration of concept 'environmental identity' drawn from social and environmental psychology (Clayton, 2003) into cognitive behavioural psychotherapy as a basis for climate and environmental focused interventions. The authors share personal observations of how they developed these methods in practice. Our goals are to anticipate and inspire research into best practices utilizing environmental identity in cognitive behavioural and other theoretical approaches, and to empower mental health therapists to adapt and apply their existing and well-developed competencies in a changing world.

Environmental identity encompasses one's sense of self in relation to the natural world and other species, and is an important sub-identity analogous to gender, sexual and other forms of self and social identity (Clayton, 2012; Balundė *et al.*, 2019). We provide a background on the construct of environmental identity and share some culturally responsive methods for mental health practitioners and the public to evoke and explore their own environmental identity (Doherty *et al.*, 2022a). Cognitive behavioural therapy has been demonstrated to be effective for a range of problems including depression, anxiety disorders and traumatic stress, and thus is a promising approach to apply in the context of climate and environmental distress.

We discuss steps to create 'environmental identity-based' therapy interventions using examples from cognitive and behavioural approaches including acceptance and commitment therapy (ACT) and two variations of dialectical behaviour therapy: standard dialectical behaviour therapy (DBT) and radically open dialectical behaviour therapy (DBT-RO). ACT foregrounds values-based action, while DBT and DBT-RO provide frameworks and skills to address emotional dysregulation and tendencies towards over control and perfectionism.

We emphasize these 'third wave' cognitive behavioural therapies in a climate change context because of their fundamental focus on acceptance while simultaneously supporting people in building a life that feels meaningful despite the realities and challenges they may be facing. In addition to challenging irrational thinking patterns or problematic behaviours that may exacerbate climate distress, these third wave therapies also help to navigate difficult thoughts and emotions that are rooted in the stark reality of the climate crisis and what the future holds. We then describe a composite case study applying environmental identity-based cognitive behavioural therapy for an LGBTQ+ client (adapted from Artman, 2019). We note that, while the number of cognitive behavioural techniques can be helpful in a climate and environmental context, it also is important to be attentive to validation and creation of a therapeutic alliance, and the therapist's own readiness to take on ecological concerns and distress.

## Understanding environmental identity and links with life experiences, values and behaviour

An identity can be described as how an individual defines and positions their sense of self in relation to the world around them, including their unique and enduring characteristics, group affiliations and social roles. Within this context, the concept of an environmental identity refers to how one orients their sense of self in relation to the natural environment, including their self-concept and affiliations to nature, places and other species; and their environmental values, ethics and behaviours (Clayton, 2003; Clayton, 2012). While one's environmental identity provides an entry into their beliefs and motivations about environmental action, it is important that therapists do not equate environmental identity with an 'environmentalist identity'. Based

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on a person's culture, background and individual preferences, environmental identity can have a range of diverse manifestations from highly individualistic, utilitarian and human-centric values regarding nature, other species and natural resources; to more altruistic, ecological and self-transcendent views.

In terms of guidance for assessment and history taking, the development of environmental identity begins in childhood and is shaped by formative experiences in nature, emotional attachment to natural spaces, and the environmental values of family members and educators (Chawla, 2007; Wells and Lekies, 2006). Environmental identity continues to be influenced throughout the lifespan through factors such as spending time in nature, the environmental values of social networks, and engagement in environmental organizations (Prévot *et al*., 2016; Stapleton, 2015). Furthermore, environmental identity may be shaped through adverse experiences with the natural environment such as witnessing environmental degradation in one's community, visiting climate change-impacted landscapes, or interacting with frontline communities that have been negatively affected by the climate crisis (Kempton and Holland, 2003; Young *et al*., 2020).

Clayton (2003) developed the 24-item Environmental Identity Scale to quantify the extent to which individuals integrate the natural environment into their self-concept, values and attitudes. The scale was later revised and cross-culturally validated across five countries (Clayton *et al*., 2021). This scale is particularly useful for eliciting pro-environmental values and revealing possible links or vulnerabilities to climate concerns or distress. An understanding of environmental identity also provides insights into a person's valued actions, as we will later discuss in terms of ACT. Individuals whose environmental identities feature strong biospheric or earth-based values are more likely to engage in pro-environmental behaviours because they believe that the natural environment is valuable and worth protecting (van der Werff *et al*., 2013). Feelings of care about the earth and alarm or concern about climate threats also prompt concern for future generations, motivation to act in the face of climate change, and participation in environmental activism (Alisat *et al*., 2014; Fritsche and Häfner, 2012; Leiserowitz *et al*., 2023).

In clinical and therapeutic settings, the focus will likely be on helping individuals who are expressing discomfort or distress about climate or environmental issues, or who are inhibited about expressing their earth-based values or concerns. For this reason, an understanding of developmental factors and the role of intersecting identities that may influence or impede healthy environmental identity expression is necessary. For example, research by Chawla (2007) has identified childhood and adolescent time spent in nature and presence of a supportive adult mentor as being influential in the lives of naturalists and environmentalists with a positive sense of self and nature. Miao and Cagle (2020) conducted 30 semi-structured interviews with undergraduate students exploring how their gender and race/ethnicity interact with their environmental identities. Participants reported that their gender and race/ethnicity influenced their environmental identity development by way of impacting the type of significant life experiences they had in nature and the types of important social influences that helped shape their environmental identities, such as family members and mentors. For example, many participants noted that gender stereotypes limited their life experiences in nature. Furthermore, students with marginalized gender and/or racial/ethnic identities described the importance of environmental mentors who shared similar identities, which were more difficult to find due to lower levels of gender and racial/ethnic diversity amongst environmental faculty members at universities.

As illustrated with the composite case study below, S.A. conducted a qualitative research study exploring the unique way in which people with LGBTQ+ identities with strong pro-environmental values relate to the natural environment (Artman, 2019). Six themes emerged

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from the research: (1) Nature is a judgement-free space that fosters authenticity and self-acceptance; (2) Nature provides validation by exhibiting the various expressions of gender and sexual diversity on the planet; (3) Nature offers a refuge for gender exploration free from societally enforced gender norms; (4) Nature may attract individuals with cis-sexist and heterosexist biases, leading to possible harassment or violence; (5) The relocation of LGBTQ+ individuals from rural to urban areas in search of safety and community often leads to a feeling of loss for the natural environments they grew up in, resulting in a desire to reclaim natural spaces as LGBTQ+ spaces; (6) The exploitation and commodification of nature are deeply tied to the social inequalities faced by LGBTQ+ and other marginalized communities.

## The value of environmental identity for supporting eco- and climate-conscious therapy

In climate psychology research and clinical practice over the past two decades (Doherty and Clayton, 2011; Doherty and Lykins, 2024), T.D. has tracked parallel, often siloed initiatives in the study of human–nature relationships and wellbeing. These include developments within social and environmental psychology (Clayton and Saunders, 2012), early models of ecotherapy (e.g. Buzzell and Chalquist, 2009; Jordan and Hinds, 2016), research on the mental health impacts of climate change (e.g. Crandon *et al.*, 2022; Hickman *et al.*, 2021), relationships between environmental justice and identity (Ceaser, 2015), and relationships between environmental distress and action (Whitmarsh *et al.*, 2022). All of these have relevance for developing effective climate-conscious counselling and therapy (e.g. Anderson *et al.*, 2024; Baudon and Jachens, 2021; Doherty *et al.*, 2022b; Lewis *et al.*, 2020; Xue *et al.*, 2024). Across these domains, the construct of environmental identity emerges as a useful, cross-cutting conceptual and therapeutic tool.

Nowhere are tools for environmental identity development more needed than with therapists and mental health professionals themselves, who are required to rapidly equip themselves to help with the public's eco- and climate distress, and who often struggle with how to balance personal and professional dynamics of environmental stressors and how to apply their expertise (e.g. Heiman, 2024; Hoppe *et al.*, 2023; Silva and Coburn, 2022). Among the values of environmental identity as a psychological concept and therapeutic tool in an eco- and climate therapy include environmental identity's essentially positive and constructive nature, and possibility to be approached in a flexible, multi-cultural manner allowing for a diversity of manifestations. Environmental identity clearly intersects with socio-economic status and social placement (Joshi *et al.*, 2023) as well as gender and sexual identity, regional and ethnic identities (as above and see composite case study).

In terms of therapy process, environmental identity is experientially available as a visceral or felt sense of one's own being in relation to nature, the earth, and other species. Environmental identity is also a comprehensive framework for assessment, allowing for exploration of personal attributes ranging from childhood and family experiences, to nature epiphanies and peak experiences, to wounds and trauma, to environmental values and ethics, and on to personal (or transpersonal) meaning making and values-based actions. Finally, the discovery of one's environmental identity is hugely adaptive. Environmental identity provides a grounding for one's conception of self within rapidly evolving ecological and climate disruptions, and thus contributes to a sense of resilience. By revealing vulnerabilities related to threatened or compromised values, assessment of environmental identity can also contribute to prevention of unrecognized environmental distress and disenfranchised grief. Helping people see the links between their environmental values and distress provides meaning. In terms of environmental concerns, to paraphrase an ACT saying – 'We hurt where we care'.

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## Eliciting environmental identity in a therapeutic context

An underlying assumption is that insight about environmental identity, much like consciousness of other forms of identity, is, in general, conducive for personal health, growth and self-actualization. Exploration of environmental identity and its relationship to wellbeing or concerns about the natural environment has a strong synergy with cognitive behavioural therapy's focus on insight, the role of assumptions and thinking style on psychological functioning, and relationships between inner states and beliefs and outer behaviour. As with all therapeutic constructs, care must be taken to introduce and apply environmental identity concepts in a multiculturally competent manner. A key process point is ensuring there is a normalization and validation of people's eco-concerns as real issues and not simply a result of maladaptive thinking. Formation of a clear therapeutic alliance should take place before introducing CBT techniques such as disputing. The goal is to first build rapport and trust – even if concerns appear to include cognitive distortions, black-and-white thinking, or catastrophizing. One of us (T.D.) uses the catchphrase 'validate-elevate-create' to signify this approach in clinical encounters. First, validate environmental concerns. Then elevate them as being of primary importance. Then get creative and curious about where the thoughts and feelings come from, what they tell us, and where they may point in terms of coping and action.

Issues of personal capacity and counter transference on the part of the therapist are also important to keep in mind. Would-be climate-conscious practitioners must be able to contain their clients' catastrophic thinking and have done their own work negotiating the inevitable sense of overwhelm that arises when one contemplates the gravity of climate disruptions, impending impacts, and limits of personal responsibility and action.

Practically, environmental identity is useful both for primary eco-distress as well as bringing insights to eco-concerns amongst other life issues and presenting problems. An extension would be that consciousness of environmental identity and ways to express and become secure in one's personal environmental history and values would be *preventive* of debilitating eco-distress by creating context and meaning for environmental values and concerns, and opportunities for anticipatory coping regarding future threats and losses.

Environmental identity can be presented and discussed in a variety of ways and modalities, across groups and ages. Environmental identity can be elicited as an oral or written life story or narrative, through anecdotes about specific memories or life experiences, or as a response to current events (Doherty *et al*., 2022a; Doherty *et al*., 2022b; Meifers *et al*., 2016). As with other cognitive behavioural approaches (Day, 2019; James, 2010), hands-on interactive methods like sketching mind maps, timelines and life maps can be particularly accessible and helpful, as well as creative arts therapy methods such as drawings and collage (see Photo 1). Looking outside of psychotherapy to environmental studies and education can also reveal useful approaches. For example, Thomashow's (1996, 2001) facilitation of 'ecological identity' is compatible with environmental identity concepts. As noted, research-based survey methods to elicit and measure identity are also useful in some cases (e.g. Clayton *et al*., 2021).

## Environmental identity in second and third wave cognitive behavioural therapy

Classic second wave cognitive behavioural approaches such as Beck's cognitive triad is very helpful to conceptualize climate distress, and often combines negative thoughts or beliefs about the current state of the world, apprehension or despair about future threats and disasters, and negative or critical thoughts about oneself including inadequacy, and guilt or shame about privilege or not doing enough to solve environmental problems. Raising consciousness of unhealthy behavioural standards and recognizing the structural nature of most climate and environmental problems can help people liberate themselves from excessive self-blame.

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**Photo 1.** University workshop group creating environmental identity timelines.

Attention to available actions and engaging with peer groups and social support provides targets for behavioural activation. Highlighting positive, realistic scenarios for the future engenders active or evidence-based hope (Kelsey, 2016; Macy and Johnstone, 2022).

We emphasize 'third wave' cognitive behavioural therapies in this paper because of their fundamental focus on acceptance while simultaneously supporting values-based action (ACT) and skilful ways to mitigate emotional dysregulation and tendencies towards over control and perfectionism that can be associated with environmental engagement. The choices also reflect the realities of the authors' practices, and their initial attempts to adapt their existing skills and competencies in climate and environmentally conscious practice. In this paper we are explicitly valuing clinical experience to support empowerment of therapists – generally, and literally for the author group who have trained and consulted together. This was not meant to be unconscious or dismissive of the limits of clinical judgement and the need to simultaneously track ongoing research efforts to identify best practices (e.g. see review of mental health and psychosocial interventions in the context of climate change by Xue *et al.*, 2024).

## Acceptance and commitment therapy, environmental identity, and values-based action

ACT is a cognitive behavioural intervention that uses mindfulness, acceptance, and behavioural engagement techniques to help clients make meaningful changes to enhance their sense of meaning, purpose, and overall quality of life. As a 'third wave' cognitive therapy, ACT focuses on changing the way one relates and responds to inner experiences (i.e. thoughts, emotions, urges, sensations) versus changing those inner experiences. ACT is existential in its approach and focuses on creating contexts in which people can behave in a way that is congruent with their values while distancing from thoughts that undermine values-congruent behaviours (Hayes, 2004). Given that environmental identity includes a person's contextual factors such as values about nature, how a person relates to nature and the natural world, and a sense of self-efficacy about environmental behaviours, ACT is well-suited as a therapeutic framework for

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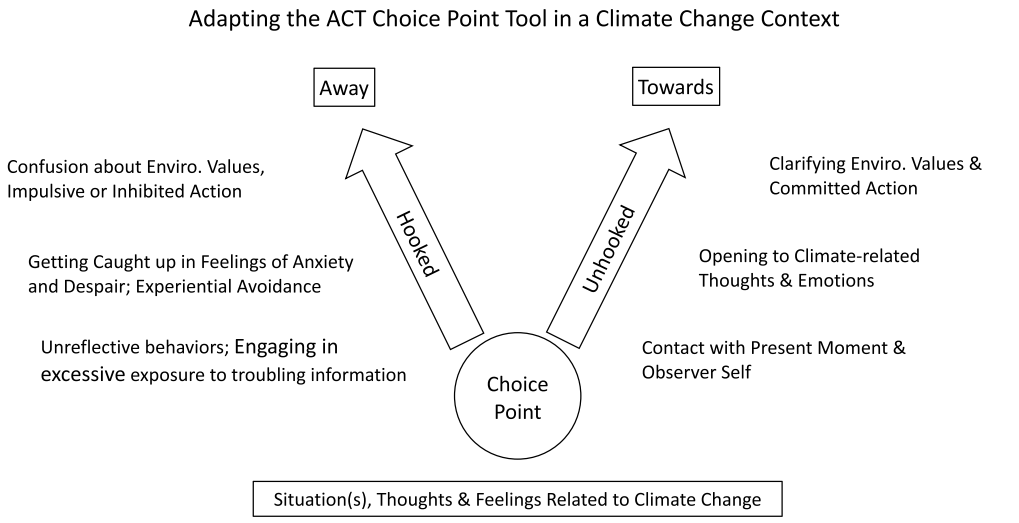



**Figure 1.** Adapting the ACT Choice Point Tool in a climate change context (original figure from Doherty *et al*., 2022b).

supporting clients in their efforts to express their environmental identity in a values-aligned manner (see exploration by Williams and Samuel, 2023).

The severity and enormity of the climate crisis can lead to feelings of overwhelm, avoidance, and disengagement. If a person is responding to the climate crisis in a manner that conflicts with their environmental identity, this can lead to a loss of meaning and purpose as well as an increase in distress. The ACT framework identifies problematic processes that can lead to increased suffering about climate and environmental issues: cognitive fusion, experiential avoidance, loss of contact with the 'here and now', distance from values, unworkable action, and unhelpful attachment to the conceptualized self. The ACT approach then utilizes six therapeutic processes that can be used to enhance psychological flexibility regarding these issues: cognitive diffusion (i.e. separating from thoughts and treating them as mental events for observation), acceptance (i.e. a willingness to allow thoughts and feelings to be as they are), mindfulness (i.e. being in and aware of the present moment), connection with values (i.e. clarifying what qualities, characteristics, or strengths give a person a sense of meaning and purpose), committed action (i.e. engaging in values-guided behaviours or actions), and self-as-context (i.e. a metacognitive mindset that enables a person to see themselves as a 'container' for thoughts and feelings and to see themselves observing their own thoughts and feelings; an awareness of one's consciousness) (Harris, 2019; Hayes and Pierson, 2005). Each of these therapeutic processes can serve as a response to challenges of coping and acting regarding environmental issues and threats.

For an individual in therapy who is struggling with climate-related distress and a misalignment between their environmental identity and how they are living their lives, the ACT framework can be a useful tool for helping bring them back into alignment. For example, the ACT choice point tool (Harris, 2019) can be adapted to a climate change context for helping individuals unhook from problematic thoughts, feelings, and situations that keep them stuck and move them toward actions that are consistent with their environmental values and identity (see Fig. 1).

The fossil fuel industry's current narrative around climate change as a matter of individual responsibility can lead an individual to adopt unhelpful cognitive-emotional scripts, which can hinder a person's ability to take meaningful action in the face of ecological crisis (Doherty *et al*., 2022b). Contextual factors such as health conditions, housing, employment, racism, and access to

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resources may place an individual at disproportionate risk of the health impacts of climate change (Deivanayagam *et al.*, 2023) and limit the choices available for making values-aligned environmental behaviour changes. Thus, the ACT framework is well-suited for tailoring to an individual's unique situation based on its philosophical underpinnings and can be very helpful for assisting patients in problem-solving and action planning in a manner that is consistent with their environmental identity and values while recognizing the limitations of what they can accomplish as an individual.

## Dialectical behaviour therapy for emotion dysregulation related to climate distress

DBT developed by Marsha Linehan (1993) is a highly effective therapy for people who experience problems with emotion dysregulation (difficulty and distress related to experiencing and managing strong or conflicting emotions) (Neacsiu *et al.*, 2014). DBT has promise for ameliorating severe emotional responses to climate and environmental issues through the therapy process and by teaching behavioural skills for mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness. An essential element of DBT is for people to learn how to access and act from their 'wise mind', a person's inherent wisdom that is connected to their values (Linehan, 1993). In fact, care of nature and environment is included in the list of values in emotion regulation module of the DBT Skills Training Manual (2nd edn; Linehan, 2015). For people with strong pro-environmental values, acting in accordance with their wise mind includes acting in the service of nature and sustainability, ideally in a way that that does not jeopardize their wellbeing or relationships.

There are several theoretical pathways suggesting that DBT therapy and skills training will be helpful in promoting coping with climate distress. Emotions are essential drivers of climate action for many people (Brosch, 2021). Applying Linehan's thinking (2015) to an environmental context, climate emotions can be seen as serving three primary functions: to motivate for action, communicate to others, and communicate to self. From a DBT perspective (see Linehan, 2015), to benefit from the wisdom of emotions, it is imperative to learn how to experience emotions without escaping, differentiate between emotions that are helpful from those that are unhelpful, be able to change emotions that are not helpful, and effectively problem solve emotional conflicts. All these challenges arise when confronted by troubling and complex climate information and threats.

Also, highly emotionally sensitive people are more likely to have a heightened sensitivity to the status of the natural environment and of animals (Setti *et al.*, 2022) and thus may be drawn towards conscious-raising and advocacy. Many programs that have been created to help people face the climate crisis, such as 'The Work That Reconnects' (Macy and Johnstone, 2022), focus on the elicitation of strong emotions and experiences of catharsis to facilitate action. These programs are built on the expectation that participants have the requisite emotion regulation skills to contain strong or troubling reactions evoked by the group process. For people with a high biological sensitivity to emotion, the tasks of emotion regulation are extremely difficult, and strong emotions can result in emotion dysregulation. So, adding a DBT component may be a helpful support for climate awareness and advocacy programs.

In my practice (J.H.), it is common for clients to seek therapy for anxiety and depression related to multiple issues that include distress about the climate crisis. Many express interest in programs like The Work That Reconnects (Macy and Johnstone, 2022) or other programs designed to help people face the crisis. However, when they open to their pain and suffering about nature, they are overcome with strong emotions, often anxiety, guilt and shame (e.g. about economic privilege or complicity in carbon-intensive activities). Reports of being overwhelmed and distracted or stopping the work completely are common. Some clients report guilt and shame accompanied by thoughts they are not doing enough. This may result in escape behaviours (the most reported

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behaviours are scrolling through social media and watching videos online). Others engage in impulsive behaviours. For example, when anxiety about the climate crisis increases, one client immediately seeks out organizations to engage and volunteer with. They become overwhelmed with their increased schedule and are quickly demoralized due to slow progress. This results in hopeless thoughts and a decision to withdraw from climate-related activities, reactivating guilt and shame. Through participating in DBT and learning to pay attention to their experience non-judgementally, clients have been able to decrease avoidant behaviours and to organize their behaviour in service of their 'wise mind' and environmental identity values. This in turn helps them to maintain connection with like-minded social supports and action programs. More research on DBT specifically for the treatment of climate crisis-associated emotions and avoidant behaviour in people with high biological sensitivity to emotions and strong environmental identity is needed.

## Radically open dialectical behaviour therapy for eco-perfectionism

Acting in support of environmental values is an adaptive response to climate change distress, particularly when individuals engage in collective action, such as joining an advocacy group (Schwartz *et al*., 2022). However, it is important to consider how psychological vulnerabilities, such as maladaptive perfectionism and trouble collaborating effectively with other advocates, can interfere with climate action efforts. The relationship between trait anxiety and climate change action (Pickering and Dale, 2023) highlights the need to better understand how certain aspects of the environmental identities and beliefs of advocates, while potentially motivating them to get involved in environmentalism, can also interfere with their efforts to sustain involvement in the cause.

For individuals with climate distress who struggle with flexibility in their thoughts and behaviours to an extent that interferes with their well-being, there is a potential role for a kind of cognitive behavioral intervention known as radically open dialectical behaviour therapy. Developed by Dr Thomas Lynch, RO-DBT is a transdiagnostic intervention for treating disorders of over-control (Lynch, 2018a). Individuals with over-controlled personalities tend to persevere, focus on details, strive for high achievement, and live by a strong moral code. While self-control is valued by society, too much of it could lead to problems such as maladaptive perfectionism and trouble feeling like a valued member of a group.

RO-DBT targets individuals' social signals, or the overt behaviours that are carried out in the presence of others, to help them create more fulfilling relationships. For instance, over-controlled individuals might sulk, or pout rather than appropriately express uncomfortable emotions. They might hyper-fixate on details rather than engage in holistic thinking, and therefore come off as obsessive or overly critical. These behaviours interfere with effective interpersonal interactions.

Given the importance of collective action in effectively coping with eco-distress, perfectionism can render one more vulnerable to isolation in the face of the climate crisis. RO-DBT provides specific strategies for thinking flexibly and open-mindedly, learning how to accept feedback and to curb resentment (Lynch, 2018b). Such skills can be helpful for activists who are frustrated that others are not putting in enough effort. RO-DBT also helps people appropriately grieve unmet expectations they have of themselves, others, and the world. In this sense, RO-DBT is supportive for those whose environmental identity features altruistic values regarding the humanitarian aspect of the climate crisis (Schultz, 2000).

Outside of anecdotal accounts, there is no established relationship between maladaptive over-control and climate distress, or the efficacy of RO-DBT techniques for climate distress. This is a promising area for climate therapy research. In my clinical practice (J.K.), clients who present with existential angst have also tended to show behaviours consistent with problems of over-control,

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such as feeling upset when they believe they are not spending their time productively enough. Their distress is fuelled by internal beliefs that tie their self-worth to hard work and achievement, a feature of perfectionism (Curran and Hill, 2019). In addition, they see staying busy as the only way to keep intrusive worry thoughts, including those about existential issues, at bay. In such cases, RO-DBT can help these individuals tame their nervous system in a way that allows them to feel more content and open to socializing and engaging in pleasurable behaviours.

In other cases, individuals with problems of over-control struggle to tolerate friends who act in ways that conflict with their activism (such as purchasing items from companies with poor environmental records). Radical openness, the core principle of RO-DBT that represents the confluence of openness, psychological flexibility, and social connectedness, can help these climate advocates understand others' perspectives, without necessarily agreeing with them, as in the case of differing opinions about lifestyle choices that impact sustainability such as diet and transportation. RO-DBT teaches clients to identify when they are experiencing a 'fixed' mind state in which there is rigid insistence that their way is the only correct way, as well as a 'fatalistic' state of mind, characterized by hopelessness and the urge to run away from problems. An example of a vulnerable group that may benefit from RO-DBT are new mothers who hold strong environmental values or who are experiencing climate distress. Davis and Athan (2023) describe several factors that can lead to an expanded ecological consciousness during motherhood such as the urge to protect children from environmental threats. In addition, mothers may experience (1) social isolation and hopelessness regarding their climate emotions and concerns; (2) sociocultural pressure towards perfectionism in environmental behaviours (that may manifest as hypervigilance or controlling tendencies to reduce one's ecological footprint regarding household and childcare decisions); and (3) a sense of self sacrifice. These tendencies may be exacerbated by a perception of blame, or feelings of guilt or ambivalence about choosing to have children in the context of climate breakdown.

## Composite case study: Avery

In this composite case study, details have been merged to protect individual identities and ensure confidentiality.

### *Client demographics and presenting concerns*

Avery (name anonymized, they/them/their pronouns) is a 20-year-old, undergraduate student enrolled in an urban university in the US, self-identified as white, queer, non-binary, and middle class. They sought therapy due to feelings of distress associated with climate change. Avery expressed that they have always been passionate about environmental issues, prompting them to major in environmental science with the intention of making a positive impact. Recently, however, they have felt overwhelmed by the magnitude of the climate crisis and increasingly concerned about the insufficient action being taken to address it. Avery also noted that they frequently wake up at night, experiencing anxiety concerning the potential climate change-related disasters like wildfire and flooding. Avery also shared feelings of isolation stemming from their friends dismissing their climate concerns and distress as alarmist.

### *Environmental identity exploration*

Inviting Avery to complete an activity exploring their environmental identity provided a deeper understanding of their relationship with nature. Avery explained that throughout their formative years, they found solace in the mountains close to their hometown in the Rocky

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Mountains of the US. This was a means to escape the sense of exclusion they felt from their peers regarding their gender and sexual identities, which they noted were the most salient of their social identities. They described feeling a sense of belonging in the natural world, absent of societal pressure to adhere to conventional gender expectations. Avery also recalled a wildfire that had swept through the area the summer before they left for college, a disaster they attributed to the broader impacts of climate change. They described the profound sense of climate grief they felt while walking through the burn scar. Avery further discussed how their decision to move from a rural town to a big city to pursue higher education, stemmed from their desire for a sense of community and safety that aligned with their queer and non-binary identities. However, the move also left them with a longing for the natural spaces they bonded with in their youth. Understanding the intersections between Avery's environmental, gender, and sexual identities suggested ways to validate their unique sense of connection with nature and factors that contributed to their climate-related distress. This also helped guide therapeutic strategies that honored their multifaceted identities.

## Therapeutic interventions

### 1. Normalizing and validating climate emotions

As noted, it is important to normalize and validate climate emotions and to foster a therapeutic alliance in preparation for presenting CBT interventions. In Avery's composite case, it was important to recognize their climate distress and symptoms were a normal response to a genuine threat, and made sense in context of environmental identity, values and experience. Validation provided by the therapist reduced Avery's feelings of isolation and nurtured a sense of curiosity and empowerment to channel their emotions in constructive ways. Support for Avery in recognizing the loss they felt for the natural spaces they felt accepted in as a queer and non-binary person helped them to articulate the interconnection they perceived between social and ecological injustices.

### 2. Use of climate anxiety-related CBT intervention

Implementing second wave CBT interventions such as attention to automatic thoughts proved beneficial for Avery regarding their obsessive concerns about climate disasters. They were able to critically assess how fixating on these thoughts not only intensified their anxiety but also decreased their motivation to participate in desired actions that could lead to meaningful environmental change. For instance, Avery came to realize that the habit of doom scrolling through climate-related news before bedtime significantly contributed to increasing their anxiety, which in turn, disrupted their sleep patterns and feelings of motivation.

ACT therapy techniques utilizing mindfulness, cognitive diffusion and acceptance were also helpful for Avery who noted they often get stuck in the thought, 'humans are going extinct, so what's the point of doing anything'. They discovered this amplified their levels of anxiety and diminished their motivation to respond in meaningful ways that aligned with their core values. This empowered Avery, guiding them toward strategies that could mitigate their anxiety while fostering their desired stance towards environmental advocacy and their personal well-being. RO-DBT was helpful for raising cautiousness of fixed and fatalistic thinking, and re-channelling Avery's impulses toward over-control and self-blame into outward emotional expression and support seeking.

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### *3. Building community*

To further decrease feelings of isolation, Avery was encouraged to explore local communities that shared their climate concerns through the lens of social and ecological justice. As a result, Avery found meaningful connection through joining an environmental justice organization on campus. They also sought ways to have restorative time in the outdoors by volunteering at a local urban farm dedicated to providing produce to under-privileged communities. A RO-DBT perspective provided support for Avery in cultivating effective communication skills that enabled them to engage in constructive conversations about climate change with their friends, fostering greater understanding rather than isolation.

### *4. Composite case study summary*

A lens of environmental identity fostered a better understanding of the meaningful intersections between Avery's environmental beliefs and values with their queer and non-binary identities. This information supported CBT approaches to assist them in managing their thoughts, emotions, and actions related to their climate concerns. Avery experienced a decreased sense of isolation, enhanced resilience in coping with climate-related distress, and a renewed sense of purpose.

## Looking forward: environmental identity and cognitive and behavioural therapy in an age of climate and ecological crises

Given the importance of environmental identity as a core component of one's self-concept and its intersection with other aspects of identity, assisting individuals in forming and expressing their environmental identity in personally meaningful ways can be a helpful process within the therapeutic context. Exploration of environmental identity and its relationship to one's values and concerns about the natural environment has a strong synergy with cognitive behavioural therapy's focus on insight, the role of assumptions and thinking style on psychological functioning, and relationships between inner states and outer behaviour. For example, well-facilitated CBT interventions can help raise consciousness of irrational thinking patterns or problematic behaviours that may exacerbate a person's climate distress. We have emphasized 'third wave' cognitive behavioural therapies in a climate change context as their fundamental focus on acceptance can help people to navigate difficult thoughts and emotions that are rooted in the stark reality of the climate crisis and what the future holds. These approaches also support people in building a life that feels meaningful despite the realities and challenges they may be facing.

ACT offers many opportunities for facilitating values-aligned actions through its core therapeutic processes. Learning DBT skills provides people with practical behaviours to assist them in decreasing avoidant behaviours and acting according to their environmental values. A confluence of factors strengthens the case for using RO-DBT to help people with climate distress to prevent burnout. Climate advocates who are over-strivers, and therefore presumably more motivated to act, might also be vulnerable to emotional loneliness and avoidance behaviours in the face of social stressors. By focusing on strengthening individuals' flexibility and social interactions, there is the potential to bolster cohesion among those who are on the front lines of the climate movement.

While several cognitive behavioural techniques can be helpful in a climate and environmental context, it also is important to be attentive to normalization and validation of climate distress, creation of a supportive therapeutic alliance, and a therapist's own readiness to take on ecological concerns and distress. Our goal has been to anticipate and inspire research into best practices

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utilizing environmental identity in cognitive behavioural and other therapy approaches, and to empower mental health therapists to adapt and apply their existing and well-developed competencies in a changing world.

**Key practice points**

(1) Based on clinical experiences of the authors, third wave cognitive and behavioural therapy interventions are beneficial in addressing climate distress, emotional dysregulation regarding climate and environmental stressors, and over-controlled and perfectionistic coping styles.
(2) The construct of environmental identity drawn from social and environmental psychology enhances climate conscious therapy in culturally responsive ways, such as with the LGBTQ+ community.
(3) Exploration of environmental identity and its relationship to wellbeing or concerns about the natural environment has a strong synergy with cognitive behavioural therapy's focus on insight, the role of assumptions and thinking style on psychological functioning, and relationships between inner states and outer behaviour.
(4) Additional research is recommended about the use of cognitive restructuring, acceptance and commitment therapy, standard dialectical behaviour therapy and radically open dialectical behaviour therapy in a climate and environmental context.
(5) There are a number of values provided by exploring environmental identity in therapeutic settings: (a) honouring a diversity of environmental beliefs and values, (b) revealing intersections with other personal and social identities, (c) disclosing personal history ranging from childhood experiences, to positive experiences in nature, to wounds and trauma; and (d) celebrating environmental identity's growthful and adaptive potential in a time of doubt and confusion about peoples' relationships with nature.

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