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The Power Threat Meaning Framework and the Climate and Ecological Crises

Abstract

Climate change poses an existential threat to today's and future generations. Within this context, important debates are taking place about the risk of individualising and de-contextualising both climate-related distress and denial. Seeking to re-centre context and power, we tentatively share our thoughts on how the Power Threat Meaning Framework (PTMF) might provide a useful lens to understand different responses to climate change. The paper draws on existing research, theory and experiences to elaborate on the domains of the PTMF, which include Power, Threat, Meaning, Threat Responses and Strengths. We focus on ideological and ecological power, with the latter proposed as a new aspect of power to be considered for future iterations of the PTMF. We illustrate how the different domains of the PTMF can be brought together to generate meta-narratives by offering a climate trauma pattern. We hope this article will be of use to activists, academics and professionals in supporting non-pathologising understandings of different reactions to climate breakdown while also suggesting ways to move forward.

Introduction

There can be no reasonable doubt we are in the midst of a climate crisis. The rate of ecosystemic decline is unprecedented and without radical action we face the prospect of societal collapse and mass extinction on a global scale (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), 2018; Intergovernmental Panel on Climate Change (IPCC), 2021). This recognition has led to growing concern about the 'mental health' consequences of climate breakdown (e.g., Augustinavicius et al., 2021; Lawrence et al., 2021; Van Susteren & Al-Delaimy, 2020). Consequently, there have been important

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conversations about the categorisation of climate-related distress, and the risks of terms such as 'climate anxiety' and denial being used in ways that individualise and decontextualise responses to climate breakdown (e.g., Adams, 2021; Barnwell, Stroud, & Watson, 2020; Pihkala, 2020; Woodbury, Buzzell & Chalquist, 2020). These concerns are situated within a wider critique of medicalised understandings of distress that pathologise emotions and other responses, obscuring connections to various forms of social injustice (e.g., Boyle, 2013; Dillon, 2019; Fernando, 2017). Conversely, some professionals have argued that increased anxiety and grief about climate breakdown should not be interpreted as an indication of 'mental ill-health' but instead recognised as an understandable reaction to the dire situation humanity is facing (e.g., Association of Clinical Psychologists-UK (ACP-UK), 2021; Adams, 2021; Hickman, 2020; Royal College of Psychiatrists (RCPsych), 2021).

Woodbury (2019) has advanced a compelling argument for regarding what he terms 'climate trauma' as a new form of 'cultural trauma' or 'collective trauma'; that is, a trauma affecting a whole community that permanently alters group consciousness, memories and future identity (Alexander, 2012). Drawing parallels with trauma-informed theory, Woodbury observes that the 'unprecedented, almost inconceivable' stressors on the entire biosphere can overwhelm an individual's abilities to adapt, while also overwhelming the systems, relationships and ways of life that provide a sense of control and purpose. This perspective allows for the consideration of non-pathologising understandings of presentations that might be labelled as 'climate anxiety' or similar, whilst also supporting understandings of reactions such as individual and collective denial (Nikendei, 2020). Accordingly, in this article, we use the term 'climate trauma' to describe the unparalleled collective threats posed by climate breakdown, *not* to imply that 'climate trauma' is a distinct condition that individuals might 'have'.

There is a need for frameworks to support non-pathologising understandings of varied responses to climate trauma as the climate and ecological emergencies accelerate. In our view, the Power Threat Meaning Framework (PTMF, Johnstone & Boyle, 2018) has the potential to offer such a perspective. Barnwell et al. (2020) drew on the PTMF in their study with residents of a South African mining town and concluded that it had utility in describing the complexity of responses to climate change by centring power and enabling the foregrounding of intersecting social justice issues. In this article, we share our thoughts on how the PTMF can offer a flexible framework, to support sense-making of a range of responses to climate trauma; those associated with inaction as well as distress. We additionally share our thoughts on how the PTMF's analysis of power may be enhanced through consideration of 'ecological power'.

Positionality

All the authors are white, financially secure mental health professionals who acknowledge benefiting from privileges rooted in colonialism. Throughout the paper, we refer to 'the Global South' to highlight global climate injustice and observe that the Framework and much of our thinking is shaped by our education within European and Northern American continents, regardless of where in the world we live. We recognise that our use of 'Global South' risks homogenising most of Earth's diverse communities. However, in this article we use the term to spotlight global climate injustices that are disproportionately experienced in the Global South (Barnwell & Wood, 2022). Our reflections cannot come close to capturing the range of different operations of power and responses encountered by humans across the globe. We do not advocate for the universalisation of the Framework across cultures, nor is this the position of the PTMF core team itself. Instead, we offer our reflections on the PTMF as an optional perspective among many.

The Power Threat Meaning Framework

The PTMF core author group of psychologists and survivors were part of a larger group of around 40 people, approximately a third of whom had accessed psychiatric services (Boyle & Johnstone, 2020). Freely available via the British Psychological Society (https://www.bps.org.uk/power-threat-meaning-framework), the PTMF was developed to provide an alternative to the empirically flawed diagnostic system that dominates western mental health care provision. A primary aim of the PTMF is to restore the links between distress and all forms of social injustice that are played out at personal, familial, and societal levels. ***Threat responses***, often regarded as 'symptoms' in diagnostic approaches, are reframed as means of protecting against, resisting or surviving ***threats*** posed by the negative operations of ***power***. The forms that threat responses take are mediated by several factors. These include the ***meaning*** a person ascribes to their experiences (shaped through various operations of power), as well as the ***strengths*** and power resources a person has available to them. Although it is impossible to fully separate the interlinked elements of power, threat, meaning, threat responses and strengths, we now consider each domain separately for illustrative purposes. We then present an initial attempt to draw the various aspects together into what is described as a 'pattern' in PTMF terminology.

Power

'What has happened to you?' (How is Power operating in your life?)

The Framework foregrounds power in making sense of suffering and the various ways people respond to a range of adversities. Acknowledging that 'power' is a complex and contested concept in the social sciences, the PTMF draws upon the

work of writers such as Foucault (1991), Bourdieu (2011) and Smail (2005) to offer a conceptualisation that regards power as relational, acting through individuals and societal structures, and differentially affecting the abilities of individuals and communities to meet their needs (Boyle, 2022). Table 1 on the following page offers one possible taxonomy of the many overlapping forms of power, and considers some of the ways power differentials might operate in relation to climate trauma. Although presented as distinct, these forms of power intersect, compounding the impact of climate trauma with other injustices such as racism (Williams, 2021), class oppression (Porter et al., 2020) and gender inequality (McKinney & Fulkerson, 2015). Below, we give additional attention to ideological power because this is understood as enabling asynchronous power relationships. We then introduce the notion of ecological power for consideration in future iterations of the PTMF.

Ideological Power

Ideological power is perhaps the least obvious but most influential form of power, operating to shape meanings, beliefs, and agendas at all levels, often in ways that benefit those who are already privileged. It is transmitted through media, the versions of history that are taught, the messages given by politicians or powerful others, and the ideas about un/healthy ways of responding to adversity that may be perpetuated by mental health professionals. Ideological power can result in people accepting inequalities as 'the way things are meant to be'. This includes ontological assumptions about the nature of the world (e.g., one pathway for humanity to progress, 'modernity') and epistemic assumptions (i.e., which kinds of knowledge are deemed valuable and which are not; Mignolo & Walsh, 2018). For example, in neoliberal societies in which economic profit is prioritised at the expense of welfare and public services, poor and wealthy alike may internalise modernity's meritocratic discourses such they accept material inequality: Those who are wealthy become regarded as worthy, whilst hard work is viewed as the way out of poverty (Boyle, 2022). Those who do not measure up to neoliberal values of competition, materialism and individualism – predominantly racialised, ableist, patriarchal, heteronormative and eurocentric standards – may be marginalised and considered inferior. This categorisation has its roots in colonialism and its legacies, termed coloniality, that continues privileging 'whiteness' while misappropriating, exploiting or alienating other ways of being and thinking (e.g. Mignolo, 2021; Patel, 2021).

In relation to climate breakdown, ideological power enables the continued destruction of the planet by promoting consumerism and positioning competition between nations and individuals as 'the natural order'. Discourses about the separation of humans from the natural world have also encouraged industrialised nations to privilege economic growth at the expense of degradation and destruction of Earth's resources

Table 1: A non-exhaustive taxonomy of power (adapted from Johnstone & Boyle, 2018: 94-95)

FORM OF POWER	EXAMPLE LINKS WITH CLIMATE BREAKDOWN
Interpersonal Power: The power to support/not support others in a range of ways; to promote or deny relational security, love and validation.	The degree to which a person's concerns and experiences relating to climate breakdown are validated or dismissed by others; the degree to which relatives and communities take a collective vs individualistic response; bereavement and loss resulting from climate-related devastation; family and community breakdown as resources become scarce.
Coercive Power: Power by force, violence and aggression, or threats of aggression	Arrest, assault, or political action against climate activists; abuses associated with conflict over scarce resources; land grabs by military forces
Legal Power: The use of the law to support or inhibit human rights and justice. Legislation can create security for some while resulting in insecurity for others.	The shaping of legal, regulatory and policy decisions to protect vested interests, for example, through emissions trading schemes and legal loop-hopes that support high-emission polluters**;** laws preventing or limiting protests; laws pertaining to ownership of land and the protection or destruction of nature; laws concerning migration and treatment of refugees; disregard of human rights, especially in relation to some groups; disregard of rights for non-human animals. Conversely, the use of legal power could be used to effectively restrict emissions and take other protective actions.
Economic & Material Power: The ability to acquire, control or access economic and material resources that support individuals & communities in meeting needs.	Free market economies based on growth enable the acquisition of wealth by various environmentally harmful industries (e.g., fossil fuel; aviation; intensive farming; tourism; fishing) and increase economic inequality within and between nations. Economic and material resources support abilities to: acquire or protect land; withstand threats to livelihoods from fires, flooding, droughts and so on; purchase more sustainable products/foods/energy; participate in activism; leave a job that goes against one's values.
Social/Cultural Capital: Access to valued cultural resources such as education, knowledge, connections with high-standing individuals	The degree to which concerns are heard and validated (e.g. concerns of children more readily dismissed, as are those of indigenous communities and of countries with less economic power and influence); education and knowledge about climate breakdown and adaptation; opportunity to contribute to and influence the discourses about climate breakdown; the ability to draw on social capital to protect family or community from the impacts of climate breakdown and societal collapse.
Embodied Power: The embodied attributes which happen be valued within a given society, such as strength, physical health, cognitive abilities, appearance and so on.	Limited mobility affects the ability to flee disasters/migrate/farm; the physical impact of extended famine and drought periods with little food or water; exposure to extreme heat; vulnerability to infectious diseases and air pollution.
Ideological Power: The control of meaning	See text
Ecological Power: The degree to which one's environment supports or inhibits survival, and the ability nurture local ecosystems	See text

and ecosystems (Moore, 2017). Ideologically-framed divisions into 'developed' (read 'majority white') and 'developing' (read 'predominantly Black and other racialised communities') nations position non-industrial ways of life as regressive, and the myth of infinite economic growth is supported by the racist framing of more mutualistic relationships with the natural world as 'primitive'. The narrative fictions of modernity continue to facilitate ecological exploitation, exclusions and silencing of those who are affected in the Global South (Barnwell, et al. 2021; de Sousa Santos, 2018). Furthermore, the legacy of racist and colonial discourses in overdeveloped nations encourages tolerance of the upper limit of 2°C warming, since the major impacts will be experienced 'elsewhere', by non-white 'others', resulting in what has been aptly termed 'climate apartheid' (Bond, 2016; Rice et al., 2021). Similarly, the prospect of mass extinction of non-human animals, as well as ongoing abuse of such creatures through intense farming practices, is supported by discourses that regard non-human life as existing for the exploitation of humans (Foer, 2010).

While outright climate change denial has become less prominent, it has been replaced by more subtle attempts to shape regulations and policies (Stoddard et al, 2021). Although governments, corporations and the media now publicly acknowledge climate breakdown, this is often done in ways that dismiss the severity of threats or utilise 'greenwashing' tactics such as setting distant net zero targets whilst supporting continued extraction and destruction of ecosystems (Mann, 2021; Supran & Oresekes, 2021). Systemic change is further inhibited by corporation-sponsored campaigns for lifestyle changes that locate responsibility within individuals, deflecting attention away from the responsibilities of high-polluting businesses and governments (Mann, 2021; Schmitt et al., 2019). At the same time, tactics such as referring to climate activists as 'terrorists' or 'public nuisances' support the invalidation of resistance and enable the use of legal and coercive power against protesters (Cooper & Aitchison, 2020). Extraction is justified by false dichotomies of 'development' versus 'green' agendas, pitting working-class communities against each other (Green, 2020). Many more examples of denial or minimisation of risks could be cited. Yet there are also emerging attempts to shift the ideological narrative about climate breakdown in ways that will support new, more sustainable ways of living in harmony with our planet (Weintrobe, 2021, part 8).

Our analysis is supported by a recent review concluding that the vested interests of the fossil fuel industry, geopolitics and militarism, energy supply systems, and high carbon lifestyles are key factors in the failure to curb emissions over the last three decades (Stoddard et al., 2021). Stoddard and colleagues argued that this cluster of vested interests is enabled by discourses of climate delay and interdisciplinary research agendas. They concluded that 'power emerged as a particularly important

thread to emphasize …. [and] emerged as a recurrent and important motif in all of the reviews … Such power has come to shape debates, control institutions, and describe the boundary of the paradigm within which most societies implicitly operate' (2021: 658). The parallels with the various forms of power suggested by the PTMF – economic, material, ideological and so on – are clear. We have drawn from their comprehensive list of power influences in Table 1.

A further way in which ideological power can operate to serve the vested interests of a minority is through diagnostic or pseudo-diagnostic labels such as 'climate anxiety' and 'eco-grief'. Such terms individualise distress and pave the way for psychiatric or psychological 'treatments' for what should be regarded as understandable and perhaps necessary reactions to climate injustices (Adams, 2021; Randall, 2020b). As Barnwell et al. (2020: 13) phrased it: 'applying the phrase "climate anxiety" to this context would de-politicise the nature of distress that is rooted in asymmetrical power dynamics'. A main aim of the PTMF is to make these dynamics visible.

Ecological Power

In this section, we propose the addition of another form of power, 'ecological power', to the PTMF. Psychologists and psychiatrists have long recognised that human development and survival is rooted in our ecological contexts (Bronfenbrenner & Mahoney, 1975; Meagher, 2020; Steg, van den Berg & de Groot, 2013). We suggest the use of the term 'ecological power' to refer to the degree to which our ecosystems support or inhibit access to shelter, food and water, as well as our safety from threats associated with extreme weather events and fires. A healthy ecosystem supports feelings of security, a sense that the planet can continue to nurture us (Baxter & Pelletier, 2019), and reinforces identity and purpose through connection with the natural world, widely recognised as beneficial for wellbeing (Adams & Savahl, 2017; Cooley et al., 2020; Tillmann et al., 2018).

Ecological power also relates to a person or community's ability to influence their relationship with their ecosystems (Shiva, 2020; White, 2020). These abilities will be interdependent with other power differentials, such as ideological power (e.g., whether indigenous rights to object to mining are recognised, or whether youth climate activists are involved and listened to in decisions about their future). Those with less material power, including many of those in the Global South who are already feeling the most acute effects of climate breakdown, will be less able to adapt to current and future threats (Fernandes-Jesus, Barnes, & Diniz, 2020; Rice et al., 2021; White, 2020). Inequality within nations owing to colonialism and its legacies means that those with the least ecological power will be subjected to other, related forms of oppression. Such individuals are less likely to have access to land to grow food, means of keeping cool

during extreme heat, or possibilities of rebuilding homes and livelihoods following natural disasters (Berry et al., 2010).

Threat

'How did it affect you?' (What kind of Threats does this pose?)

Research suggests that some human needs are likely to be universal, although the relative importance of each would vary with individual, relational, and cultural factors (Johnstone & Boyle, 2018, chp 4). The negative operations of power create threats to a person's abilities to meet these needs. The severe threats posed by the acute impacts of climate breakdown and the loss of ecological power are clearly apparent: the survival of the human race and millions of other species is at stake (IPCC, 2021); billions are already enduring acute threats associated with famine and drought (Boretti & Rosa, 2019); and rising sea levels, desertification, wildfires, and extreme weather events have already resulted in major humanitarian crises (International Committee of the Red Cross/Crescent, 2020). According to the United Nations Refugee Agency (UNHCR (2020), the numbers of people in need of humanitarian assistance are expected to double to around 200 million each year by 2050. Climate breakdown is contributing to pandemics, heat-related stress, respiratory disease, increases in allergies, malnutrition and the spread of vector-borne diseases such as dengue and malaria, thus amplifying health injustices (Rocque et al., 2021; Rouf & Wainwright, 2020; Watts et al. 2020).

Woodbury (2019) likened awareness of these threats to living with a terminal illness: 'You may put it out of your mind for spells, but the grief associated with prospective loss comes at you in waves. Similarly, the ''remembrance'' of Climate Trauma is like inhabiting an inhospitable, even dystopian world. There can no longer be any question that life as we know it is now ending.' (p.5). With such knowledge, experiences such as news reports, deviations from familiar weather patterns, being in nature, or children speaking about their future all can become triggers to existential threats (Chawla, 2020).

Recognition of the harm a person's lifestyle has contributed to the planet can present threats to self-identity within neoliberal societies in which self-worth is often measured against material possessions (Clegg, & Lansdall-Welfare, 2021; Timimi, 2021). Participation in climate activism or making 'greener' lifestyle changes can threaten positions within social hierarchies in capitalist societies. There can be further threats associated with one's identity with the human race when a person recognises the atrocities perpetrated by our species (Andrews & Hoggett, 2019). Some individuals encounter threats of invalidation when concerns about climate breakdown are dismissed or responded to with the imposition of unwanted mental health diagnoses

(Clayton, 2018; Craps, 2020; Randall & Hoggett, 2019; Sanson, 2021). Many young people not only feel threatened by the prospect of a hotter world and ecological degradation, but also by a sense of being unheard, betrayed and abandoned by the generation above them (Hickman et al., 2021); experiences that have been referred to as 'institutional betrayal' (Smith & Freyd, 2014).

Like the various forms of power abuse, threats rarely occur in isolation. At an individual level, it will be harder for people to attend to the threats posed by climate breakdown if, for example, they are also struggling with threats from unemployment, financial insecurity, discrimination, violence, and so on (Rezwana & Pain, 2021; Williams, 2021). This is also true at a more general level: In their study of a mining town in South Africa, Barnwell et al. (2020: 10) noted that climate breakdown '…compounds existing social and environmental threats that have their roots in broader social injustices, for example, racial segregation under the apartheid regime'. Globally, those most impacted by climate breakdown are people from the Global South, indigenous communities, and people on low incomes, categories which intersect with colonial violence (Williams, 2021).

Meaning

'What sense did you make of it?' (What is the Meaning of these situations and experiences to you?)

Meaning-making is inseparable from our sense of threat. In the PTMF, 'meaning' includes emotions and bodily reactions. Drawing upon the work of Shotter, it is understood as shaped and constrained by power and thus is never truly individual (Cromby, 2022; Johnstone & Boyle, 2018): The various conflicting messages described under 'Ideological Power' above will all act to hinder individuals and communities from ascribing coherent meanings to threats, and may even block the recognition that climate breakdown poses significant threats at all. For example, people in societies where neoliberal values are dominant, are exposed to heavily-promoted ideological assumptions which make it hard to imagine a future in which we have a different relationship with each other and the natural world (e.g. Raworth, 2017; Villanueva, 2021). As Stoddard et al. (2021) phrase it, Westerners are 'intimately tied to an "epistemological monoculture" that has impoverished the collective global capacity to imagine and realize forms of living not dependent upon exploitation of people' (675-676). Psychoanalysts have used the term 'disavowal' to refer to processes whereby people seem to acknowledge threats but carry on with life as if the threats are not present, negating responsibility and agency (Randall, 2020a; Tollemache, 2019). Such reactions could be regarded as threat responses (see below), but also could be understood as an effect of operations of ideological power, leading to an inability to construct coherent meanings due to the contradictory messages people are exposed

to (e.g., news headlines on the need for urgent climate action sitting next to articles celebrating economic growth).

Those more able to stay connected to the threats of climate breakdown and climate trauma may experience meanings such as grief, fear, hopelessness, powerlessness, betrayal and rage (Hickman et al., 2021). Young people may experience a profound sense of injustice and anger at older generations as they face a future blighted by environmental degradation and existential threats (Sanson & Bellemo 2021; Van Susteren & Al-Delaimy 2020). They may feel isolated and dismissed by friends, relatives and peers who seem oblivious to the threats. People living in the Global South who resisted centuries of colonial oppression may have chronic experiences of living (and reliving) external intrusions, abandonment, social alienation, institutional betrayal, and racial aggressions (see Williams, 2021). Conversely, ideological messages that locate responsibility for climate breakdown with individuals (Schmitt et al., 2019) can result in overwhelming guilt, experienced at individual and collective levels among people from nations that have disproportionately exploited the Earth (Weintrobe, 2021). Others may experience a sense of meaninglessness or purposelessness when forced to re-evaluate core aspects of their lives (Randall, 2020b; Woodbury, 2019).

Within this context, labels such as 'climate anxiety' or 'solastalgia' may, unless used with care, serve to disconnect threat responses from threats, rendering them unintelligible. Instead, labelled individuals may come to develop meanings associated with 'mental illness' identities; for example, 'defectiveness', 'shame', and 'alienation' (Johnstone & Boyle, 2018: 20-222).

Threat Responses

'What did you have to do to survive?' (What kinds of Threat Responses are you using?)

Threat responses describe how people, families and communities attempt to survive threats. Many (but not all) of the threat responses listed in the PTMF are viewed as 'symptoms' of 'mental illness' in the Global North. However, the PTMF argues that these ways of thinking, feeling and behaving, no matter how 'unusual', can be considered intelligible in relation to threats and their associated meanings. Threat responses are regarded as being on a spectrum from those that are within our control to some degree, even if challenging to stop (e.g. substance use, self-harm), to those we have very little control over due to the functioning of the autonomic nervous system (e.g. fight/flight/freeze responses). Given the enormity of the threats posed by climate breakdown and our relative powerlessness as individuals to avoid or ameliorate its impacts, many threat responses to climate trauma will fall at the latter end of this spectrum. For example, dissociation, in which intolerable emotions or memories

are banished from conscious experience (Johnstone & Boyle, 2018: 109-110), might account for some of the lack of action (Woodbury, 2019). Those more able to remain connected to the severity of threats may experience autonomic anxiety responses such as hyperarousal, nightmares and panic (Randall, 2020b).

Table 2 shows a number of possible threat responses to the climate crisis grouped by the function they might serve (see Johnstone & Boyle, 2018: 212-244 for other threat responses and functions pertinent for threats interlinked with climate trauma, e.g., social injustice, oppression, poverty). These are not exhaustive, and the content is informed by various sources (e.g. Andrews, 2017; Andrews & Hoggett, 2019; Lertzman, 2019; Randall & Hoggett, 2019; Tollemache, 2019; Westcott, 2019; Weintrobe, 2021). The same threat response can be understood as serving different functions for different individuals, as well as for the same person at different times. The availability of a given threat response will also vary depending upon a person's or community's power context. For example, the ability to pay for ethically sourced food and energy will be dependent upon economic power, whilst access to land to grow food for survival (ecological power) varies considerably. Similarly, white and class privilege can make acts of civil disobedience in western nations less risky, whereas environmental defenders in some Global South nations face murder, coercion and violence (Duncan, 2015; Le Billon & Lujala, 2020). At the other end of the spectrum, those who have materially benefited from current economic systems might be more inclined to utilise threat responses such as denial, entitlement and 'othering' to protect against threats associated with knowledge of harm to humans and non-human animals.

Finally, the social desirability of threat responses will vary by culture and scripts (operations of ideological power) for different 'types' of people. For example, men in neoliberal societies may be influenced by hegemonic masculinity discourses that make it less acceptable for them to switch to a plant-based diet (Greenebaum & Dexter, 2017). Randall and Hoggett (2019) observed that differences in the cultures climate scientists and activists operated within afforded different threat responses as permissible.

Strengths

'What are your strengths?' (What access to Power resources do you have?)

Whilst all threat responses can be considered understandable in the context of lived experience, this does not imply that all should be regarded as useful or ethical; some can pose further threats to the person, others, and ecosystems. Because most forms of distress can be linked to social injustices of various kinds, the PTMF encourages responses that involve social action. One way of supporting this is by identifying strengths – the final interrelated core element of the PTMF. Strengths can include

Table 2: Examples of threat responses grouped by possible functions

FUNCTION	EXAMPLES OF THREAT RESPONSES
Regulating overwhelming feelings associated with existential threats, including rage, despair, sadness, terror, grief, shame, guilt, responsibility and loss	Dissociation; nightmares; emotional numbing; giving up, fatalism; low mood; rapid mood changes; denial/minimisation of threats; 'living for the day'; engagement with conspiracy theories; wishful thinking; ruminating; mourning/grieving; identification with those causing most damage; 'othering' people and non-human animals who will be more acutely impacted; intellectualising; compartmentalising through focusing on isolated risks/'solutions'; use of humour/cynicism; attention difficulties; focusing on other tasks that are less overwhelming; putting faith in world leaders or technology to solve problems; revising expectations for future life; choosing not to have children; nationalism/racism (attributing blame to other nations or to immigration and population growth); self-criticism for failing to make pro-environmental choices; avoiding information or conversations about the climate crisis; use of alcohol or drugs, illegal or prescribed; unsustainable or compulsive activism;; distraction (e.g., television, work); connecting with others who are concerned; spending time in nature; mindfulness; making lifestyle changes; informing oneself about the issues; campaigning and taking climate action of various forms
Protection from physical danger	Fight/flight/freeze responses; hypervigilance (e.g., seeking out news, alertness to evidence of the unfolding crises); panic; flashbacks; nightmares; insomnia; suspicious thoughts about intentions of others; unsustainable engagement in climate activism (i.e. as fight response); ruminating about how to keep self & loved ones safe; migration; growing food; stocking supplies ('prepping').
Maintaining a sense of control/agency; protection against feelings of powerlessness	Denial/minimisation of threats; engagement with conspiracy theories; rituals/compulsions; fatalism; compartmentalising through focusing on limited risks/'solutions' or technological answers; focusing on career or other aspects of life that have more control over; compulsive activism; avoiding information or conversations on the climate crisis; making lifestyle changes; participation in climate activism
Striving for a place within the social group	Denial/minimisation; continuing to make high-emission choices due to pressures to aspire to social norms; making pro-environmental choices to fit in with norms of a given group (e.g., the increasing popularity of second-hand goods); dominance, hostility & aggression; submission, appeasement; devaluing others (e.g., racism & xenophobia, mocking environmental activists); avoiding climate activism or discussing climate breakdown due to fears about how others will perceive you.
Seeking purpose/meaning	Unusual beliefs; acceptance of conspiracy theories; compulsive activism; alignment with far-right or other harmful ideologies; altering own behaviours; participation in climate activism/social justice initiatives; reflecting on and connecting to values; challenging one's core beliefs and assumptions; seeking connection to nature; engaging with arts and creativity; prayer or meditation.

the power resources accessible to individuals and communities, and the values they may be able to draw upon (Johnstone & Boyle, 2018, chp.6). For example, a strong connection with values may enable people to remain engaged in climate justice struggles in the face of institutional betrayal. In keeping with ideas described in narrative therapy (Yuen, 2009) and trauma-informed practice (Warner, 2000), seemingly insignificant acts of resistance (e.g. making small lifestyle changes; choosing to discuss climate change with clients, colleagues, family and friends; writing to politicians) can all make a difference. People may be able to re-discover a sense of purpose and hope and develop a stronger sense of spirituality and connection to the more-than-human world through joining with others (Bendell, 2020; Macy & Johnstone, 2012). Equally, meanings and values may be validated through the communal act of campaigning alongside others (Randall & Hoggett, 2019). Each of us will bring different skills, strengths and talents to this task.

We can take heart from numerous other projects and campaigns around the world. For example, indigenous leaders and environmental groups have stopped the Keystone XL Pipeline (Estes, 2019), and Xolobeni's Amadiba Crisis Committee won the "right to say no" to mining in South Africa's high court (Centre for Applied Legal Studies, 2020). Climate justice movements, such as Extinction Rebellion, Fridays for the future, 350.org, have left a profound imprint on the world's collective conscience. Legal efforts to make ecocide (mass damage or destruction of ecosystems) an international crime are gathering pace (Independent Expert Panel for the Legal Definition of Ecocide, 2021). Youth climate justice activists are taking governments to court, highlighting the impacts of climate injustices and psychological wellbeing (see Centre for Environmental Rights, 2021), and new sustainable economic models have been developed and even adopted in some places (Hickel 2020; Raworth, 2017). Today, renewable energy is a viable option and significant efforts have been directed to ensure that the world transitions from fossil fuels (Mann, 2021). Although these prospects are encouraging, it is important to recognise that territories that have 'transition minerals' are also subject to similar extractive practices and human rights violations (Sovacool et al., 2021). Thus, groups like the COP26 Coalition (nd) are important spaces to ensure that the "just transition" is not co-opted by the fossil fuel industry and that those most affected by the climate emergency are not side-lined. Similarly, platforms like the 'Red Deal' have been proposed by oppressed groups and recognise that plans such as the 'Green New Deal' do not go far enough to reconcile the legacies of colonialism (Red Nation, 2020).

None of the above changes the fact that broad, radical action that foregrounds climate justice is required to survive and build a just society. Wishful thinking has been identified as a maladaptive threat response given that it prevents meaningful

engagement with the crises (Andrews & Hoggett, 2019). However, drawing attention to liberatory histories and the resources of individuals, communities and humanity, can support us in remaining connected to the threats posed by climate breakdown whilst supporting us to act ('Active hope'; Macy & Johnstone, 2012).

Narrative in the PTMF

The PTMF core domains can be used to structure non-pathologising narratives, which might support individuals to make links between threat responses and operations of power, recognise strengths, and consider other threat responses that could be utilised (Boyle & Johnstone, 2020, chp. 9). The construction of personal narratives can be supported through reference to what are termed 'provisional general patterns' (Johnstone & Boyle, 2018, chp. 6). These are meta-narratives that can be seen as describing, at a broad level, how people in a particular social, cultural and historical context commonly attempt to survive particular constellations of power abuses. The PTMF describes them as patterns of embodied, meaning-based threat responses to the operation of power. Unlike psychiatric diagnoses, these patterns do not describe something that someone 'has', but rather are regarded as common patterns of responding; things people 'do', at various levels, to survive the negative impacts of power. Patterns may also support the identification of the ways in which power and collective action can be used to create change. Like the rest of the PTMF, the patterns are in an ongoing state of development and will inevitably vary across cultures. We suggest the addition of a pattern called 'Responding to climate breakdown'. It might look something like this:

> ***Responding to Climate Breakdown***
> This pattern describes the impacts of climate breakdown on individuals, families and communities. As with the other patterns offered in the PTMF, people may identify with it to varying degrees, depending on their particular circumstances.
>
> *Climate breakdown is driven by economic models based on the exploitation of the natural world in the pursuit of continuing economic growth and profit, and by a deeply embedded worldview that underpins these assumptions and aims. The resulting sense of disconnection from the natural world is a core feature of modern westernised societies, whilst exclusion, alienation, dispossession and resistance are possibilities felt by those on the frontlines of extractivism (the large scale exploitation of natural resources for economic profit) in the former colonies. The enormously profitable fossil fuel, farming, military and other industries are continuing exploitation with little incentive to reform. At a more personal level, neoliberal societies have successfully inculcated values of consumerism and individualism, which increase inequality and encourage unsustainable lifestyles. Their counterparts*

in the Global South continue to endure ongoing colonial extractive practices and, since the rise of neoliberalism, these regions of the world are also considered new markets for western consumerism. Climate breakdown now poses a serious threat to the survival of the human race and life on earth as we know it. Large parts of the world, especially the poorer nations, are already experiencing increased deaths, illness, loss of homes, habitats and livelihoods through heat, fire, floods, rising sea levels, environmental degradation and loss of biodiversity. As with other power abuses, climate injustices most impact those who are least privileged and intersect with other forms of discrimination, including racism and sexism that have roots in coloniality as a whole.

Globally, emotional responses including fear, grief, anger, helplessness, guilt and an overwhelming sense of responsibility, powerlessness and despair are common. Expressing fears can result in alienation from others, and the young in particular might feel abandoned and disenfranchised by older generations and those in power. When feelings become too overwhelming, responses may tip over into denial, dissociation and blaming of others. At a societal level, the growing public and political awareness of this crisis is often counteracted by legal, ideological and other powerful forces which seek to protect economic and other interests by invalidating and silencing debate and protest, and thwarting other human rights. Many people may find it difficult to connect to the threats posed by climate breakdown because they are responding to proximal threats associated with extreme poverty, abuse or other forms of oppression. Additionally, those in western neoliberal societies may be orientated towards threats associated with the pressure to maintain one's place within social hierarchies. There is also a risk of individualising and de-politicising climate-related distress by applying diagnostic labels and 'treatments.'

However, collective actions that move towards climate justice have been found to reduce despair and restore a sense of hope and empowerment, and grassroots activism across the globe is achieving some significant victories. There is a short window of time to mitigate the worst effects of climate breakdown and, particularly in westernised cultures, to take the opportunity to re-examine the values that have led to this crisis and re-discover the principles of sustainability, co-operation and social justice. There are many inspiring examples of people taking power back through collective action to serve their communities and our planet.

Concluding Remarks

We have described how the PTMF might be used to support non-pathologising understandings of responses to climate breakdown that centre the role of power abuses and social injustice and promote positive action for climate justice. We have drawn

upon Woodbury's (2019) argument that climate breakdown should be regarded as a trauma impacting everyone, compounding effects of other forms of trauma and social inequality. From this perspective, we have attempted to illustrate ways in which the Framework might account for a range of threat responses: from those such as grief, panic and despair, through to denial, overcompensation, othering and entitlement, as well as those that enable constructive social and ecological engagement through drawing on our shared strengths and resources. We use this final section to consider some of the ways the PTMF could support engagement with climate action or other social justice issues, and how therapists might support people overwhelmed with distress. We conclude by offering ideas for research and future developments of the PTMF.

Whilst many excellent texts have already drawn attention to the primacy of ideological power in making sense of such reactions (e.g., Andrews, & Hoggett, 2019; Weintrobe, 2021, Stoddard et al 2021), the individualising orientation of recent western psychology and psychiatry (e.g. Boyle, 2013; Clegg & Lansdall-Welfare, 2021; Timimi, 2021) has obscured the impact of injustice, oppression and control of meaning. Consequently, both distress and denial have been framed as problems to address at the individual level through therapy or behaviour change interventions (Adams, 2021; Schmitt et al., 2019; Whitmarsh et al., 2021). Such individualistic approaches misattribute and oversimplify varied responses and fail to support the radical change so urgently needed through perpetuating intersecting inequalities (Kinouani, 2019) and consumerist ideologies that have enabled the destruction of our planet's ecosystems (Weintrobe, 2021).

The PTMF can be used to support foregrounding climate justice, by centring the operation of power in making sense of various responses and thinking about what might be useful for individuals personally whilst recognising that the real need for change is at political, structural, systemic and cultural levels. Development of PTMF narratives that centre the various operations of power has the potential to support individuals and communities to shift from seeking and prescribing individualised interventions to recognising the value of collective climate justice struggles, in the same way as community psychology interventions have supported people who had previously internalised various forms of oppression (e.g. Holland, 2011; Melluish & Bullmer, 1999). Indeed, we believe mental health professionals should also participate in climate activism, using our privilege to influence systemic change (e.g., ACP-UK, 2020; Barnwell & Wood, 2022; Climate Psychology Alliance, nd; Knight, 2020; Psych Declares, nd; XR Psychologists, nd).

Of course, there is still a role for supporting individuals struggling with distress in relation to climate and ecological harm. Comfort, clarification and encouragement are

vital in helping to address the anguish brought about by dread, adversity and trauma (Smail, 2015). Empowerment through provision of safety (physical and psychological), respectful acknowledgement of distress, sympathetic understanding and meaning-making may help mitigate the worst suffering for some individuals. Whilst connection with concerned others was identified as extremely helpful by the climate activists in their study, Randall and Hoggett (2019) also identified the risks of engaging in activism with an intensity that their participants had found unsustainable. Narrative construction at individual and group levels might enable people to recognise the limits of their personal responsibility for change, supporting them to remain engaged in activism in ways that pose less threat of emotional overwhelm.

Recognition that climate breakdown and the interlinked operations of ideological power impact everyone can go some way to support the engagement of people who use threat responses such as denial or minimisation (Andrews & Hoggett, 2019; Woodbury, 2019). Useful guidelines have been developed to enable conversations about climate breakdown that do not activate unhelpful threat responses (Webster, & Marshall, 2019). However, given the primacy of asymmetrical power relationships in contextualising responses, we urgently need media, businesses and governments (particularly those from nations most responsible for the destruction of our planet) to shift discourses, emphasise the urgency of the climate and ecological crises, and set precedents for action (Schmitt et al., 2019; Whitmarsh et al., 2021). The Stoddard et al. (2021) analysis of factors preventing effective action on emissions recognises 'the power of ideas, to how people can thrive beyond dominant norms, and to the possibility of rapid cultural change in societies' (p.659). In PTMF terms, ideological power can work in our favour, potentially supporting rapid shifts in meaning-making about humanity's relationship with the planet, thus impacting behaviour and threat responses. The unhelpful dichotomy between the call for promoting systemic or individual change obscures the fact that they are inseparable and complementary, and that both are essential for a sustainable world (Adams, 2021; Schmitt et al., 2019). Moreover, our psychological wellbeing is intertwined with the world around us, and pro-social action that rights social injustices can help to address these socially rooted psychological adversities (Gaztambide, 2019; Martín-Baró,1994). Given that mental health professionals have faced much criticism for pathologising 'normal' behaviour, we are perhaps well-placed to model sustainability, create coalitions across differences, and participate in socially relevant action in our day-to-day lives.

Future developments

While the reception of the PTMF has mainly been positive, it has also attracted criticism for inaccessibility and limited guidance about how it might be translated into practice (Johnstone et al., 2019). From our perspective, its failure to discuss climate change

and environmental harm is a serious omission. The utility of the Framework in this area could be researched through action-research approaches, for example through developing narratives within groups or individual interviews and evaluating the impact alongside participants in terms of their understandings of their responses and their engagement in climate activism. The PTMF is an evolving project, and we hope this paper offers a meaningful contribution to its further development, while showing how its principles may help us meet the urgent and unprecedented challenges we face in addressing the climate and ecological crises.

References

Adams, M (2021) Critical psychologies and climate change. **Current Opinion in Psychology, 42,** 13-18.

Adams, S & Savahl, S (2017) Nature as children's space: A systematic review. **The Journal of Environmental Education, 48(5)**, 291-321.

Alexander, J (2012) **Trauma: A social theory.** Cambridge: Polity Press.

Andrews, N (2017) Psychosocial factors influencing the experience of sustainability professionals. **Sustainability Accounting, Management and Policy Journal, 8(4)**, 445-469.

Andrews, N & Hoggett, P (2019) Facing up to ecological crisis: a psychosocial perspective from climate psychology. In Foster, J (ed) (2019) **Facing up to climate reality: Honesty, disaster and hope.** London: Green House Publishing.

Association of Clinical Psychologists-UK (2020) ACP-UK Statement on the Need for Action to Address the Climate Crisis. https://acpuk.org.uk/climate_change_statement/

Association of Clinical Psychologists-UK (2021) ACP-UK Rapid-response to report on the impact of climate breakdown on distress. https://acpuk.org.uk/acp-uk-rapid-response-to-report-on-impact-of-climate-breakdown-on-distress/

Augustinavicius, J L, Lowe, S R, Massazza, A, Hayes, K, Denckla, C, White, R G, Cabán-Alemán, C, Clayton, S, Verdeli, L & Berry, H (2021) Global climate change and trauma: An International Society for Traumatic Stress Studies briefing paper. *https://istss.org/public-resources/istss-briefing-papers/briefing-paper-global-climate-change-and-trauma*

Barnwell, G, Stroud, L & Watson, M (2020) Critical reflections from South Africa: Using the Power Threat Meaning Framework to place climate-related distress in its socio-political context. **Clinical Psychology Forum, 332,** 7-15.

Barnwell, G, Makaulule, M, Stroud, L, Watson, M & Dima, M (2021) The lived experiences of place severing and decolonial resurgence in Vhembe District, South Africa. **Awry: Journal of Critical Psychology, 2(1),** 49-68.

Barnwell, G & Wood, N (2022) Climate justice is central to addressing the climate emergency's psychological consequences in the Global South: a narrative review. **South African Journal of Psychology, 0(0),** 1-12. https://doi.org/10.1177/00812463211073384

Baxter, D E & Pelletier, L G (2019) Is nature relatedness a basic human psychological need? A critical examination of the extant literature. **Canadian Psychology, 60(1),** 21.

Bendell, J (2020) Deep adaptation: A map for navigating climate tragedy. http://www.lifeworth.com/deepadaptation.pdf

Berry, H L, Bowen, K & Kjellstrom, T (2010) Climate change and mental health: A causal pathways framework. **International Journal of Public Health, 55,** 123-132.

Bond, P (2016) Who wins from "climate apartheid"?: African climate justice narratives about the Paris COP21. **New Politics, 15(4),** 83.

Boretti, A, & Rosa, L (2019) Reassessing the projections of the world water development report. **NPJ Clean Water, 2(1),** 1-6.

Bourdieu, P (2011) The forms of capital, In Szeman, I, & Kaposy, T (eds) (2011) **Cultural theory: An anthology.** Singapore: Wiley-Blackwell.

Boyle, M (2013) Persistence of medicalisation: Is presentation of alternatives part of the problem? In: Coles, S, Keenan, S, & Diamond, B (eds) (2013) **Madness contested: Power & practice**. Gosport, UK: PCSS.

Boyle, M (2022) Power in the Power Threat Meaning Framework. **Journal of Constructivist Psychology, 35(1),** 27-40.

Boyle, M & Johnstone, L (2020) **A straight talking introduction to the Power Threat Meaning Framework.** Exeter, UK: PCSS.

Bronfenbrenner, U & Mahoney, M A (1975) **Influences on human development**. Hinsdale, Illinois: Dryden Press. (1973)

Centre for Applied Legal Studies (2020) Game-changing judgement for Xolobeni community on mining rights applications. https://www.wits.ac.za/news/sources/cals-news/2020/game-changing-judgment-for-xolobeni-community-on-mining-rights-applications.html

Centre for Environmental Rights (2021) Youth-led #CancelCoal climate case launched against Government's plan for new coal-fired power plants. https://cer.org.za/news/youth-led-cancelcoal-climate-case-launched-against-governments-plans-for-new-coal-fired-power

Chawla, L (2020) Childhood nature connection and constructive hope: A review of research on connecting with nature and coping with environmental loss. **People and Nature, 2(3),** 619-642.

Clayton, S (2018) Mental health risk and resilience among climate scientists. **Nature Climate Change, 8(4),** 260-261.

Clegg, J A & Lansdall-Welfare, R (2021) Psychology and neoliberalism, In Pickren, W (ed) **The Oxford encyclopaedia of the history of modern psychology**, USA: Oxford University Press.

Climate Psychology Alliance (nd) https://www.climatepsychologyalliance.org/ Date retrieved or accessed: 15 July 2021.

Cooley, S J, Jones, C R, Kurtz, A & Robertson, N (2020) 'Into the Wild': A meta-synthesis of talking therapy in natural outdoor spaces. **Clinical Psychology Review, 77,** 101841.

Cooper, L, & Aitchison, G (2020) The dangers ahead: Covid-19, authoritarianism and democracy. http://eprints.lse.ac.uk/105103/4/dangers_ahead.pdf

Cromby, J (2022) Meaning in the Power Threat Meaning Framework. **Journal of Constructivist Psychology, 35(1),** 41-53.

COP26 Coalition (nd) https://cop26coalition.org/. Date retrieved or accessed: 14 November 2021.

Craps, S (2020) Climate trauma, In Davis, C & Meretoja, H (eds) (2020) **The Routledge companion to literature and trauma.** Oxon: Routledge.

de Sousa Santos, B (2018) **The end of the cognitive empire.** Durham, NC: Duke University Press.

Dillon, J (2019) Names matter, language matters, truth matters, In: Watson, J (ed) (2019) **Drop the disorder. Challenging the culture of psychiatric diagnosis.** Exeter: PCSS.

Duncan, J (2015) **The rise of the securocrats: The case of South Africa**. Auckland Park, SA: Jacana Media.

Estes, N (2019) **Our history is the future: Standing Rock versus the Dakota Access Pipeline, and the long tradition of indigenous resistance**. London: Verso.

Fernandes-Jesus, M, Barnes, B R & Diniz, R F (2020) Communities reclaiming power and social justice in the face of climate change. **Community Psychology in Global Perspective, 6(2)**, 1-21.

Fernando, S (2017) **Institutional racism in psychiatry and clinical psychology.** London: Palgrave Macmillan.

Foer, J S (2010) **Eating animals.** London: Penguin (2009).

Foucault, M (1991) **Discipline & punish. The birth of the prisons.** UK: Penguin (1977).

Gaztambide, D J (2019) **A people's history of psychoanalysis: From Freud to liberation psychology.** Lanham, MD: Lexington Books.

Green, L (2020) **Rock. Water. Life.** Durham, NC: Duke University Press.

Greenebaum, J & Dexter, B (2017) Vegan men and hybrid masculinity. **Journal of Gender Studies, 27(6)**, 637-648.

Hickel, J (2020) **Less is more: How degrowth will save the world.** London: Penguin Random House.

Hickman, C (2020) We need to (find a way to) talk about… eco-anxiety. **Journal of Social Work Practice, 34(4),** 411-424.

Hickman, C, Marks, E, Pihkala, P, Clayton, S, Lewandowski, E R, Mayall, E E, Wray, B, Mellor, C, & van Susteren, L (2021) Young people's voices on climate anxiety, government betrayal and moral injury: A global phenomenon. https://ssrn.com/abstract=3918955

Holland, S (2011) Psychotherapy, oppression and social action: Gender, race and class in Black women's depression, In: Perelberg, R J, & Miller, A C (eds) (2011) **Gender and power in families.** London: Karnac (1990)

Intergovernmental Panel on Climate Change (IPCC) (2021) Climate change 2021: The physical science basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change https://www.ipcc.ch/report/sixth-assessment-report-working-group-i/

International Committee of the Red Cross/Crescent (ICRC) (2020) Climate change and conflict https://www.icrc.org/en/what-we-do/climate-change-conflict

Johnstone, L & Boyle, M with Cromby, J, Dillon, J, Harper, D, Kinderman, P, Longden, E, Pilgrim, D & Read, J (2018) **The Power Threat Meaning Framework: Towards the identification of patterns in emotional distress, unusual experiences and troubled or troubling behaviour, as an alternative to functional psychiatric diagnosis.** Leicester: British Psychological Society.

Johnstone, L, Boyle, M, Cromby, C, Dillon, J, Harper, D, Kinderman, P, Longden, E, Pilgrim, D & Read, R (2019) Reflections on responses to the Power Threat Meaning Framework one year on. **Clinical Psychology Forum, 313,** 47-54.

Kinouani, G (2019) Violence under the guise of care: Whiteness, colonialism and psychiatric diagnoses, In: Watson, J (ed) (2019) **Drop the disorder. Challenging the culture of psychiatric diagnosis.** Exeter: PCSS.

Knight, K (2020) Climate activism as a clinical psychologist. **Clinical Psychology Forum, 332**, 40-44.

Lawrence, E, Thompson, R, Fontana, G & Jennings, N (2021) The impact of climate change on mental health and emotional wellbeing: Current evidence and implications for policy and practice. https://tinyurl.com/mvamv6zt

Le Billon, P & Lujala, P (2020) Environmental and land defenders: Global patterns and determinants of repression. **Global Environmental Change, 65**, 102163.

Lertzman, R (2019) How to turn climate anxiety into action? [video]. https://www.ted.com/talks/renee_lertzman_how_to_turn_climate_anxiety_into_action

Macy, J, & Johnstone, C (2012) **Active hope. How to face the mess we're in without going crazy**. Novato, CA: New World Library.

Mann, M E (2021) **The new climate war: The fight to take back our planet.** London: Scribe.

Martín-Baró, I (1994) **Writings for a liberation psychology.** Aron, A & Corne, S (eds) London: Harvard University Press.

McKinney, L A & Fulkerson, G M (2015) Gender equality and climate Justice: A cross-national analysis. **Social Justice Research 28,** 293–317

Meagher, B R (2020) Ecologizing social psychology: The physical environment as a necessary constituent of social processes. **Personality and Social Psychology Review, 24(1),** 3-23.

Melluish, S, & Bulmer, D (1999) Rebuilding solidarity: An account of a men's health action project. **Journal of Community and Applied Social Psychology, 9**, 93– 100.

Mignolo, W (2021) **The politics of decolonial investigation.** Durham, NC: Duke University Press.

Mignolo, W D, & Walsh, C E (2018) **On decoloniality**. Durham, NC: Duke University Press.

Montanarella, L, Scholes, R, & Brainich, A (eds) (2018) **The IPBES assessment report on land degradation and restoration.** Bonn, Germany: IPBES

Moore, J W (2017) The Capitalocene, Part I: On the nature and origins of our ecological crisis. **The Journal of Peasant Studies, 44(3),** 594-630.

Nikendei, C (2020) Climate, psyche and psychotherapy: Cognitive, psychodynamic and psychotraumatological considerations on the global crisis. **Journal of Psychosomatic Research, 133,** 110089.

Patel, N (2021) Dismantling the scaffolding of institutional racism and institutionalising anti-racism. **Journal of Family Therapy, 44(1),** 91-108.

Pihkala, P (2020) Anxiety and the ecological crisis: An analysis of eco-anxiety and climate anxiety. **Sustainability, 12(19),** 7836.

Porter, L, Rickards, L, Verlie, B, Bosomworth, K, Moloney, S, Lay, B, Latham, B, Anguelovski, I & Pellow, D (2020) Climate justice in a climate changed world. **Planning Theory & Practice, 21(2),** 293-321.

Psych Declares (nd) Psych Declares. https://healthdeclares.org/psych-declares/. Retrieved or accessed: 7 February 2022

Randall, R (2020a) Coping with the climate crisis 1: Disavowal [video]. https://rorandall.org/

Randall, R (2020b) Coping with the climate crisis 2: Climate anxiety or climate distress. [video]. https://rorandall.org/

Randall, R & Hoggett, P (2019) Engaging with climate change: Comparing the cultures of science and activism, In: Hoggett, P (ed) (1994) **Climate Psychology. On indifference to disaster.** Cham, Switzerland: Palgrave Macmillan.

Raworth, K (2017) **Doughnut economics: Seven ways to think like a 21st-century economist.** London: Random House.

Red Nation (2020) The Red Deal: Indigenous action to save our Earth. http://therednation.org/

Rezwana, N & Pain, R (2021) Gender-based violence before, during and after cyclones: Slow violence and layered disasters. **Disasters**, **45(4),** 741-761.

Rice, J, Long, J, & Levenda, A (2021) Against climate apartheid: Confronting the persistent legacies of expendability for climate justice. **Environment and Planning E: Nature and Space, 0(0),** 1-21.

Rocque, R J, Beaudoin, C, Ndjaboue, R, Cameron, L, Poirier-Bergeron, L, Poulin-Rheault, R A, ... & Witteman, H O (2021) Health effects of climate change: An overview of systematic reviews. **BMJ Open, 11(6),** e046333.

Rouf, K, & Wainwright, T (2020) Linking health justice, social justice, and climate justice. **The Lancet Planetary Health, 4(4),** e131-e132.

Royal College of Psychiatrists (RCPsych) (2021) *PS03/21: Our planet's climate and ecological emergency*. www.rcpsych.ac.uk/docs/default-source/improving-care/better-mh-policy/position-statements/position-statement-ps03-21-climate-and-ecological-emergencies-2021.pdf).

Sanson, A & Bellemo, M (2021) Children and youth in the climate crisis. **BJPsych Bulletin, 45(4)**, 205-209.

Shiva, V (2020) **Reclaiming the commons: Biodiversity, indigenous knowledge, and the rights of Mother Earth.** London: Synergetic Press.

Smail, D (2005) **Power, interest and psychology. Elements of a social-materialist understanding of distress***.* Ross-on-Wye: PCSS.

Smith, C P & Freyd, J J (2014) Institutional betrayal. **American Psychologist, 69(6),** 575.

Sovacool, B K, Turnheim, B, Hook, A, Brock, A & Martiskainen, M (2021) Dispossessed by decarbonisation: Reducing vulnerability, injustice, and inequality in the lived experience of low-carbon pathways. **World Development, 137**, 105116.

Steg, L, van den Berg, A E & de Groot, J I (2018) Environmental Psychology: An introduction, In Steg, L, van den Berg, A E, & de Groot, J I (eds) (2013) **Environmental psychology: History, scope, and methods.** Chichester: Wiley-Blackwell.

Stoddard, I, Anderson, K, Capstick, S, Carton, W, Depledge, J, Facer, K, Gough, C, Hache, F, Hoolohan, C, Hultman, M, Hällström, N, Kartha, S, Klinsky, S, Kuchler, M, Lövbrand, E, Nasiritousi, N, Newell, P, Peters, G, Sokona, Y, … Williams, M (2021) Three decades of climate mitigation. Why haven't we bent the global emissions curve? **Annual Review of Environment and Resources, 46(1)**, 653-689.

Supran, G & Oresekes, N (2021) Rhetoric and frame analysis of ExxonMobil's climate change communications. **One Earth, 4(5),** 696-719.

Tillmann, S, Tobin, D, Avison, W & Gilliland, J (2018) Mental health benefits of interactions with nature in children and teenagers: A systematic review. **Journal of Epidemiology & Community Health, 72(10),** 958-966.

Timimi, S (2021) **Insane medicine; How the mental health industry creates damaging treatment traps and how you can escape them**. https://www.madinamerica.com/insane-medicine/

Tollemache, R (2019) We have to talk about…climate change, In: Hoggett, P (ed) (1994) **Climate Psychology. On indifference to disaster.** Cham, Switzerland: Palgrave Macmillan.

UNHCR (2020) Climate change is a defining crisis of our time and it particularly impacts the displaced https://www.unhcr.org/en-us/news/latest/2020/11/5fbf73384/climate-change-defining-crisis-time-particularly-impacts-displaced.html

Van Susteren, L & Al-Delaimy W K (2020) Psychological impacts of climate change and recommendations, In: Al-Delaimy, W, Ramanathan, V, & Sanchez Sorondo, M (eds) (2020) **Health of people, health of planet and our responsibility**. London: Springer. https://doi.org/10.1007/978-3-030-31125-4_14

Villanueva, E (2021) **Decolonizing wealth: Indigenous wisdom to heal divides and restore balance.** Oakland, CA: Berrett-Koehler Publishers.

Warner, S (2000) **Understanding child sexual abuse: Making the tactics visible.** Handsell Publishing.

Watts, N, Amann, M, Anell, N, Ayeb-Karlsson, S, Beagley, J, Belesova, K … & Costello, A (2021) The 2020 report of The Lancet Countdown on health and climate change: Responding to converging crisis. **The Lancet, 397(10269),** 129-170

Webster, R & Marshall, G (2019) The #TalkingClimate Handbook. How to have conversations about climate change in your daily life. https://climateoutreach.org/reports/how-to-have-a-climate-change-conversation-talking-climate/

Weintrobe, S (2021) **Psychological roots of the climate crisis. Neoliberal exceptionalism and the culture of uncare.** London: Bloomsbury.

Westcott, G (2019) Attitudes to climate change in some English local authorities: Varying sense of agency in denial and hope, In: Hoggett, P (ed) (1994) **Climate psychology. On indifference to disaster.** Cham, Switzerland: Palgrave Macmillan.

White, R G (2020) Mental wellbeing in the Anthropocene: Socio-ecological approaches to capability enhancement. **Transcultural Psychiatry, 57(1),** 44-56.

Whitmarsh, L, Poortinga, W, & Capstick, S (2021) Behaviour change to address climate change. **Current Opinion in Psychology, 42***,* 76-81.

Williams, J (2021) **Climate change is racist.** UK: Icon Books.

Woodbury, Z (2019) Climate trauma: Toward a new taxonomy of trauma. **Ecopsychology, 11(1),** 1-8.

Woodbury, Z, Buzzell, L, & Chalquist, C (2020) Nature as threat: The plague of eco-anxiety. https://bit.ly/3DjVIv5

XR Psychologists (nd) https://xrpsychologists.co.uk/ Retrieved or accessed 7 February 2022.

Yuen, A (2009) Less pain, more gain: Explorations of responses versus effects when working with the consequences of trauma. **Explorations: An E-Journal of Narrative Practice, 1,** 6-16.