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Reconciling Relationships: Critical Perspectives on Eco-Anxiety, Human-Nature Dichotomies, and Urban Gardening

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Executive Summary

With climate change having become a mainstay in political discourse and debate, people are becoming increasingly aware of the looming threat of ecological crises. In this report, we address the increasingly popular topic of eco-anxiety, a phenomenon awakened due to this increased awareness, taking a critical approach to the term and its surrounding research and conversations.

We begin by discussing eco-anxiety as it is defined in Western psychological and psychiatric literature. Here, we identify that "eco-anxiety," as it is popularly known, is most often felt by those in privileged positions who are least likely to feel the direct impacts of ecological crises such as those associated with climate change in their lifetime. From the lens of the privileged person, who has access to wealth and institutional power, eco-anxiety is a call to action. From the lens of the marginalized person, who lacks these, eco-anxiety is a reminder of their precarious circumstances and lack of agency. And for the Indigenous person whose land has been stolen and whose ways of knowing have been culturally lost and institutionally unrecognized, eco-anxiety is a colonial term which does not capture the feelings of losing relatives, deteriorating livelihoods, and experiencing the transformation of human-nature relations from one of reciprocity to one of dominance and exploitation. Acknowledging these varied experiences and perspectives, we aim to pay particular attention to the most marginalized in discussing eco-anxiety by viewing it from several different lenses rather than singularly as a pathologizing, medical diagnosis

In addition to our critical perspectives, we also aimed to offer constructive ideas in the forms of urban gardening, radical community organizing, and Indigenous ways of knowing and engaging with the environment. Through review of existing literature and some theorizing of our

own, we argue that eco-anxiety and environmental degradation must be treated as a product of our social and political economic structures rather than as a result of individual actions. This means that a radical approach to environmental organizing which seeks to fundamentally change social relations is necessary for the environmental movement to succeed. We also argue that this work can be difficult and that urban gardens, if created with attention to power relations, can serve as both a space for radical education and improving mental health and well-being, particularly for the most marginalized participants. Additionally, these spaces can encourage those with access to power and authority to re-work their worldview around structural and political change.

Acknowledging that even radical movements led by marginalized people who are non-Indigenous can adopt harmful settler mentalities, we also offer ideas which shift away from the topics of gardening and eco-anxiety. Encouraging a meaningful societal shift toward acknowledging and taking seriously the Indigenous ideas of relationality we can begin engaging in sacred reciprocity, and the gift economy. We argue that humans have lost our connection to the land through colonial histories and capitalist modes of production that have stripped the heart and relation out of who we are with the land. If our aim is to truly address the mental distress associated with environmental degradation, then we must take Indigenous understandings and practices seriously when interacting with our environment. Rather than momentarily acknowledging that a different way of knowing from the dominant settler ideology could exist, we argue that there must be a structural and political shift which integrates Indigenous practice

into environmental decision-making while properly acknowledging the people who have provided this knowledge and making meaningful steps toward reconciliation.[1]

Positionality

Carly

Having grown up in an urban environment, I found climate change related anxiety to be stifling. As such, I am interested in forward thinking solutions that could help a variety of individuals in urban settings channel paralyzing feelings of eco-anxiety into action.

Kate

Given my own anxiety and worry about the changing climate, our degrading home environments, and the disproportionate effect this has on marginalized communities, I was looking to expand my understanding of multiple ontologies and ways of knowing within the space of reconciling the human-nature dichotomy through action. For me, this manifested in unpacking and critiquing the dominant Western literature around eco-anxiety, and identifying the gaps in order to inform my own actions.

Atlanta

Speaking with and alongside the Indigenous community I am from, I can safely say we don't experience climate change destruction equally, nor do we experience eco-anxiety in a similar way. Eco-anxiety within our urban environments, as my colleagues have situated, is fear, feeling

[1] This report and associated toolkit were created for SEEDS and for course credit. In particular, this research sought to explore sustainable activities to challenge eco-anxiety, as proposed by SEEDS. Additionally, all members of this project participated in RES 510, a graduate seminar on Social-Ecological Systems instructed by Dr. Leila Harris.

isolated. For Indigenous communities the mental distress associated with changing land, can be viewed within socio-cultural contexts, in which, livelihood, culture, and ways of knowing are lost with the movement. Thus, embracing and learning from our Indigenous communities feels critical if we are to mend our broken relationship with the land, engaging in an environmental discourse that lifts up our Indigenous communities, beginning a mental, spiritual and environmental reawakening and resurgence.

Justin

As a racialized, queer person, I have personally felt and am in community with others who have felt hopeless in the face of oppressive structures. I feel that this is akin to what people are experiencing with eco-anxiety. The idea that your very existence is threatened by something that feels so large it is beyond your control. Hope for us has come through solidarity, care, and radical organizing for collective action, and this is a perspective I wanted to bring to this work.

1. Introduction

This project is focused on exploring practical things people can do to help manage feelings related to climate change and eco-anxiety. In particular, our research question is: *how do activities such as gardening provide opportunities to decrease eco-anxiety while also promoting socio-ecological resilience?* Another goal of this study was to produce a toolkit which could be used by Vancouver citizens, community organizers, and the University of British Columbia to create productive gardening and natural spaces that encourage additional forms of knowledge and relationships. Doing so, we hope will serve as a partial response to some of the concerns related to eco-anxiety, and foster more healing and healthy relationships to nature, land, and

territory. Given our desire to include diverse perspectives in this project, and that terms like 'eco-anxiety' and 'climate anxiety' are relatively new, we conducted a literature review as our main methodology. We also engaged in collaborative discussions on these topics, building from our unique perspectives on these issues as detailed in the position statements above.

There are four major bodies of literature reviewed in this report. First, we review western literature on eco-anxiety. Specifically, we explore current definitions, how cultural and geographical factors influence one's experience of it, and what some best practices are in dealing with eco-anxiety and channeling it into sustainable action. Second, we will discuss how and why gardening may be particularly useful for decreasing eco-anxiety. Third, we discuss the political nature of eco-anxiety as well as the radical potential of organizing within a community gardening space. Finally, we explore Indigenous ways to reconnect with the natural environment that are outside the recommendations in the eco-anxiety literature. Specifically, we discuss a more relational approach that includes the physical action of gathering and acts of sacred reciprocity.

2. Eco-Anxiety in Western Literature

The focus of this literature review largely centered around forms of knowing associated with "Western science", a way of knowing characterized by its tendencies to be value-free, as well as attempts at universal validity and abstraction (Baker et al., 2005). Further, Western science has strong ties to colonialism both historically and presently, given its European origins, as well as exclusive, single-minded approaches to knowledge accumulation. These fields of research and study continue to hold power in influencing education, scientific advancement, and decision making in policy and management, thus creating a veil of omniscience that ultimately disregards the knowledge and experiences of others. Eco-anxiety and ecological grief has been

categorized as “disenfranchised grief”, or that which is not openly acknowledged or publicly accepted (Cunsolo & Ellis, 2018). That being said, strong effects of our changing climate such as sea ice melt and increase in forest fire activity also coincide with regions with strong Indigenous history, including but not limited to both Northern Canada, and Australia (Cunsolo, 2020). Despite much of the literature identifying gaps in our understanding of grief associated with the degrading environment, as well as Indigenous peoples’ intricate relationality to place and more-than-human kin, these more vulnerable populations have known this as a reality since colonization (Cunsolo, 2020). Therefore, it is vital in this space to distinguish Western scientific understandings of these issues from those of Indigenous, marginalized, or oppressed communities or nations, given the trend of colonially rooted research to make sweeping assumptions about the lived experiences of others.

As the effects of climate change become more evident in our daily lives, so too have the emotions associated with it. Over the last half decade, fields of research including but not limited to philosophy, psychology, sociology, and ecology have been attempting to articulate the feelings of existential dread and anxiety around the degrading environment (Panu, 2020). In 2017, the American Psychological Association (APA) provided the first definition of eco-anxiety as “a chronic fear of environmental doom” (Clayton et al., 2017). Alternative definitions have stemmed from this same broad way of thinking, such as Albrecht’s version “Eco-anxiety is non-specific worry about our relationship to support environments” as well as Cunsolo and Ellis’s ecological grief as “the grief felt in relation to experienced or anticipated ecological losses, including the loss of species, ecosystems and meaningful landscapes due to acute or chronic environmental change” (Albrecht, 2005; Cunsolo & Ellis, 2018). While this and other definitions are generally all encompassing feelings of loss that could apply to the lived experiences of

Indigenous and marginalized peoples, these and other authors either make no mention of the long standing presence of these feelings and the colonial actors at play in causing such degradation, or situate these feelings in the present. The "insistent grief of peoples deliberately dispossessed from their lands and waters" comes to light through stories, relationality, and oral history; forms of knowledge transfer and accumulation which are consistently left out of Western science (Todd, 2017). Therefore, this definition remains distinct given its rootedness in the present, and failure to acknowledge wider lived experiences.

In order to conceptualize modes of coping and reducing eco-anxiety, it is imperative to understand the roots of the emotions within a multi-faceted framework, and thus provide guidance for modes of engaging with all aspects. Where natural disasters and damage to community or social infrastructure are seen to have acute consequences such as PTSD, depression, compounded stress, and substance abuse, the chronic psychological consequences are born out of gradual effects of climate change, such as rising sea levels, warming temperatures, and slow environmental decline (Clayton et al., 2017). These long term effects thus root eco-anxiety across the spectrum of generalized anxiety disorder (GAD) and more general mental health ailments. The following matrix summarizes the relationship between mental health and eco-anxiety:

Table 1: Mental Health and Eco-Anxiety

General Mental Health Ailments	**Manifestations in Eco-Anxiety**
Worry and fear	Constant/long term fear of environmental degradation (American Psychological

	Association, 2017; Panu, 2020)
Existential anxiety	Fundamentalism; effects of human beings on the planet/environment, questions of meaning and mortality, emotional response to perceptions of change (Albrecht, 2011; Clayton et al., 2017; Panu, 2020)
Ontological security	Insecurity in one's existence, or the existence of plants, animals, non-human kin, lack of confidence that the natural world is as it appears to be (Cunsolo, 2020; Clayton and Karazsia, 2020)
Mental paralysis	Inaction from feeling overwhelmed, eco-paralysis (Clayton et al., 2017)
Power dynamics and justice issues	Solastalgia, disproportionate effects of climate change and ecological degradation in the global South, as well as in marginalized communities (Albrecht, 2005; Cunsolo et al., 2013; Clayton et al., 2017; Panu, 2020).
Alienation/loneliness	Feelings of powerlessness, and of being at odds with large worldly issues (Wray, 2020; Panu, 2020)

Uncertainty, uncontrollability, unpredictability	Feelings of decreased efficacy, sense of control over life and environment, inability to plan for disasters or change (Clayton et al., 2017; Doherty, 2015; Ojala, 2012; Panu, 2020).

Figure 1: Mental Health and Eco-Anxiety Matrix (Compiled by authors from sources noted).

As exploration into the mental health implications associated with these definitions has continued within the last decade, it has come to be understood along a spectrum of emotions, including but not limited to worry, fear, grief, shame, guilt, uncertainty and unpredictability, hopelessness, ontological insecurity, powerlessness, loneliness, and existential anxiety (Budziszewska, 2021; Panu, 2020). The aforementioned definitions and early literature situate eco-anxiety strongly in fear and worry, while remaining distinct. While fear is generally associated with more concrete threats, anxiety is often manifested or uncertain. Furthermore, worry is usually categorized as a less intense emotion, whereas eco-anxiety has been classified as chronic, constant, and strong (Clayton et al., 2017).

Much of the literature attempts to situate ecological grief in existential anxiety, in bringing up questions of meaninglessness and mortality (Panu, 2020). These considerations have been seen to have profound effects on individual and social well-being, and can go beyond anxiety towards nihilism and climate denialism as coping mechanisms (Wray, 2020). Furthermore, theories around ontological insecurity have pointed out the ways in which feelings of security or lack thereof can impact our mental well-being. In this sense, both felt and perceived threats of climate change and environmental degradation compound to instill the

aforementioned spectrum of anxiety related mental health implications (Cunsolo, 2020). Uncertainty, uncontrollability, and powerlessness seem to be the driving factor in effects on social well-being. Born out of concern for friends, loved ones, non-human kin, and one's own life, uncontrollability and unpredictability trigger feelings of decreased efficacy in action (Ojala, 2012). Interestingly, powerlessness was found to be the dominant emotion felt by climate activists unable to make big political change (Wray, 2020). The dominant perspective within the literature is that "anxiety" may not be the appropriate term at all, given its pathologizing nature, as well as its attempt to encompass the diverse felt experiences across the global North. Most manifestations are not pathological in that they do not stem from mental or physical disease (Panu, 2020). Instead, and as noted in the literature "eco-anxiety is actually a moral emotion: it is based on an accurate appraisal of the severity of the ecological crisis" (Wray, 2020 p. 2). However, and despite continued research into definitions, climate change and its associated effects on mental, physical, and social health are felt in very real ways. Furthermore, they often play a role in affecting one another, which suggests that efforts to decrease climate anxiety or ecological grief must target holistic methods in mitigation.

All this being said, what researchers have coined eco-anxiety, climate anxiety, and ecological grief, are all feelings associated with loss and violence felt by Indigenous peoples and the global south since colonization. While identifying the mental health implications of climate change in this lens is important, it is also vital to understand the multiplicity of experiences and ontologies related to the effects of climate change as well as how to mitigate our feelings of grief and anxiety. Furthermore, this research only continues to show how environmental degradation is felt to a greater degree by marginalized communities, with stratification being especially noticeable within urban environments.

3. Alternative Experiences of Eco-Anxiety

As discussed, discourse surrounding eco-anxiety has largely happened within Western literature and, more specifically, among socially privileged and often urban dwelling people. Learning from Cote & Nightingale (2012), we argue that we must resist seeing the concept of eco-anxiety (much like the concept of resilience) "from nowhere." Ongoing processes of colonialism in the Global North reveal how emotions relating to climate change and environmental degradation are necessarily culturally and geographically specific.

Glen Albrecht coined the term Solastalgia in 2005 to put into words the place-based grief often experienced by those with deep ties to specific natural environments. He describes Solastalgia as "the pain experienced when there is recognition that the place where one resides and that one loves is under immediate assault… It is manifest in an attack on one's sense of place, in the erosion of the sense of belonging (identity) to a particular place and a feeling of distress… about its transformation" (Albrecht, 2005, p.48). In other words, Solastalgia is a kind of painful nostalgia that results from the severance of specific place-based relationships with the natural environment. We argue that Solastalgia may be more accurate in describing the emotions experienced by some Indigenous groups in regard to climate change and environmental degradation for two reasons. First, Indigenous worldviews center on relationality. Therefore, the severance of relational ties to a culturally relevant natural space may be experienced as a loss of identity, culture, and social connection that is unique to Indigenous worldviews. Additionally, emphasizing how Solastalgia results from an "attack" or "assault" on natural spaces can help draw attention to ongoing processes of colonization. Using Kari Norgaard and Ron Reed's work as an example, we argue that the specific emotions the Karuk people experience in regard to environmental degradation can be understood as Solastaglia.

Kari Norgaard spent many years working with the Karuk people in Northern California to understand how alterations to specific natural environments caused by settler colonial occupation shape the emotional experiences of Indigenous people. The Karuk have a highly specific relationship to the Klamath river and surrounding area. As Kari Norgaard and Karuk tribal member Ron Reed argue, "particular places such as fishing sites, gathering sites, and ceremonial grounds hold profound and unique importance" to the Karuk people, and they care for the human and non-human beings in these areas as their relations (2017, p.5). However, as a settler-colonial state, the Federal Government of the United States controls the river and constructed a dam which blocked its flow. This dam has interrupted many cultural practices (such as fishing for salmon) and resulted in environmental degradation of the river bed. As such, "Karuk Tribal members vividly express emotions of .... grief, anger, hopelessness, and shame with the decline of the Klamath River" (Norgaard & Reed, 2017, p.14). While eco-anxiety may be a useful concept to describe the suffering of a particular group, Norgaard and Reed's work demonstrates how place-based, cultural, and historical relations complicate emotions related to environmental change, and how more expansive concepts are needed. As seen in **Table 2**, the Karuk people experience the aforementioned emotions because of, "1) disruptions to *identity*, 2) disruptions to *social interactions*, and 3) the association of environmental degradation with both *cultural and physical genocide*" (Norgaard & Reed, 2017, p.16; emphasis added).

Table 2: Emotions of Environmental Decline Confirm Structures of Power (Norgaard, 2021)

Emotions of Environmental Decline Confirm Structures of Power			
	Identity	Social interactions	Social structure
grief	like tearing my heart out	sadness because "quiet down at the Falls"	sadness that Karuk people may disappear
anger	anger that cannot fulfill expected roles	anger that children don't have same opportunities anymore	anger at agencies who arrest people for fishing according to tribal custom
shame	if you draw your identity as a river Indian but the river is contaminated that reflects on you	shame that can't provide for elders or family, cannot perform responsibilities to other species	shame that cannot find way in 'modern society'
hopelessness	feeling unable to fix problem, powerlessness	there are only a handful of fishing families left. . .	maybe this is a sign of the "the end"

The Place-based grief experienced by the Karuk people is a result of ongoing processes of colonization and damage to the natural environment. Moreover, they stem from identity erasure, disruptions to social interactions, and a changing social structure (which does not account for or include Karuk members or their ways of life) that is enforced by settler colonial projects, such as the Klamath dam. The emotional responses of the Karuk people can be articulated through the concept of Solastalgia. However, like the previous discussion of eco-anxiety, it is unlikely that even a concept as applicable as Solastalgia can articulate all the emotions experienced in regard to climate change. For example, Norgaard also characterized

some of the emotions experienced by the Karuk people as disenfranchised grief. Similar to the disenfranchised grief described by (Cunsolo & Ellis, 2018), Norgaard and Reed describe a political powerlessness that is tied into the experience of grief. In their words,"because the dominant non-Native society does not recognize the deep emotional ties we describe between humans and the natural world, Karuk grief and other emotions we have described here over their loss is invisible" (Norgaard & Reed, 2017, p.24). Not only is there political powerlessness in regard to the ongoing process of colonization and subsequent land degradation, but there is a silencing of the grief experienced over the loss of these peoples and places. As such, feelings of environmental grief, anxiety, powerlessness etc. are not politically neutral. Rather, they often reflect pre-existing and unequal political power structures. The entanglement between environmental emotions and collective agency will be discussed subsequently.

4. Best Practices to Manage Eco-Anxiety

The concept of Solastalgia draws attention to the complexity of environmental and climate change related emotions. This complexity of emotional responses also extends to discussions of 'best practices,' or possible ways to channel environmental anxiety and grief into productive and restorative practices. Specifically, unequal distributions of power and resources complicate one's ability to channel these emotions into productive action and (re)build socio-ecological resilience. The section *Eco-Anxiety, Community Gardens, and Radical Organizing,* contains a thorough discussion of the possibilities of grassroots organization to challenge hegemonic power structures and help marginalized populations with feelings related to eco-anxiety. However, given the depth of the Western literature on eco-anxiety and the diversity of

readers we hope to attract with this project, in this section we discuss some 'best practices' to manage eco-anxiety as forwarded by the (mostly) Western literature.

Maria Ojala, a Swedish researcher, studies the ways that young people and children (as those are the generations most concerned about climate change) cope with eco-anxiety. In her work she identifies 4 main coping strategies: de-emphasizing the problem (where people de-emphasize the seriousness of climate change), emotion focused coping strategies (where people try to alleviate the emotions they are experiencing, typically by distracting themselves from the issue at hand), problem-focused coping strategies (where people search for information on the problem and about what they can do), and meaning-focused coping strategies (or strategies that promote constructive hope, particularly in the face of a complex and long term problem like climate change) (Ojala, 2018-2019). Critically, her early work revealed that there was a positive association between problem-focused coping strategies and general negative affect. However, "using meaning-focused coping to deal with the climate threat seems to shield children who use a lot of problem-focused coping from a high degree of general negative affect" (Ojala, 2012, p.230). In other words, when children actively draw on their beliefs and values to find meaning in their lives while engaging in solution oriented pro-environmental behaviours, they retain high levels of emotional well-being. The interplay between meaning-focused and problem-focused activities to bolster socio-ecological resilience is related to a term coined by Thomas Doherty.

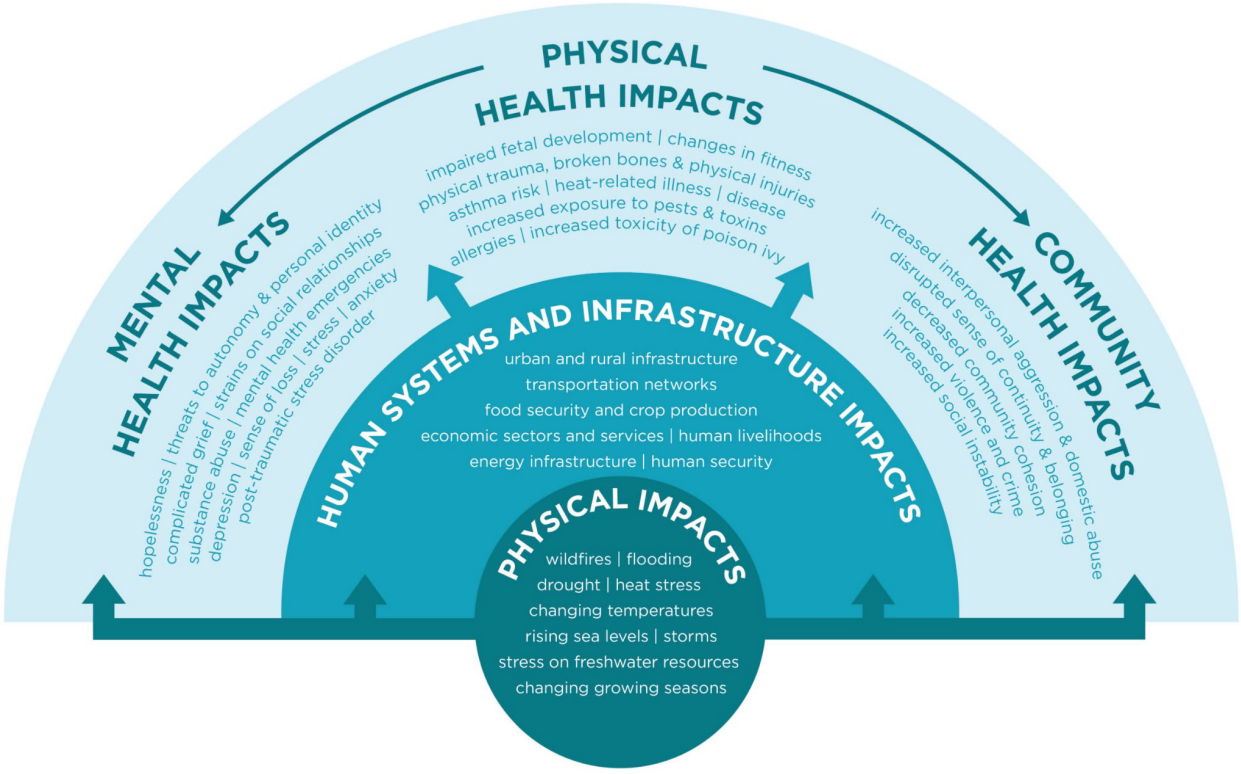
Doherty writes that "promoting coping and empowerment by people who are minimally affected by climate change but are nevertheless experiencing vicarious stressors and traumas can have benefits beyond emotional relief; it can lead to an *adaptation-mitigation cascade*, empowering people to take action to promote mitigation" (2015, p.16-17). In other words, climate change activism and pro-environmental behaviour provide not just possible coping

strategies for mental well-being (especially when these problem-based strategies are partnered with meaning-focused strategies), but can also increase the adaptive capacity of social-ecological systems. As feelings of self-efficacy increase so too does adaptability and mitigation, creating a possible cascading effect. Unfortunately, Doherty has yet to elaborate or provide concrete examples of what an *adaptation-mitigation cascade* may look like. However, we argue that Ojala's empirical research and Doherty's theoretical contributions may support an activity like gardening.

5. Gardening for Mental, Physical and Social Health

Numerous studies have demonstrated how gardening is associated with better mental, physical, and social health (Park et al., 2016; Soga et al., 2017; Thompson, 2018; Wakefield et al., 2007). In fact, the potential mental health benefits offered by gardening are so positive that medical professionals now administer gardening as a "social prescription" (Howarth et al., 2020). In contrast with a pharmaceutical prescription, a social prescription is "a non-medical method of care which links patients in primary care with sources of support within the community to help improve their health and well-being" (Howarth et al., 2020). As such, it is worth considering the specific potential of gardening and associated land-based practices as a potential response to some of the eco-anxiety and/or Solastalgia related concerns noted in previous sections.

Figure: Mental, Physical, and Social Effects of Climate Change Spectrum (Clayton et al., 2014, p. 12-13)



In regard to physical health, a 15 session gardening intervention done with elderly women in Korea revealed that women who gardened "exhibited significant improved muscle mass, aerobic endurance, hand dexterity, cognitive ability, and decreased waist circumference" compared to the control group (Park et al., 2016). Critically, these sessions were only 50 minutes long and the activities done were low to moderate intensity indicating that gardening is a fairly accessible way to bolster socio-ecological health. Additionally, researchers have found that participating in gardening activities is also associated with increased fruit and vegetable

consumption (Savoie-Roskos et al., 2017). A diet high in these foods is, understandably, associated with better physical health.

In regard to mental health, a cumulative review found that "higher proportions of green space, especially biodiverse habitats, are associated with less depression, anxiety and stress" (Thompson, 2018). Though a more thorough discussion of 'nature-deficit disorder' may be found in the section *Sacred Reciprocity, Relationality, and the Gift Economy*, this finding supports the common-sense idea that the more time one spends in nature, the happier they are. More nuanced research has found that psychological benefits increase in relation to the biodiversity present in a greenspace (Fuller et al., 2007). This study suggested that humans can perceive species richness across taxonomic groups, and that exposure to environments rich in diversity increases the ability to *reflect* and gain perspective, *feel in continuity* with the past, and emotionally *attach* to nature (Fuller et al., 2007). We argue that this research supports the implementation and development of biodiverse gardens as an *adaptation-mitigation cascade*. As demonstrated by Levin (2000), increased levels of biodiversity (particularly across temporal scales) bolsters socio-ecological resilience. As such, biodiverse gardens may facilitate ecological resilience while also mitigating some negative environmental impacts (for instance, a decreased reliance on food produced through conventional agriculture). Simultaneously, participation in biodiverse gardens may decrease eco-anxiety and/or Solastalgia by facilitating that human-nature connection. Ultimately, biodiversity gardening may have a cascading effect throughout larger society.

Through his critical review of existing research and literature on eco-anxiety, Panu presents this all-encompassing potential route for reconciling our grief and anxiety:

"Participatory action is often recommended as an important antidote to paralyzing anxiety...however, because global ecological problems cannot be solved in the near future, there

is a need for skills of living with anxieties and distress. For this reason, there have emerged discourses about resilience, post-traumatic growth, and adaptation skills in relation to eco-anxiety and climate anxiety." (Panu 2020 p.13). The foremost suggestion made in the literature for coping with eco-anxiety was creating supportive community networks with which individuals can talk about their climate-associated mental health effects, alongside the importance of engaging with nature-based therapy (Ojala, 2012). Collective action has been known to address a number of the eco-anxiety associated mental health ailments including loneliness, uncertainty and unpredictability, hopelessness, and mental paralysis, in planning for the well-being of current and future generations (Ojala, 2012). Furthermore, it has been seen that social cohesion and social capital can aid in protecting against mental and physical health impacts of both immediate threats and natural disasters and future threats (Clayton et al, 2012). As will be mentioned in the later sections of this paper, participatory action within natural spaces, such as gardening, can have profound effects, including reassertion of power among Indigenous and other marginalized communities.

6. Eco-Anxiety, Community Gardens, and Radical Organizing

Previously, we discussed Maria Ojala's work demonstrating the links between participatory action and well-being as well as Doherty's concept of the *adaptation mitigation cascade*. The section *Eco-Anxiety and Radical Organizing* builds upon this by considering what kinds of participatory action are necessary in the context of ecological crisis and eco-anxiety, paying close attention to power relations and political economy. The following section, *Radical Organizing and Community Gardens*, considers whether community gardens can serve as organizing spaces to facilitate political engagement and collective action.

6.1 Eco-Anxiety and Radical Organizing

Nightingale et al. claim that, "climate change and vulnerability [have been] produced by our current political economic system and the injustices that are inflicted on people," (2020, p. 347). If we are to understand eco-anxiety as feelings of uncontrollability and hopelessness in the face of ecological crisis as defined by Panu (2020), then we must recognize that the degrading ecological conditions which give rise to eco-anxiety are a product of power relations and our political economic system. As previously mentioned, eco-anxiety is experienced in manifold ways. Looking back to how anxiety is defined in western psychiatric literature, anxiety is often an adaptive response to stressors which encourage one to change themselves or their environment, but it can become maladaptive in situations where such a response is not possible (Morris, 2019). In the context of ecological crisis, we argue then that eco-anxiety can have diverse effects and outcomes: either spurring one to act on dismantling the conditions which create ecological crisis or consuming one to the point of immobilization and denial.

Research, policy, and discourse surrounding environmental behavior have been largely individualizing, placing the responsibility of environmental sustainability on individual consumers at the end of supply chains rather than on producers who control them and the governing bodies which regulate them (Page-Hayes, 2015). This is in contrast to what is suggested above as the root of the problem: the coproduction of our environment with society. Maniates (2001) argues that this *individualization of responsibility* motivated by the core tenets of liberalism and the commodification of dissent by capitalism hinders our ability to think about how institutions contribute to our environmental conditions. We theorize that this individualization can therefore place an insurmountable burden on the individual, making one feel that the primary means through which the ecological crisis must be prevented is through

changing their consumptive behaviors and educating others to do the same. What is one to do when these changes are near impossible given the structure of their neighborhood or city? What can one do when their individual environmental footprint is orders of magnitude smaller than someone whose actions they have no control over? And most importantly, what is the responsibility of marginalized individuals in comparison to individuals who have much greater access to wealth and institutional power? These questions speak to how the efficacy of pro-environmental behavior, and subsequently the severity of eco-anxiety, can manifest differently among individuals depending on their relationships to power. For example, one might feel hopeful that they can create meaningful strides toward mitigating climate change through individual action if their family owns three private vehicles but is amenable to shifting to public transit due to ease of access. In contrast, consider a scenario where one's family has never had reliable access to transportation and have had to shift their behavior to travel less simply because they cannot afford to travel more (Blumenberg & Agrawal, 2014). From the perspective of transportation-based carbon footprints, one in this family can only have faith that others will reduce their transportation-based carbon footprints and lacks access to the feelings of accomplishment and efficacy that may be afforded to the person in the first scenario. These considerations lead us to understand both ecological crises and the power relations present in eco-anxiety as heterogeneous, systemic problems, requiring solutions which address the root of these problems. And for these solutions, we turn to the powerful tradition of radical community organizing.

Mainstream environmental activism is a predominately white movement in the United States and Canada, and there is a need for interrogation of and a shift away from the colonial and racialized logics present within the movement (Curnow & Helferty, 2018). For this, we seek a

turn to radical community organizing within the environmental activism sphere. Reisch defines radical community organizing as focused on the, "attainment of social justice and fundamental structural and institutional changes, [...], through a combination of analysis of the root causes of existing societal conditions; the development of alternative economic, political, social, and ideological systems; and the use of nontraditional strategies and tactics," (2005, p. 287). We do not purport that radical community organizing will invariably challenge all power structures rather than reproduce them. Rather, we aim to suggest that radical organizing encourages a shift toward addressing root causes of ecological crises, which would require organizers to think more critically about how capitalism, colonialism, racism, patriarchy, ableism, and other systems of marginalization have contributed to our current ecological conditions and limited what we envisage as ethical and attainable solutions. In this paper, we will not endeavor to suggest specific organizing strategies for radical, environmental organizing as effective strategy is built through struggle and experience. Instead, we encourage environmental organizers who hope to take a more radical approach to learn from movements with a rich history of radical politics and organizing and consider how principles could be applied to the environmental movement. Pulido and De Lara (2018) provide an example of this by analyzing the linkages between the environmental justice movement and abolitionist theories that have emerged from the Black Radical Tradition. We feel that such a shift in ideological and strategic frameworks in environmental organizing spaces will discourage moves to innocence commonly employed by settlers and other people of privileged identities (Curnow & Helferty, 2018; Tuck & Yang, 2012), and we identify this as a necessary step in addressing the disparate ways in which eco-anxiety and ecological harm are experienced by different social identity groups.

A contradiction that we must point out is the high susceptibility to vocational burnout associated with activists in radical movements and how burnout might exacerbate eco-anxiety if environmental organizers make such an ideological and strategic shift. Chen & Gorski (2015) suggest that there is a desperate need for greater attention to self-care in such movements, and we feel that using community gardens as organizing spaces can play an integral role in this given the health benefits we noted above. In the next subsection, we will identify additional links between radical community organizing and community gardens.

6.2 Radical Organizing and Community Gardens

Having demonstrated the potential for community gardens to alleviate eco-anxiety as well as the necessity of incorporating radical organizing into strategies for interrupting ecological crisis and managing eco-anxiety, we now seek to highlight the connections between community gardens and radical organizing. There is much debate over whether community gardens uphold radical politics by challenging neoliberal redevelopment or contribute to ongoing processes of neoliberalization while opposing radical politics. Certomà and Tornaghi (2015) observe that the public land use associated with community gardens can place them in opposition to neoliberal redevelopment while simultaneously giving unintended acceptance of the rolling back of services associated with neoliberalization. While gardeners take ownership of public spaces and provide for their own community's needs, they simultaneously give passive consent for the State to underserve their community if further action is not taken. McClintock (2014) suggests that awareness of such contradictions will allow organizers to better position community gardens as a means of contributing to radical movements rather than as an inherent representation of structural change. Looking to examples depicted by White (2011) and Ramírez (2015), we

suggest that utilizing community gardens as radical organizing spaces which strategize for political goals beyond sustainable food systems can fulfill this.

In "Sisters of the Soil," White (2011) depicts the relationships between Black feminists and gardening in Detroit, Michigan. Fed up with the food insecurity resulting from the abandonment of their city by the automobile industry and subsequently by grocery stores, a group of Black women farmers formed the Detroit Black Community Food Security Network (DBCFSN). White learns through interviews that these farmers see their gardens as resistance, a pathway through which they can achieve self-determination and self-reliance through control of their own food supply. One of the farmers, "argues that the farm is a space where political engagement begins and they learn agency. Not only do they learn how to grow food, but they also learn the power of their own voices," (2011, p. 24). This example illustrates the strong connections between gardening and food security and situates food security as a means of connecting those within the garden to broader radical movements. It is also of critical importance that the garden served as a safe space for the women who participated. White describes the farmers' conceptualizations of the garden as a space for both healing and empowerment, providing an excerpt from one of her interviews in which a farmer who was mourning the passing of her father was counseled by members of the garden and found healing and satisfaction in her connection to the land. This exemplifies the roles that gardening and community can play in alleviating the stresses associated with marginalization.

In "The Elusive Inclusive: Black Food Geographies and Racialized Food Spaces," Ramírez (2015) conducts a comparative study of two food justice organizations in Seattle, WA to illustrate the differences that arise in organizations depending on how their spaces are constructed. Ramírez draws clear distinctions between Clean Greens, a Black-led organization

with historical ties to “decades of radical black activism” and Ace of Spades, a white-led organization which employs a color-blind and apolitical approach to food cultivation. Using the concept of racial viscosity, Ramírez depicts how the prevalence of Black people in Clean Greens makes the organization more approachable to Black residents while the collective whiteness of Ace of Spades leadership reinforces itself as their gardening spaces become increasingly uncomfortable and difficult to penetrate for racialized individuals. Ramírez concludes, saying, “to prevent further displacement of people of color, I urge white food activists and scholars to decolonize their practice—to take a step back, and listen,” (2015, p. 767). This example highlights the importance of constructing gardening spaces with intention, rather than assuming they inherently promote justice. If garden organizers intend to build radical spaces which ameliorate eco-anxiety for more than just the most privileged, they must allow the most marginalized to take the lead.

It is important to note that the acts of gardening and growing food have colonial and racialized histories that can make them uncomfortable for marginalized individuals (Ramírez, 2015). For this reason, we choose not to uphold gardening as the sole and superior means of managing eco-anxiety through nature-based activities. Even radical movements led by racialized individuals can reify settler-colonial relationships to nature and this is something that must be addressed. In the following section, we shift away from the terminology of eco-anxiety and offer a perspective on humans’ mental restlessness in the context of ecological crises that is rooted in Indigenous ideas of sacred reciprocity, relationality, and the gift economy.

7. Sacred Reciprocity, Relationality, and the Gift Economy

She found herself in the woods more than normal, popping blueberries between her fingertips. Gramma said not to take so many at once, slow down. Calluses on her hands, little mountains on each knuckle, reminiscent of every hurtle she's faced in her life. Running down to the river, choking on air, climbed on top of the highest rock, "I can feel something here."

For the individual experiencing eco-anxiety, a relationship with nature becomes stripped, centered around feelings of fear and the unknown. Here, viewed as an 'other' to humans, nature is viewed as entirely uncontrollable, or as something that must be controlled for the benefit of humankind. The dichotomy of human vs. nature becomes instilled as the common narrative, reaffirming a disconnect, and a distance from our biotic community and non-living others. These emotionally charged sensations become exacerbated with our current environmental and ecological crises in flux. Information becomes overwhelming to grapple with as it is impossible to know everything about climate change/our changing environment, one dominant knowledge paradigm simply is not sufficient to tackle these issues and construct change (Nightingale et al., 2020). To truly engage in a conversation around humans' mental restlessness and a mended relationship with the land, the call for local knowledge and Indigenous action becomes critical, leading to an acknowledgment of the deemed 'otherness' of knowledge held by different communities. Considering what Nightingale et al. (2020) discuss as, 'active protagonists' in the production of our environment; we see humans as the protagonists, and while this is producing a tainted, individualistic relationship with nature, it may work as the basis for regrowth and learning. Here, we see the emergent requirement to acknowledge the role we play in nature's framing is critical if we are to understand and disrupt our anxiety with nature. While synonymously, as will be highlighted below, through respected engagement in Indigenous

teachings and opening our communities to considerations of other knowledge, the individual can begin to rework one's relationship with nature (Martin, 2017) for strengthened environmental and individual change.

Many scholars have argued a similar distinction around the human-nature relationship in which 'getting back into nature' and 'reconnecting with nature', is discussed to address our current social-political and environmental issues, as is exemplified by Richard Louv's (2008) 'Nature Deficit Disorder'. Here, Louv addresses how our current social-political and environmental issues can be cured through direct exposure to our natural environment, or simply spending more time within our green spaces (Louv, 2008). However, common critiques discuss this framework as individualistic, placing the onus of our environmental crises solely on the individual vs. on the policy-makers and political agendas at hand (Fletcher, 2017). Secondly, this notion that nature is something that the individual must reconnect *with* contributes to the narrative of 'nature' as an 'other' from which we are separate. In other words, "...nature as a "self-willed" entity separate from human consciousness and society" (Fletcher, 2017, p. 227). Similar approaches to Nature Deficit Disorder (Louv, 2008) take into account these critiques, and reintroduce similar ideals of reconnecting with nature, but in which we are to fall in love, as we are one with all of creation.

Stephen Sharper's 'Compassionate Ecology' (2013) approach further builds on the conversation of being in relationship with nature, where we fall in love with our natural environment to address the aforementioned issues. Sharper (2013) argues that our current laws, policies, and technologies are not sufficient in truly handling our present-day environmental crises, unless we are able to alter our feelings. Forming a similar solution-based conclusion alongside Fletcher's (2017) 'Nature Deficit Disorder critique, Sharper (2013) introduces the idea

of ‘anthropo-harmonism’. Here, there is no environment ‘out there’ apart from human, we are a part of the environment, “while we don’t drop the anthropo, as we will always read reality through a human lens, we can drop our hubris that suggests we are the centre of both the biotic and the cosmic journey. Instead, we accept that we’re in a “radical intersubjectivity” with all of creation.” (p. 2655). These ideologies and solutions-based conclusions centrally arrive at a similar point, one that coincides with Indigenous knowledge around relationality and the transformation of how we view nature. Sharper (2013) fully endorses this notion, through the teachings from Indigenous scholar Marina Herrera and her teachings around Harmony with creation (Herrera, 1987). Here human identity is interwoven with the land; recalling on generational stories she learnt from her Grandmother, she was taught that, when we lose touch with Mother Earth, we misbehave. This misbehaviour has resulted in the protagonist relationship we see presently and thus doesn’t work within this generational understanding; here we are in an equilibrium in which our current mental distress is centred around our corrupt relationship with the land due to our mental and physical disconnect. Acknowledging the social inequalities experienced globally, Sharper (2013) concludes with a final suggestion, “Unless we take seriously their [Indigenous] worldview of relationality, which speaks in large measure to the agency of nature...we’re not going to be in relation with the Earth in an anthropo-harmonic way.” (p.2932). The overall crux of this analysis is for all communities to learn and educate around these discussions of relationality in order to engage in practises alongside nature through actions of reciprocity, as will be discussed in detail below. Here, relationality or relational thinking is an axiology for Indigenous peoples, embarking on an understanding towards our non-human habitants and natural environment. This is a ‘connectedness’ between humans-animals, and

human-land, in which we are all one: relatives, givers, and stewards throughout the journey of life.

Indigenous scholar Gregory Cajete (2010) and his work around Native education paradigms discusses this further, speaking to the emergent need for traditional Indian education as an expression of environmental education and citing this as critical for engaging with the environmental crises we are facing in present-day (Cajete, 2010). When considering the core root of eco-anxiety as stemming from ongoing climate changes, how critical the human mindset becomes in grappling with these situations and mending the human-land relationship. "The mindset of 'objectivism'—stemming from the mainstream Western approach to science—when applied to the field of Indian education, excludes serious consideration of the 'relational' reality of Indian people…" (Cajete, 2010). Critically, we must begin to step forward away from objectivism and the 'othering' of nature, to fully understand how all 'things' have agency (Martin, 2017). In our system of relationality, we see nature as an equal agent deserving of care and consideration. However, this lens can't just be understood in its basic form. It is also of equal importance that non-Indigenous people understand how this knowledge is obtained and shared (Martin, 2017) for true engagement. This knowledge, Indigenous education of relationality, "...is given agency through building relationality with one another, with knowing and knowledge building relationality with itself." (Martin, 2017, p. 1398). In sum, relationality is often viewed within the category of a methodological framework, or theoretical framework. However, this removes the heart from the work. Engaging fully in relationality at its core is understanding that all non-human things have equal agency (Martin, 2017). And, through the lens of ecological variables, it means not placing nature as the 'other' within the frameworks of research and environmental policy.

7.1 Sacred Reciprocity: the gift-givers

Arms out, chest puffed pretended to be a chickadee bird, thought about flying. Shoving pebbles into the corner of her cheeks, "chickadee deee deee deee". Nothing echoed back. Frustrated she hops back to grammas house, blueberry pie wafting through the wind, it carries her feet there. See? I will hold you up.

As the learning and unraveling begins, destructive nature becomes a friend, an ally, where feelings of sympathy and empathy are present. One where we truly understand how the berries bow their heads to our feet, where the salmon gives itself to us for consumption, and the trees talk to one another, communicating along the breeze (Kimmerer, 2013). How powerful the tools of reciprocity become, when we engage in relationship with nature, as it is forced out of the 'other' and into a part of us. So, what physically can we as a human population do to mend this relationship? For non-Indigenous peoples, to begin a relational understanding rooted in learning and considerations of local knowledge? All while ensuring Indigenous knowledge is protected, shared when consented to be shared, while not overburdening Indigenous communities to become the teachers. Turning to the lessons of 'sacred reciprocity', one can begin to put the lens of relationality into practise, in which we give and receive in equal measure to nature, we do not take more from nature then what we give. In this relational lens, a reciprocal relationship may form, where imagining commonalities we take for granted in nature, as gifts, a physical action can occur for individual and ecological well-being, "Strawberries first shaped my view of a world full of gifts simply scattered at your feet. A gift comes to you through no action of your own, free, having moved toward you without your beckoning. It is not a reward; you cannot earn it, or call it to you, or even deserve it. And yet it appears" (Kimmerer, 2013, p. 24). Here, the

land is a giver and a teacher, in which we see these biotic 'objects' as agent forces, where the potential for them to have the capacity to give and receive gifts is strengthened.

Robin Wall Kimmerer (2013) further exemplifies this point of gift through a discussion of a 'gift economy' in her book '*Braiding Sweetgrass*' here, through our strawberry, the land gives to us, and we give back through intentional consumption and caring for the land to promote future growth. As was a gift given by the land, a relationship has formed (Kimmerer, 2013). Intention, empathy, compassion and feelings thus welcomed, "The essence of the gift is that it creates a set of relationships. The currency of a gift economy is, at its root, reciprocity. In Western thinking, private land is understood to be a 'bundle of rights,' whereas in a gift economy property has a 'bundle of responsibilities' attached," (Kimmerer, 2013, p. 28). Nadasdy (2007) also addresses the essence of a gift through the hunter-human relationship in which relationality vs. domination is discussed, "by accepting the gifts animals make of their own bodies, hunters incur a spiritual debt that they must repay through the observance of a whole series of different ritual attitudes and practices." (Nadasdy, 2007, p. 27). The key point illustrated here is that through a shift towards a relational worldview, viewing the lands 'commodities' as gifts, a relationship forms in which responsibilities are intrinsically attached, fueling a powerful motivator in reciprocity and the lands' careful stewardship. I believe this can start through items which are commonly 'taken' from nature for our survival as well as for our joy. Our food, plants and flowers are all small purchases made mindlessly, but perhaps through this shift we could alter the way in which we purchase these things. Not as mindless consumption but as engagement. And as the receiver of the lands' gifts, we give back in a more rooted way around nature. For example, through land advocacy and possible future economic and commodity

markets that are filled with relational knowing. Kimmerer (2013) also provides concrete suggestions through the unwritten laws of the '*Honourable Harvest*':

> "Know the ways of the ones who take care of you, so that you may take care of them.
>
> Introduce yourself. Be accountable as the one who comes asking for life. Ask permission before taking. Abide by the answer.
>
> Never take the first. Never take the last. Take only what you need.
>
> Take only that which is given.
>
> Never take more than half. Leave some for others. Harvest in a way that minimizes harm.
>
> Use it respectfully. Never waste what you have taken. Share.
>
> Give thanks for what you have been given.
>
> Give a gift, in reciprocity for what you have taken.
>
> Sustain the ones who sustain you and the earth will last forever" (p. 183).

However, there is a keystone point to address that is required for the relational and reciprocal understanding of the human to nature relationship; humankind has some form of upper hand over nature where we benefit off of its beings. But this is not of domination—or hierarchical authority—this is of a reciprocal and equal relationship in which we give back in forms of ceremony as well as protection, deep stewardship and care for the animals, plants and land used for our survival, as a form of gratitude. A form of sacrificial understanding, meaning, when we are receiving from nature, we take what we need, not what we want, "let the rest go by and the fish will last forever". When the drying racks are full with winter food, they simply stop fishing." (Kimmerer, 2013, p. 243).

7.2 Listen to the land, and you will know

Shoveling in spoonful of pie, after pie. Hot blueberries bursting in her mouth, she placed her feet down firmly underneath her grammas' table, roots wrapping around every vertebra, clicking her bones into place. "Why do you feel the need to run child? You got everything you need here." And gramma was right, one piece of blueberry pie, glass of milk, deep breath, listening to the wind howl, it was all she needed to hear.

Fully engaging in Indigenous knowledge isn't a linear rooting. It cannot be as simple as changing the way you see the world one day. It requires what Fletcher (2017) and Sharper (2013) suggest in 'structural uprooting' in which we don't embrace this knowledge and then continue to tend to the current capitalist structures we are working within (Cajete, 2010). There is no room in a 'gift economy', relationality, or listening to the land in capitalist, objectivist and economic based structures, nor are there rooted capabilities for understanding the strawberry as a gift-giver. Moving away from Indigenous knowledge as a cultural construction and into literal and metaphorical truths (Nadasdy, 2007). In sum, it means understanding, "...how the issues we are trying to solve are also products of the way they are framed in the first place and the power relations they reflect" (Nightingale et al., 2020, p. 344) and ensuring these teachings and forms of sacred knowledge synonymously serve the Indigenous communities whom the knowledge originates from, privileging Indigenous voice, reconciliation structurally and Indigenous autonomy for how our stories are told. Only then can these teachings and examples be learned and adopted into new and potentially pre-existing networks. Only then can we acknowledge Indigenous teachings since time immemorial around our land, practise allyship, and re-centre our minds for individual mental rest. As we unravel and re-learn our relationship with the land, feet

rooted, listening to the wind howl, we remind ourselves that we are not here for ourselves alone; we are here for all of our relations.

8. Conclusion

Eco-anxiety, ecological grief, and climate anxiety have largely been defined within Western literature throughout the last decade, across a range of disciplines. Our literature review attempted to unpack and critique how eco-anxiety is defined in this space, and quickly uncovered the gaps in knowledge as well as barriers to inclusion of multiple ways of knowing in tackling these forms of mental distress. Most notably, we found the failure of the wider literature to reference Indigenous and marginalized lived experiences of degradation and extraction related grief, thus exposing ongoing colonialism within Western science. In establishing eco-anxiety as not well understood, and felt only as the effects of climate change become internationally recognized, the dominant breadth of literature inadvertently suggests continued and unsettled relations to nature and power. Social and climate scientists alike have attempted to situate eco-anxiety within the spectrum of generalized anxiety disorder, while also maintaining its unique characteristics. Most notably, while generalized anxiety is often based in perceived threats, ecological grief or anxiety is based in real felt threats, often stemming from natural disasters or degraded home environments (Panu, 2020; Clayton et al., 2017). Solastalgia builds on this understanding, drawing attention to the place-based grief that some people, particularly Indigenous people, feel towards environmental change. With this said, forms of participatory action coupled with a reconciling of the human-nature divide have been seen to have profound effects on reduction of climate anxiety.

We aimed to illustrate the necessity of a radical organizing approach to the environmental movement and indicate the radical potential of community gardens as organizing spaces. We argued that our ecological conditions are co-produced with our political, economic, and social structures and that the individualization of pro-environmental behaviors places an additional burden of eco-anxiety on those lacking access to resources and institutional power. We followed this by recommending that the environmental movement look to movements with radical political histories to equitably address eco-anxiety rather than reproduce inequality. We found that community gardens have characteristics that make them productive spaces for organizing for climate and other environmental justice actions but that there are also characteristics of these spaces which can reify power structures and be counterproductive in organizing for radical change within the environmental sphere. Additionally, while there is not yet empirical evidence of the linkages between the triad of community gardens, radical organizing, and eco-anxiety, we have been able to draw connections between each of the pairs within this triad through our analysis of the existing literature. Through these connections, we theorize that perhaps the missing piece is a critical reshaping of our relationship with nature as a social-ecological system, and how a reconceptualization of multiple ways of knowing from an Indigenous lens can help to inform how we create and exist within natural and gardened spaces. We argued that reconciling these relationships requires an upheaval of our current capitalist systems and resulting structures, in order to make room for sacred reciprocity with our biotic community. In engaging with forms of reciprocity with nature, such as the gift-economy, we can begin to shift our positionality towards that as stewards of the land, where engagement and respect are at the fore. Furthermore, these reconceptualizations ultimately aim to serve Indigenous knowledge holders, as well as the

most marginalized communities, in order to equitably manage and channel eco-anxiety into actions which fundamentally interrupt conditions which create it.

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Appendix: Toolkit

RECONCILING RELATIONSHIPS:
COMMUNITY GARDEN TOOLKIT FOR MANAGING ECO-ANXIETY

Our research has found that reconciling our relationship with nature is one of the best ways to cope with eco-anxiety. Below are some tips for engaging with nature in an urban garden setting.

LISTEN TO THE LAND AND YOU'LL KNOW

Engaging with the teachings of reciprocity through a relational lens, requires a strong foundation of returning to nature. Beginning to look at the foods in our grocery store, the flowers you purchase at your local market and the manicured parks you walk through as gifts from nature, can start this process. Through reciprocity, their gifts are presented, with nothing expected back in return. To humbly understand this, can begin the reciprocal relationship with the land, where we take, and give back as we are one in relationship. Healing can begin for physical, mental and spiritual health, as we begin these teachings and engage in reconciliation with Indigenous communities and their sacred knowledge. A final lesson aids as a reminder, these teachings as rooted credible facets of knowledge, not just cultural 'ideas' and engaging in them begins the healing process.

ESTABLISH COMMON GOALS WITHIN YOUR COMMUNITY OR GROUP

Social cohesion and social capital can aid in protecting against mental and physical health impacts of both immediate threats and natural disasters and future threats. In establishing a shared goal for your garden space, participants will have the opportunity to contribute to a collective mission, thus combating feelings of loneliness and hopelessness. Participatory action within natural spaces, such as gardening, can have profound effects on community resilience and reassertion of power into marginalized communities

CREATE TIME AND SPACE TO DISCUSS MENTAL HEALTH

The foremost suggestion made in the literature for coping with eco-anxiety was creating supportive community networks with which individuals can talk about their climate-associated mental health effects, alongside the importance of engaging with nature based therapy. Unpacking the day to day implications of the eco-crisis within a space of healing and learning can provide comfort and support to those in need. This could be in the form of regular group check ins, specific workshops to discuss climate change and mental health, or facilitation of educational events within your space.

LEAD FOR AND BY THE MOST MARGINALIZED

Gardening has been used to reproduce harm, exclusion, and displacement enacted by larger systems of oppression. To avoid this, leadership in gardening spaces should be composed of the most marginalized considering race, class, gender, sexuality, ability, and other salient identities. This encourages meaningful inclusion and accessibility for those who are often excluded from these spaces. Empty statements of inclusion from gardens dominated by privileged people do little to help marginalized people join and feel comfortable in the space.

IDENTIFY INTENTIONS FOR PURPOSE AND SKILL BUILDING

To tackle feelings of uncontrollability and unpredictability, it has been suggested that specific skills sets related to the effects of ecological degradation, such as developing an understanding of soil science, restoration, or specific species needs, are highly effective. Further, creating a gardened space with a specific intention, such as for food security, for pollinators, for herbs, or for native plant species, can aid in creating resilience for the local environment, thus providing some comfort in understanding the benefits and contributions you are providing.

START FROM FOOD SECURITY AND WORK YOUR WAY UP

Gardening and food security have obvious links, making food security an excellent starting point for political education in gardening spaces. Building a radical group politics around food security can then be translated into other environmental topics such as climate justice as well as parallel movements like prison abolition and Indigenous sovereignty.

FOCUS ON THE MEANING

Feelings of powerlessness and overwhelm are often associated with eco-anxiety. In order to overcome these pathological, maladaptive emotions, research suggests that you should draw on your own personal beliefs, values, and existential goals while engaging in pro-environmental behavior, like gardening. Reflecting on the ways that your behaviors affirm your values, contribute toward a higher good, or support your purpose in life may help sustain well-being while participating in pro-environmental behavior.

STILL CURIOUS?

It's important to talk about our eco-anxiety within safe spaces! Here is a reading list to help better understand what you and your community can do together.

READING LIST:

1. *Climate-Wise Landscaping: Practical Actions for a Sustainable Future*, by Sue Reed & Ginny Sibolt
2. *Mental Health and Our Changing Climate: Impacts, Implications, and Guidance*, by Susan Clayton, Christie Manning, Kirra Krygsman & Meighen Speiser
3. *Native Science*, by Gregory Cajete
4. *Braiding Sweetgrass*, by Robin Wall Kimmerer
5. *The Elusive Inclusive: Black Food Geographies and Racialized Food Spaces*, by Margaret Marietta Ramírez
6. *Sisters of the Soil: Urban Gardening as Resistance in Detroit*, by Monica M. White
7. *ECO-ANXIETY*, by Maria Ojala
8. *Psychological benefits of greenspace increase with biodiversity*, Fuller et al.