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## **Death Education In Environmental Education: Making Meaning From Children's Eco-Grief**

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DEATH EDUCATION IN ENVIRONMENTAL EDUCATION:  
MAKING MEANING FROM CHILDREN'S ECO-GRIEF

by

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A capstone submitted in partial fulfillment of the requirements for the degree of  
Master of Arts in Education: Natural Science and Environmental Education

Hamline University

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## **DEDICATION**

To anyone who has ever lain awake at night, unable to sleep, gripped with  
certainty that the world is going to end.

“Yet under  
reason burns a brighter fire, which the bones  
have always preferred.  
It is the story of endless good fortune.  
It says to oblivion: not me!”  
- Mary Oliver, *The Black Snake*

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## CHAPTER ONE

### Introduction

#### Introduction

Environmental education has many purposes: to inspire wonder and a love of nature, to inform about the world around us, to shed light on social inequalities tied to the way we use our natural resources, to inspire good and fair stewardship of these resources and a respect for nature. Yet there is a profound horror hiding in the shadows of conservation. Our Earth is changing. Carbon dioxide, methane, and other gases from agriculture, transportation, and burning fossil fuels have warmed the climate over one degree Celsius since industrialization, and we risk far greater warming within the next century. This warming has the potential to alter every single system on Earth, from the deepest currents of the ocean to the chemical components of our atmosphere. Climate change is just one of the global environmental crises humanity faces in the 21st century, along with plastic pollution on an unimaginable scale, rampant overfishing and poaching, global biodiversity loss, the proliferation of harmful invasive species, contamination of freshwater ecosystems, as well as many more un-natural disasters.

As environmental educators, we must familiarize ourselves with the all-too-common images of plastic-choked ocean gyres, charred outback and scorched forests, animal corpses stuffed with the grocery bags they mistakenly consumed in life, the lifeless, butchered bodies of poached megafauna, waves lapping at the doors of homes sinking into the melted permafrost, ghostly kingdoms of bleached and crumbling corals that spread as far as the lens can see. To educate, we must present these painful and

disturbing images to others. The image that lingers - a turtle with a bloody straw being removed from its nose, for example - has the power to simultaneously disturb and spur change. Beyond the images are the accompanying facts, invisible to the camera but impossible to forget - the ticking clock counting down until Earth becomes potentially uninhabitable to most, if not all, of humanity; the knowledge of the microplastics polluting our seafood and the pesticide runoff in our lakes and streams; media reports on the increased frequency and severity of natural disasters - all constant reminders of the immeasurable potential and current suffering, both human and animal.

As a species, we know more than ever before about our Earth, but knowledge can have a painful edge. We have created new names for the widespread mental maladies of the newly-christened “Anthropocene,” the first era in history to be shaped by human activity: eco-anxiety, climate grief, solastalgia, Anthropocene horror. For the first time in human history, we are facing an onslaught of wholly new, complex feelings about our environment and our place in it that bring to light long-held beliefs about our world and our moral responsibility to it and one another. These negative feelings are difficult to untangle, but are connected to a single, all-encompassing emotion: eco-grief.

“Eco-grief” is the painful feeling of loss or bereavement when faced with past, present, or future environmental destruction and its consequences on humans, animals, and other organisms and systems. This grief is linked to the stress, fear, and worry surrounding an uncertain future, an overwhelming number of potential factors to consider, the aesthetic pain of witnessing environmental destruction, and existential and moral anxiety.

Children, with their limited agency, limited emotional control, and limited understanding of the complexities of the world, are especially vulnerable to eco-grief. This is exacerbated by the way globalized Western society treats death as a taboo subject, especially around children. Children are believed to live in a world of innocence unspoiled by loss, so they are left unprepared, making encounters with death even more shocking and potentially traumatic. Even when adults want to discuss death and loss with children, they often say nothing out of a fear of saying the wrong thing, or they inadvertently dismiss the experience of grief as a way to deflect their own sadness and discomfort. The silence from adults around this topic teaches children that they are alone in their grief, further compounding the pain.

When the loss concerns something as immense as the death of the Earth as we know it, few adults know how to handle their own negative emotions, let alone approach this subject with children. Thus the focus in many environmental education programs is on positive emotions, promoting a sense of wonder and connection to nature, or on encouraging personal responsibility and individual actions, placing the burden of “saving the planet” on students rather than encouraging collective action. Very little room is made for reflection on the sadness, fear, and anger that accompanies our planetary crisis. This chapter will present the research question, which is centered on understanding eco-grief. Next, I will describe my own personal history with issues surrounding grief and empowerment that led me to pursue this question. The final section will give a summary of Chapters Two, Three, and Four.

My research question for this project is threefold. How can students grapple with their instinctive sadness, anger, despair, grief, anxiety, and bereavement while avoiding

counterproductive defense mechanisms? How can educators aid them as they move towards acceptance, empowerment, and action? What can educators in environmental education (EE) learn from death education, a field that focuses on mortality, end of life, loss, grief, bereavement, and empowering students to make informed moral decisions? Or, summed up more simply: *How can environmental educators apply best practices from death education to help children make meaning from eco-grief?*

### **Context**

I have always been an anxious and sensitive person. I developed an eating disorder in middle school when I realized that the food that appeared on my plate was part of a system of destruction -- the pesticides, the slaughterhouses, the emissions from the network of transport that brought ingredients to the grocery store, the resources that would not be renewed. The awareness of my own role in this destruction pained me deeply. I cared about the environment, but had no clear direction or sense of control outside of my vice grip on my appetite. Over and over I fell into an obsession with being ecologically (and morally) “good” enough and would despair when inevitably I fell short. More than once I cried myself to sleep after learning about polar bears stranded on the disappearing Arctic ice or elephants being murdered for sport. Like many teenage girls, I felt the capacity to hold all the world’s despair inside me.

Then I grew up. I went to therapy, I went on medication to deal with my anxiety, and increasingly more of my attention was focused on caring for my family: my mother, my aunt, and my grandparents. Our house was full of life, but it was also inhabited by the looming threat of imminent death. My mother and aunt were both born with sickle-cell anemia, a terrible genetic disease that causes bone-shattering pain (amongst other things)

as malformed blood cells clump together in veins, arteries, and marrow. There were so many “close calls” that it’s impossible to remember them all.

For sickle cell patients, my mother and my aunt both lived relatively long lives. The average life expectancy for women with their condition is currently around 42 years. Life with blood that bends and curves in cruel and unknowable ways takes a toll on fragile organs. My mother died first from the complications of sickle cell anemia. My aunt, a second mother to me, died six months later. My grandparents, caretakers to their daughters for most of their adult lives, died a few years after. At the eye of this storm, I was 25 and learning the unrelenting kind of grief that stains every part of you. I felt alone in my loss. To leave everything behind, I moved to South Korea and became a teacher to English language learners. That is where I encountered *misae meonji* for the first time.

South Korea is in the grip of an ongoing localized ecological disaster. Every spring, fragrant yellow forsythia begins to bloom as winds blow southward from the Gobi Desert laden with fine particulate. On its way to South Korea, these clouds of dust encounter coal-burning factories and smog-shrouded cities, becoming a hazardous haze of pollution that darkens the sky with a thick coat of sickly yellow, dirtying the clouds and filling lungs. The South Korean government sends out emergency text messages urging citizens to stay inside. Children are not allowed to play outside for recess. Even healthy adults are advised to mask up to avoid breathing in the dust which carries toxic substances like cadmium, lead, arsenic, and mercury. This is *misae meonji*, which translates to “fine dust.” It is also known as “yellow dust” or “Asian dust.” Deforestation and desertification in China combined with East Asia’s continued reliance on coal has

worsened the dust in recent years and increased respiratory diseases and related deaths in the region.

On a particularly disgusting spring day, full of flowers that no one could linger outside to enjoy, one of my students informed me that soon humans would have to go to Mars, once humans destroyed the Earth. Not “if.” “Once.” Her words felt like a punch in the gut. She was eight. I had always been passionate about science and the environment, but suddenly I felt compelled to radically alter my career course. A few months later I applied to Hamline’s online Natural Science and Environmental Education graduate program.

Over the years I have taught students in South Korea about pollution, recycling, and climate change, yet been unable to honestly discuss with them the future ecological challenges they will face as adults. The distress in their faces when they see photos of landfills for the first time or discuss their anger at adults regarding climate change haunts me and compels me to present them with the most hopeful scenarios even if in my heart these optimistic attitudes feel false and impossible. Even in the best-case scenario created by the IPCC in their most recent report, a scenario where humanity no longer contributes to climate change by the middle of the century, we will be unlikely to constrain ourselves to 1.5 degrees of warming worldwide (IPCC, 2021).

The grief, stress, and despair I see in others mirrors my own experiences with loss. We grieve the Earth as intensely as we might a dying loved one or even the prospect of our own death. We worry about our planet’s prognosis, if it will last another ten years, fifty, a century. The number of reasonable adults I have encountered who genuinely believe the world will end due to climate change within the next ten years is alarming. It

seems I was ahead of my time as a neurotic, guilt-ridden teenager. Now questions abound online and others, too, can worry themselves sick with the maddening mundanities of how to do the least harm in a global system indifferent to the harm it causes. From headlines, to memes, to conversations with friends, acquaintances, colleagues, and students, doom is in the air.

There are far fewer people who deny climate change now, and far more people who grapple every day with the reality that we may be turning the Earth into Hell. It is easy to fall into despair, denial, or nihilistic indifference. Our blithely optimistic culture is particularly bad at dealing with matters of death, let alone the potential death of the planet as we know it. Yet I have experienced firsthand that even the deepest grief can transform into a desire for action, connection, and advocacy. But how do we get there?

### **Summary**

In this chapter, I presented my research question: *How can environmental educators apply best practices from death education to help children make meaning from eco-grief?* I defined the term “eco-grief,” explained why I find this research question so compelling and timely, and described my observations of the current mood surrounding environmental education. I also highlighted my own experience with grief, both personal and ecological.

In Chapter Two, I review the current scholarship surrounding the psychological and emotional impact of environmental degradation and climate change. This chapter also introduces the field of death education, reviews best practices for discussing death with children, and examines how death education and environmental education intersect. Chapter Three discusses creating a website for educators that integrates death education

and environmental education, as well as the process of designing my project. Chapter Four focuses on my findings during this project, the application and potential limitations of my research, and future areas of study.

## CHAPTER TWO

### Literature Review

#### Introduction

Chapter Two reviews the literature on eco-grief and related emotions and discusses how environmental destruction causes existential and psychological threats, as well as common coping strategies in students. It discusses cultural attitudes around death, the philosophy behind death education, and how children (defined here as humans under the age of 18, in accordance with the United Nations) conceptualize death and experience grief (UNICEF, 1989). This chapter also explores recommendations for educating and counseling children on death and loss, and investigates strategies for making meaning out of emotional responses to ecological destruction. The final section of this chapter draws on best practices in both death education and environmental education (EE) to answer the question “*How can environmental educators apply best practices from death education to help children make meaning from eco-grief?*”

#### Eco-Grief

One of the many emotions climate change and environmental degradation commonly bring is grief. Though grief is most often associated with a death, any significant loss can spur feelings of grief. Grief is a complex emotion and eco-grief, just like non-ecological grief, intersects with many other emotions such as anxiety, overwhelm, exhaustion, disbelief, denial, stress, helplessness, fear, anger, and guilt (Eaton, 2012; Pihkala, 2020). One notable variation of eco-grief is solastalgia, first conceptualized by environmental philosopher Glenn Albrecht (2006) as “a form of homesickness one experiences when one is still at home:” an experience of grief and loss

of the comfort and familiarity that one's home environment used to provide. Solastalgia can intersect with loss of identity, loss of tradition and ancestral knowledge, loss of history, and loss of livelihood (Cunsolo & Ellis, 2018; Albrecht et al., 2007). Many scholars warn against pathologizing these normal responses and consider grief and its attendant emotions reasonable reactions to one of the greatest crises humanity has ever faced (Cunsolo & Ellis 2018; Ojala, 2016; Randall, 2019).

Existential anxiety is often strongly tied to environmental grief, as the loss of stability reminds us of our own mortality. Existentialist philosopher Paul Tillich posited that the fear of non-being lies at the core of existential anxiety and, as eco-anxiety expert and researcher Maria Ojala (2016) puts it:

Tillich maintained that nonbeing, the root of existential anxiety, threatens the whole individual: the ontic part (anxiety about physical death), the moral part (anxiety about guilt and condemnation), and the spiritual part (anxiety about meaninglessness, loss of ultimate concern). Climate change is a threat to the future survival of humanity (the ontic part), it is related to moral questions about whether it is right to live the way we do in the Western world (the moral part), and raises questions whether there is any point in being an active citizen at all due to the seriousness and complexity of this problem (the spiritual part). (p. 44)

Global environmental degradation threatens every part of our individual identity, complicating the grief we feel as we mourn not only the loss of the natural world and our place in it but also the loss of internal safety and stability we might have previously felt.

Death is not the only personal threat we may encounter from environmental destruction. Since we cannot live forever, humans often seek comfort through what

psychiatrist Robert J. Lifton called “symbolic immortality.” Lifton identified four types of symbolic immortality: biological, creative, theological, and natural. People like to believe that their lives continue in some way after death, through offspring and relatives (biological), artistic works or accomplishments (creative), belief in religious narratives (theological), and the comfort that though their individual consciousness will cease to exist, life on Earth will continue (natural) (Pihkala, 2018). Ecological destruction creates a threat beyond any individual’s lifetime. Not only might we individually suffer due to environmental collapse, but considering the apocalyptic, civilization-destroying potential of climate change, our symbolic immortality is threatened as well. Even our legacy may be erased from the planet if there is no one to remember it.

In some cases environmental destruction presents a threat greater than the loss of our own life, possibly even the greatest potential loss imaginable on a human scale. To deal with these profound psychological threats and continue living, we utilize psychological coping mechanisms. Ojala (2012a; 2012b; 2017; 2018) has found that childrens’ strategies for coping with climate change generally fall into three categories: problem-focused, emotion-focused, and meaning-focused. Problem-focused strategies are centered on individual actions to solve issues but, as ecological destruction is a collective problem beyond the agency of any individual, are associated with lower emotional wellbeing. Children using problem-focused strategies may show increased pro-environmental behavior, but also may feel a greater personal burden and more negative emotions.

Emotion-focused strategies work to alleviate difficult or unpleasant emotions. These can manifest as distraction, avoidance, willful ignorance, or even consumerism.

Ojala posits that climate change denial and “climate change skepticism” – what she terms “de-emphasising” – might actually be protective emotion-focused measures rather than actual disbelief. Emotion-focused strategies may make individuals feel better in the short term, but ultimately do nothing to solve the problem (Ojala, 2012, 2018). The final way of coping, associated with both higher emotional wellbeing and pro-environmental behavior, is through meaning-focused strategies, which will be discussed in the third section of this chapter, “Making Meaning.”

### **Death Education for Children**

There is very little place for death in modern, globalized Western society. Though we encounter death daily, we rarely do so consciously. We are actively discouraged from thinking about how the aisles worth of meat and leather goods quietly appear in our stores, sanitized, packaged, and ready to be bought. Yet though we insulate ourselves from it, nature is, of course, full of death:

Even quotidian outdoor spaces reveal continuous perishing to those who engage with them: the old oak tree’s limbs decaying, the warbler snatched swiftly from flight by an overhead hawk, annual plants withering into sludge as November’s frosty hands descend upon them. (Affifi & Christie, 2019, p. 1145)

However, the daily interactions of prey, predator, growth, and decay that dominate the natural world are often absent from our human sphere.

Media that shows us death often does so in a fictionalized or abstract way, as something unnatural and distant that happens to other people; a tragedy or a crime, rather than an event with significance within the community. Religious communal rituals that

once provided narratives around death are now often sugar-filled, sugar-coated, commercialized holidays. As educators Oaks and Bibeau (1987) described:

We live in a death-denying society and try to shield children from the emotional pain of loss through death. Extended families in which children had the opportunity to experience aging, dying, and death of grandparents are no longer the norm. Instead our ill and dying elderly live and die in nursing homes, hospitals, or hospices. Even our death vocabulary is cloaked in denial. Rather than "someone has died," we say the person "passed away," "is sleeping," "is at rest," or "went on a long trip." Our funeral directors further this denial by making the dead appear life-like, merely peacefully asleep. But perhaps the most important way we deny death is through our silence. We do not discuss death. (p. 2)

Death is an especially taboo subject in the classroom. In globalized Western cultures, adults often feel an instinct to shield children from the harsher realities of the world. Breaking the taboo around discussing death can bring objections from parents and other adults who feel that acknowledging mortality will spoil the innocence of childhood or burden children with concepts they are not emotionally mature enough to handle. However, these attitudes disregard the lived experiences of children, who participate in the mortal world just as much as adults.

Children are likely to encounter some sort of serious loss before childhood, whether it's the loss of a pet, friend, family member, or a member of their community or school. In our media-saturated world, children may also experience second-hand loss due to a natural disaster, a national or international tragedy, or even the loss of a beloved

celebrity. Without any preparation, encountering death can be even more painful or potentially traumatic for children. As psychologist Ofra Ayalon (1979) said:

Dealing with death is not necessarily depressing or frightening for children.

Ignorance and prohibition are frightening and may lead to an arrest of emotional growth. Knowledge and understanding of the mysteries of natural phenomena can relieve the living from crippling anxieties. (p. 252)

This is why the field of death education, sometimes called “thanatology,” aims to demystify death and empower students by allowing them to explore various topics related to mortality. In 1979, authors Gordon and Klass recognized four general goals of death education:

- A. to inform students concerning facts about death not widespread in the general society
- B. to increase students’ capacity to effectively deal with the prospect of their own death and those who are close to them
- C. to increase one's consumer understanding of medical and funeral services
- D. to enable the student to formulate or refine ethical and value stances in regard to death. (Schvaneveldt, 1982, p. 190)

If the purpose of education is to equip children for challenges they will face in their lives, we should not avoid one of the most potentially traumatic and life-altering experiences they will ever have just because it’s potentially unpleasant to discuss. Rather than allowing children to experience the shock of encountering a death unprepared, Ayalon recommends a two-pronged approach of “prevention” and “treatment:” 1) an ongoing program of emotional education and age appropriate death-related topics, and 2)

“direct intervention” such as grief counseling when a death occurs. Illuminating the darkness may initially seem uncomfortable, but shedding light on the shame, misconceptions, and fear can give both children and adults a chance to practice bravery and resilience.

In order to explore a sensitive topic like death with children, it is important for educators to understand how children experience grief, bereavement, and mourning. Bereavement is the painful feeling of a loss while grief is the emotional, psychological, and physical response to that loss. Mourning is “a cultural response to loss,” informed by society and expressed in rituals like funerals (Oaks & Bibeau, 1987, p. 420).

Children's responses to bereavement may be unexpected or even shocking to adults. Children have far less control over their emotions than adults and their grief may look different than expected. They may not have the language to express their feelings the way adults do, may not understand what they're experiencing or how to react appropriately, and may react more strongly in nonverbal ways. They may not know how to express their needs and may hide their feelings due to worry about burdening the adults around them who may also be experiencing the loss (Turner, 2006).

Like all mourners, children do not move along a single linear path toward healing, and different models of grief identify up to twelve different stages or phases (Worden, 2008). Most models are made for adults, but apply equally to children. Colwell & Jackson (2001) describe how pediatrician and psychoanalyst D.W. Winnicott splits the journey of grief into four parts: numbing, yearning, disorganization and despair, and finally, reorganization.

The first response is numbing, a state of shock or even denial where we are unable to believe what has happened. Numbing is a normal protective response as our minds struggle to incorporate new information that may radically alter our perceptions about ourselves and our lives. The second stage is yearning, a period of longing where “we seek to recover the lost person, perhaps in concrete ways or in memory” (p. 92). We may feel that the lost loved one is still with us in some way or seek to keep them close through sentimental objects or experiences. We may also feel anger.

Third is disorganization and despair, a stage where life no longer seems to make sense without our loved one. We may question the meaning and purpose of life or a future without our loved one, and there is often a surreal quality to this period as life goes on unchanged while we have been radically altered. Depression, hopelessness, and thoughts of suicide may manifest during this time. The final stage is reorganization, where we begin rebuilding our lives around the loss. This does not mean forgetting the loved one or “moving on ” but rather learning how to live with the wound, and we may revisit or relapse into previous stages periodically.

Another way to understand grief is as a series of tasks. Worden (2008) identified four essential tasks for the bereaved: 1) to “accept the reality of the loss,” 2) to “identify and experience feelings” and “process the pain of grief,” 3) to “adjust to a world without the deceased,” and 4) to “find an enduring connection with the deceased in the midst of embarking on a new life” (pp. 39-55, 91). If a mourner fails to accomplish one of these tasks, it will impede their healing. The job of grief counselor or other guiding adult is to facilitate the accomplishment of these grief tasks.

There are many factors that can influence a child's experience of grief. Children have different experiences and understandings of death and loss at different ages and developmental stages:

- Birth until age 2: Very young children have no object permanence. If they can not see it, it does not exist for them.
- Age 2-7: Children at this age have a loose concept of the permanence and universal nature of death and may seek to revive a lost loved one. They may worry about the deceased getting their bodily needs met, or believe they have the power to cause death through thoughts or behavior (magical thinking). As they age and have a greater understanding of the workings of the body, they begin to grasp the causes of death.
- Age 7-12: Children begin to understand death in more concrete terms. They can understand the ways a body may cease to function. They can also understand internal and external causes of death and understand that dead people no longer have bodily functions, perception, or needs. They may express fear or curiosity about death.
- Age 13-17: Adolescents understand that death is natural and inevitable, but it may feel like a distant phenomena that only concerns the elderly and very ill. Children at this age think more abstractly, considering concepts of fate, justice, occult phenomena, their place in society, and their own mortality. They may have a strong "denial of death" and work to keep thoughts of death at a distance. (Colwell, & Jackson, 2001; Dyregrov & Yule, 1991)

Another aspect that may alter a child's experience of loss is gender socialization. Children raised as boys are often socialized to suppress their feelings while children raised as girls are usually encouraged to discuss their feelings openly and seek support and community from friends and adults. Cultural expectations, the circumstances of the death, access to a support network, and the child's relationship to the deceased loved one can all influence a child's grief. Their own personalities and experiences also play a large part in how they process a death (Dyregrov & Yule, 1991). Children who have experienced prior trauma and loss or are mourning while simultaneously facing stresses related to their own well-being will also have a more complicated experience of grief (Turner, 2006).

### **Making Meaning**

In addition to the despair of eco-grief, another emotion-focused coping mechanism that leaves us unable to engage with the world around us is denial. Verlie et al. (2021) hypothesize that denial and disengagement can function as a shield to protect from concepts that are too potentially upsetting or threatening for the individual to accept. This mirrors the initial stage of grief identified by Winnicott, where the mind protects itself through denying the loss. Rather than a sign of apathy, this "skepticism" can actually be a form of "eco-paralysis," another term coined by Albrecht. In a dire situation where action feels impossible, often the only coping method available is avoidance, distraction, and detachment.

Yet simply focusing on positive emotions alone in EE is not enough. Blithe hope based on denial helps no one and has no connections to pro-environmental behavior. A hope-filled message without any realistic discussion of the significant challenges that lie

ahead and the dire consequences of failing to rise to these challenges may be more comfortable, but it is a dangerous comfort. This is a kind of “cruel optimism,” a term coined by Lauren Berlant to encapsulate what Ruitenberg describes as “the kind of masochistic optimism that keeps us returning to a person, a scene, a place of employment or other object of desire that has injured us in the past” (Ruitenberg, 2020, p. 832). It is a hopeful promise of transformation that never comes.

Ojala (2012a; 2012b; 2017; 2018) has found that the most effective coping strategy for problems that cannot be solved immediately is meaning-focused coping. Meaning-focused coping mechanisms allow a person to draw on a sense of purpose and relate their struggles to their personal values. Though “hope” is often used to mean “naive optimism,” Ojala sees hope as an effective force for action if coupled with problem-focused or meaning-focused coping “by providing momentary respite from the harsh reality and giving people the strength needed to face the threat at hand and search for solutions” (Ojala, 2012a, p. 636). Hope contains elements of desire and uncertainty, and environmental educators should attempt to foster hope based on empowerment rather than denial, with hope and meaning as precursors for action rather than the end state, conceptualizing “hope as a practice” where one’s “role is not to soothe but to enable action competence and lifelong learning” (Verlie et al., 2021, p. 143). To encourage hope, we can use tools for creating meaning such as positive reappraisal, trust in other societal actors, a sense of community and connection, resilience and trust in one’s own ability, future-forward thinking, and political action.

Positive reappraisal is a way of reframing one’s way of thinking about a situation while still understanding the seriousness of the situation (Ojala, 2012a; 2018). This can

look like celebrating positive changes toward sustainability or seeing climate change and other global challenges as a potential opportunity for humanity to reevaluate our relationship to our planet and its inhabitants. It can also involve re-conceptualizing our relationship to the loss of our environment. All care and love is directed toward something or someone that we know will ultimately die or fade away from existence.

What Affifi & Christie (2019) term “caring-unto-death,” the “type of nurturing relationship that occurs when the carer cares for someone/thing that they know will die and persists in caring until death occurs,” can remind us that it is still worthwhile to invest in things that will die (p. 1147). Considering that 99% of all species that have ever lived are now extinct, we can consider ourselves lucky to exist at the same time as the magnificent organisms we share our planet with. As Affifi (2020) says:

The black rhinoceros may be doomed. Even if they are, it is beautiful to witness someone fall in love with them and commit to their flourishing during their final days on the planet – rather than, say, calculating that investing in them is not ‘worth it.’ (p. 1132)

A surprisingly soothing method for positive reappraisal might be Affifi’s (2020) aestheticization of deep time:

It is possible to contextualise this age of earthly destruction in ways that curb its imperative. There is something awesome and even hopeful about the idea that evolution will go on and ecosystems re-complexify across the eons ahead, long after whatever damage much of our species lets loose. (p. 1128)

Many children worry that climate change might be the “end of the world” or destroy all life on Earth completely. It can be a comfort to understand that though this current mass

extinction is not natural, and may severely harm the planet, it is unlikely to render the Earth sterile. Life is a powerful force with a drive to survive, and examining extreme “worst-case scenarios” like other mass extinctions and global environmental catastrophes from the past can have a cathartic effect. It can also potentially relieve a small amount of guilt and anxiety to know that though humans have harnessed awesome destructive powers, we likely cannot damage our planet enough through climate change to completely annihilate all organisms.

Another important part of making meaning is trust in other societal actors and a sense of community. Humans orient our identities in relation to our community and trust in others can bolster confidence in oneself. Collective projects can foster a positive connection to the community (Chawla & Gould, 2020). Interacting with and learning about role-models such as scientists, activists, politicians, representatives of environmental organizations, businesspeople, and other community members who are working towards change can reaffirm for students that there are others who care and that they are not alone (Ojala, 2012b; 2016; 2018).

Thinking beyond the immediate community to a global scale, we can study how humanity has solved large-scale problems in the past and identify tactics to emulate and cultivate trust in humanity’s ingenuity (Ojala, 2017). We can also positively reappraise our relationship to other societal actors. Since problems like climate change are something we all potentially contribute to and affect us all, they give us unprecedented opportunities for creating community and kinship.

Nature can also facilitate many different types of connection. Spending time in nature has been linked to a greater appreciation of nature, and studies have also shown

that children and adults with a greater connection to nature engage in more pro-environmental behavior. Spending time in nature can also provide solace or a healthy temporary distraction and allow students to connect to their traditions and community (Chawla & Gould, 2020). For younger students especially, Reid et al. (2010) recommend focusing on first cultivating a connection to nature and understanding of care and responsibility before expecting them to face the world's problems. This aligns with the developmental stages described by Colwell & Jackson (2001) and Dyregrov & Yule (1991), detailed in the section "Children's Grief." Younger children are less able to grasp scientific concepts or distinguish between fact and imagination, so the primary focus should be on constructing their basic understanding of the world and creating relationships with nature that will serve them later when they are mature enough to understand complex phenomena such as climate change.

An aspect often lacking in discussions of our ecological future is positive narratives of change. Reid et al. (2010) argue that story is central to our understanding of self, even claiming "if we lacked the capacity to make stories about ourselves, there would be no such thing as selfhood" (p. 429). As Ojala (2012a) says, "Many young people seem to lack a 'good story' about the global future and are instead trapped in a discourse of threat and gloom" (p. 637). In order to avoid negative responses related to hopelessness like despair and denial, messaging in EE has often focused on a hopeful future and empowerment through individual actions. This can cause a feeling of cognitive dissonance for young people. One educator interviewed by Verlie et al. described it this way:

I find my students seem confused by the disconnect between the ways they are encouraged to see the future — other teachers and parents encouraging them to aspire to careers as though the world will continue the same, and then my class where I suggest it may be very different. I think they don't know how to hold the two futures they are being presented with, and mostly try to forget or disbelieve a climate crisis view of the future, but also, they can seem resigned to it. (p. 138)

To encourage future-forward thinking, Ojala (2017) points to tools such as anticipatory competence, defined by Wiek et al. as “the ability to collectively analyze, evaluate, and craft rich ‘pictures’ of the future related to sustainability issues and sustainability problem-solving frameworks.” Other important future-oriented competencies include normative competence, “which involves taking ethical dimensions into account when discussing and envisioning preferable and more sustainable futures” and strategic competence, or “the ability to find realistic pathways to these futures” (p. 77). When designing futures, Ojala also recommends we first look at what is “probable,” then what is “preferable,” and finally find a realistic middle-ground of what is “possible,” including the steps needed to reach our goals. Ojala cites Snyder in describing a three-step process for connecting hope to action through imagination:

1. A “positive future goal—that which we want to happen”
2. “Pathway thinking—to find ways to reach the desired goal,”
3. “Agency thinking—to motivate oneself to use these pathways.” (p. 78)

New narratives about the future can also be accessed through literature. Though it is not an “automatic” process, Bigger & Webb (2010) argue that fiction with environmental themes can be a valuable tool in making meaning:

Unlike in fiction, the story of one's life is not fixed. Young people can *restory* their past and their potential futures through the understandings generated by reading... One's life story (the interpretation of the past and projection of possible futures) can be revised, so negative expectations can be restoried into positive aspirations. Critical engagements with stories can examine community, environment and place and thus enable young people to identify and readjust their own attitudes and behaviours. Fiction can speak hermeneutically to contemporary circumstances and change lives if insights are internalized... If readers are helped to critique whatever they read, or view on film or television, they can learn to approach literature in personal, social and ethical ways. (p. 410)

Students' radical imagining can lead to real-world actions and they can draw hope from investing in a cause. Drawing parallels between the climate crisis and the decline of global democracy, environmentalist David W. Orr (2020) warns that to preserve our habitable Earth we must repair our political institutions, turning away from neo-liberal individualism, proto-facist populism, and the myth of endless growth to protect humanity's future. Orr sees climate disaster as inherently political, as democracy cannot function in the face of environmental collapse, and a truly democratic society that prioritizes the greater good would not allow such a collapse to happen. He also finds that the field of EE has a "tendency to overlook the hard reality that the use and disposition of land, air, water, forests, oceans, minerals, energy, and atmosphere are inevitably political having to do with 'who gets what when and how'" (p. 273). This call to political action may resonate strongly with students, especially in the wake of demonstrations by groups

like Extinction Rebellion, Fridays for Future, and other activist organizations led by concerned young people.

By taking these strategies and steps into account, we can conceptualize a new framework to help children see themselves as empowered actors. To give oneself and others permission to imagine a future can be a profoundly transformative act in the face of overwhelming despair.

### **What Educators Can Do**

Environmental educators often feel they must be a “neutral” authority, “stick to the facts,” and be “professional.” They may have worries about burdening or projecting their own emotions onto their students or feel unsure how to approach the emotional dimensions of EE (Verlie et al., 2021). Witnessing another’s suffering is painful, and can lead to feelings of discomfort, impotence, and frustration or remind us of our own anxieties and unresolved losses (Worden, 2008). Educators may feel the best tactic is to create emotional distance between themselves and the students and avoid discussing difficult-to-process emotions. This can inadvertently lead to “a spiral of silence” where children feel that adults do not care (Ojala, 2018, p. 13).

Death education can give us a framework for discussing some of the most serious topics in EE. Many researchers stress the importance of educator preparation when discussing death with children (Oaks & Bibeau, 1987; Rosenthal, 1980). Earl Grollman, author of the 1971 essay collection *Explaining Death to Children*, created a list of ten guidelines for adults helping children to cope with death:

1. Do not avoid the subject of death. Answer questions truthfully. If you lie you may have to explain why later.

2. Do not discourage emotions of grief.
3. Allow doubt, questioning, and differences of opinion. Avoid denying the child's perception of or reaction to death.
4. Do not lie to protect the child. Trying to protect the child may retard personal growth.
5. Avoid confusing explanations of death. Lay a framework for future learning.
6. Do listen to the needs of the child. Make sure you understand questions before you answer them. Re-phrase the question if necessary and ask if that is what the child means.
7. Make referrals to other supportive people.
8. Remember that the grief process may last for some time, and the grief response may not begin to appear for several months after the death.
9. Express your own emotions honestly.
10. Take a death education course. (Oaks & Bibeau, 1987, p. 422)

Truth, openness, honesty, and trust are the best strategies. Adult reactions and handling of a situation can profoundly influence a child's attitude when facing a loss. Adults often feel the need to "have all the answers," even in cases where that's impossible. As Colwell and Jackson (2001) described:

As adults we are used to being in charge, able to cope and knowing what to do. We expect to be able to ease painful situations for children, but in this circumstance we cannot. No matter what we say, we cannot bring people back from the dead. We cannot make it better, but maybe we can try to not make it

worse. It is important for adults to feel comfortable with the child's pain if they are to be of any help to the child. (p. 100)

Rather than trying to provide definitive answers or “fix” things, Colwell and Jackson recommend “holding,” a technique used by therapists to make space for the feelings and thoughts of their clients while listening and accepting without judgment. Just the act of being present, being open, listening, and acknowledging a person's feelings can be a radical and intensely meaningful act of support.

Educators should seek to foster trusting relationships with students, while also allowing themselves to trust in students' resilience. Verbal check-ins, being approachable, making space for reactions after class, and taking breaks when necessary are all important for fostering trust and discussing negative emotions in an ethical and healthy way. Educators can validate and normalize emotions, creating space for their students' feelings and vulnerability as well as their own (Verlie et al., 2021). As in death education, educators can also acknowledge that they do not have all the answers and that the problems are not something that can be fixed easily. Of course, educators should still function within ethical classroom boundaries by expressing their emotions appropriately without causing alarm or fear (Dyregrov & Yule, 1991).

It is important that educators take time to care for themselves, which includes acknowledging and exploring their own emotions surrounding the topics they teach and anticipating their own reactions to certain stressors. Worden (2008) recommends that grief counselors examine their own history with loss to better understand their limitations, trigger points, unresolved experiences, and coping mechanisms. This style of self-reflection intersects with Ryan's (2017) “Ecological Autobiography,” an exercise for

creating an ecological memoir of important landscapes and ecological sites in a person's life, considering these places with and without one's presence. Though Ryan designed the exercise for students, it may also prompt valuable introspection in educators as well.

To avoid burnout, Worden also recommends understanding one's own personal limitations, practicing "active grieving" by allowing space to experience emotions, and asking for support when necessary. Journaling or recording one's thoughts on a tape recorder or voice message can also be cathartic and give a chance for reflection, especially right after a stressful event. Dyregrov and Yule stress that proper self-care requires reaching out to others for emotional support, sharing experiences and emotions, and allowing oneself to be cared for.

In a type of positive reappraisal, educators can also understand loss as the shadow of sustainability. Affifi & Christie (2019) acknowledge that

[i]ntrinsic to our experience but often covered over, lies the fragility and transience of life, and impermanence of all we cherish. To address this loss, educators will need to face their own mortality, the death of those around them, the destruction of animals, plants, and places, the extinction of species, and looming always on the horizon, the possible obliteration of a functional biosphere. Sustainability is a response to the precarious future of humans and the ecologies they depend on. (p. 1144)

The existence of "conservation" and "sustainability" by their very nature acknowledge that something is at stake. After all, as Affifi (2020) says: "A commitment to beauty sometimes means sitting with the confusion or the horror" (p. 1134).

Educators can create projects for imagining a future through contemplation, creative expression, discussion, and inquiry, utilizing strategies described in the section “Making Meaning.” Teachers interviewed by Verlie et al. (2021) recommended human touches like each community member bringing a special food to share with the class and reminding the students to engage in self-care outside of class. They also recommended activities involving “deep reflection, critical thinking, active discussion, reflective journaling, problem-solving, debate, transdisciplinarity and the consideration of alternative worldviews or futures...[i]nquiry and problem-based learning pedagogies," as well as meditation, contemplation, and mindfulness (p. 140). Reflective practices such as Litfin’s (2018) “Who Am I In A Changing Climate?” and Lynam’s (2019) “Promise and Peril of the Past and the Future" can be valuable for students and educators seeking to situate themselves in relation to their feelings regarding climate change.

Another tool Verlie et al. (2021) suggest for moving beyond the realm of the analytical is asking learners “to express how they feel in terms of colours, animals, weather, or other forms that can help express emotions in ways beyond the intellectual. This can be opened up to making body shapes or facial expressions. It could also encompass drawing how they feel” (p. 140-141). Ellen Moore (2019) suggests students in EE courses engage in “deep inquiry,” identifying their emotions after witnessing disturbing environmental destruction and then create and implement an action plan for addressing each negative emotion.

Other avenues for exploring emotions might be through mourning rituals. Rituals allow us to mark times of transition and ending. They also allow participants to regain a sense of control after a loss, which has been associated with greater health and well-being

(Norton & Gino, 2014). Rituals can be public, like the protest “funerals” for the Earth held by the climate advocacy group Extinction Rebellion that allow participants to tap into their rage and frustration, transforming those emotions into communal political action. However, many rituals are private and intensely personal. Rituals can be as complex as Joanna Macy and John Seed’s “Council of all Beings” (Macy, n.d.) where participants give voice to the suffering of non-human organisms, or as simple as this exercise described by Verlie et al.:

[One teacher] working with primary-aged students in a food garden suggested they all write their feelings on a piece of paper and “offer it to the compost. . . It wasn’t much but its affects (sic) were felt two terms later when one child said to me in class, ‘remember when we wrote love letters to the compost?’ (p. 141)

### **Summary**

This chapter reviewed the literature surrounding eco-grief, examined the field of death education, and explored various strategies for making meaning before finally recommending a synthesis of best practices from both death education and EE. Eco-grief is a common and painful experience that can debilitate environmental efforts as students turn away from the disturbing truth in denial or feel overwhelmed by guilt, sadness, and hopelessness.

Death education can help us to understand how people move through a profound loss and has many lessons that can be applied in the field of EE. Whether through positive reappraisal, connection, seeking and creating new narratives, or direct political action, there are as many different ways to find meaning as there are people in need of it. By finding hope and meaning in the struggle, students and educators can maintain their

feelings of agency and desire for action, and an educator that makes space to “hold” painful or difficult emotions (including their own), makes room for feelings in the classroom by building trust, practices good self-care, and allows themselves to be honest even if it means sometimes being without answers can make each student’s journey a little less lonely.

Chapter Three will discuss the creation of a project informed by this research: a website for educators that combines EE with best practices in death education. It will detail the design and execution of the project and cite the research the project will draw on most heavily. It will also include the intended setting, timeline, and ways to assess the project’s efficacy as well as a section on my own positionality based on my own worldview and identity.

## CHAPTER THREE

### Project Description

#### Introduction

The aim of this project was to create a website to help environmental educators who may feel lost, overwhelmed, or uncomfortable when discussing the negative emotions unearthed in environmental education (EE), using best practices from the field of death education. Chapter Two reviewed the literature surrounding eco-grief, death education, and meaning-making to answer the Capstone question *How can environmental educators apply best practices from death education to help children make meaning from eco-grief?* It also explored the ways that death education can apply to EE when dealing with eco-grief as well as techniques that environmental educators can use to make space for their students' emotions as well as their own. Finally, the chapter suggested various ways of potentially making meaning from eco-grief.

Chapter Three details the design and realization of a website for environmental educators, drawing on the findings from Chapter Two. The first section, the Project Description, lays out the details of the website. The second section, Setting, describes the intended audience and uses. The third section, Timeline, outlines the intended schedule and process for completion of this project. The fourth section, Positionality, explains the ways my own biases and worldviews inform this project. The fifth section, Assessment, describes how data will be collected to assess the success of this project. The final section, Conclusion, summarizes Chapter Three and introduces Chapter Four.

## **Project Description**

The website presents the information gathered during the research process in an easily-digestible and casual format. The page “What Is Eco-Grief?” was originally planned to include assessments to identify eco-grief and attendant negative emotions in children and adults. However, that page became the homepage for the larger project, while the assessments split into two different tools: a scale for self-assessment and a quiz identifying individual coping style. The page “Helping Students” describes how children experience grief and loss and classroom strategies for supporting students in their eco-grief, including strategies that EE can borrow from the field of death education and advice on how to discuss and navigate eco-grief in the classroom. The page “Helping Teachers” includes ways to deal with eco-grief as an educator and stresses the importance of self-care and mental health support. Finally, the page “Helping Everyone” recommends strategies to make meaning out of loss and grief including rituals, positive reappraisal, connection to nature and community, political action, and more. There is also a section for a user experience assessment to collect data on the efficacy of the website and its contents. This survey uses the free survey service QuestionPro. To avoid information overwhelm, the website was intentionally kept succinct, approachable, and accessible, as the topic may be very difficult and even upsetting for many people.

I was originally inspired to investigate the intersections between death education and environmental education by Affifi & Christie’s (2019) work, which advises ways to meld the two fields and create a mindset for exploring and accepting death and change in the natural world. The website also builds heavily from the research of Ojala (2012b) on

hope and meaning-making in the face of eco-grief and different styles of coping such as emotion-focused, problem-focused, and meaning-focused coping strategies.

When considering the signs of eco-grief and designing the eco-grief assessment, this website drew on Eaton (2012) and Pihkala's (2020) work on negative emotions caused by environmental destruction. The best practices in death education and grief counseling, as well as ways to understand grief in children at different stages, were informed by Oaks & Bibeau (1987), Worden (2008) Colwell & Jackson (2001), and Dyregrov & Yule (1991). These best practices include "holding" (creating space and time for another's emotions), conversing openly and honestly, accepting one may not have all the answers, and purposefully dedicating time for self-care (as well as advocating for student self-care).

The sections on techniques to manage eco-grief in the classroom built on interviews and research conducted by Ojala (2012a; 2017; 2018) and Verlie et al. (2021), among many others. Some of these management strategies included positive reappraisal, and creating positive narratives for the future, as well as creating a safe environment in the classroom by normalizing emotions. They also included personal and public rituals, connection to nature and one's community, and political action (Chawla & Gould, 2020; Norton & Gino, 2014; Orr, 2020).

The website design process used Mezirow's (2000) definition of transformative learning where adult learning is a process of intentionally re-examining what is taken for granted about ourselves, our habits and behaviors, our place in the world, and the world itself. This project attempted to challenge commonly-accepted notions of "professionalism" in EE that focus on facts while unintentionally disregarding the natural

and reasonable responses to those facts. This website instead intentionally centered emotions as a vital dimension of knowledge and experience. It also sought to disrupt the taboo of death in globalized Western society, especially the way knowledge and coping skills are withheld from children in the name of preserving their innocence, as described in Chapter Two.

The post-assessment survey drew from Mezirow (2000) and gauged the website's effectiveness by how transformative an experience it provides for the visitors. The post-assessment survey results will be used to further update the site, thus also providing a transformative experience for me as I question my own prior assumptions, learn from feedback, and alter the website to reflect new knowledge.

The site has a green, blue, and sandy brown color scheme to reinforce the theme of "nature." The majority of the images on the website are photographs of beautiful or serene natural scenes without humans or traces of human activity, with the exception of the first page, "What Is Eco-Grief?" which contains an image of plastic pollution floating underwater. I purposely avoided potentially upsetting, disturbing, or saddening images beyond that single image of oceanic litter.

### **Setting**

The information regarding approaches such as positive reappraisal, holding space for emotions, and open communication is applicable to any existing curriculum. These recommended best practices can also be used to create new curricula, or even employed for designing workshops specifically about managing eco-grief.

Originally, the intended demographic was anyone who works in EE and experiences eco-grief or has students experiencing it, however, during the process of

creating the website I realized that most of the information surrounding grief and loss is applicable to any age range. During the research and design phases, this project was specifically targeted towards environmental educators teaching people under age 18, but the language on the site was kept intentionally broad and does not specifically mention any specific subjects. For the sake of approachability, the website does not assume a background in EE, nor lean on specialized academic language from the field. Readers should be able to choose any section on the website, easily comprehend the best practices described, and apply them however they like, whether or not they work in EE.

The website should not be given to children to explore on their own, as it is not directed at children and they may not understand all the concepts. The text is meant to be filtered through an adult lens, internalized by the educator, and then applied sensibly to the learning environment. In the future, resources specifically for children could be added.

Because the target demographic is so wide, the text was written with a general audience in mind but includes advice for accommodating and including marginalized groups in a culturally sustaining and social justice-oriented fashion. The website discusses ways grief may be gendered or the fact that prior trauma, experiences of discrimination or oppression, mental health issues, and other stressors can compound eco-grief. This website was written with an intersectional framework in mind, acknowledging that our many identities affect our experiences of trauma, loss, and our relationship to our environment, especially since BIPOC are disproportionately affected by climate change and climate anxiety/grief while also being chronically underserved by almost all systems of health and mental healthcare (Ballew et al., 2020). Marginalized

people, especially those who are also economically disadvantaged, are also more likely to suffer the brunt of natural disasters and environmental degradation, while having fewer financial and systemic resources to rebuild, relocate, or cope with the stress and trauma of losing a home and home environment, whether suddenly or gradually (Harrold et al., 2002).

### **Timeline**

Planning for this project began in September 2021. I originally conceived of a digital booklet, and then later decided to add a website online so the resource would be easily shareable, more accessible, and have greater potential for a continued life outside of this graduate program. After consulting with my content reviewer and course instructor, I decided to focus solely on a website instead of a digital booklet.

To execute this project, the major points of this research were outlined and divided into sections. The research was also reformatted into a more casual, less-academic tone. After editing and ensuring the text was error-free, the layout for the website was created using Squarespace. This project was completed by the end of the Capstone Project course.

### **Assessment**

To assess the efficacy of this project, there are three tools. The first is a pre-assessment scale that helps participants to understand their level of eco-grief. It is meant to be self-administered by adults and older students at the educator's discretion. The next tool, a questionnaire, is created in the familiar style of internet personality quizzes, for approachability, and focuses on individual coping style.

The final tool is a survey about the user experience of the website, the information it contains, and personal and classroom application of the strategies recommended. This survey includes a section for site visitors to describe what they may have gained through the website as well as a section for feedback. This post-assessment survey is a mix of multiple choice questions and prompts for open-ended responses. The website will collect the answers to the survey for analysis, site improvement, and future study.

### **Positionality**

My experiences and identities tint my vision like layers of colored film and allow me a unique perspective. I attempted to be mindful within this project of my privilege and biases as an educated, able-bodied person with middle-class roots, and consider experiences and identities outside of my own.

As an atheist guided by a philosophy of optimistic nihilism, the idea of making meaning outside of religion resonated strongly with me, prompting me to explore ways of making meaning without considering faith, theology, or any established spiritual belief system. As a queer Black anti-capitalist, I am interested in centering educator and student wellbeing, especially the act of self-care as a “non-productive” (in the capitalist sense) act of resistance in line with Black lesbian poet Audre Lorde’s assertion that “Caring for myself is not self-indulgence, it is self-preservation, and that is an act of political warfare” (Lorde, 1988, p. 133).

I was also able to create the second half of this project, the website, within a relatively exceptional temporal space as I took two months away from work in preparation from South Korea to America. This time without labor allowed me time to

rest, dream, plan, and create a project that heavily focuses on self-care as an intentionally “non-productive” necessity as well as a precursor to transformative action.

### **Summary**

Chapter Three covers the planning and design for a website on managing eco-grief for environmental educators, including the contents, the educational framework, and some of the research the website will be drawing on, and the intended setting and audience. It also includes the timeline for the project, ways to assess the project's efficacy, and an examination of my relationship to the topic. Chapter Four considers limitations and gaps in this Capstone project, reflections on the process, and ways to build on the research in the future.

## **CHAPTER FOUR**

### **Conclusion**

## **Introduction**

This capstone has examined the question *How can environmental educators apply best practices from death education to help children make meaning from eco-grief?*

Chapter Four begins with a brief review of the literature that influenced this project.

Next, the chapter considers the implications of the project for various stakeholders and the limitations of the project. The final sections examine the personal and professional highlights of this capstone experience as well as areas for further research in the future.

## **Review of Literature That Influenced This Project**

### **Eco-Grief**

Eco-grief is a feeling of sadness, loss, or bereavement caused by environmental degradation or destruction. It is connected to many other negative emotions such as anger, anxiety, and even denial. However, these negative emotions should not be pathologized or seen as abnormal. They are reasonable responses to a very real crisis that poses an existential threat on all fronts: ontic (physical), moral, and spiritual (Ojala, 2016).

Researcher Maria Ojala (2012a; 2012b; 2017; 2018) found that strategies for coping with eco-grief related to climate change tend to fall into three categories: problem-focused, emotion-focused, and meaning-focused. Problem focused coping strategies center on individual actions to solve problems. They involve engaging directly with issues but may also lead to greater unhappiness and overwhelm as the burden of solving the world's problems is shouldered by one person. Emotion-focused coping strategies revolve around avoiding difficult and unpleasant emotions. Rather than engaging with problems, the psyche seeks to protect itself through denial or distraction.

Much of climate change “skepticism” can also fall into this category. Meaning-focused coping strategies are discussed later on, in the section “Making Meaning.”

### **Grief In Children**

The taboo against discussing death in what Oaks and Bibeau (1987) term a “death-denying society” keeps children woefully unprepared to encounter loss in their own lives (p. 2). The field of death education seeks to better equip children by teaching about death, mortality, end of life, and the related moral and practical issues.

Children often express grief in unexpected ways. There are various models for understanding the stages of grief in adults and children. Colwell & Jackson (2001) summarize D.W. Winnicott’s model, which is divided into four parts. The first is numbing, where the bereaved experiences shock and denial as the mind attempts to insulate us from the psychological blow of a loss. Second is yearning, where the bereaved longs to be close to the lost loved one and seeks to bring them back into their life symbolically. Third is disorganization and despair, where depression, hopelessness, and a loss of meaning may manifest and the bereaved may struggle to reconcile the confusing procession of time with their own frozen emotional state. Finally there is reorganization, where the bereaved begins to create a new life without the lost loved one, moving forward without leaving the memory of their loved one behind.

Worden (2008) broke these stages into a series of tasks: 1) to “accept the reality of the loss,” 2) to “identify and experience feelings” and “process the pain of grief,” 3) to “adjust to a world without the deceased,” and 4) to “find an enduring connection with the deceased in the midst of embarking on a new life” (pp. 39-55, 91). By accomplishing

these tasks, a mourner can process their grief in a healthy way. However, if they become unable to move to the next task, a therapist or grief counselor can facilitate the journey.

When discussing difficult subjects with children, adults should consider many factors. Age has a significant impact on children's ability to understand death and grief. Young children do not have a significant grasp on reality and are not able to process complex emotions the way older children can. Other factors such as gender socialization, culture, their own personal history, and the support of adults around them can have major effects on how they process a loss.

### **Making Meaning**

Environmental education (EE) often focuses on experiences of wonder and other positive emotions, ignoring the darker side of conservation which reminds us there is something to lose. Ojala's (2012a; 2012b; 2017; 2018) work on meaning-focused coping, finds that "hope" can be rooted in reality, acknowledging the seriousness of a problem while still imagining a better future. Noting that "[m]any young people seem to lack a 'good story' about the global future," Ojala (2012a) also encourages future-forward thinking. These "good stories" can also be accessed through literature, according to Bigger & Webb (2010), who remind that "Young people can *restory* their past and their potential futures through the understandings generated by reading..." (p. 410). By designing narratives of the future, students can enact "hope as a practice," allowing their hope to empower them and spur real-world action (Verlie et al., 2021, p. 143).

Educators can also equip students with further tools for creating meaning such as positive reappraisal (a way of re-thinking or re-imagining a situation to see positives). Students can also find meaning through trust in other societal actors, a sense of

community and connection, and trust in their own abilities. Connecting to and trusting in others takes the burden off of the individual, while cultivating trust and connection with the self allows students a greater sense of agency and resilience. Environmentalist David W. Orr (2020) also advocates for direct political action, noting that EE is inherently political as “the use and disposition of land, air, water, forests, oceans, minerals, energy, and atmosphere are inevitably political having to do with ‘who gets what when and how’” (p. 273).

### **What Educators Can Do**

Though environmental educators often equate being “professional” with being unemotional, creating space for negative emotions in the classroom can benefit both students and educators (Verlie et al., 2021). Best practices from death education can guide environmental educators in dealing with eco-grief in the classroom. Rather than attempting to “fix” the situation, Colwell and Jackson (2001) recommend “holding,” a therapeutic technique that involves active listening without judgment. Oaks & Bibeau (1987) cite author Earl Grollman’s list of recommendations for adults discussing death with children, which include speaking plainly and honestly, allowing expression of emotion, and listening to the child’s needs.

Verlie et al. (2021) recommend creating space for connection by creating a classroom environment of trust and human connection. Other researchers such as Litfin (2018), Lynam (2019), and Ellen Moore (2019) suggest activities that involve deep reflection. Norton & Gino (2014) have also found that rituals, such as Joanna Macy and John Seed’s “Council of all Beings” (Macy, n.d.), help participants regain a sense of control and wellbeing after a loss.

Educators must also care for their own emotional and mental health. Worden (2008) emphasizes preparation and emotional reflection on the part of the educator, and Dyregrov & Yule (1991) stress the importance of a support network and reaching out to others.

### **Implications for Stakeholders: Students, Teachers, Everyone**

The project website that accompanies this capstone is split into three sections for three different groups of stakeholders affected by eco-grief: students, teachers, and “everyone.” Many of the best practices for dealing with eco-grief can be applied universally, not just in EE or in the classroom. In drafting the research question for this project, I was encouraged to narrow my topic to focus specifically on children, which made the process far more manageable. However, I found through my research that the emotions of children and adults are inexorably intertwined, especially in a classroom setting. The emotions of students and teachers are often connected in a positive feedback loop: students respond to the emotions of their teachers and teachers respond to the emotions of their students. This can be harmful or helpful. Teachers may be pained by seeing their students struggle and worry about burdening their students with their own emotions which may lead to “a spiral of silence,” where the teacher’s silence sets the standard for the classroom (Ojala, 2018, p. 13). Students may also avoid opening up out of fear of negative responses from their teacher or classmates and often have difficulty articulating their emotional support needs. However, this feedback loop can also lead to beneficial outcomes if educators are able to model respect, vulnerability, honesty, and emotional healthy coping mechanisms for students.

To confront their eco-grief, students need safe and open communication, validation, and honest conversations with sympathetic adults who can “hold space” for negative emotions without judgment. They also must be taught healthy coping mechanisms in preparation for an ecological future that may be radically different from the present. These skills will involve resilience, critical thinking, positive reappraisal, connection, and the ability to create new narratives for the future.

Teachers were already at risk for burnout even before the Covid-19 pandemic and the additional pressures caused by online schooling, constantly shifting expectations, and the danger presented by the pandemic itself. Adults have far greater agency than children but are still not immune from feeling overwhelmed and helpless in the face of ecological issues like climate change. While students are in the process of establishing relationships with their community, environment, and selves, transformative adult education involves re-evaluating personal and societal beliefs, and the website centers its recommended practices for adults around this notion.

The final section on the website is titled “Helping Everyone,” which at first seems like an unrealistic goal, but this seems to me the natural end state – that which I ultimately wish my project to embody. Eco-grief can affect anyone. Phenomena like climate change or pollution do not discriminate in who they harm, but the most marginalized are most likely to take the brunt of any problem, and they are also the most likely to be “forgotten” and least likely to be heard (Harrold et al., 2002). “Everyone” means everyone. When considering the future of the planet, each person (and perhaps even non-human persons) deserve an equal seat at the table. The advice listed under

“Helping Everyone” centers on healing the self and restoring hope while seeking connection with others, and these practices should be universally applicable.

### **Limitations of the Project**

One major limitation in the project was my own lack of knowledge about psychology, a field that heavily featured in my research. This became a problem when formulating an eco-grief questionnaire, which eventually became an eco-grief scale after reviewing some examples of psychological scales. Having very little experience with creating these kinds of diagnostic tools meant that I spent a significant amount of time second-guessing my choices in the design process.

I also found myself working with limited resources on the role of literature in dealing with eco-grief as well as a lack of literature on the use of ritual as a healing technique in dealing with eco-grief. Perhaps these areas have not been widely researched yet, or perhaps I was simply unable to find many articles that focused on these topics. The majority of scholarship on eco-grief has been published relatively recently and the field is still young and growing.

### **Personal Reflection on the Capstone Process**

This project was the greatest professional and academic undertaking of my life, both in scale and personal meaning. I learned more about my process as a writer and academic, especially the importance of regular mental breaks and rest, as well as the true meaning of self-care as a political and personal tool as described in the literature I reviewed. I will strive to continue these self-care practices outside of this period of transition and extended leisure.

I believe this work can also benefit others. My research has real-world applications and the ability to make a positive impact. Eco-grief is a widespread and relatively unnamed, unvoiced phenomenon with serious impacts on mental health that prompts enormous and unsettling existential and societal questions. I consistently received positive feedback on this project from people in my own life as well as peers and professors in the Hamline graduate program. The feeling of eco-grief is far more commonplace than I first believed which, through the lens of positive appraisal, gives me hope. Hopefully this project might provide comfort or empowerment to those suffering from eco-grief, or at least remind them that they are not alone.

As this project has roots in grief counseling and death education, I found it had wider applications beyond EE in dealing with loss in my own life. During the course of this project, my geriatric cat, Kilo, had to be put down after many years of struggle, confusion, and joy. I was forced to put my own advice into practice. I was surprised to find myself pulling not only on best practices from death education as I watched myself move through Worden's (2008) "tasks of grief," but also applying lessons from my research on eco-grief. Perhaps it is my own need to intellectualize my emotions that brought me to consciously practicing positive reappraisal as described by Ojala (2012a; 2018), tearfully meditating on the good, long life Kilo had lived and imagining the end of her journey as the end of her suffering. I added to that Affifi & Christie's (2019) notion of "caring-unto-death," remembering that "[l]ike the magnolia blossom's furious explosion and swift departure from the world, that which is fleeting is for that reason cherished" (p. 1147). Death was the natural conclusion to her life, completing her story, and while it

might seem obvious that all things die eventually, the emotional truth of that fact can only be felt in the moment of loss and its wake.

During this process I realized more and more how desperately I craved solace. In writing the website for this project, I wrote in a colloquial and relaxed manner, speaking in second-person as I offered advice on handling eco-grief. I tried to relate what I would say to any of the many friends, acquaintances, or colleagues who have expressed their eco-grief to me, but mostly I said the things that I needed to hear when I began this project. These are things I still need to hear.

I still do not feel that I have “all the answers.” I created this project in an attempt to understand my own relationship with eco-grief specifically and with loss in general. For as long as I can remember, I have felt haunted by the specter of our planet’s destruction. I now feel a much greater sense of peace and acceptance. Perhaps I have moved to the final, enduring stage of grief, as defined by Colwell & Jackson (2001): reorganizing and rebuilding a life that accommodates the shape of loss. The metaphorical house may still be haunted, but I no longer see the ghosts as enemies. I now realize that my negative emotions regarding environmental degradation are not unnatural or pathological. Being upset by real, upsetting things in the world is not a mental illness or a personal failing. I can accept these painful emotions and use them to fuel my desire to help others who suffer from the same.

### **Further Research**

This project investigated a very specific question: *How can environmental educators apply best practices from death education to help children make meaning from eco-grief?* However, I found all aspects of the question had connections to other areas,

and pulling on what seemed like loose threads in the project helped me to discover a web of kinship, united by sorrow. As mentioned before, the field of death education and the study of eco-grief have a reciprocal relationship – findings from EE may help when applied to situations of non-ecological grief, and best practices from death education have an obvious application to managing eco-grief. Though the focus of the research question is on children, adults also suffer from eco-grief. Teachers outside the field of EE struggle with negative emotions related to climate change and other forms of environmental degradation and destruction. Everyone stands to lose if our planet is not cared for.

Death education is still not widespread or even well-known, despite the fact that many foundational texts for the field were written decades ago. Our cultural understanding of grief and loss continues to be skewed by an interpersonal taboo that enforces silence while complicated by the existence of an online world where oversharing is *de rigueur*. As an American, I would venture that American culture might somehow actually be worse at grieving than in the 60s and 70s, as now every event is needlessly polarized and politicized, dominated by unnecessary “hot takes” generated before anyone has had time to process the loss, and quickly drowned out by wave after heart-rending wave of panic-stricken 24-hour news coverage. We are still learning to grieve, and death education still has lessons to teach.

Eco-grief as a concept is only beginning to take root in the popular consciousness, and has a long way to go. Mental health is not taken as seriously as it should be, seeking treatment is still stigmatized, and the financial cost of mental health care places it outside the reach of many. Eco-grief is not a mental illness, it is a healthy response to a sick system that is willing to gamble human and planetary health for convenience and profit.

Understanding eco-grief not as a failure of the individual but as a sane response to a systemic societal failure indicts our current system in ways that many may find uncomfortable. If one sees eco-grief for what it truly is, there is no choice but to demand action.

In the future, I would like to explore the ways this topic intersects with the fields of psychology, literature (especially the use of speculative fiction in imagining new ecological futures), and the use of mourning rituals in processing grief. I would also like to create a series of exercises that might eventually culminate in a workbook for deep reflection on one's relationship to one's self, one's ecological community, the immediate environment, and the Earth as a whole, as well as the ways those are interconnected. I could also see myself designing a workshop in the future based on what I have gleaned through this process. I discovered so many valuable resources during my research that I was not able to fully explore due to time constraints, and I am excited to take time to revisit them.

I would also like to collaborate with others in the future. As a single individual, my pool of knowledge is limited, but working with other professionals from different fields could allow new perspectives on the subject of eco-grief. There is always more to learn and always more connections to be made.

### **Summary**

Despite being a widespread phenomenon, the study of eco-grief is still in its infancy and scholarship on the subject is still limited. Death education can guide environmental educators by teaching them to accept and prepare for death and loss. It shows that we can trust children to handle difficult subjects and difficult emotions within

a safe classroom environment, guided by educators who model healthy coping mechanisms for handling negative emotions.

In service of answering the question *How can environmental educators apply best practices from death education to help children make meaning from eco-grief?*, this concluding chapter reviewed the literature that informed this project and examined the implications for three groups of stakeholders: students, teachers, and "everyone." It also considered the limitations of the project, including the possible dearth of scholarship in this relatively new field. This chapter also included a personal reflection on my journey as an educator, scholar, witness to mortality, and human animal on a collapsing planet. Finally, in a spirit of hope for the future, this chapter considered areas for further growth, research, and collaboration.

It is my sincere hope that the work collected here goes forward to live a life outside of my own by providing a new framework for incorporating emotions in the environmental education classroom. The ultimate takeaway – the importance of emotional honesty, safety, and respect; the urgency for imagining radical new futures while cultivating the tools to make them achievable; the necessity of connection and trust with self, others, and environment – should be applicable within any learning environment or even outside of the classroom.

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