

# *The Wicked Problem of Climate Change*

with Karl E. Peters, “Living with the Wicked Problem of Climate Change”; Paul H. Carr, “What Is Climate Change Doing to Us and for Us?”; James Clement van Pelt, “Climate Change in Context: Stress, Shock, and the Crucible of Livingkind”; Robert S. Pickart, “Climate Change at High Latitudes: An Illuminating Example”; Emily E. Austin, “Soil Carbon Transformations”; David A. Larrabee, “Climate Change and Conflicting Future Visions”; Panu Pihkala, “Eco-Anxiety, Tragedy, and Hope: Psychological and Spiritual Dimensions of Climate Change”; Carol Wayne White, “Re-Envisioning Hope: Anthropogenic Climate Change, Learned Ignorance, and Religious Naturalism”; Matthew Fox, “Climate Change, Laudato Si’, Creation Spirituality, and the Nobility of the Scientist’s Vocation”; Christopher Volpe, “Art and Climate Change: Contemporary Artists Respond to Global Crisis”; Jim Rubens, “The Wicked Problem of Our Failing Social Compact”; and Peter L. Kelley, “Crossing the Divide: Lessons from Developing Wind Energy in Post-Fact America.”

## ECO-ANXIETY, TRAGEDY, AND HOPE: PSYCHOLOGICAL AND SPIRITUAL DIMENSIONS OF CLIMATE CHANGE

by Panu Pihkala 

*Abstract.* This article addresses the problem of “eco-anxiety” by integrating results from numerous fields of inquiry. Although climate change may cause direct psychological and existential impacts, vast numbers of people already experience *indirect* impacts in the form of depression, socio-ethical paralysis, and loss of well-being. This is not always evident, because people have developed psychological and social defenses in response, including “socially constructed silence.” I argue that this situation causes the need to frame climate change narratives as emphasizing hope in the midst of tragedy. Framing the situation simply as a threat or a possibility does not work. Religious communities and the use of methods which include spirituality have an important role in enabling people to process their deep emotions and existential questions. I draw also from my experiences from Finland in enabling cooperation between natural scientists and theologians in order to address climate issues.

*Keywords:* climate change; eco-anxiety; eco-psychology; emotions; environment; mortality; philosophy of hope; religion and ecology; religion and nature; theology

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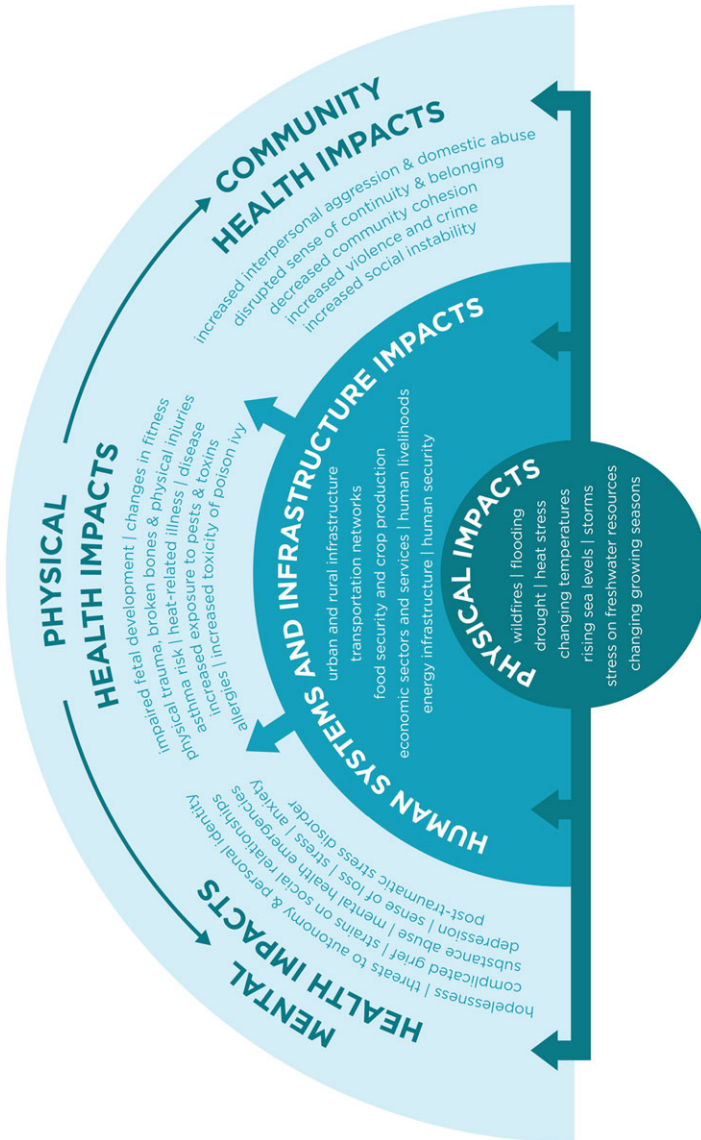
## WHAT IS “ECO-ANXIETY”?

Climate change has both direct and indirect effects (see Figure 1). The indirect impacts are often difficult to notice for several reasons. They may happen gradually and avoid attention. In addition, indirect mental impacts are often unconscious. People have deep existential questions and emotions which are difficult to process. Already in 1972, psychoanalyst Harold Searles suggested that “[a human person] is hampered in his meeting of this environmental crisis by a severe and pervasive apathy which is based largely upon feelings and attitudes of which he is unconscious” (Searles 1972).

A significant impact of climate change (and other environmental problems) is “eco-anxiety.” The term is used to describe various difficult emotions and mental states arising from environmental conditions and knowledge about them. Eco-Anxiety can result directly from an environmental problem, but most often it is an indirect impact. For example, a person may feel anxiety and sorrow because a woodland area next to him is cut down. But even more people experience anxiety because they feel that climate change is taking away their future. (For case examples, see Bodnar 2008; Moser 2013; Gillespie 2016.)

In my view, there is currently not enough research on eco-anxiety, although the theme is a subject of growing interest. The situation is further complicated by the fact that because there is not yet a common interdisciplinary field of studies on the subject, people are using various terms for similar phenomena. For example, Daniel Goleman (2009) has suggested the use of “eco-angst.” Often the discussion is centered around particular emotions, such as guilt (Mallett 2012) or grief (Randall 2009; Cunsolo Willox 2012). Certain studies utilize a wider perspective and discuss these various issues under the overall topic of eco-anxiety (Albrecht 2011; Clayton et al. 2017). It should be noted that there are certain communicative problems with words beginning with the prefix *eco*: they seem to polarize people (Marshall 2015). Personally I started my writing on the subject by using the term “environmental anxiety” (Pihkala 2016a). However, the term “environmental” has its own problems, and because eco-anxiety seems to be more and more widely used, I too have opted for this term.

There is a wide variety of forms included in eco-anxiety. Some people have been reported to get psychosomatic symptoms when they hear of environmental destruction (cf. Stoknes 2015, chap. 15). For most people various difficult emotions and mental states occur and are intertwined with other issues in life. It is often difficult to separate eco-anxiety in a straightforward manner from other anxieties. For example, a person can often feel depression first and foremost because he has lost his job, but in the background is also anxiety about the state of the world and climate change. Eco-Anxiety affects both individuals and communities, reducing



**Figure 1.** The Psychological Impacts of Climate Change. From Clayton et-al. (2014). Reprinted with permission. [Color figure can be viewed at [wileyonlinelibrary.com](http://wileyonlinelibrary.com)]

their resilience by increasing paralysis and hopelessness. It can be seen to strengthen maladaptive behavior, such as the use of addictive substances (Greenspan 2004; Bodnar 2008, 151) and the appeal of authoritarian, sometimes violent, movements.

In this article, I will discuss both emotions and existential questions as related to climate change and eco-anxiety. By existential questions I mean fundamental questions which arise when people are confronted with major problems and, in this case, even the possibility of the end of life of the human species (or at least the end of large parts of civilized life). These questions are related to existence and the meaning of existing. Psychotherapist Sally Gillespie has displayed how these kinds of questions arise in therapeutic discussion groups which deal with eco-anxiety. She writes about “existential fears about impermanence, death and non-existence” (Gillespie 2016, 187). Another psychotherapist, Miriam Greenspan, provides a concise list of certain other key existential questions which people have in times of global environmental destruction: “Why do the innocent suffer? Why is there so much unnecessary cruelty and pain in the world? Does God exist? What am I here for?” (2004, 129). These questions are in a way ancient and permanent, for they have been asked in religious literature, philosophy, and drama for ages. But the global environmental threat brings a certain new dimension into these questions, as I will discuss below.

#### DENIAL AND SILENCE

The Australian scholar Glenn Albrecht (2011) has constructed a useful typology of various impacts of climate change. He divides these into two main categories: “Somaterratic (Body-Earth)” and “Psychoterratic (Psyche-Earth).” These phenomena are naturally linked. For example, heat stress also worsens the psychic impacts. I will here focus on his discussion about psychoterratic syndromes, of which he uses the terms eco-anxiety, ecoparalysis, solastalgia (more about that later), and econostalgia.

When Albrecht begins discussing ecoparalysis, he makes a very important point about eco-anxiety: it often results in a state which looks like apathy, but which is actually not manifesting lack of concern. Psychologists and psychoanalysts such as Renée Lertzman (2015) and Mary Pipher (2013) have written about the same theme, pointing out that there is “a myth of apathy” (see also Nichol森 2002; Lertzman 2013). Many people in fact care too *much*, not too little, and as a result they resort to psychological and social defenses. Albrecht calls this state ecoparalysis: people would like to be able to act, but find themselves paralyzed. This naturally has dire consequences for sustainability.

I have written elsewhere (Pihkala 2017a) more about “the myth of apathy” and states of denial about climate change. Here I will provide a concise overview. Eco-Anxiety is closely linked with psychological and

social defenses. If and when people find it too difficult to process the emotions and existential questions related to environmental problems, they have a tendency to resort to various defenses (and coping mechanisms). Full-scale denial is only one of these responses. Different forms of disavowal are much more common. People find ways to both know and not to know at the same time (for overviews, see Reser and Swim 2011; Weintrobe 2013). This results in a vicious circle. Because of denial and disavowal, the problems get worse. This in turn breeds more anxiety, which many try to deal with by more denial, and emotional pressure keeps building.

Scholars have noted that climate change generates “socially constructed silence” (Norgaard 2011; more widely Zerubavel 2006). When there are difficult and disturbing phenomena in a social group, people implicitly develop a kind of silent contract not to speak about the problems. Only on special occasions people burst into feeling and speak openly about them. Psychiatrist Robert Jay Lifton’s theoretical insights about “double life” and “psychic numbing” have been applied to describe these situations (Nicholsen 2002; see also Lifton 2014). The numbing of emotional life is connected to what Lertzman (2015) calls “environmental melancholy.” People resort to a kind of anticipatory mourning where they try to break down in advance the emotional connections to certain things so that they don’t have to suffer when they lose them.

Later in this article I will suggest practical ways in which these phenomena can be dealt with in a less damaging way. An important thing to do is to research these issues and to speak about them openly. As climate communication scholar George Marshall (2015) has suggested, we should openly admit that the situation is very difficult. This difficulty includes both practical and cognitive difficulty, which has been discussed on the pages of *Zygon* (50:4, December 2015), and the emotional and existential difficulty which is the subject of this article.

#### SOLASTALGIA AND GRIEF

I will discuss certain key emotions and existential questions as regards eco-anxiety. I will start with emotions and first I will discuss grief. Grief is an emotion which arises from pain or loss which has happened either to the person herself or someone (or something) dear to her. Only recently have therapists begun to acknowledge that environmental problems do indeed cause serious grief to numerous persons. People feel many kinds of sorrow and loss in relation to environmental problems, including climate change. This is sometimes called “environmental grief” or “climate grief” (for a good introduction into grief and the environment, see Cunsolo and Landman 2017).

However, for most people, there are not many occasions in which they are invited to express these feelings and share them with others. I have elsewhere

(Pihkala 2017b) suggested that the theoretical concept of “disenfranchised grief,” developed originally by grief scholar Kenneth Doka (1998), can and should be applied also to environmental grief. The term refers to types of grief that are, for various reasons, so difficult for others that they tend to disregard the feelings of those who experience them. The grief is not given its due voice: thus, disenfranchised grief. Examples include (in various societies) infertility, grief for a deceased same-sex partner, and grief for deceased unborn babies.

Grief studies have shown that if grief is not given its due place, problems result for both the psychic life of individuals and the well-being of social groups. Individuals may resort to maladaptive behavior such as psychic numbing or the use of addictive substances as an effort to run away from complicated grief. Groups do not function as well as they could if some of their members suffer from such phenomena, and in addition the groups themselves need to process grief communally. Having shared rituals of grief seems to be a universal human need. As regards environmental grief, this brings out the question of power relations. Who gets to decide what grief is appropriate? For example, are elderly people allowed to express their grief in relation to the cutting down of forests to make more room for sub urban sprawl? Or are the people of coastal areas allowed to express their grief about the loss of beach areas because of sea-level rise, most evidently resulting from climate change? Or are these types of grief made disenfranchised by emphasizing that “progress” inevitably requires these kinds of sacrifices? (For climate grief, see Cunsolo Willox 2012; for grief about sea-level rise, see Moser 2013; and see also Bodnar 2008; Randall 2009.)

Albrecht has developed a new term for a grief-related phenomenon which is found all around the world: “the lived experience of the physical desolation of home” (Albrecht et al. 2007, 96). He calls this “solastalgia.” The word is a combination of solace and nostalgia (and hints at desolation as well). Places and place connections which used to give solace are being destroyed. Examples include the loss of local area to a construction of a mine or a dam, or loss of familiar places because of extreme weather resulting from global warming. This is not yet nostalgia, because home still exists, but is in the process of being damaged. When the effects of climate change become worse in various areas of the world, there will be more solastalgia, and there is a need for a growing understanding of the phenomenon.

Psychologists have noted that humans have the tendency (or bias) to make assessments about global conditions on the basis of their local conditions and experiences. Local and global are connected also in this sense. This means that, if it is desired that people would have greater hope about the future of the living conditions on the global planet, people’s experiences of their local environments also must be taken seriously. There has to be room for expressing solastalgia and other types of environmental grief.

Albrecht (2011) notes also the existence of “econostalgia,” the desire to return to environmental conditions which have passed away. This can create serious melancholia. I would add that this has also the dangerous potential to strengthen the appeal of authoritarian leaders and movements. Often by emphasizing local or national identity, authoritarian leaders promise to lead their followers back to a time when things were still good. Nowadays, environmental conditions are sometimes part of this kind of appeal. In addition, there seems to be a dangerous connection between the denial of climate change and the appeal of strong authoritarian leaders. Leaders who deny climate change seem to offer a kind of solution to the anxiety that people feel about climate change. They offer a false hope that the problem is not real. This can cause much emotional pressure to stay on the side of the leader who has become a token for the non-existence of the climate problem. This is one possibility in which people give up their freedom in an effort to make anxiety go away, which was the general theme of the psychoanalyst and writer Erich Fromm (1941).

#### MORTALITY

Ernest Becker (1973) suggested, following Sigmund Freud, that behind the appeal of authoritarian movements is also the fear of death. People join movements in order not to think about death and in order to participate in something larger than themselves, “an immortality project” in Becker’s terms, which gives meaning to their mortal lives.

Several scholars, some explicitly following Becker, have suggested that climate change is closely associated with death and mortality in people’s minds. Climate change causes unconscious thoughts and feelings about death and destruction. This in turn would activate triggers which cause people to direct their thoughts and actions to other subjects that generate pleasure or provide other kinds of distraction, such as excessive drinking, workaholism, or sex and sexual fantasies (see the case examples in Bodnar 2008; see also Dickinson et al. 2013; Foster 2015; Marshall 2015, chap. 38; Gillespie 2016).

Shierry Nicholsen (2002) has applied Lifton’s theoretical framework of “symbolic immortality” to describe issues related to mortality and the environmental crisis. Lifton described different ways in which people look for a continued sense of meaning for their mortal lives despite death. These sources of meaning are encountered through symbols: thus, symbolic immortality. These symbols are already part of the continuing meaning, but also point towards a fuller realization of what they represent.

Lifton’s list includes “biological,” “creative,” “theological,” and “natural” types of symbolic immortality. People can feel that their lives have continued meaning even after they will be dead by thinking that their legacy goes on (a) in their offspring and close ones (biological), (b) in the

accomplishments of their work life and creative art efforts, or (c) through participation in the various narratives of religions (theological). Fascinatingly, Lifton found out in his empirical studies that (d) the feeling that life goes on in the world of nature was an important source of meaning and type of symbolical immortality for many people. (For a useful and critical discussion, see Killilea 1988).

Nicholsen, and later Lifton himself, have noticed that in the time of climate change and other global environmental catastrophes, many people unconsciously feel that all these sources of meaning and types of symbolic immortality are threatened. One can no longer be certain that the offspring or creative legacies will survive. And even the world of nature itself seems to be under threat (Nicholsen 2002; Lifton 2014, 2017).

If this is so, as I believe it is for many people, the roots of the existential and spiritual crisis that climate change posits go very deep into the core of being mortal humans. In the so-called terror management theories (TMT), scholars have noticed that fear of death very often causes people to strongly defend the current status quo of things as a defense mechanism against uncertainty (Pyszczynski et al. 1999). Janis Dickinson and others (2013) have applied this directly to climate change. The form of defense against anxiety which Fromm described as “automaton-conformity” seems to take place also in our times (Fromm 1941; see also Dodds 2011, 34–35). People try to be like everyone else and continue unsustainable behavior as in a collective hypnosis or trance, even when they know on some level that this is disastrous (see also McIntosh 2008, 99).

It is possible to turn this close connection between mortality and climate change into an asset, as Dickinson (2009) is proposing. Using Becker’s theories, she notes that the pursuit of sustainability can also turn into “an immortality project” that empowers and motivates people. In any case there is the need to provide opportunities for people to deal with their deep wishes and fears as related to death and symbolic immortality.

#### DEALING WITH THE EXISTENTIAL DIMENSION

There are various ways to define existential questions, but mortality and the meaning of life are nevertheless an elementary part of them. Terminology related to existential questions has been used prominently by the so-called existential philosophers and theologians of the twentieth century, but also by thinkers working in various fields such as psychology, medical care, and education. In my view, it is useful to delineate three main categories of existential questions: first, the shock and meaning of existing at all; second, the significance of the life of a person among other persons; and third, the relation of human beings to the whole cosmos (and to Earth and “nature” in particular) (cf. Tillich 1952).



Climate change raises questions from all of these major categories. This begets another question: In our societies, who should take care of dealing with these kind of deep psychological and existential dimensions? Psychologists and psychotherapists are naturally one answer, but efforts are required also from others. I will now focus on the role of faith communities and discuss how this is related to the wide discipline of environmental education.

Faith communities are in a special position to deal with the existential dimensions, because this general area has traditionally been their area of expertise. The communal life of faith communities can offer a safe place, a so-called holding environment (of it and environment issues; see Nichol森 2002; Lertzman 2015) in which deep and troubling issues can be processed. The various rituals of faith communities offer holistic ways to engage both bodies and minds, together with others. (I will develop this further in a forthcoming article)

The processing of the existential questions and emotions is part of the wide field of environmental education and advocacy. Although the word “education” is often linked with traditional educational activities for children and youth, it is important to notice that already in the 1970s environmental education was globally defined in a broader sense (Tbilisi Declaration 1977). To my knowledge, it is the best word and field available for the general subject of helping others to act more sustainably. For a wider discussion of this and also about the various related terms, such as education for sustainable development, see Pihkala (2017a).

There are several needs for further multi- and interdisciplinary work among related fields of enquiry. In theology, religious studies, and the discussion on religion and science, there is the need to engage the literature on environmental education. In environmental education, there is a need for further discussion and understanding about the role of spirituality, religion, and faith communities. Important pioneering work on this theme has been done by Gregory Hitzhusen (2007, 2006, 2011, 2012; see also Toh and Cawagas 2010; Pihkala 2017c, 245–58). And there is the need for all these fields to further discuss the results of various fields related to psychology and the environment (for these fields, see Paidas 2011; see also Pihkala 2017a).

Dealing with the existential dimensions of climate change very often has a spiritual tone, although the form of this can be quite varied. This is naturally related to the discussion of how spirituality is defined. What I mean here by the “spiritual tone” is that these existential questions lead a person to engage something larger than him- or herself, often in the context of profoundly meaningful processes of questioning and experiencing. To put it the other way around, many activities which have a spiritual nature can be useful in processing the existential questions.

## HAVING HOPE IN THE MIDST OF TRAGEDY

The half-hidden phenomena of eco-anxiety, psychological and social defenses, and the deep existential questions involved, have profound consequences for environmental communication. An overly strong emphasis on the threats and damage, the so-called “doom and gloom” approach, can backfire and strengthen the anxiety and paralysis. However, based on interdisciplinary studies, I strongly emphasize that an overly strong emphasis on optimism is also problematic, because deep down people know the seriousness of the situation. Issues of justice and marginalization are also relevant here. Optimism sounds like a very different message when it is heard by those who suffer from environmental racism. Examples include indigenous peoples, for whom climate change is “only” yet another tragedy caused by peoples who have often oppressed them (Whyte 2017; for good reflections on justice issues as regards mourning, also by indigenous peoples, see Cunsolo Willox 2012), and marginalized urban communities, who feel that optimistic language is disrespectful and ignorant of their current plight (see, e.g., Jenkins 2013; for theoretical considerations about “eco-justice” and environmental justice, see also Pihkala 2016b).

My suggestion is that we should frame the message as hope in the midst of tragedy (Pihkala 2017a; similar views of integrating both “the good and the bad” are taken by Hall 2014; Peterson 2015; Solnit 2016.) I will return below to hope, which is a key element for survival and emotional resilience. By using terminology related to tragedy, it is possible to show understanding for the great losses that have already occurred and will inevitably still occur, although humanity can yet have an effect on how much damage climate change will bring in the future.

There is an ancient discussion still going on about how to define tragedy. One key question in this debate is the relation between evil and tragedy: are all evil events tragic? I join those thinkers who explore the roots of tragedy in its relation to goodness. A classic element in tragic plays is the fall of a good character into evil, which is seen as tragic. We see and feel tragedy when something which should have been good turns into evil. An even more complex facet of tragedy is the intertwining of good and evil (cf. Peters 2002). The environmental philosopher John Foster, who has given much thought to tragedy, sees a key element in “environmental tragedy” to be the fact that much environmental damage stems from same human characteristics that are also the source of many good things, such as technological creativity and a forward-looking attitude (Foster 2015). Let it be mentioned that this discussion is closely related to the long and on going discourse on science and technology also in the pages of *Zygon* (see, e.g., Tucker 2015).

Foster also develops the important point that climate change and the environmental crisis have already brought tragic losses, losses that cannot be reversed. Extinction is a prime example of this kind of loss. In classic tragic plays, irreversible loss is a key element. Part of their power and appeal comes from the way in which they enact on the stage such total losses (Shakespeare's *King Lear*, for example). At the same time, there is a strange relief in the process of admitting and encountering such losses together. Tragic plays can function as therapeutic processes and as kinds of vaccinations which try to prevent further evil by "injecting" parts of it into the audience. A key aim is to generate compassion for those who suffer (cf. the introductory discussion into tragedy in Wallace 2007; Bushnell 2008).

Sensitivity to the gravity of loss and the tragic elements in reality have led several thinkers to use concepts of hope which reflect this ambiguity. I use "hope in the midst of tragedy," which could be called also "tragic hope." Some others use the term "optimism," but define it so that an overly optimistic position is avoided. Examples include Victor Frankl's "tragic optimism" (for its adaptation into climate matters, see Ramsay and Manderson 2011) and Shaun Chamberlin's "dark optimism" (see <http://www.darkoptimism.org>, accessed 10.10.2017). Such a hope is perhaps more "hope in spite of" than "hope because of."

In our era of climate change, several philosophers of hope have resonated with Jonathan Lear's concept of "radical hope." Lear defines this as hoping even when we cannot yet know what might save us. Amidst the complexities of climate change and the Anthropocene, this indeed seems to be the situation—and the task (cf. Orr 2009). Another way to formulate the challenge is to use the terminology of "learned ignorance," developed by Carol Wayne White in her article in this issue (White 2018).

#### "REALIST THEOLOGIANS" AND TRAGIC HOPE

Insights for the current situation can be found from a time and in a place that may sound surprising to many, the so-called "realist theologians" of the mid-twentieth century. Their contributions are first and foremost relevant to those who wish to draw from Christian theology, but it should be emphasized that they are relevant not only for Christians. Prime examples are the leading figures of a loosely defined group of theologians including Reinhold Niebuhr (1892–1971) and Paul Tillich (1886–1965). They had a wide societal influence, which reached outside the groups of believers (Dorrien 2003).

Several of these theologians have been called by different names, such as "Niebuhrians" or "theologians of crisis." What I mean by my selection of them and the term is a group of theologians who steered the liberal tradition in a new direction by emphasizing ambivalence and discussing

with the so-called “neo-orthodoxy” the retrieval of certain themes of traditional Christianity. These theologians had a strong ecumenical identity and they helped to shape world Christianity. Most of them met regularly in a closed group called “Theological Discussion Group” (formerly, “The Young Theologians”). Included were many leading theologians of the time, such as H. Richard Niebuhr, John Bennett, Henry van Dusen, and Walter Marshall Horton (Pihkala 2017c, 57–59).

In my recent book, I point out that several of these theologians were also pioneers in religious environmental thought. Thus I call them “early ecotheologians,” including among others Liberty Hyde Bailey, Walter Lowdermilk, and Bernard Meland (Pihkala 2017c; a summarizing article is Pihkala 2016c). They are relevant for the era of climate change because of their understanding of the tragedy of history, the powers of evil, and the ambivalence of humanity. Some of them are even more relevant because they, despite all this, emphasize hope, and discuss its significance also as regards the environment. I will here only briefly discuss three of them: Tillich, Daniel Day Williams, and Joseph Sittler.

While Tillich is currently mainly known for his contributions to existential and psychological theology, he was a multifaceted thinker who from very early on also discussed environmental themes. His key writings on this theme include “Nature and Sacrament,” written originally in German at the end of the 1920s, and “Nature, Also, Mourns for a Lost Good,” published prominently in 1948. In his famous three-volume *Systematic Theology*, environmental themes are not at the forefront, but he does discuss the significance of “the inorganic” (Pihkala 2017c, 163–77).

Two of his late sermons are especially relevant for the theme of eco-anxiety. In “The Right to Hope” (1965) Tillich emphasizes that hope and despair are inevitably linked and give power to each other. Despair is not the real enemy. What is to be avoided is total hopelessness, which causes a person to fall outside the rhythm of hope and despair. Then there is nothing left and meaning is gone. By this emphasis on the inevitability and even a certain dark fruitfulness of despair, Tillich affirms the views of several psychologists whose thoughts have been applied to eco-anxiety, such as James Hillman (see Nichol森 2002; Stoknes 2015).

In “Man and Earth” (1963) Tillich shows pioneering insight by discussing the feelings of shame that people have because of the environmental damage that humans have caused. Guilt and shame are crucial emotions related to eco-anxiety, and there is new research and literature being written on them. Assistant professor Sarah Fredericks (University of Chicago) is writing a monograph on them, and I will also discuss them more in my future work, in which I apply Tillich’s famous book *Courage to Be* (1952) to the time of climate change and the Anthropocene. The book includes discussion on emotions, but its major emphasis is on existential questions.

Tillich engaged in discussions with both existential philosophers and depth psychologists, such as the aforementioned Erich Fromm.

Daniel Day Williams (1910–1973) is another of the so-called realist theologians who contributed to ecotheology and tragic hope. Williams was a bridge-builder between the process theology of the so-called Chicago school and the theological work of the seminaries of the East Coast of the United States. He had an important role for the discussions of religion and science: Williams introduced process thought to Ian Barbour (1923–2013), a key pioneer in these discussions (Pihkala 2017c, 198–204, 238–39).

Already in 1949, Williams published a book which dealt with ecotheology and hope. *God's Grace and Man's Hope* was adamant about the ambivalence of human efforts, but still emphasized the significance of hope. He applied the insights of the “neo-orthodox” theologians, such as a Niebuhrian emphasis on human ambivalence, to describe the tragic nature of history: “The inner contradictions of human life will again and again erupt in historical crises, wars, catastrophes, ages of despair” (Williams 1949, 30). This is a philosophy of history which can be applied to the era of climate change as well, especially as Williams clarified that Niebuhrian thought need not be understood as completely pessimistic. Williams made an important effort to integrate liberal theology and neo-orthodoxy, which enabled him to emphasize the possibilities of social and environmental action (Pihkala 2017c).

Fascinatingly, Williams devoted all of chapter 7 to a discussion of environmental themes as intertwined with social themes. He developed ecotheology further by discussing environmental concerns not only as ethical issues, but something which is related to the fundamentals of Christian faith. This shows clearly in his subtitle: “Christian hope is sustained by, and expresses itself in, a reverent grateful love for the good earth” (Williams 1949, 163). Hope not only expresses itself in environmental action, but such action upholds hope itself.

Among the realist theologians, American Lutheran and ecumenical theologian Joseph Sittler (1904–1987) was the one who developed ecotheology the furthest. He gave the aforementioned point by Williams an even stronger emphasis in his numerous public speeches and short writings: Christians and other religious people should see environmentalism as related to the basics of their faith, or otherwise the issues do not get the attention they deserve and require. In an influential article in *Zygon*, Sittler noted: “it is a very difficult job to get even Christians to see that . . . [pollution] is *Christianly* blasphemous” (Sittler [1970] 2000, 84).

Drawing from both process thought and other sources, Sittler emphasized the importance of “an ontology of relations” and proposed that the entire doctrine of grace should be seen differently: as closely connected to the world of nature. In Sittler’s words, nature is “a theatre of grace”: the whole creation is “graced” by God. Things of nature are gifts which should

be literally en-joyed with joy and reverence: “abuse is use without grace.” Using old theological vocabulary, Sittler emphasized both “special grace” related to special revelatory and salvific acts of God, and “common grace” which abounds in all creation (Sittler 2000; Pihkala 2017c). As David Tracy (1981) has noted, Sittler joined those “theologians of manifestation” who see the extraordinary in the ordinary.

Using Sittler’s frame of thought, the climate crisis is for believers a deeply religious issue, both as it relates to inter-human relations and to the more-than-human world. Insights for realistic ethics and theology of hope can be found from his lyrical works. Sittler emphasized that ethical decisions often take place in very ambiguous circumstances. He had lived through two world wars and used an example from war history to demonstrate ethical dilemmas. An enemy submarine has just sunk a ship, whose crew is floating on the sea surface. The captain of a destroyer could probably sink the submarine by using depth charges, but that would also kill the unfortunate crew of the allied wreck. Which counts more, the prevention of further damage by the submarine, or the lives of the allied crew? Even more, the decision has to be made immediately. Sittler’s point is that there are major ethical decisions in which all options include both good and bad consequences. He summarizes: “One has to do what one [thinks he] must, and say one’s prayers” (Sittler [1958] 1998; on the book and environmental ethics, see Saler 2010). In the times of climate change, numerous ethical decisions have this character, and include a similarity with the aforementioned example also in the sense that human lives are at stake. One way to approach this is to raise the troubling questions of a later Protestant ethicist, Christoph Stückelberger (2009), who asks as regards climate change: “Who dies first? Whom do we sacrifice first?”

However, both Stückelberger and Sittler speak also of hope despite these gloomy and realistic concerns. This brings out a difference between secular and religious ethics, since for them, hope is related to Christian faith. Sittler’s perhaps most focused discussion on hope is his three-part sermon on Romans 8, a key text for Christian ecotheology. Sittler discusses the connections between hoping and waiting, but emphasizes that people have to act in hope and faith, also as regards environmental issues (Sittler [1975] 2000).

Some later “theologians of hope,” especially Jürgen Moltmann, built on Sittler’s thought when they constructed a more developed theological scheme. Sittler’s influence on discussions about religion and science was channeled primarily through Philip Hefner’s work, who was his younger colleague (see the dedication and many references in Hefner 1993; Stone 2004, esp. 766; the Joseph Sittler Archives in Chicago holds much material related to Sittler and Hefner). Also, Ian Barbour expressed interest in Sittler’s ecotheology (Pihkala 2017c, 238–41, 254). Sittler’s thought has remained a source of inspiration for many people working with

environmental issues, although his influence is carried on especially by Lutherans (cf. Bloomquist 2009; Dahill and Martin-Schramm 2016).

#### PUTTING TRAGIC HOPE INTO PRACTICE

In the future I will write more about theology of hope in the Anthropocene, based on insights both from the realist theologians and later theologians of hope. (This will be my contribution to a research project on “Being Human in the Age of Humans,” 2017–2018: see <http://ctshf.nd.edu/news/call-for-proposals-being-human-in-the-age-of-humans/>). I will finish this current article by discussing practical ways to engage climate change in the spirit of a tragic hope. I will draw from various disciplines and provide information about literature for further study.

#### *Communication*

Environmental education and communication are closely connected. The things that I argued above have direct consequences to environmental communication. Over-optimism should be avoided, also over-pessimism. Some scholars of environmental communication have written about this need, and their writings provide insights for further development (see Hall 2014; Marshall 2015; Moser 2007, 2015. For Moser’s insightful recent work, see <http://www.susannemoser.com/publications.communications.php>).

#### *Education (As Widely Understood)*

There are some international scholars and practitioners of environmental education who have taken seriously the emotional and existential dimension. I have found particularly useful the works of Elin Kelsey and David Hicks. Kelsey has advocated for a wider understanding of the variety of emotions involved in environmental issues (Kelsey and Armstrong 2012; Zeyer and Kelsey 2013) and has produced hope-inspiring materials. *Beyond Doom and Gloom* (Kelsey 2014) is a collection of letters about hope, while the website <http://www.oceanoptimism.org> is dedicated to sharing good news about ocean protection amidst the general atmosphere of ocean-inspired anxiety (microplastics etc.).

David Hicks has for years developed “futures education,” which has indeed often been a “missing dimension in education,” as a subtitle of one of his books suggests (Hicks 2002). In such a work, the role of emotions and existential questions is crucial. The future is a key existential concern. People ask: What will happen to me, those close to me, and the world? Many emotions are involved, such as fear and expectation. Young people, the main subject of education, already experience many emotions and existential questions when they enter the classroom (or other educational

setting). These must be taken into account, and when education about climate change proceeds, the educators must be sensitive to that which arises. Many teachers, for example, are tempted to be silent about the emotional dimension and defend their position by saying that they are not therapists. However, silence is not a good option, for it makes troubling emotions and existential angst only worse. In such cases, young people feel that either the adults don't know or they don't care, and both of these views can damage human relations and resilience (Eaton 2017).

Hicks is realistic about the situation and points out the need of support for teachers and educators so that they would dare to give space for emotions in their curricula. Forms of support include education for the educators themselves, and providing spaces and materials to help them process their own emotions first. At the same time, Hicks encourages educators on the basis of his own experiences by emphasizing that one doesn't need to be a miracle worker. For example, many young people are much relieved when a safe adult gives them a space and a time to discuss these matters (Hicks and Bord 2001). In addition to Hicks's work on future scenarios and educating for hope in the time of climate change (Hicks 2014), more literature on dealing with the emotions in climate education has recently been published (see several articles in Siperstein, Hall and LeMenager 2017; Winograd 2016).

### *Psychological Insights*

The other subjects which I discuss in this subsection also draw from psychological literature, but here I draw attention to a few key works and themes. Systems thinker and environmental philosopher Joanna Macy has been a pioneer in emphasizing the emotional and existential dimensions of global problems such as the nuclear threat (Macy 1983) and climate change. Written together with Chris Johnstone, her book *Active Hope: How to Face the Mess We're in without Going Crazy* (Macy and Johnstone 2012) has been instrumental for numerous others writing about these themes. The book provides resources for self-reflection and group work. Macy's Buddhist influences and integration of new kinds of rituals, such as the Council of All Beings, link her work with religious environmentalism.

British psychotherapist Rosemary Randall has written pioneering texts about several psychological phenomena related to environmentalism (2005, 2009, 2013). Together with Andy Brown she has published a highly useful book, *In Time for Tomorrow? The Carbon Conversations Handbook*, about applying psychological wisdom in practical conversations and action related to climate change. The book includes an insightful chapter on anxiety, hope, and other related subjects (Randall and Brown 2015, 161–86).



In my own recent book (Pihkala 2017b, in Finnish) about eco-anxiety and hope, I propose that two skills and insights are most needed. First, drawing from Stoknes (2015, 183), I emphasize the need to acknowledge and accept that there are seasons in the human mind, just as there are in nature. Despair and even depression (to a reasonable extent) are not to be always condemned; they may be as necessary and natural as is winter before spring. I use the concept “seasons of the soul” to describe this thought. Naturally, if a person is stuck in a kind of never-ending psychic winter, help is needed.

Second, I develop further the idea of “a binocular vision” as applied to environmental problems. The concept, which has been used in a variety of ways, was originally coined by the group psychologist Wilfrid Bion (1897–1979) and applied to environmental issues by Nichol森 (2002). The main idea is that there are multiple things happening in a certain situation at the same time. If a person is able to partly step outside the group (as with one foot in and one foot out) and observe the situation, differing levels of focus can reveal different things. With one focus level, there appears a certain state of things; with another focus, something different. I use the concept to emphasize the need for people to develop this sense of a binocular vision as regards climate change and the Anthropocene. Numerous good and bad things are happening at the same time. For example, many politicians don’t seem to care about climate change, but then again numerous young people all over the world work towards building more resilient societies. Many species have been lost, but the numbers of some have been able to be restored. To find a balance between optimism and pessimism, we need to see both sides of the story.

However, more often the problem is that we don’t see the good, the sources of hope, because of several reasons. The news culture is biased towards bad news, and a prevalent, melancholic, eco-anxiety makes it difficult to see all the good things that are happening (examples of these good news and sources of hope are found also in the articles of this theme number: see especially Austin 2018; Kelley 2018).

### *Art-Based Activities*

Emotions are holistic matters and dealing with them is easier when people’s bodies are involved. Art-based methods help people step outside the everyday mechanisms of silence and denial by providing a kind of liminal space or holding environment. Liminal spaces and activities, such as many rituals, are situated between ordinary life and the extraordinary. As a result, normal constraints do not matter as much. (For a classic discussion on liminality, see Turner 1982; for ritual and eco-anxiety, my book in Finnish, Pihkala 2017b, is the widest discussion known to me). I have personally co-operated with art educators such as Anna Lehtonen in organizing

workshops where climate change is encountered through embodied action and the use of participatory drama (see Lehtonen 2015; for wider reflections on art-based environmental education, see Lehtonen, Cantell, and Salonen 2018; van Boeckel 2013). Other forms of art-based activity such as creative writing can also help with eco-anxiety, and the literature on so-called “environmental criticism” or eco-criticism offers insights for that (for climate change, see Gabriel and Garrard 2012; in general, see Garrard 2014).

### *Religion and Science Discussions*

Dialogue between people from various backgrounds can also help increase understanding and grow hope. An example of this is the Finnish high-level discussion group on religion and science, initiated by climate scientists and theologians. (My experiences of the activities of the Zygon Center in Chicago were among the reasons that prompted me to work toward the founding of this group.) After two years of discussions, the group issued a joint statement on climate change, emphasizing that this wicked problem needs both scientific research and changes in our worldviews. The public saw this as a new kind of co-operation between theologians and natural scientists. For example many scientists later commented that the statement was a source of inspiration and hope for them. (The statement, “Climate Change Challenges Our Worldviews,” can be found, in Finnish, at: <http://www.ilmastokannanotto.fi>. The responses were discussed for example at the Sofia Earth Forum, Helsinki, Summer 2016. See also the multidisciplinary climate education course, openly accessible, at <http://www.climatenow.fi>).

On a much wider level, the same kind of appeal of the combination of religion and science is seen in the huge global impact of the environmental encyclical by Pope Francis, *Laudato si'* (2015). The encyclical was often mentioned as a source of moral support in the speeches of the Paris COP Climate conference, and its significance has been discussed also by prominent secular thinkers (see, e.g., Klein 2015; Chakrabarty 2017).

Although I have focused on emotions, psychology, and existential questions, it also should be emphasized that there is a close connection to climate sciences as regards eco-anxiety. High-quality research in the natural sciences enables people to know what the situation is and is likely to be (see the articles in this *Zygon* issue, such as Austin 2018; Carr 2018). This information may of course cause anxiety, as discussed above, but scientific information can also help to reduce anxieties by showing that the most striking apocalyptic visions of the near future are not realistic. Let it be added that apocalyptic thought and eschatology are important subjects in their own right as regards climate change, but I can't discuss these topics further here due to space limitations (for literature, see Rossing 2007;

Skrimshire 2010, 2014). Many have claimed that we are living in “the end times” (cf. Žižek 2010); at least we are living in very special times, when the contributions of people from a vast diversity of backgrounds are needed.

#### SUMMARY

In brief, my argument in this article has run as follows. First, through careful analysis and observations, and by reading research on the theme, one can notice the silence and denial about climate change among ordinary people. Underneath the mask of apathy, people have profound feelings. I discussed interdisciplinary studies on “eco-anxiety,” the negative emotions, and existential questions related to environmental problems and especially climate change—for example, people have existential concerns about the meaning of life, the significance of their personal lives, and finitude. I introduced Glenn Albrecht’s typology of various psychic reactions to environmental problems and especially his concept of “solastalgia,” a form of environmental grief generated by losing important aspects of one’s home environment. I then discussed emerging research on the importance of grief and mourning related to climate change.

Second, moving to further discussions on the existential dimensions of climate change, the research and philosophy on the role of mortality as regards climate change should be given more attention. Studies in terror management theory have been applied to climate change. It has been revealed that climate change is linked with mortality in many people’s minds, and as a result they tend to resort to psychological defenses, especially if they are confronted with fear-generating environmental communication. Hope and despair in the era of climate change are also related to what Robert Jay Lifton calls “symbolic immortality,” the ways in which humans seek meaning for their lives in spite of mortality. People have the feeling that climate change threatens all kinds of symbolic immortality, which generates anxiety.

Third, religious communities and leaders have important ways to help people, for example by providing opportunities to mourn and to process existential questions such as finitude. This led me to briefly discuss the role of religion and spiritual experiences in relation to environmental education, which is a theme that would require further research.

Fourth, the situation at hand causes the need to frame climate change narratives as emphasizing hope in the midst of tragedy. Framing the situation simply as a threat or a possibility does not work, for it is neither credible (for most people) nor realistic. Communication must do justice to the amount of losses that have taken place and the grief that people experience. I discussed the possible contributions of tragedy both as a form of art and as a philosophical-theological task, pointing out to the fact that people have found tragic plays strangely comforting for ages. I explored

various philosophies of hope which seek a kind of middle way between optimism and pessimism, sometimes by using the concept of tragedy.

Fifth, based on my earlier research, the contributions of the so-called “realist theologians” from the mid–twentieth century provide important insights into the situation at hand. These insights are most appealing to those who share the key ideals of Christian theology, but they do also have a wider appeal. These theologians, such as Paul Tillich, Daniel Day Williams, and Joseph Sittler, had a realistic, even tragic, view of history, but still they emphasized hope. They also made pioneering ecotheological contributions and had an impact on discussions on religion and science.

Finally, there are the practical dimensions of what I have presented. In the hope of sparking further dialogue between various fields, I discussed relevant literature from a wide variety of disciplines, such as communication, education, psychology, the arts, and the dialogue on religion and science. Experiences from work on these fields in Finland were mentioned.

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