

Better than Hope: In Search of a Defence Against Despair
In the Face of Global Climate Change

by

Richard Littlemore

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Royal Roads University
Victoria, British Columbia, Canada

Supervisor: Dr. Bob Kull
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 Richard Littlemore, 2019

COMMITTEE APPROVAL

The members of Richard Littlemore's Thesis Committee certify that they have read the thesis titled *Better than Hope: In Search of a Defence Against Despair in the Face of Global Climate Change* and recommend that it be accepted as fulfilling the thesis requirements for the Degree of Master of Arts in Environmental Education and Communication:

Dr. Bob Kull [signature on file]

Dr. Mary Lynn Young [signature on file]

Final approval and acceptance of this thesis is contingent upon submission of the final copy of the thesis to Royal Roads University. The thesis supervisor confirms to have read this thesis and recommends that it be accepted as fulfilling the thesis requirements:

Dr. Bob Kull [signature on file]

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Abstract

Hope is often credited as an inspiration for action and, in difficult circumstances, a protection against despair. But ill-considered hope can be an unreliable helper. If people choose only to hope for a happy outcome, rather than acting in their own interest, they risk losing the opportunity to improve their situation. Putting faith in hope alone, they may also find that, after crossing a critical marker, hope's protection evaporates, suddenly and at great emotional cost. In that context and in the face of the gathering threat of climate change, this thesis records the search for a strategy that is better than hope – more active, robust and resilient. The search, including interviews with five high-profile and highly accomplished exemplars, suggests there might be value in simply recognizing the full extent of the threat and then embracing action in pursuit of a goal that is worthy, irrespective of a hoped-for result.

Dedication

To Elizabeth, whose love and patience – invaluable every day – was crucial to the bumpy process that made this thesis possible.

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I also would like to acknowledge that this work was produced primarily on the traditional and unceded lands of the Salish peoples of the West Coast. In doing so, I acknowledge the many hardships that European encroachment has had on Indigenous people – in Canada and elsewhere – and the ongoing effect that the related social and cultural norms continue to have upon vulnerable populations, among which Indigenous people in Canada remain dramatically over-represented.

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Chapter One: Introduction and Literature Review

Those who witness extreme social collapse at first hand seldom describe any deep revelation about the truths of human existence. What they do mention, if asked, is their surprise at how easy it is to die.

– The Dark Mountain Manifesto (Kingsnorth & Hine, 2009, p. 1)

Is this the thin thread on which dangles humanity's future? Is humankind's capacity to function in a dangerous world really just a tribute to our casual disregard for the fragility of life – our propensity to be surprised by death, despite not just its inevitability, but the undeniable, sometimes unendurable, fact that it lies in wait at every moment? If we really considered the risks that we face each time we put foot to floor, we might, instead, cower in bed and wither away. So, we proceed in hope. And it works. Or it *has* worked for the hundreds of thousands of years during which our ancestors parlayed impractical boldness into world domination.

Now, however, our species has gathered sufficient power to destroy the human habitability of planet earth (Galeon & Norman, 2017), and that leaves two broad, but pressing questions: First, given humankind's record of recklessness, is there any reasonable grounds left for hope? Even with our gift for self-delusion, can we deny despair for the future of our children (and theirs)? Second, is hope necessary, or even useful, for our salvation? On one hand, we might be paralyzed without it; on the other, we might be anaesthetized with it. Will delusional hope be our undoing?

My answer to these questions is, at the very least, unsettling. I have lost hope – not just misplaced it, but watched it sail over the distant horizon, in a ship filled with elves, hobbits and other mythical creatures who are *not* coming back. This is not to suggest that I don't share, with

most of humanity, a deep longing for the enduring health of a stable, sustainable, habitable world. But in the last 30 years, I have watched the arc of catastrophic climate change and, concurrently, humankind's complete failure to address the risk in an even-barely-adequate way, and I have come to conclude that there is no reasonable expectation that things are going to turn out as I would prefer.

Others may argue whether that is a reasonable conclusion. David Wallace-Wells, for example, has laid out a compelling case for *The Uninhabitable Earth* (Wallace-Wells, 2017). Guy McPherson has argued that our demise might lie only a dozen years in the future (McPherson, 2018). If you are not already familiar with the breadth and devastating potential of climate change, and if you're feeling resilient, I recommend that you explore their work. For my own part – and as a focal point for the research in this thesis – I am more interested in how to understand and manage the cascading threats, personally. How, in the absence of an inoculant like hope, is it possible to stay engaged, active and productive? And, assuming (as I do), that it is worthwhile to fight for a habitable earth – even if the ultimate result of that battle is foreordained – how do we meet the challenge without slipping into debilitating despair?

I was not always clear that this was the problem. Since first becoming deeply engaged in the issue in the mid-1990s, I thought that the problem was climate change alone – this threat that, unattended, has the capacity to undermine the habitability of planet earth, for humans and a host of other species. Then I thought that climate change might be merely a symptom of overshoot (Meadows & Rome, 1972), that having surpassed the earth's limits to growth, humans are undermining our planet's livability on several fronts, from destroying the habitat of other species to exhausting our own supplies of important resources (Hubbert, 1956). Amid these considerations, I also began to worry that the threat to that shared habitat is made worse by the

failure of global governance – by humankind’s apparent inability to use its collective intelligence and combined resources to address complex existential problems. Even on occasions when optimism seems warranted, as when the leaders of 196 nations came together in Paris in 2015 to forge agreement for action under the United Nations Framework Convention on Climate Change (UNFCCC, 1992), the promise of progress seems so ephemeral. It takes only the ascendance of a new leader – leveraging a minority of votes to assume the presidency in the world’s most powerful democracy – and the promise of action on climate change is shaken once more (Volcovici, 2017).

Of course, from the perspective of an academic researcher, these are not problems that I, alone, can solve. And, perhaps perversely, none of these problems are currently undermining my personal quality of life. The grocery stores still have food. The filling stations still have diesel, though it galls me to buy it, knowing that Volkswagen lied about the pollution that the family is contributing to the environment by driving a vehicle that was purchased on the promise of relatively good environmental performance (Hotten, 2015). So, like most others lucky enough to have avoided the increasing number of floods, fires and hurricanes associated (however loosely) with the advance of climate change, it appears that I can ignore these threats with impunity, at least until my own insurance rates start to rise on the tide (Treanor, 2017).

But I have not been able to avoid despair. I am conscious that I should not – that *we* should not – avert our gaze from the gathering crisis, even if we are not personally feeling its effects today. As those who have contemplated the implications of rising population, environmental degradation, species extinction, atmospheric pollution, and advancing insurance insolvency already know, these threats are cumulative. As stated in the U.S. Fourth National

Climate Assessment, and the first major climate change-related document released by the Republican Administration of President Donald Trump:

There is broad consensus that the further and the faster the Earth system is pushed towards warming, the greater the risk of unanticipated changes and impacts, some of which are potentially large and irreversible.

(Wuebbles, Fahey, & Hibbard, 2017, p. 11)

I haven't the scientific *bona fides* to advance this argument further than the National Oceanic and Atmospheric Administration's climate assessment (quoted above) or the Intergovernmental Panel on Climate Change (IPCC, 2014). Nor am I interested in being diverted further by the organized campaigns of denial that have so undermined deliberations about climate science (Hoggan & Littlemore, 2009; Oreskes & Conway, 2011). I am appalled by the organized dissembling that has prevented us from effective action to mitigate the effects of climate change. And, given that inaction, I am terrified by the damage and suffering that I believe I will see in my own lifetime.

My inclination, then, is to fight – to join the scientists, environmentalists, activists, policy makers and other concerned citizens who engage every day in a battle to save the earth's current human and animal populations from the most devastating effects of pollution, environmental degradation, human overconsumption and, ultimately, human overpopulation. But therein lies the problem. In order to engage in a campaign of action, it is helpful (if not absolutely necessary) to have some sense of agency – some reasonable expectation of success. In this regard, I was particularly struck by a quote from an anonymous climate campaigner:

It cannot be enough to merely hope – to ignore the mounting risk and forge delusionally onward. We will not carry the crowd if we cannot make a credible argument that there is, in science, in politics, in social cooperation and, especially, in the harsh light of unsentimental environmental reality, a chance that we may survive the next century without a sickening and perhaps fatal blow. (Anonymous, 2015)¹

Paul Kingsnorth, founder of the Dark Mountain Project, also diagnoses the greater problem. In a 2012 essay, in *Orion* magazine, he scans the evidence of environmental impact, and the social reaction to each new piece of bad news, and says:

The greens are seeing a nasty realization dawn: despite all their work, their passion, their commitment and the fact that most of what they have been saying has been broadly right—they are losing. There is no likelihood of the world going their way. (para 33)

As I read Kingsnorth's analysis, it brings me to a dark place, a place not just of hopelessness, but of despair. If public support for environmental action and governmental reform depends upon a convincing promise of success, and if, as in Kingsnorth's words, "there is no likelihood" of success, then anyone who shares my ambition for the happy survival of their children and grandchildren in a healthy world might reasonably abandon hope. And, as Noam Chomsky writes: "If you assume that there is no hope, then you guarantee that there will be no hope" (Chomsky, 1999, n.p.).

¹ I had originally believed this quote to have come from Paul Kingsnorth, but have been unable to confirm its authorship through any internet search engine or through plagiarism detection software.

Yet, here is the challenge. Irrespective of the injunction that you must *have* hope in order for there to *be* hope – I am convinced that the opportunity to ward off catastrophic climate consequences is already lost. I believe that the human world is doomed to a crisis unprecedented in our history, and that hoping otherwise is, at best, wasted effort. In such a circumstance – for me at least – there is little chance of reviving hope. Myth and biblical exception notwithstanding, you cannot raise the dead.

So, now I come to the challenge of living without hope and, in its absence, avoiding dispiriting, paralyzing despair. And for two reasons:

First, contrary to Kingsnorth's pessimism that only a hopeful army will fight, from the annals of Sun Tsu (Sun-Tzu & Griffith, 1964) to the ramparts of the Alamo, history is full of examples of soldiers who fought their hardest in battles they knew they were sure to lose. Perhaps they had other priorities. In the absence of victory, perhaps they were hoping for immortality, in legend if not in fact. I find some appeal in that up-against-the-wall belligerence. I also believe that even if the irresponsible forces of consumption and greed are bent on crashing the human species on the rocks of immediate profit, they should not be allowed to do so without facing a fight.

Second, as every recipient of a terminal diagnosis must ultimately understand, the relevant question is not whether, or even when, we are going to die. Rather, it is: How can we live well in the meantime? How can we thrive without hope?

Context

If even a small fraction of Arctic sea floor carbon is released to the atmosphere, we're f'd.

Tweeted in the summer of 2014 by Stockholm University climatologist Jason Box (J. Richardson, 2015)

I came to this work, accidentally, in 1996, when I was engaged by the David Suzuki Foundation to write the organization's first public education package on climate change, based on the Second Assessment Report of the Intergovernmental Panel on Climate Change (IPCC, 1995). The so-called 2AR was frustratingly bland, filled with caveats and margins of error. Even then, the tracking that Charles Keeling had started in the 1950s proved simply and undeniably that humankind had increased the amount of greenhouse gases in the atmosphere by more than 30 per cent since the beginning of the industrial revolution, (Keeling et al., 1976) but planetary systems are complex and no scientist of integrity would say, unequivocally, that the earth was on track for a significantly climate-changed future. As a would-be educator and activist, I found this more than annoying. It's hard to get people's attention if you are forever reminding them that you might not have the full story. And, as became obvious in the years that followed, it is harder still if a wealthy band of contrarian communicators are shouting, categorically, that there is no real problem; or if there is a problem, it's not our fault; or if it is our fault, it would be too expensive to fix it. The extent – and, at times, brilliance – of that campaign has been well documented by journalists such as Ross Gelbspan (Gelbspan, 1997, 2004) and academics such as Naomi Oreskes and Erik Conway (2011), and it would come to dominate my own research and writing during the next decade (Hoggan & Littlemore, 2009).

But in the late 1990s, I still believed that conversations about science were largely conducted by scientists and that, when it came time to make policy on scientific issues, politicians would look to those experts for good guidance. Then I was appointed as a delegate to the Canadian government's Kyoto Implementation program. The Liberal administration of Prime Minister Jean Chretien had agreed to the Kyoto Accord in 1997 and had returned to Canada to create an implementation scheme with 16 "tables," representing subject areas such as Oil and Gas, Electricity, Municipal Issues, and (my own table) Public Education and Outreach. At the first meeting, the representative from the Canadian Association of Petroleum Producers stood up to say that, if there was any chance that the process would result in the government imposing a carbon tax, he was leaving immediately (I still regret not encouraging him to make good the threat; it would have made subsequent meetings so much more agreeable). Then the government rolled out its public education priorities, twin programs from Energy Canada to convince people to reduce vehicle idling time and to do a better job of maintaining the air pressure in their car tires – both noble goals, but laughable in their inadequacy. This suggested, loudly, that the government had no intention of creating or imposing policies that would appreciably reduce Canada's greenhouse gas emissions. And sure enough, Canada went on to ratify the Kyoto Accord in 2002, giving legislative lip-service to its Kyoto promise to lower national greenhouse gas emissions by 6% from 1990 levels by 2012; but absent any initiatives to achieve those reductions, Canada's emissions actually rose by 24% by 2008 (UNFCCC, 2011).

During this period, the international campaign of denial also became better organized and better funded, with companies such as Exxon spending millions directly and indirectly on campaigns to undermine the public's understanding of climate science (Adam, 2006). Against that trend, and thanks to the support from the Public Relations entrepreneur and David Suzuki

Foundation Chair James Hoggan and to our financial backer, John Lefebvre, I became the founding editor, in 1995, of the DeSmogBlog (now www.DeSmogblog.com), a research project that focused on the tactics and principal actors in the campaign to deny climate change. The 2009 book, *Climate Coverup: The Crusade to Deny Global Warming*, gathered the best of that research into a single volume (Hoggan & Littlemore, 2009).

Our activism also drew us closer to the activities surrounding the United Nations Framework Convention on Climate Change (the underlying architecture of the Kyoto Accord), and as I watched UNFCCC meetings (e.g., in Bali in 2007) and attended in Poznan, Poland in 2008 and in Copenhagen, Denmark in 2009, I grew increasingly desperate in my efforts to remain optimistic that we might strengthen the inadequate climate mitigation mechanisms agreed to in Kyoto in 1997. Like others at the time, I began investing all hope in the prospect that, after half-hearted preparations in Bali and Poznan, world leaders would make significant climate commitments in Copenhagen. It seemed possible. In 2009, after eight years of climate inaction under the U.S. administration of President George W. Bush, the world's largest democracy was under new management: surely, U.S. President Barack Obama would show leadership. Perhaps he might even succeed in calling others to a higher level of ambition.

It was not to be. As the Copenhagen meeting began – and then began to falter – it became clear that Obama was preserving his political capital to push through a domestic health care agenda. There was, after all, no reason to hope that the new U.S. president would lobby for, or commit to, a decisive improvement in global climate action (Klein, 2009).

It would be hard to pinpoint the moment when my own outlook began to falter, as well, but I certainly swallowed a deep and debilitating dose of despair at that conference, in Copenhagen's cavernous Bella Center. On the last day, as the world's climate negotiators agreed

to stop the clock – because they *knew* they would not have a deal by their midnight deadline – I walked out, searching for any better option, any distraction. And I found one a block from my hotel: James Cameron’s highly anticipated movie, *Avatar*, was enjoying a smashing opening day. Darkness, popcorn and a beautiful world far from our own – it seemed perfect.

Or perhaps not. (If you haven’t seen the movie, take this as a spoiler alert.) Cameron’s narrative is a sweeping metaphor for the Gaia story. His fictional world, Pandora, turns out to be ground zero for a battle between the commercial forces from Earth, mining a precious metal, and Pandora’s inhabitants, trying to protect their home. Being a Hollywood spectacular, the “good guys” win. Every living being on Pandora rises in defence of the sanctity of nature and they run the militaristic humans off on the next shuttle. Queue the triumphant finale!

Except for this: I’ve been hiding in movie theatres for decades, and I know how these stories go. In the sequel (currently scheduled for 2020), the Earthlings are bound to return – this time with a bigger army. So, on that cold, dark Copenhagen Saturday, the metaphor seemed complete: Hollywood’s temporary reprieve notwithstanding, Pandora – like Earth itself – is doomed.

With that thought harrying my frayed nerves, I walked the short block back to my hotel, let myself into my room, sat down in the dark, and I wept. And not quietly. It wasn’t one of those transient moments of manly emotion, a few tears glistening in the faint light from the street. This was a cosmic-level meltdown, featuring the kind of desperate, chest-constricting sobs that could reasonably give rise to a noise complaint – especially after the first 10 or 15 minutes.

The implications of global climate change combined with the comprehensive failure of the world community to meet the threat had collided before me and, as I sat in the darkness, whatever had passed for my optimism was categorically dashed.

*

You have to be careful about hope. If that hope is based on an unrealistic foundation, it just crumbles and then you end up with people who are despairing. I saw that in Copenhagen—there was a lot of despair and giving up after that.

– Paul Kingsnorth (J. Richardson, 2015, para 21)

Looking back on the malaise that affected so many in the post-Copenhagen period, the psychosocial researcher Renee Lertzman (2015) diagnosed what she calls “environmental melancholia,” which she defines as “an arrested, inchoate form of mourning” for the state of the planet – and one that has compromised people’s capacity to face up to the problem and take action. But while the diagnosis is novel, the underlying condition must surely have cropped up before. People have been raising environmental alarm – and shuddering at the implications of human overpopulation – for centuries.

Thomas Malthus took pride of place as an early and passionate Cassandra, with his 1798 publication, *An Essay on the Principle of Population*.

The power of population is so superior to the power of the earth to produce subsistence for man, that premature death must in some shape or other visit the human race. The vices of mankind are active and able ministers of depopulation. They are the precursors in the great army of destruction, and often finish the dreadful work themselves. But should they fail in this war of extermination, sickly seasons, epidemics, pestilence, and plague advance in

terrific array, and sweep off their thousands and tens of thousands. Should success be still incomplete, gigantic inevitable famine stalks in the rear, and with one mighty blow levels the population with the food of the world. (1798)

Malthus's insight, while profound, was clearly ahead of its time. There is much he didn't anticipate in how humans could use stored energy (especially in fossil fuels) to enable continued population expansion without hitting Meadows's "limits to growth" (*Meadows & Rome, 1972*), or setting off what Paul and Anne Ehrlich described as *The Population Bomb* (1971). But by the 1990s, the world's science academies were gathering to say that Malthus and Ehrlich had been on to something important.

Human beings and the natural world are on a collision course. Human activities inflict harsh and often irreversible damage on the environment and on critical resources. If not checked, many of our current practices put at serious risk the future that we wish for human society and the plant and animal kingdoms, and may so alter the living world that it will be unable to sustain life in the manner that we know (Albania et al., 1993, p. 1).

As I was reading these references and sliding closer to despair, I stumbled upon a quote from the first Czech President, Václav Havel, who, while jailed as a dissident when then-Czechoslovakia was still under the control of the United Soviet Socialist Republic, wrote a series of surprisingly buoyant letters to his wife (Havel, 1988). In accounting for his good mood, Havel drew a distinction between optimism and hope. To be optimistic, he said, you need a realistic expectation that things will get better. But even without this expectation, you can still have hope.

Against the depression of the moment, Havel's encouragement gave me strength. I found myself sharing his advice with anyone who suggested that they, too, were struggling with fear and depression from our environmental trajectory. Then, one day, in response to that helpful insight, someone said to me, "Oh, that's so cool. What gives you hope?" And, as I considered a response, I realized that I could think of no convincing scenario in which the world's human population will be rescued from a global climate catastrophe. Given our individual and collective action to date, I could see no prospect of avoiding hundreds of millions, and perhaps billions, of premature deaths. When I stopped to contemplate the likelihood that my (yet unborn) grandchildren will grow up happy and secure – even among a community of hardy survivors – I realized that, it's not merely that I am not optimistic: I am not hopeful.

Need for the Study

Renee Lertzman, the psychosocial researcher who coined the term "environmental melancholia," defined the state further "as a condition in which even those who care deeply about the well-being of ecosystems and future generations are paralyzed to translate such concern into action" (2015, p. 4). The meteorologist and journalist Eric Holthaus gave context to that definition when he wrote: "There are days where I literally can't work. I'll read a story and shut down for the rest of the day. We don't deserve this planet. There are (many) days when I think it would be better off without us" (Oberhaus, 2017, para 2). Holthaus also discovered personally how broadly this condition is shared. After Tweeting about his concern in January 2017, he later said, "It was pretty overwhelming how many people responded. I've never had that big of a response to anything I've ever written either on Twitter or as a journalist. I think [climate despair] is a pretty big thing that a lot of people don't realize is going on right now" (Oberhaus, 2017, para 5).

Neither is the strain restricted to scientists, activists or journalists who spend their professional efforts witnessing or contemplating the implications of global warming. In a recent report called *Mental Health and Our Changing Climate: Impacts, Implications and Guidance*, the American Psychological Association states:

It is time to expand information and action on climate and health, including mental health. The health, economic, political, and environmental implications of climate change affect all of us. The tolls on our mental health are far reaching. They induce stress, depression, and anxiety; strain social and community relationships; and have been linked to increases in aggression, violence, and crime. (Cunsolo et al., 2017, p. 4)

My personal sense that this study is warranted – and that others need answers as much as I do – was reaffirmed in most of the early conversations that I had about tackling this thesis. I didn't record the proportions precisely, but I found that people were inclined to one of three reactions. In the first group, people who heard me talking about climate change and hopelessness immediately started edging away, checking their phones for urgent emails, or recalling, suddenly, that they had an important appointment somewhere far from me. (I'm sympathetic; I want to run away, too.) A second group tended to engage, emotionally and passionately. They began to talk about their own struggles, their fears of what awaits humankind in a climate-changed future, and about dealing with the sadness, the depression – the deep sense of despair – that sometimes overwhelms them when they think about the science and politics of global warming. They said they, too, would love to have a convincing reason for hope – or a strategy for living in its absence.

The third group probably illustrated most clearly the general anxiety about this issue. These people were variously righteous, indignant, insistent, commanding or hectoring when they said: “But, you *have* to have hope!” They said this as though hope is a life-sustaining tonic, a magic elixir without which, obviously and tautologically, all hope is lost. They also seemed to imply a judgment on my carelessness, invoking the common linguistic construction that I have “lost hope” – as if it fell out of my pocket when I was fumbling for my keys. For these people, my lack of hope seemed to suggest a failure of discipline, as though hope is a muscle that I have neglected to exercise. I just need to get back to the gym.

Much of the literature on hope, as it regards climate change, appears to reflect this approach, in which hope (or optimism conflated with hope) is an end in itself. A leading book in this genre is Rebecca Solnit’s *Hope in the Dark*, a lyrical argument in favour of hope, based on the theory that, “Hope locates itself in the premises that we don’t know what will happen and that in the spaciousness of uncertainty is room to act” (2016, p. v). The book is not unreservedly sunny, but Solnit calls readers to a campaign of hope, quoting James Baldwin as saying, “Not everything that is faced can be changed, but nothing can be changed until it is faced (p. xviii).” She then forages through history, offering both ancient and current justification for *hoping* that all will turn out. I read the first edition of *Hope in the Dark* (2004) shortly after its release, which, during the U.S. Administration of President George W. Bush, was regarded among climate activists as a dark time, indeed. I was interested, then, to see Solnit release a second edition in 2009, after President Barack Obama was elected on a campaign of hope and change. She updated the book a third time in 2016, just before the election of President Donald Trump, after which, I would argue, the uplift that climate advocates might have felt in the Obama years has certainly faltered, if not collapsed completely.

There is certainly a body of scholarly work arguing that climate change is undermining people's mental health (Fritze, Blashki, Burke, & Wiseman, 2008; Lertzman, 2015). And others join Solnit in making the case for holding onto a hopeful outlook. As David Richard Boyd writes in his introduction to *The Optimistic Environmentalist*, "Our dispositions determine how we view the world" ... and "Overall, optimists are happier, healthier, and more persistent in overcoming obstacles and achieving their goals" (2015, n.p.). Boyd follows with a whole book of inspiring examples of recovered species and promising technological innovation. Boyd's buoyant case studies, while charming and clearly well intended, can nevertheless be read as sleight-of-hand, which he may be using unconsciously to distract himself and his inquisitive young child from the larger weight of evidence that our successes are being overwhelmed by unsustainable resource use and a gathering epidemic of species extinction (Carrington, 2018).

For me and for many colleagues and interviewees, the encouragement to embrace hope has failed against the environmental onslaught. Hope, perhaps laudatory and useful to many, has proved to be slippery and unreliable – a bullet-proof vest that doesn't stop bullets, a helmet that shatters, uselessly, on contact. I also have a sense, from the urgency with which people still demand that I "must" have hope, that their hope, too, is a gossamer-thin bulwark against their fears. It has brought me to question why any of us should rely on a protective system that can't withstand serious assault? It's what made me wonder: if hope is this fragile and depends (as I fear it does) on some determined sense of self-delusion, what alternative instrument or concept might better weather the climate storm? Even acknowledging that scholarly research and anecdote indicate that hope can be a good thing for those who have it, the times seem to demand an investigation into what strategies or protection might be better than hope – for those who lose it.

Chapter Two: Hope is What I Say It Is

Hope is a tricky thing, practically and semantically. It is either so ill-defined or so variously and individually understood that clear communication can break down almost immediately. So, it might be worth exploring the definition, to understand, in the context of this study, the nature and boundaries of both hope and hopelessness.

To begin simply, the *Oxford English Dictionary* defines hope as, “expectation and desire combined,” where desire is “an unsatisfied longing or craving” (O. E. R. Dictionary, 1995). To hope, by this definition, is to expect what you want. But that sounds to me like optimism, which the Oxford defines (unhelpfully) as, “an inclination to hopefulness and confidence” (1995). If hope is an inclination to expect what you want, and optimism is an inclination to be hopeful, there seems to be no formal distinction between the two.

Toward the other end of the definitional continuum is the 15,000-word essay, *Hope*, by Claudia Bloeser and Titus Stahl, an online entry in *The Stanford Encyclopedia of Philosophy*. Describing a condition of hopefulness that accords more closely to common usage, they say, “One can hope for outcomes that one considers to be very unlikely and that one does not expect to happen, such as a miraculous cure of an illness. In such cases, optimism is not an appropriate response” (2017, para 2). It’s a variation of Václav Havel’s distinction that, to be optimistic, you need a reasonable expectation that things will turn out well, but that even in the absence of optimism, you can still have hope (Hardin, 2011, para 9). Similarly, Bloeser and Stahl argue that, as against optimism, “the ordinary use of the term [hope] is better captured by the idea that hope can be upheld even if one does not assign a high probability to the outcome” (para 89).

Rational hope

Bloeser and Stahl also reject blind hope. In what they describe as “The Standard Account and the Rationality of Hope,” they say that a hoped-for outcome must be possible, even if it is not likely. They quote the theorist R.S. Downie, who says that the hopeful person must believe that “the object of hope falls within a range of physical possibility which includes the improbably but excludes the certain and the merely logically possible” (para 71). I take away two notions from these definitions: first, that hope goes a clear step beyond optimism; and, second, that hope still must constrain itself to reality.

Spiritual hope

Of course, there are other interpretations. For example, in opposition to “rational hope,” Bloeser and Stahl cite the Christian saint and theologian Augustine writes about a version of hope that is part of a “rational faith” – a hope that motivates or supports actions that are not justified by evidence. In this version, the hopeful Christian believer is advised to behave positively and obediently in this life in hopes of receiving a reward in heaven. Augustine argues that this hope for a future life (one that is, presumably, better than the drudgery of current existence) is the greatest potential source of human happiness (para 15).

This could be the philosophical and political position that offends Karl Marx, who condemns Augustine’s prescription for docile hopefulness as false advertising – and as a self-serving manipulation by an unreliable church. Marx rejects this untestable (and therefore indisputable) long-term promise as a twisted definition of hope, useful only to anaesthetize the masses. Most famously, he writes, “Religion is the sigh of the oppressed creature, the heart of a heartless world, and the soul of soulless conditions. It is the opium of the people” (1844, para 4).

Bloeser and Stahl note that Frederick Nietzsche also decries this kind of hope, calling it “the worst of all evils because it prolongs the torments of man” (para 58). Far from being liberating, Marx and Nietzsche argue that this hope discourages people from acting in their own interest, rebelling against the institutional church and the secular rulers who take advantage of their compliance. This view of hope as something that paralyzes or anaesthetizes also seems to inform the modern concept of “hopium,” for which I can find no staid academic reference, but which the online *Urban Dictionary* defines as a “fictional narcotic” of particular use to stock traders who, “find(ing) themselves deeply in the negative on the wrong side of a trade ... will continue to hold the position in the hopes that the security will return to the value at which they acquired it” (U. Dictionary, 2011). Hope, for them as for me, is a false promise, a reason not to act, even when action might mitigate (if not prevent) disaster.

Like Marx and Nietzsche, I am skeptical of the hope Augustine’s spiritual hope (2001) as little more than a phony lay-away gift from the rich and comfortable – an encouragement to the poor and powerless that they accept their suffering without complaint (or activism) on the basis that a supernatural being is looking after their interests, long term. In the current context of accelerating climate change, I also see a parallel in another blindly hopeful cohort of people who assent to the status quo on the basis that some clever collaboration among scientists and corporatists will, at some ill-defined moment in the hoped-for future, deliver a climate solution. This strikes me as a definition not of hope, but of hopium.

Hope, noble and courageous

There are also theoreticians who invest in hope and hopefulness some inherent nobility. Writing in *Hope Without Optimism*, the British literary theorist and Marxist scholar Terry Eagleton (2015) suggests that optimism and pessimism are two sides of the same irrational coin

– that while it may be charming to always look on the bright side, it requires no intellectual rigor, nor any accompanying effort. Eagleton says that hope, on the other hand, demands engagement and always aims for the possible.

This aligns with the work of another British writer, Rabbi Jonathan Sacks, who regards hope as something that justifies and invigorates the work of the righteous. Sacks says: “Optimism is the belief that things will get better. Hope is the belief that, together, we can make things better. Optimism is a passive virtue, hope an active one. It takes no courage to be an optimist, but it takes a great deal of courage to have hope” (2000, p. 179). There is something here that supports those who insist that an avowed lack of hope is equal somehow to a failure of courage. On this point, Bloeser and Stahl quote Aristotle, who goes so far as to imply that hopelessness is an indication of cowardice. He writes: “Thus, even though not every hopeful person is courageous, every courageous person is hopeful. Hopefulness creates confidence, which, if derived from the right sources, can lead to the virtue of courage” (para 10).

This accords with the views of others in the psychological literature. Bloeser and Stahl cite the work of Snyder, Rand and Sigmon, who present hope as a foundation for agency. The three psychologists offer a theory of hope that consists of three different components:

- goals – that which we want to happen;
- pathway thinking – an ability to come up with routes to get to where we want;
- agency thinking – the motivation to use these pathways (para 87).

In this construction, agency is inherent in the definition and realization of hope – but here again, hope depends upon there being a possible pathway to the desired goal. Presumably then, whether you are courageous or not: no pathway – no hope.

Hope as the basis for action

Even in a world where clear pathways may not be visible, other academics have tested hope's capacity to inspire action – or at least to promote engagement. But the results are complicated by the nature of hoping. Kathryn Stevenson and Nils Peterson (2015), for example, conducted research on whether hope could motivate activism and counteract the paralyzing effects of despair among adolescents who were learning about the risks and threats of climate change. They found that people who were concerned *and* hopeful were most likely to take action to mitigate or counter the effects of climate change, and that those in despair were least likely. But they also found that hope and despair did not sit, inevitably, at either end of a continuum. People who claimed hopefulness sometimes still reported despair, while those without hope were not, in all cases, despairing. This, again, suggests that hope alone can be a dubious protection.

Hopefulness, in the context of climate change, is also complicated by the effects of denial. In researching the inspirational capacity of hope, Maria Ojala, found that what she characterized as “constructive” hope has a positive effect on pro-environmental behavior. But when hope is mixed with denial, it can have the opposite effect. In doubt, people take their hope and go home (2012).

Hope as a trap

Having formed an increasingly skeptical bias against the unreliable or distractive qualities of hope, I am drawn to the Buddhist notion of hope as something of a toxin. As Pema Chodron writes, hope can be an excuse “to abdicate our responsibilities and delegate our authority to something outside ourselves” (2000, p. 54). It also can arise as the stuff of unhealthy longing. This hope is sometimes a symptom of living in a consumerist society in which we are coached never to be satisfied with what we have and to hope, instead, for some happier

tomorrow. Chodron writes: “You could even put ‘Abandon Hope’ on your refrigerator door instead of more conventional aspirations like ‘Every day in every way, I’m getting better and better.’ We hold onto hope and it robs us of the present moment” (p. 54).

In his book, *Thoughts Without a Thinker: Psychotherapy from a Buddhist Perspective* (1995), Mark Epstein takes this teaching to a gruesome extreme. He points out that the Chinese Buddhist tradition holds that adherents might be reincarnated in any one of six realms, usually presented on a wheel, but sometimes in a hierarchy with each subsequent realm farther than the next from the goal of enlightenment. Epstein presents these as the Human Realm, the Animal Realm, the Hell Realm, the Realm of the Hungry Ghosts, the Realm of the Jealous Gods or Titans, and the God Realm. Hope, then, is the plague of the fourth realm. Hungry Ghosts are cursed to live out the whole of their incarnation with insatiable desires and unquenchable thirsts – in this tradition, it is a worse fate than the scourges and tortures of hell.

I certainly feel the pull of this unhealthy hope. I cannot surrender my desire for a world in which my children get to raise *their* children in peace and good health. Even more, I desire that billions should not die badly from pestilence, starvation and war caused by runaway climate change. But that is not what I expect. So, like a Hungry Ghost, I live with a thirst I cannot quench.

Of course, the Buddhist teaching is not to forsake desire and surrender to the bleakness of tomorrow. Rather, it is guidance to temper hope for a different world with acceptance of the world that is – and I count my inability to achieve this acceptance-based equanimity as a personal failing. Chodron’s is a profound teaching in an age of consumerism, in which the hoped-for outcome is never really the point. The modern world of advertising and promotion is dedicated to stoking our desires, such that true satisfaction, or even mere satiety, is only ever

available after the *next* purchase. As Chodron argues, the promise is false: as soon as you buy the next so-necessary bobble, you run smack into a new round of desire fueled by advertising's promotion of yet another item that you cannot live without. For the advertisers in this model, desire isn't a problem: it's the product. But for individuals living in a finite world, relying upon false hope as a rationale for continuing to participate in a global Ponzi scheme, it is a pathology.

Of course, abandoning your craving for a nicer refrigerator is different than giving up hope for a survivable planet. Yet, the great Buddhist teachers suggest that, too, is a desire we must set in a broader context. The Vietnamese Buddhist monk and peace activist Thich Nhat Hanh says: "We have to accept that this civilization can be destroyed, not by something outside, but by ourselves. ... To accept that can only be helpful" (Hoggan, 2011, audio recording, n.p.).

I see the intellectual power of the argument, and I note the similarity to another lesson with which I have struggled in the past. There is a two-step variation of Thich Nhat Hahn's advice in the 12-step recovery program introduced in 1939 in the so-called "Big Book" of the Alcoholics Anonymous tradition. Step 2 of 12 requires that those working to overcome their addiction "C[o]me to believe that a Power greater than ourselves could restore us to sanity." Step 3 continues in the same vein, advising recovering alcoholics to "Ma[k]e a decision to turn our will and our lives over to the care of God *as we underst[an]d Him*" (Bill & Bill, 1976). As in the Buddhists application, the teaching here is about humility rather than surrender. If you assume that you are personally responsible for the fate of the world, it's easy – perhaps inevitable – to become overwhelmed. Who *wouldn't* take to drink? But the assumption is flawed. We may have agency over our own actions – but it can only be healthy (or, as Hahn says, "helpful") to recognize our limits.

Albert Camus extended this lesson to its logical extreme with an essay entitled, “The Myth of Sisyphus.” In that essay, Camus proposes that when Zeus cursed the evil King Sisyphus to an eternity of pushing a boulder up a hill, the Greek god also relieved Sisyphus of any reason to long for a different existence. Thus delivered from his desires, Camus writes, “[o]ne must imagine Sisyphus happy” (2013, p. 123). Still failing in my own struggle to accept, I have a hard time imagining any such thing. I recognize Camus’s point: in dire circumstances – perhaps in almost every circumstance – joy comes from within. But life, on this earth at this time, can be filled with love and beauty: if the path to happiness meant sacrificing all pleasure, just to live without want, I might be inclined to choose suicide over Sisyphean struggle. Even in a hopeless state, I would hope for more.

In any case, my most passionate and insatiable desires are not personal. I find it easy, at least in theory, to accept the certainty of my own death. I also regularly embrace drudgery as a necessary trade-off for worthy goals; I would be happy to push the rock uphill if I thought it would make room for others to live longer in safety, sustainability and happiness. In a still-bounteous world, I believe that an equitable division of global resources could yet satisfy the needs of billions (certainly billions more than have their needs met today). Responsible stewardship could further allow us to sustain that bounty for generations.

That’s what I desire; it’s not what I expect.

All of the foregoing notwithstanding, I have no interest in challenging the power of hope for those who rely on it to maintain their sanity or even just their sanguinity. It’s clear, in rhetoric and politics, that hope is an elixir. It is, for example, a potion you can offer to revive voters’ fading expectations that tomorrow might be better than today (Obama, 2006). But the beauty of a

good political message often rests in its vague indistinction – in its capacity to let listeners apply their own interpretations. Hope, ill-defined and amorphous, seems perfect in this function.

For illustration of hope's malleability, I come back to Václav Havel, who taught me to search for hope when optimism is lost. In his more recent writing, Havel has adjusted his definition of hope to suit the dystopian present. He still says that, "Hope is definitely not the same thing as optimism. It's not the conviction that something will turn out well." Rather, he says, it is, "the certainty that something makes sense, regardless of how it turns out." He goes on:

It is this hope, above all, that gives us strength to live and to continually try new things, even in conditions that seem as hopeless as ours do, here and now. In the face of this absurdity, life is too precious a thing to permit its devaluation by living pointlessly, emptily, without meaning, without love, and, finally, without hope. (Hardin, 2011, para 9)

There is poetry in that quote, and a tempting, even admirable sense of longing. But, to my ear, it sounds more like a rationalization than a definition of hope. When I hear it, I feel fingers clenching on my wrist; I hear a voice of desperation, telling me that I *have* to have hope – even if it means redefining the concept to fit current conditions.

Untrustworthy hope

Still, I recoil from this mutating definition of hope because I don't trust it. I find it unhelpful personally and I fear its capacity to provide false comfort to others. In which regard, I admire the profound title of a book by former U.S. Army Chief of Staff General Gordon Sullivan and his writing partner, retired Colonel Michael Harper: *Hope is Not a Method*. The book itself is

not particularly philosophical: it's a guide for business leaders on managing change. But the authors make plain the meaning of their title:

We say "Hope is not a method" to help leaders understand that the future is created by positive action – not by slogans, not by fad surfing, not by more perfect planning, but by action. (2010, p. xxi)

I like the emphasis: if there is any possibility that unfocused, unfounded hope will beget complacency, then I must reject it. I am convinced that the moment requires action even if I no longer believe the options still available will be sufficient to deal with the risk. So, while I don't want to rob the needy of their hope, I find myself wanting to shout, "Stop hoping – and start doing something!" Hope may be a cherished helper, but if it keeps you from acting, it is not your friend.

I also find myself settling irrevocably on the definition of hope that is favoured by the rationalists. Absent an appetite for self-delusion, I am obliged to hope for outcomes that, if improbable, are still possible. Neither am I tempted by any definition of hope that requires that we all wait until we are dead to enjoy the benefit. If this is hope, then mine is, indeed, lost.

*

Hope without fear or favour

One further note on definitions: for purposes of this study, I regard "hope" as a noun and a verb. It is something you can *have* and something you *do*. I don't think of it as an emotion, although it can inspire or feed emotions by its presence or its absence: a burst of hope might make you happy; a loss of hope might make you sad. Indeed, by my experience, depending on how fiercely you were holding on, a sudden loss of hope can be devastating.

As to the definition of “hopeless,” I think of this, simply, as living without hope. Given the flexible, evocative and poetic nature of the English language and the vagaries of context, “hopeless” can also mean inadequate, incompetent, defeated or even useless. But, for purposes of this study, I prefer to leave it without the pejorative baggage. Thus, hopelessness does not equal despair, even if the absence of hope in a dire situation might contribute to a feeling of desperation – of fear or depression.

Research Question

How can one live an active, productive and conscious life, even in the shadow of threats they find overwhelming?

Chapter Three: Research Design and Methodology

In pursuing my research, I have relied on the broad method of autoethnography bolstered by the use of journalistic tools and skills for execution and presentation. I chose this mixed-methods approach firstly because the autoethnographic method makes it possible to engage deeply with subjective material, an appropriate consideration given that hope – or the absence of hope – is experienced personally and subjectively. I drew upon the methods, tools and skills of journalism because it is the discipline that I have practiced for more than 40 years; it seemed wasteful not to use that expertise. It also seemed inevitable, from a subjective perspective, that the habits of a lifetime would creep into my research approach, regardless. I judged that it would be better to recognize where I might incorporate journalistic technique and to manage it consciously rather than to sacrifice its potential to add value.

Yet, as Stephen Lambie writes in the *Australian Journalism Review*, in the academic world “journalism has been perceived as an orphan child methodologically.” This appears to be the case even though “its roots actually extend as deeply and widely as those of the accepted traditional methodologies of history and law – disciplines with which it shares much methodologically” (2004, p. 105).

While journalistic sources have been studied for centuries by scholars in history, law, the social sciences – even by epidemiological researchers in medicine – academics have demeaned or rejected journalistic method, or journalists themselves. As Michael Bromley and Tom O’Malley writes in *A Journalism Reader*:

The journalist’s very tendency to write in a swift, unreflective form produces impressionist accounts of the practice and purpose. The prevalence of this form

of writing suggests that journalism has existed, in some senses, on the margins of social acceptability. Unlike other activities, there is something about journalism which is permanently troubled and contradictory. (1997, p. 8)

This dismissive assessment speaks to particular types of journalism and to a frequently rushed journalistic practice, carried out by inexperienced or overburdened news reporters. Poor practice has always been a challenge in smaller markets or smaller media where too few reporters are hurrying to fill too many pages, resulting in a product that may not be well-considered or well-edited. The problem of poor practice – as distinct from poor methodology – is also getting worse as well-paying journalism jobs disappear, largely because advertising revenue is draining away from legacy/mainstream media to online fora. As the Pew Institute reported in 2018, newsroom jobs in the U.S. had declined by 23 per cent in the preceding nine years, with most layoffs coming in the higher-paying newspaper sector (Grieco, 2018). *Business Insider* updated the story in May 2019, noting that 2,700 newsroom jobs had disappeared in the first four months of 2019 (Goggin, 2019). So, there appears to be a double danger: journalism, poorly resourced and/or badly practiced, can produce unreliable results; and mainstream media is suffering an unprecedented decline in available resources.

Returning to the question of methodological strength, even excellent journalistic practice is resistant to standard academic constraints, leading academics to resist its incorporation in scholarly practice. As Barbie Zelizer writes in *Taking Journalism Seriously*, even journalism schools are inclined to disdain journalism in practice. Zelizer writes that leading academic institutions have often treated journalists-in-training as ciphers who require a narrow set of skills and patient assistance in expanding their base of knowledge.

To that effect, [early journalism scholars] developed PhD programs, insisted on a 25/75 rule by which only 25% of the journalism curricula could focus on skills courses, and developed seminars on academic topics such as public opinion and survey research for the edification of journalism students. (2004, p. 17)

Without quite arguing that journalistic practice *should* be accepted as academic methodology, Zelizer concludes:

If we are to take journalism seriously, then, we need to develop scholarly frameworks that can accommodate its vagaries, downsides, and inconsistencies as easily as they address the more coherent dimensions of the journalistic world. (p. 213)

Having spent four decades in the field, I'd argue that disciplined journalistic methodology can, at the very least, supplement and bolster the quality of mixed-methods research. First, journalistic practice can be flexible and responsive: As Kayt Davies points out in the *Australian Journal of Professional and Applied Ethics*: "Because journalism is by definition a fast-moving process, journalism academics will often request flexibility to ask spontaneous questions that arise (as) the project develops and to include new interviewees as they become available or relevant." Davies goes on, "This need for flexibility does not reflect a lack of rigor or a desire to work unethically, it is simply a facet of the research methodology that, as Lamble (2004) described, has a long and proud history." (2011, p. 10)

In making the case for a journalistic methodology, Stephen Lamble offers a list of “key words and concepts” that he suggests are “signposts representing major principles,” of such a method. He writes:

That list of elements should relate to the specialist language and culture of journalism. It would include (but not be limited to) essential journalistic words and concepts such as: balanced, fair and accurate accounts of events; adherence to ethical standards; news values; research and investigation; seeking truth and providing a contextual interpretive framework by attempting to answer who, what, when, where, why and how; reporting and storytelling through text, narrative and images; good writing; legal awareness; historic perspective; political awareness; information, education and entertainment; objectivity; public interest; and public benefit. (2004, p. 103)

Lamble is referring in this quote to the world as I would have described it through my decades in daily newspapers, beginning as a copy runner at the *Ottawa Citizen* in 1976 and culminating as an Editorial Writer and Opinion Page Editor at the *Vancouver Sun* from 1990 to 1995. This was a period in Canadian journalism during which the practice – or at least the pretense – of impartiality was part of the mythology. According to the lessons impressed upon me by a string of City Editors, reporters were to be guided by what Marcel Broersma calls “the objectivity norm.”

The objectivity norm prescribes neutrality and only the transmission of facts and not personal opinions. Reporters have to write in a detached tone and balance stories by presenting various points of view. (2010, p. 28)

Fair to say that no one seriously believed that the news was entirely unbiased, in the papers where I worked or on the newscasts I heard on radio or watched on television. But, even if some of it was pretense, I witnessed a consistent effort to provide balance, even if that effort was sometimes shallow, lazy and counterproductive. In one of the most transparent – and transparently unhelpful – arguments for the appearance of balance, a City Editor at the now-defunct *Winnipeg Tribune* once told me that if both “sides” of an issue were angry with my story, I had probably done a good job. This was more a recipe for journalism as vandalism than journalism as a search for truth (or even just accuracy). It was also a running joke at several papers where I worked that Editorials were so often framed in the “on-the-one-hand/on-the-other-hand” trope; the implication was that in the world of “fair and balanced” news and opinion, it was easier to equivocate than to editorialize. Yet, the broadsheet newspaper managers for whom I worked generally honoured the notions of neutrality and journalistic independence. It was only in my last year at the *Vancouver Sun*, when I was serving as Acting Editorial Page Editor, that I had my first experience of a corporate executive interfering to overrule a position of the traditionally independent editorial board.

Broersma, however, disdains the very notion of objectivity, saying:

News is a social construction that constitutes reality. Events and facts have no intrinsic importance, but simply become important because they have been selected by journalists who adhere to a culturally and ideologically determined set of selection criteria. If the parameters change, e.g. the era, media system or cultural background, so do the perceptions of the world and the public is exposed to a different truth. (2010, p. 25)

Broersma argues that journalism is therefore not a “descriptive discourse” dedicated to discovering or revealing accurate information. Rather, he says, it is a “performative discourse,” pursued primarily to build credibility for commercially motivated media and for their employees.

The average reader or viewer does not know anything about events in, for example, the Middle East. But she or he still considers news items true if they are published in a well-known paper and adhere to professional routines and familiar textual conventions, and the facts seem plausible because they refer to existing public knowledge and cultural codes. So journalism does not derive its performative power from its contents (the facts), but merely from its forms and style. (p. 27)

I regard Broersma’s condemnation as a sweeping and inadequately proven generalization. He could argue, just as credibly, that a great play owes its power not to the author’s text but “merely” to the theatre in which it was staged. I would argue to the contrary that, on Broadway or in the *New York Times*, content matters. Turning Broersma’s analysis 180 degrees, it would be just as reasonable to assume that the well-known papers had earned their reputation on the quality and accuracy of previous reporting. Still, Broersma’s view is relevant and representative of academic hostility to the reliability and value of journalistic practice.

Interestingly, Broersma, who conducts his research from Groningen, in the Netherlands, offers a prescription for improvement that has already been tried, with disastrous consequences, in North America. Broersma writes:

A really paradigmatic shift would be a return to a reflective or partisan model of journalism, expressing its subjectivity and by doing so, making explicit the

principles of its procedures of representation. This would mean aiming for smaller audiences bound together by specific interests or ideologies and a journalism that derives its performative power from the ideological correspondence between a medium and its audience. (p. 31)

As a young reporter at the *Winnipeg Tribune* in the late 1970s, I shared Broersma's skepticism about the objectivity norm and I admired, from afar, the British reality in which readers had access to a variety of newspapers, each of which was well known for, and unapologetic about, its political leanings. This position gave me comfort when, after the 1980 shuttering of the *Tribune*, I took employment at my first tabloid. The *Winnipeg Sun* and, my next paper, the *Edmonton Sun*, conceived in the brash British tabloid style, both wound up under the domineering editorial influence of the *Toronto Sun* organization, which, in my experience as the *Edmonton Sun* News Editor from 1981 to 1984, had no compunction about dictating story lines and policy positions, on the editorial page or in the news pages. At the time, I was inclined to defend, or at least tolerate, these interventions on the basis that a thoughtful reader would soon understand which bias the paper was promoting. (This, of course, provided little protection to unstudious readers who assumed that the paper was trying to report accurately and without an agenda.)

My reservations with the neutrality norm re-emerged in the early 1990s, after I had moved to the broadsheet *Vancouver Sun*. This was the beginning of a period during which corporate interference was becoming commonplace in what was then the Southam newspaper chain. Yet, I did not fully understand the toxic possibilities of false balance until I left the *Sun* in 1995 and became involved in public advocacy about the advancing threat of climate change. One

of the most extreme examples of the dangers of false balance was illuminated in 2004 in research by Max and Jules Boykoff, who conducted a broad study on climate change coverage in what they characterized as the “prestige press:” the *New York Times*, the *Wall Street Journal*, the *Washington Post*, and the *Los Angeles Times*. The Boykoffs found that by ignoring the consensus among climate change scientists and defaulting to a lazy norm of quoting one “expert” on one side of the issue and one on the other, “the prestige press’s adherence to balance actually leads to biased coverage of both anthropogenic contributions to global warming and resultant action” (2004, p. 125)

Increasingly outraged by the failure of mainstream journals to report the climate threat accurately (or at all), I joined Jim Hoggan in the creation, in 2005, of DeSmogBlog.com, an early generation blog with a singular purpose and a clear (if not precisely ideological) position: we undertook to search out people who were actively denying the scientific reality or potential impact of climate change and to subject them to a three-part test:

Were these climate “skeptics” qualified? Were they doing any research in the climate change field? Were they accepting money, directly or indirectly, from the fossil fuel industry? (Hoggan & Littlemore, 2009, p. 4)

That narrow focus notwithstanding, I would stand by the objectivity and factual accuracy of the reporting in that blog, which *Time* listed as one of the “Best Blogs of 2011” (Walsh, 2011).

But the “paradigmatic shift” that Broersma recommends has had a troubling impact on the splintered audiences of North America and on the quality of journalism that many now consume. As Bill Kovach and Tom Rosenstiel argue, networks such as Fox, as well as

innumerable online sources representing every imaginable bias, indulge unreservedly in “ideological correspondence” with their audiences.

Some people observing the media landscape today have wondered whether truth even matters anymore. Perhaps, they speculate, in the new information age, reality is simply a matter of belief, not anything objective or verified; now there is red truth and blue truth, red media and blue media. Perhaps gatekeepers such as Walter Cronkite have been replaced by cheerleaders such as Bill O’Reilly and Keith Olbermann; rather than trying to find out what is going on, they have already decided. Perhaps, in a sense, we have already moved from the age of information to the age of affirmation. (2011, p. 7)

So, journalism is in something of a crisis, and journalistic practice – complicated and uneven – still provokes skepticism in the academy. And Broersma’s critique, even if overreaching, is compelling in calling for a more informed and transparent illumination of whatever journalists might present as objective evidence.

As a corrective to journalism’s methodological inconsistencies, autoethnography directly addresses some similar complexities. It is also an appropriate methodology for grappling with the deeply personal and emotional area of hope. As Carolyn Ellis and Arthur Bochner write in *Autoethnography, Personal Narrative, Reflexivity*, “As communicating humans studying humans communicating, we are inside what we are studying” (2000, p. 743). I certainly feel trapped within this course of study, in which I am searching for a productive strategy for living without hope.

Ellis and Bochner describe one further aspect of their preferred research method, thusly:

In reflexive ethnographies, the researcher's personal experience becomes important primarily in how it illuminates the culture under study. Reflexive ethnographies range along a continuum from starting research from one's own experience to ethnographies where the researcher's experience is actually studied along with other participants, to confessional tales where the researcher's experiences of doing the study become the focus of investigation (p. 740).

There is a nice overlap here in what in the 1970s was considered "new journalism" – in which writers such as Tom Wolfe and Hunter S. Thompson embedded themselves in their stories, to recognize – even embrace – their bias and, importantly, to acknowledge its influence and their own inevitable impact on the stories they were trying to tell (Wolfe, 1973).

Advancing the discussion of subjectivity, Ellis and Bochner write, "Since we always create our personal narrative from a situated location, trying to make our present, imagined future, and remembered past cohere, there's no such thing as orthodox reliability in autoethnographic research" (p. 751). Bochner, perhaps in unintended synch with Broersma, advocates for a consciously relativist autoethnographic approach over a wilfully blind methodology that might overlook research bias. In this regard, Bochner writes about his struggle to acknowledge the relative nature of knowledge and about the resistance he first felt after reading the work of Richard Rorty (Rorty, 2009):

It was hard to read Rorty without feeling totally shaken. I came away convinced that the foundations of traditional epistemology were fallible. No strong case could be made that human knowledge was independent of the

human mind. All truths were contingent on the describing activities of human beings. No sharp distinctions could be made between facts and values. If you couldn't eliminate the influence of the observer on the observed, then no theories or findings could ever be completely free of human values. The investigator would always be implicated in the product. So why not observe the observer, focus on turning our observations back on ourselves? And why not write more directly, from the source of your own experience? Narratively. Poetically. Evocatively. (Ellis & Bochner, 2000, p. 747)

Even while still looking for a place for something approaching objectivity, or at least dispassionate empiricism, I find something reassuringly mature about this approach, suggesting as it does that all researchers should recognize the fallibility of knowledge – realizing instead, as Ellis and Bochner put it, that “every story is partial and situated” (p. 748). But having spent more than a decade researching the techniques and practices of climate change deniers (Hoggan & Littlemore, 2009), I am also wary that the inclination to philosophical openness has already thrust us into a dangerously “postmodern” world in which, as Laurel Richardson argues, all knowledge can be considered to be relative:

The core of postmodernism is the doubt that any method or theory, discourse or genre, tradition or novelty, has a universal and general claim as the ‘right’ or the privileged form of authoritative knowledge. ... The postmodernist context of doubt, then, distrusts all methods equally. No method has a privileged status. (2000, p. 928)

In defending philosophical openness, Richardson treads close to a dark, dank rabbit hole wherein anti-vaxxers and climate change deniers can argue that, if no version of scientific understanding is “privileged,” then it’s perfectly valid for you to believe whatever you want. Like Kellyanne Conway, the advisor to President Donald Trump, you are welcome to choose your own “alternative facts” (Blake, 2017). In grappling with the perfidy of organized climate change denial, this is exactly the kind of “postmodern” pseudoscientific relativism that contributed to my despair in the first place.

Ellis, Bochner and Richardson also wrestle with the issues of accuracy and validity. Ellis writes, “To me, validity means that our work seeks verisimilitude; it evokes in readers a feeling that the experience being described is lifelike, believable, and possible” (p. 751). This test also leaves me skeptical, in that Ellis’s “verisimilitude” can be regarded as a synonym for what comedian Stephen Colbert coined as “truthiness” (Alfano, 2006), which the *Oxford* online dictionary now defines as “The quality of seeming or being felt to be true, even if not necessarily true” (Lexico, 2019). I worry: how can you tell the difference?

Thus, even within the construct of an autoethnographic study, I felt compelled to filter the work through a journalistic lens, to research empirically and present findings accessibly. While remaining conscious of Bochner and Rorty’s caution that every researcher’s perspective may be unique and subjective, and while accepting Broersma’s central critique of the unfulfilled promise of journalistic neutrality, I was still inclined to strive for an objective level of accuracy and accountability in the journalistic tradition.

Here, I would argue that even though something cannot be done perfectly, there is still merit in trying to do it well. Even though concepts like hope cannot be explored with anything approaching true objectivity, in ethnography or in journalism, the ethical observer is still honour

bound to keep an open mind. To that end, Kovach and Rosenstiel argue that journalistic practice has value, bringing “a tradecraft of active skepticism:”

If we look at people who have been in the business of empiricism – people in journalism, law, intelligence, science, medicine and elsewhere – we will see a set of common concepts and skills that have developed over generations. There is a discernible discipline of the mind (2011, p. 8).

The approach recommended to me, in newsrooms ranging from the *Ottawa Citizen* to the *Vancouver Sun*, was simple (perhaps even simplistic), and relied on something akin to after-the-fact peer review: when delivering a story – the result of a piece of research – you record your findings plainly and you name your sources. When the source is documentary, peers and other readers can check the record. When the source is an interview subject, others can follow up to confirm accuracy – and the source can complain if material is misquoted or misrepresented. In extreme cases, the source can sue (an unnecessary and therefore irrelevant risk when an academic timeline allows for more complete fact-checking, including a pre-publication review of all material by interview subjects.)

It’s interesting, finally, that techniques in ethnography, narrative research and journalism overlap. For example, Tom Wengraf’s Biographic-Narrative Interpretive Method (BNIM) is complementary in both structure and discipline (Wengraf, 2001). An innovator in sociology and psychosocial research, Wengraf developed BNIM with an eye toward recognizing and minimizing the impact of researcher bias. Wengraf suggests that researchers always begin the first of three (and sometimes four) interview subsessions with “a single question designed to elicit the life story of the informant as he or she chooses to tell it.” At this point, Wengraf says:

1. Ask only for narrative
2. Never interrupt the response

The point, clearly, is to stay out of the way of the story, or at least to stay out of the way of the storyteller (or research subject) long enough to get a complete first answer. Many good reporters learn this lesson, from trial and error, and, just as often, from fending off editors who want to define stories, precisely and comprehensively, at the point of assignment and who respond negatively if the stories you deliver don't serve their expectations. The problem, here, is twofold. First, as Ellis, Bochner and Richardson suggest, if you go looking for a particular story, you risk imposing your bias with questions that confirm your preconceptions. The second problem is that, by intervening, you risk missing another, often better story – one that might not be as sensational, or even as interesting, but that provides a more accurate reflection of the actual situation.

As a journalistic skill, Wengraf's approach of asking and then waiting for an answer—sometimes for very long periods – has another advantage, which Lyndon Johnson's biographer, Robert Caro, explained in a recent *New Yorker* feature on his research:

In interviews, silence is the weapon, silence and people's need to fill it—as long as the person isn't you, the interviewer. Two of fiction's greatest interviewers—Georges Simenon's Inspector Maigret and John le Carré's George Smiley—have little devices they use to keep themselves from talking and to let silence do its work. Maigret cleans his ever-present pipe, tapping it gently on his desk and then scraping it out until the witness breaks down and talks. Smiley takes off his eyeglasses and polishes them with the thick end of

his necktie. As for me, I have less class. When I'm waiting for the person I'm interviewing to break a silence by giving me a piece of information I want, I write "SU" (for Shut Up!) in my notebook. If anyone were ever to look through my notebooks, he would find a lot of "SU"s. (2019, para 85)

Wengraf also marshals an effective journalistic technique by trying to identify and deploy what he calls a Single Question to Induce Narrative (SQUIN.) In journalism, the SQUIN is something of a Holy Grail, not necessarily as an introductory question, but as the perfect and perfectly timed inquiry that unlocks a story. Wengraf and others have found excellent application for this method and have enjoyed some success in using SQUINs as opening questions. But just as it is difficult to know what the story might be before you begin researching, it is hard to form the perfect question before you meet and get a feel for your subject.

As a journalist, I learned the secret of the SQUIN from a photographer, Dirk Abersson at the *Brandon Sun*. Abersson was known among reporters for his tendency to interrupt reporters' interviews to ask his own question. But I soon came to regard such occasions as interjections, rather than interruptions, because the question he asked almost inevitably triggered a cascade of information. The subject would look away from the top of my head (all that was visible as I busily took notes), and, turning to Abersson, they would download a surprisingly full version of the story or, sometimes, a shockingly intimate telling of their deepest feelings in the moment. As I observed the nature and power of Abersson's questions, I realized that their effectiveness was twofold. Perhaps obviously, it is easier for an interview subject to engage when his or her interviewer is also engaged. Wengraf and others have noted that feverish and obsessive note taking is not conducive to creating that sense of engagement, and Abersson didn't take notes; he

sat, quietly, and really listened to the answer. That, in turn, reflects the second strength in his method: Aberson's question seemed profound and stimulating *because he cared about the answer*. He wasn't working through a series of instrumentalist queries designed to elicit the who, what, when, where, why of a news story; he just wanted to know. It was the sincerity of his interest, as much as the content of his question, that elicited the avalanche of information.

All in all, I find explicit applicability of both the autoethnographic and journalistic approaches, and a surprising complementarity between the two methods. The conscious subjectivity of autoethnography creates an openness and a useful transparency. And the skepticism of journalism and the almost-mundane who-what-when-where-why focus on dry, verifiable detail provides and empirical underpinning. I hope, as well, that a more journalistic presentation style both conforms to the autoethnographic norm that Ellis and Bochner advocate and will make the final product more accessible to a non-academic readership.

Project participants

In seeking a subject group that might provide insight, understanding, personal testimony and, perhaps, wisdom, I selected five participants from among colleagues and/or among people whose work I have followed and admired. I particularly sought out people who have served on the front lines of science or advocacy and who are sufficiently well-informed about the climate change-based threats to human survival that they might reasonably have become frightened or despairing about humanity's prospects. I also chose people whom I admire for their personal conviction and commitment to the work they do – as evidenced by their output. In short, the five project participants are people who appear to have learned how to work productively and effectively at a highly stressful and, potentially, catastrophically unrewarding task.

I looked to scientists, activists and journalists because these are colleagues whose work has informed my own. I chose a faith leader because, while I live a secular life and am agnostic in my own spiritual beliefs, I have frequently found wisdom in the writings of faith leaders. I chose no psychologists because I didn't want to talk about the psychological complications of the problem; I wanted to look at the problem of living without hope (or, for some, with the source of hope challenged), with people who wrestle with it every day and have insights about how it might be overcome. Finally, I chose participants who have an established public profile, are accustomed to dealing with journalists, and are therefore comfortable that their contribution would be on the public record.

The interview subjects are scientists and environmental activist Dr. David Suzuki, Pennsylvania State University climate scientist Dr. Michael Mann, Harvard science historian Dr. Naomi Oreskes, *Guardian* environmental columnist George Monbiot, and Father Michael Czerny, Undersecretary at the Vatican Migrants and Refugee Section (and contributor to the Papal Encyclical on Climate Change, *Laudato Si'*).

All participants signed Letters of Consent, giving them the right to review my use of their input and the ability to amend or withdraw any material they regarded as personally or professionally compromising. This also included a right to withdraw entirely, up to the point of reviewing and approving those sections of the thesis transcript that makes use of their input.

Data Collection

I began in all cases with a brief email introduction of the subject matter to be covered in the research interview. I then scheduled interviews of 45-75 minutes in length. I interviewed three of my participants in person and two by Skype. In a couple of instances, I followed up to clarify points, check facts or update with newly discovered information.

I recorded all interviews using digital audio recording software on an iPhone. I also took notes as prompts and to record physical reactions and responses.

Based on the longer discussion, above, and bearing in mind my research question (How can one live an active, productive and conscious life, even in the shadow of threats they find overwhelming?), I laboured during the course of this study to remain conscious of my biases, my prejudices – and my lack of hope about climate change – even as I sought to understand the effect of hope and/or hopelessness in a broader context. In the autoethnographic tradition, I began my personal process with a review of my own experience, and then sought to test my perceptions, anxieties and convictions against the experiences of five subjects whose professional responsibilities exposed them to similar stresses. As well as looking more deeply into how my personal lack of hope has, at times, led to despair, I asked research subjects about their fears and concerns, seeking to understand more fully what might trigger, or protect them from, despair. I then sought to draw lessons that could be helpful personally and be worth sharing with others who are facing similar struggles.

I began interviews with a series of general questions, beginning with the biographical:

1. How and when did you become interested in climate change?
2. What is your current prognosis for earth's human population in a climate changed world?
3. Have you, at any point, felt a sense of depression or despair, or any loss of hope arising out of your concern for the state of the global environment? Can you be specific in describing the sense or situation?

4. Do you use any conscious strategies to avoid despair or to sustain hope, and in either case, to protect against negative emotional responses that arise from your work, that distract you, and/or that undermine your capacity to engage?

As interviews unfolded, I left as much time and room as possible for subjects to answer specific questions and to settle into longer narratives. At the same time, I still intervened with prompts, occasional challenges and questions for clarification.

After each interview, I conducted an “instant post-interview debriefing” (Wengraf, 2001), making notes of my own reactions, emotions, thoughts, or perceptions before, during, and after the interview. I later transcribed the recordings, keeping the physical notes in a locked office and the electronic records on password protected networks or in a computer, also kept in a locked office.

Data Analysis

In previous experiments with grounded theory coding, I found little value in counting words or phrases; and in a broad survey such as this, where I was interviewing diverse subjects and looking to textual and historical works that are even more varied, it seemed counterproductive to limit the number of themes or to try to impose a thematic organization on all of the input. Accordingly, I reviewed all material to establish a high-level outline that would best reflect each interview’s narrative structure. I then reviewed each interviewee’s story in detail, looking for similarities or differences, among them or with my own experiences, and searching for anecdotes or direct pieces of advice on how the research subjects manage any stress, depression or hopelessness.

The subsequent phases of contemplation and writing were integral to the process of autoethnographic research, and profoundly affective. As when you try to tell someone the

definition of a word, you sometimes achieve true understanding of something only in the effort to explain it to someone else. As Ellis and Bochner write, “Life and narrative are inextricably connected” (2000, pp. 745-746). As well, it seemed inevitable that I would have to think more deeply about the things that bring me to the brink of despair. As recorded in the conclusion, that exercise took more time and effort than I had anticipated. I found the need to schedule specific periods for writing, and to write in locations where I could concentrate on sometimes-difficult material without sharing my emotional reactions inappropriately with those around me.

Trustworthiness and Credibility

In the interest of accuracy, I shared the relevant interview chapter with each research subject, one of whom made minor amendments – not because his comments were incorrectly recorded, but because he had misspoken and was grateful for an opportunity to state the position more clearly. (These editorial changes had no effect on the points that I sought to illustrate.)

Chapter Four: Five Research Interviews

David Suzuki

In reviewing research for this thesis, I begin with David Suzuki, largely because this is where it all began for me: the climate obsession – the initial unease and, ultimately, the gathering panic that too few people in the world are taking seriously the global threat to climate stability. I'd known about global warming at least since 1988, when James Hansen, then the Director of the NASA Goddard Institute for Space Studies, made his now-famous first appearance before the U.S. Senate Energy and Natural Resource Committee. At the time, I was the Foreign Editor at the *Vancouver Sun*, and I remember reading the reports from a sweltering Washington, D.C. committee-room hearing in which Hansen told Senators, "Global warming has reached a level such that we can ascribe with a high degree of confidence a cause and effect relationship between the greenhouse effect and observed warming. ... It is already happening now" (Shabecoff, 1988, para 16). But the news didn't penetrate, for me or, apparently, for many others. In my defence, when you spend your days reading international wire services – the moment-by-moment accounting of every war, famine, threat or fascinating murder anywhere in the world – you learn to let the daily horror wash right off. So, I was aware of the principles and risks of global warming, but I was not especially engaged.

Then, in 1996, I got a call from David Hocking, then head of communications at the David Suzuki Foundation. A former Communications Vice President at the government-owned oil company, Petro Canada, Hocking said he admired the material that I had written for my campaign to become an elected director of the Greater Vancouver Regional District (now Metro Vancouver), and he asked if I would be willing to write the Suzuki Foundation's first public information package on global warming.

I was delighted. Aside from being a freelance writer always looking for work, I thought the task would be interesting and worthy. It was also tempting to write for Suzuki, indisputably a Canadian icon. In a CBC poll broadcast in 2004, he was chosen fifth on a list of “The Greatest Canadian” of all time (Pearson, 2004). Originally a geneticist and professor at the University of British Columbia (B.A., Amherst College, 1958; Ph.D. University of Chicago, 1961), Suzuki emerged as a broadcaster and science popularizer in the early 1970s. Beginning with the national CBC television program *Suzuki on Science* (1969-71), he hosted CBC television’s Science Magazine (1974-75), and went on to found and host the CBC radio science program *Quirks and Quarks* in 1975. Since 1979, he has been the host of the CBC television program, *The Nature of Things*.

Suzuki was born to the task. He has a lovely, liquid baritone voice that can be highly modulated. That is: he’s excitable. He gets worked up about science, about nature and about injustice, so his tone may rise in delight or in outrage. Either way, he’s hard to ignore. He’s also impossible to miss physically. Even at age 83, he still has a mop of curly hair, worn in a style that was considered rakishly long in the early 1970s. Add the moustache and goatee, and the frameless glasses over what he describes as “my little beady eyes,” and you have an image that demands recognition and cries out for caricature. At one point, he must have looked “Japanese,” an ethnic status that resulted in him and his family being forced into an interior B.C. internment camp during the Second World War. But David Suzuki has been so long in the public eye that he now fairly defines one image of what it is to be “Canadian.”

Discussing the origin of his own periodic environmental despair, Suzuki described a pattern that emerged in *The Nature of Things* programming. He said the phenomenon was known among his TV collaborators as: “Ooh! Aah! Uh-oh!” The first three quarters of every show

would concentrate on the splendors of nature; then, at the end, “We’d turn to talking about how humans were fucking it up.” Suzuki said, “People started coming up to me and saying, ‘We love the show, but we had to stop watching. It’s too depressing.’” This was an early suggestion of a view that now seems widely held among environmental campaigners – in Suzuki’s words: “If you don’t give people a sense of hope, they are not going to listen.” Indeed, in the early 1990s, I was in the room at the *Vancouver Sun* when managers decided to drop Suzuki’s weekly column. They complained that he had transformed from being a popular enthusiast, drawing people into the discussion about nature and the environment, to being a scold. At the time, I didn’t disagree. It is a weakness in the craft that journalists tend to focus on the exceptional: they ignore all the planes that land safely but spend untold resources on the few that crash. As George Marshall has written in *Don’t Even Think About It: Why Our Brains Are Wired to Ignore Climate Change*, this tendency to concentrate on the immediate and the unusual is a problem when it comes to engaging people on threats that are constant or that develop slowly (2015).

Yet, Suzuki said that, even in the late 1980s, his warnings of increasing environmental degradation were resonating with a huge portion of his audience. In 1989, he did a state-of-nature radio series called, *It’s a Matter of Survival*, in which he drew attention to a whole range of threats to the natural world. By the time the series was over, the David Suzuki Foundation website now reports that 17,000 listeners had written in response, demanding to know what could be done. So, Suzuki and his partner, Tara Cullis, convened a retreat on Pender Island to consider options, and wound up creating the David Suzuki Foundation – with a mission to “work towards balancing human needs with the Earth’s ability to sustain life” (“David Suzuki Foundation,” 2018).

This, then, was the cohort I joined in 1996, a Suzuki foundation staff of half a dozen well-intentioned people including a mix of traditional environmentalists and – taking David Hocking as an example – industry-side pragmatists. They all seemed sincere in the view that if people only knew more about the science and the risks of global warming, they would be spurred to action. Yet, even in 1996 – which is to say, even before we came to learn how badly the climate conversation was being poisoned by an industry-funded disinformation campaign (Gelbspan, 1997; Hoggan & Littlemore, 2009; Oreskes & Conway, 2011) – it was obvious that it was going to be difficult to prepare a clear, motivational message. We were building the Suzuki information package out of the Second Assessment Report of the Intergovernmental Panel on Climate Change (IPCC, 1995), a document that was scientifically unimpeachable but infuriatingly vague. Notwithstanding that humans had already increased the amount of climate-forcing carbon dioxide in the atmosphere by more than 30 per cent, the most definitive statement in the whole document was: “The balance of evidence suggests a discernible human influence on global climate” (p. 22). This is hardly the basis for a rousing call to arms.

I have no evidence of the impact of that Suzuki Foundation information package, and my involvement in the public discussion about climate change was periodic during the next few years. But I watched the man who Foundation regulars call, “The Doc,” get more and more impatient – and sometimes angry – about the risks and implications of climate change.

I often think of this issue in the context of Elizabeth Kübler-Ross’s five stages of grief for the terminally ill, the idea that most people who face a catastrophic and final diagnosis pass through: 1. denial, 2. anger, 3. bargaining, 4. depression, and 5. acceptance (1969). The stages all show up in the climate conversation, personally and societally. Beyond the inclination we each might have to ignore our climate future, there is, per Gelbspan and Hoggan, a whole industry

dedicated to *denial*. Industry – and governments – are forever *bargaining*, making tiny gestures while asking for huge concessions. Instances of *depression* and despair are well documented. And from supportive Buddhists to opportunist, industry-funded “pragmatists,” there is no shortage of people counselling *acceptance*.

But Suzuki has always been my exemplar for *anger*. I admire the righteous rage that often seems so palpable when he speaks publicly about environmental risk. I sympathize when he lashes out at industry, at politicians or at policymakers who are not doing enough, and I am entertained when his outbursts stimulate outrage among those who are avoiding action on climate change. In 2008, for example, Suzuki suggested that political leaders such as then-Canadian Prime Minister Stephen Harper or Alberta Premier Ed Stelmach should be thrown in jail for ignoring the science of climate change, a proposal that sent the denialist blogosphere into apoplexy (Offman, 2008).

So, when we sat down for our interview early in 2018, in an office at the David Suzuki Foundation, I was curious about his state of mind and interested to know whether his ability to express anger – and to do so with a broad public audience – was helpful in managing any underlying anguish about the state of the earth. I didn’t get to ask even the first question. As I was beginning a preamble about the state of climate change and the nature of my research, Suzuki interrupted and said, “Yes, it’s very bleak. You and I know what the facts are: we’re going right down the chute. All one clings to is hope.”

Suzuki leapt straight into a story about Guy McPherson, an evolutionary biologist and Professor Emeritus at the University of Arizona, who had been speaking in Vancouver a couple of weeks earlier. Suzuki said: “He [McPherson] came here (to speak at Simon Fraser University). He’s going around the world saying it’s too late. He put a date on when we’re going extinct,

which is 2030.” Suzuki said he missed the lecture but heard about it afterward. “I immediately Googled [McPherson], and I went, ‘Fuck!’ I couldn’t move for a week.”

Certainly, anyone subject to climate change-related depression, should avoid McPherson’s website (McPherson, 2018 2019). It’s called *Nature Bats Last* and the subhead is “Our Days are Numbered. Passionately Pursue a Life of Excellence.” If that doesn’t adequately capture McPherson’s outlook, there is a helpful note along the side, titled, “If you are contemplating suicide, please reconsider. And then click here for awareness, prevention, and support on the topic of suicide.” There is also a truly horrifying Climate Change Summary and Update, a 30,000-word compilation of dour scientific findings and predictions. Did you know, for example, that after a sudden increase in the previous couple of years, by 2013, the world’s oceans were gaining heat energy at a rate comparable to 12 Hiroshima bombs per second (Cook, 2019)?

Suzuki went on: “The way I pulled out of it was to say, ‘Look, the deniers have cherry-picked data (to cast doubt on whether climate change is a concern). What [McPherson] has done is cherry-pick data the other way. His data are more reliable, but he’s created the worst possible scenario. My hope is that we don’t know enough to say it’s too late. My hope is based on the knowledge of our own ignorance and that if we can give nature more room, she will be more generous than we deserve.” Then Suzuki concluded, with a note of insistence: “I have hope. Hope is what motivates me.”

Challenging that assertion, I said, “But if you accept the *Oxford’s* characterization that hope is a marriage of expectation and desire, my problem is that I don’t expect what I want,” and Suzuki said, “Neither do I.”

I asked, “Then, how do you find the courage and energy to get up and do the work?” And Suzuki said: “I have grandchildren, and they are the joy of my life. ... I thought being a father was the greatest thing that ever happened to me. ... but when we had grandchildren, it was 10 times better.”

At the time of this first interview, one of Suzuki’s daughters, Sarika Cullis-Suzuki, was heavily pregnant with twins and had moved back into her parents’ home, in part to have help with her then three-year-old son, Ryo. It had become Suzuki’s happy duty to walk Ryo to daycare in the morning. Suzuki said: “The beautiful thing about that is I get to see the world, not through the jaded eyes of someone that thinks we’re going right down the chute, but through the eyes of this innocent three-year-old. It’s a magical place.” They were walking one autumn day after the leaves had fallen and Ryo pointed to a tree and said, “What’s that?” Suzuki picks up the story, “It was a bird’s nest. And Ryo said, ‘I didn’t know birds have nests in the trees here.’ Then we started really looking and I said, ‘There’s another one. There’s another.’ Then, we got talking about the leaves falling and providing mulch for the next season and all of that. It’s just a wonderful world. Even as reduced as it is in abundance and diversity, it’s still – through the eyes of a child – a magical world, and it’s worth fighting for.

“As a biologist, I say, ‘Look, extinction is normal and without extinction, we would never have evolution.’ I accept that we’re going to go extinct. The tragedy is that it’s going to happen, and it needn’t happen as quickly as it is now. That extinction may be paid for by my grandchildren’s lives.”

This conflict – that children are the source of both hope and concern – actually caused Suzuki to question his daughter’s decision to have children (“I said, ‘Jesus Christ, you know what’s coming!’”), but the reverie caused him to remember another story, passed on from a

Nature of Things cameraman who had once interviewed the holocaust survivor and author, Elie Wiesel. As the story was reported to Suzuki, Wiesel had married and was resisting the notion of children. “Elie said, ‘There’s no way. After seeing the horror of the holocaust, there’s no way I’m going to bring my child into that kind of a world.’ His wife said, ‘Look, we bring a child into the world. You have that child to love and who enriches your life beyond measure. Even if terrible things happen later, to have known that life and love ... that is something.’” Suzuki added, “Again, a thin bit of rationale, I guess, but he bought it and had a child.”²³

I pointed out to Suzuki that, for someone claiming hope and defending the idea of bringing children into the world, he has an unflinching grip on the cold reality of our disrupted climate future. He reacted as he often does, with a laugh and a shrug. Then he leaned in, suddenly serious, and said: “The tragedy, of course, is that we boast of being rational. Well, let me back up. If you look at our appearance on the planet 150,000 years ago, when Africa was richer by orders of magnitude, greater, in terms of variety and abundance of animal life, we [humans] weren’t a very distinguished looking animal. I mean, we weren’t big or fast or strong. ... Our secret, of course, was the brain. It endowed us with a tremendous capacity for memory – curiosity, inventiveness, observation. And it enabled an idea called the ‘future’. And because we invented this notion, we recognized that we could affect the future by what we do today, based on what we have learned.” For example, he said, an early forest dweller, returning to a fork in the path whence he had previously found danger in one direction and food in the other, would

² I was unable to find another source for this anecdote but chose to keep it as an accurate reflection of Suzuki’s view.

³ “For many years, I was afraid of having children ... I felt, ‘I have no right to do that. I have no right to impose my past and make it their future.’ But then, you know how it is. You met a very special person. And you link your life to hers. And the child comes. And now he is the center of our life.”

– Elie Wiesel in a 1999 interview with PBS journalist Charlie Rose (Hopper, 2016, para 11)

choose to head toward the food. “Foresight has really driven us to this position of dominance on the planet.”

Yet, “for 40 years, we’re turning our backs on the very strategy that got us here. Look ahead. See where the dangers lie. Move towards the opportunity. What’s happened is that we have allowed economics and politics to intrude and block us from what got us to this place. That’s the tragedy. ... The economy is not a force of nature, it’s a human construct. Yet, we’re constantly asking nature to deliver for our economy. ... We have become too bloated with our own sense of self-worth.”

By this point, Suzuki was fairly snarling – with rage or outrage, it’s hard to find a distinction between the two. So, I asked, “Is anger a motivator for you?” And he stopped, slumped and said, “Well, anger is very difficult to sustain. You just burn out.” And then he started talking about old friends who had committed suicide. Among the angry, he said, “Despair is very common. Burnout is really very high.”

Still, Suzuki seems to hold his despair close and to default quickly into wrath. Or perhaps it’s just that the media likes a controversy and is eager to report the “angry Suzuki” storyline. Perhaps, despite a degree of balance in his messaging, reporters give more attention to his outbursts than to his efforts to educate. But he is, at the very least, non-partisan in his criticism of the public officials he regards as failing to do enough to address environmental issues. For example, when the B.C. New Democratic Party government approved continuation of the massive and controversial Site C hydro-electric dam project, Suzuki savaged the NDP and then went on to trash B.C. Green Party leader Andrew Weaver, as well, for not abandoning the Green’s coalition agreement with the NDP, thereby bringing down the government. At the time,

Suzuki said: “Now, politics comes before principle. So, I am really disillusioned” (Littlemore, 2018).

He has been similarly critical of Prime Minister Justin Trudeau, who came to power promising leadership on climate change. Soon after he was elected, Trudeau attended the United Nations Framework Convention on Climate Change conference in Paris, where he told delegates, “Canada is back, my friends. We are here to help” (Fitz-Morris, 2015). But while discussing that proclamation during our interview, Suzuki said that even during Trudeau’s election campaign, “I called him a twerp” for some of his positions on climate and oil pipelines.

Suzuki went on: “The media blew this up. But the day after he (Trudeau) was elected, he called me and said, ‘We’re still friends, right?’ Which is a good gesture. After he went to Paris, I was singing his praises and saying, ‘This is great.’ Then, a couple of months later, he approved the pipelines (an extension to the Line 3 pipeline to the United States and the new Trans Mountain pipeline from the Alberta oil sands to Vancouver harbour). I emailed him and said, ‘Look, you signed Canada to Paris. You boasted that we’re going to try to keep (the average global temperature increase) to 1.5.’ I said, ‘Were you serious about that?’ He emailed me immediately and said, ‘Yes I am serious about Paris.’

“Then he has done all kinds of things: extending the life of fish farms, the leases, and approving Site C, and pipelines. I emailed him and I said, ‘Why on earth did you run for office? Isn’t it to do something for the future?’ I said, ‘You are in a position now. You know that the decisions you can make or not make are going to reverberate through your children’s lives. Why aren’t you doing the right thing?’ He’s never answered me since.”

Suzuki’s combative energy, if not sustained by anger, is nevertheless sustained. Although retired from the David Suzuki Foundation, at age 83, he still hosts the odd television series on

issues environmental, and it's never a surprise to hear his familiar voice on radio news shows – either because they have sought him out or, just as often, because he has phoned in. But he admits that his faith is shaken on the usefulness of science education. “I believed and have continued to justify my broadcast career on the belief that the more and better information people have, the better more-informed decisions they will make. Well, that's absolutely not true. What I find today is that people churn through the internet till they find something that confirms what they already believe. They don't have to change their minds. That's the terrible thing. ... What a crazy animal. We say that we are rational. We are not rational. We're rationalizers.”

That's how we ended our first interview, with Suzuki claiming hope – and crediting the influence of his grandson – but evincing little by way of actual optimism and offering no strategy for managing the despair that he appears to feel so deeply. I was still thinking about the conversation many months later when a mutual friend mentioned that she had heard a story that revealed Suzuki in a less hopeful state of mind. In one of the regular conference calls that he has with Suzuki Foundation staff, he admitted that the grandchildren who have brought him so much joy had, in a moment that had begun magically, brought him to a new low. I called him to follow up.

Suzuki, as ever, was remarkably forthright. He said that Sarika, who had still been pregnant when last we spoke, had birthed two beautiful twins, a boy and a girl, and that he had been sitting at home, holding them both – “delighting.” He went on: “Suddenly, the recognition kicked in that these kids don't have a chance. It just plunged me into a sense of helplessness and despair. I was inconsolable.” Crying hard, he called his daughter to come take the babes away.

But that was no endpoint, he said. “You can't live with that. You have to cling to something. I personally don't think we have a chance in hell (of meeting the Paris targets), but

we've got to try. It's not what we succeed in doing; it's that we try. The trying is what defines us.”

Michael Mann

Michael Mann looks nothing like a sharp stone, lying mostly beneath the water. Mann is in his mid-50s, medium height, medium build, with a fringe of medium brown hair. He has an easy manner and a ready smile, and despite the goatee, you can still imagine people describing his round face as “cherubic.” All of which is to say that, if you were a rude boy pushing your way through a crowd, you probably wouldn't expect Mann to be the one who would push back. And you would be wrong. Mike Mann stands his ground.

That said: Dr. Michael E. Mann, climatologist, geophysicist and director of the Earth Systems Science Center at Pennsylvania State University – and one of the most acclaimed, if controversial climate scientists in the world (Messer, 2019) – is also the last person who would go looking for a fight. He didn't come to the subject of climate science as an environmentalist or an activist. On the contrary, in an interview for this thesis, Mann said:

I didn't really enter into the fray on my own volition. ... I came to this problem from the physics field. I was a physics graduate student looking for an interesting project and saw that there was an opportunity in climate science to employ the physics and the math tools that I learned and skills that I have to work on this really interesting problem that ultimately led me ... to investigate the longer-term records of climate proxy records, like tree rings, corals, ice cores, etc. ... So, it wasn't a climate change project.

But ... as we analyzed those data, ultimately, we came to the conclusion that they implied that something unprecedented was happening today, with the climate. That ultimately led to the hockey stick curve, and from then on, once that study was published, once it was featured in the Summary for Policy Makers [of the 2001 Third Assessment Report of the IPCC] (IPCC, 2001), it became the sort of icon in the climate change debate and I found myself right at the center.

It is, perhaps, worth backing up to set some of the foregoing in context. In the mid-1990s, as Mann was emerging as a young academic and researcher, the climate world seemed to be populated exclusively by scientists who were trying not to say too much – taking the greatest care to commit themselves only to conclusions that were categorically proved in the data. As mentioned in a previous chapter, this made it difficult to tell the climate story in a way the public might find engaging – or even relevant. And while scientists were refusing to say, categorically, that the climate was changing and that humans were to blame, the emerging community of industry-funded lobbyists and communicators were seizing every opportunity to say, categorically, that no such change was occurring or could be proved (Hoggan & Littlemore, 2009; Oreskes & Conway, 2011). Indeed, in 1995, Mann himself had become something of a darling in the denier community because he had written a paper that challenged the math in one of the studies cited in the IPCC Second Assessment Report (IPCC, 1995; Mann, 2013, pp. 1-2).

But when the time came for the IPCC's Third Assessment, Mann's work was sufficiently distinguished that he was recruited as a lead author and the graph from a *Geophysical Research*

Letters paper that he had written with Raymond Bradley and Malcolm Hughes (1999) was featured prominently in the Summary for Policy Makers.

As a communications tool, the graph is a thing of beauty. A reconstruction of global temperatures going back 1,000 years, it shows a long period of stability – 800 years or more – following by a sharp and consistent temperature increase, beginning around the time of the industrial revolution. The resulting line on the graph is shaped like a hockey stick, with the uptick looking like a blade coming out of a long handle. Like a picture worth a thousand words, the graph made the clear statement that had been missing in the previous IPCC report, and even if Mann himself would only characterize his results as “highly suggestive” of a human climate impact (2013, pp. 48-50), others seized on this image as a helpful proof.

Such being the case, the community of self-described climate “skeptics” also latched onto the graph – with hostility and ferocity. The initial attack came from a pair of Canadians, the University of Guelph economist Ross McKittrick and his frequent writing partner, the mining stock promoter and climate blogger Stephen McIntyre (Hoggan & Littlemore, 2009, p. 109). McIntyre and McKittrick began by attacking the graph’s statistical underpinning, in a paper (2003) published in the academically dubious journal *Energy and Environment* (Hoggan & Littlemore, 2009, p. 110). And they kept attacking for years – with support and assistance from fossil fuel-funded think tanks, non-science academics and Republican lawmakers. Oklahoma Senator James Inhofe, then chair of the Senate Committee on Environment and Public Works, took to the floor of the Senate in 2006 to say:

The ‘hockey stick’ was completely and thoroughly broken once and for all in 2006. Several years ago, two Canadian researchers tore apart the statistical

foundations for the hockey stick. In 2006, the National Academy of Sciences and an independent researcher further refuted the foundation of the ‘hockey stick.’ (p. 111)

This, however, proved only to reinforce Inhofe’s lack of credibility: the National Academy of Sciences review to which he was referring appeared in the journal *Nature*, under a give-away-the-ending headline that read: “Academy Affirms Hockey Stick Graph” (Brumfiel, 2006).

If the critics had expected Mann to run from the controversy, they were destined for disappointment. In our interview, Mann said:

I was always somebody who believed in standing up to bullies and fighting back and fighting the good fight even if you’re probably going to lose So, I wasn’t somebody who was going to back down. They thought that criticizing me and attacking me was going to lead to me withdrawing into the laboratory. If anything, it’s had the opposite effect.

In addition to redoubling his climate work, Mann joined with Ray Bradley, Gavin Schmidt (now the Director of NASA’s Goddard Institute for Space Studies) and others to start the blog, www.RealClimate.org, which promised, in 2004, that, “In order to limit the scope to those issues where we can claim some competence, the discussion here is restricted to scientific topics. Thus we will not get involved in political or economic issues that arise when discussing climate change.” That said, the first RealClimate post was a scientific refutation of an updated attack from McIntyre and McKittrick (Brumfiel, 2006). The gloves were off.

And Mann became more of a target, the circumstances of which he documents comprehensively in his book, *The Hockey Stick and the Climate Wars: Dispatches from the Front Line* (2013). One of the most infamous and damaging attacks occurred in 2009, when the Russian security services were implicated in the hack and surreptitious release of more than 1,000 emails that had passed among climate scientists associated with the Climate Research Unit at East Anglia University in the U.K. (Stewart & Delgado, 2009). It was no particular surprise that the first release of those emails came on Stephen McIntyre's blog, *Climate Audit*, under the cheerful headline, "A miracle has happened" (Leigh, Arthur, Evans, & Pearce, 2010). Perversely, the principal accusations against Mann, whose name appeared numerous times in the email cache, were that he had participated in a conversation about whether it would be prudent for the scientists to delete their emails in case someone tried to use them to attack the scientists' credibility. Investigators absolved all scientists involved of any wrongdoing and a team at Penn State specifically ruled that there was "no substance" to any of the allegations against Mann (Assman, Castleman, Irwin, Jablonski, & Vondracek, 2010), but not before he endured a huge amount of abuse, within the university and without.

I've known Mike Mann for years, having written a great deal about him and his hockey stick. I also relied heavily on his writing at RealClimate to advance my own understanding of climate science, especially during the years that I was Editor at www.DeSmogBlog.com. I trust him completely, like him enormously, and I admire his courage. I also appreciate that, after all he has been through, he still has a delightful – if sometimes dark – sense of humour. Accordingly, when we began a Skype interview, rather than asking my usual first question: "What is your current prognosis for earth's human population in a climate changed world?" I said, "If

somebody landed on earth and was not invested, what would you tell them? What is the likeliest thing that's going to happen at this point? Are we screwed?"

In a tone I read as both dark and sarcastic, Mann replied: "I'd tell them to ... look for intelligent life elsewhere, there's apparently not any on this planet." Then, before I could interject with a question about whether that revealed a degree of hopelessness on his part, he continued with this:

It's not a binary matter: it's not screwed or not screwed. It's a degree of screwedness. It's how far down the screwed highway we're willing to go, and it is still within our grasp to make the enlightened policy decisions necessary to avoid being totally screwed. We will ultimately not avoid being at least moderately screwed, because that's already baked in. It's already happening. If you talk to people in low lying island nations in the Pacific; or people [chased from] their homes in wildfires in California; people who were flooded by hurricane Harvey [or] Winston in the Southern Hemisphere [or] Superstorm Sandy. I mean dangerous climate change has, by some measure, already arrived and it's a matter of how much more dangerous are we willing to let it get.

Mann then segued into a frightening list of other environmental threats, saying, "Climate change, ultimately, is only one dimension in this multi-dimensional space that is sustainability for human civilization." Listing off a host of "fundamental challenges," including threats to biodiversity and to the global supply of food and water, he said, "The overall challenge in my mind is far greater than just the challenge to avert catastrophic climate change. So that's the

reason for pessimism if you like: even if we prevail in this battle, that's just one front in this multi-front war against the earth that we are fighting right now."

This, then, raised the obvious question: Does he despair?

Mann dodged the question, turning instead to how *others* respond to the desperate nature of climate prognostication. "There are times when I don't calibrate my public lectures quite the way that I thought I had ... where I talk to people afterwards and I'll find that they were depressed by my talk. I didn't even think it was a depressing talk."

Here again he uttered a cold, mirthless laugh that seems to say, "If they only knew the whole, horrible truth." Then he continued:

What they're depressed by is the gravity of the problem. ... I, since then, worked to properly calibrate my public expressions, my lectures, or my interviews in the media to make sure that they clearly reflect what I really do think, which is that: Yes, we have this monumental challenge but there still is reason for cautious optimism that we can avert the worst impacts of climate change. ... We're already committed to some bad stuff, but we can avoid the worst stuff. That's the important message.

With no more prompting, Mann then launched into a lengthy internal argument – much abbreviated here – going back and forth with himself over the ultimate extent of the threat we face and the prospects for coming out in reasonable condition. He said:

It's always a glass half-empty, half-full sort of situation, where there are things that you can look at today, and conclude that, indeed, it is bleak – the picture is bleak. The fact that [Donald] Trump is President, the fact that in the U.S. we're

seeing an attempt to undo all the progress made over, literally, half a century when it comes to environmental protection. Not just climate change: clean air or clean water, you name it. And a lot of damage can be done even in a couple of years. ... So, you can look at that and say, 'Things look pretty bleak.'

But then you can say, 'Well, that's the United States and that's just Federal climate policy.' What's happening at the state level, at the municipal level? ... There is an effort to make progress at the state level, [and] many of the largest cities have carbon reduction pledges. This is substantial and, if you tally up all of those commitments, then a credible argument can be made ... that the U.S. would still beat its obligations under Paris, despite Trump's policies. ...

So, the fact is that even the U.S. may meet its obligations under the Paris treaty, and if you [also] tally up all of the commitments of all the countries of the world that have signed on ... that gets us halfway to stabilizing warming below two degrees Celsius. ... We're not yet there, but it's still possible if we make some substantial progress.

So, there's a reason for cautious optimism. Looking at what's happening right now, with renewable energy, worldwide and even in the United States, we do seem to be on the up-ramp portion of this exponential curve. We're seeing costs of renewable energy come down tremendously to the point where they will outcompete fossil fuels in the marketplace, even in the absence of a price on carbon, in a matter of a decade or so.

Of course, we can't wait a decade or so to make dramatic cuts in our carbon emissions.

So, you swing back between reasons for optimism and reasons for a less optimistic outlook. But there is still a scenario where we can limit warming below a catastrophic two degrees Celsius. That's still far too much warming for the Pacific Island nations and for many other regions, that are already experiencing damaging climate change effects.

Again, it's sort of getting away from this binary characterization of screwed and not screwed, to being less screwed.

I asked, then, if Mann has children. He said, yes, he has a daughter, Megan, now 13 years old.

I dedicate most of my books to her because that's what it's about, right? It's about preserving this planet for her, for her children, for her grandchildren – which gets us to this interesting question about faith. Because people who come at this from a faith standpoint would say, it's about the preservation of creation. To me, that's really no different from the way I look at it, even though it isn't necessarily through the lens of faith. It's still a matter of a principle, a fundamental principle, that it is our obligation to preserve this world for future generations. You can see that either through the lens of faith or as a parent who cares about the world that we're leaving them.

Again, without prompting, Mann jumped back into what I interpreted as an internal argument, balancing hopeful statements with desperation-inducing observations, beginning with the question of whether any of us has the capacity to turn the world away from the path of disaster. He said:

Individuals can make a difference; I really believe that. I believe individual actions can change the world. There's ample evidence of that. Sometimes, it's evidence in the wrong direction. Donald Trump has single-handedly changed the trajectory of American history in a negative way, but [laughs] there are many examples of individuals – you could point to people like Elon Musk, for example, or Pope Francis – who have single handedly helped shift the entire conversation over this issue.

Still, Mann acknowledged that his own understanding of current climate change sometimes leaves him feeling vulnerable. “One of the toughest interviews I ever had wasn't with a climate change denier, it was with Bill Maher.” Mann was a guest in 2015 on the HBO talk show *Real Time with Bill Maher*, and he said the host “just came at me.” Mann went on:

[Bill Maher] is not a climate change denier, he's the opposite. ... But he's so deeply cynical about our ability to actually solve this problem, our willpower. For me, that's a much tougher interview than somebody just regurgitating a series of denialists talking points. I can bat those away without effort. But it's the well-informed, well-defended cynicism ... that is tougher.

Of course, we have our talking points. We can point to all these positive things that are happening, more added capacity, renewables and fossil fuels in the US ... but then you fall into the danger of doing exactly what we criticize our critics of doing, of cherry picking [laughs] – selecting the good news without properly balancing it with the less-good news. It’s a struggle to be faithful to the science, or in this case, to the facts and yet still be

Mann trailed off, and then noted that the late Stanford University environmental biologist Stephen Schneider once attracted a lot of criticism for saying that climate communicators undermine their effectiveness if their message is too dire. Mann said, “We have to balance the double bind, as [Schneider] called it, of being truthful and being effective. The key thing that Stephen said is, ‘I hope that we can do both.’”

Mann said that, at home, “I’ve worked hard to shield my family from the ugly stuff.” But in Mann’s now-controversial life, “the ugly stuff” is not limited to dark warnings of climate calamity. “There have been times when it wasn’t possible to [shield the family] entirely, when there were death threats, for example. I needed to make sure that we had the hotline number for the local police on the refrigerator.” People who were outraged by Mann’s effectiveness as a climate change communicator transformed his concern about a future threat into a very current danger. For this, Mann blames the denial industry and decline in civility that, for him, started with the climate conversation. “We [in the climate science community] experienced the beginning of something that has evolved to a much larger attack on fact-based public discourse.”

In that context, I said: “Probably the same guys who stole your emails are the guys who stole [Hillary Clinton’s presidential campaign chair John] Podesta’s.” And Mann said:

I think it's clear these are all the same actors. It was WikiLeaks, it was Russian servers, it was exactly their MO. Hindsight is 20/20, but yes. In [the updated paperback edition of] *The Madhouse Effect*, my book with Tom Toles (2016), ... there is a section on Russiagate and Climategate. There's a sentence where we basically say that the bad-faith assault on climate science was a localized cancer that is now metastasized to infect our entire body politic.

I was alert during interviews with each of the five study participants to the effect of my interjections. I tried to ask a few prodding questions and then let participants respond at length without interruption. But, as four of the five subjects are people I have known for a long time, I sometimes found myself slipping into conversation – reacting to their points with encouragement or outrage – rather than maintaining the impartial role of the researcher.

Listening to recordings and transcribing conversations, I also had to speculate about our general tendency to buffer – to speak frankly about our concerns and feelings right up to the point where the conversation could get awkwardly emotional and then to back off or make a joke, to lighten or distract. I'm doubly sensitive to this because I have another friend who makes a point of pushing through in those instances. Jon Cooksey, a television scriptwriter who also wrote, directed and produced the climate documentary, *How to Boil a Frog* (2010), regards no climate conversation complete until we both have been reduced to tears; he thinks it's therapeutic – and I think he's right.

I don't have that relationship with any of the five interview subjects, and I can't imagine at least three of them ever weeping in public. But, as with David Suzuki, Michael Mann sometimes seems to be managing an unwieldy font of suppressed rage. None of that anger

showed during our interview – again, perhaps evidence that we were avoiding the emotional edge. But I was interested afterward to find a video clip in which he was criticizing people he called “climate catastrophists” with the kind of surgical ferocity I had only previously heard him summon for climate change deniers. He said:

There are certain aspects of the climate change problem that for some reason have been seized upon by, sort of, the catastrophists – people who sometimes seem like they actually want to believe that we are committed to the extinction of the human race. And there is this movement ... and there are these almost cult-like figures ... who have declared that we have only, like, 10 years before humans are extinct and there is nothing we can possibly do about it.

If that were really true, and there were no agency in the actions that we take and that our policymakers take, then, um, it’s really convenient framing for polluting interests and politicians in their pay. So, it actually leads us to the same place as outright denial of climate change itself. ...

Interestingly, when you take the promoters of this bad science, this pseudo-science, to task, their response is almost as visceral and angry as the sorts of responses that you encounter from climate change deniers. They seem to be psychologically invested in the notion that our peril is inevitable.

But Mann’s greater concern is that catastrophism offers people another reason to do nothing.

It's a copout, right. It's sort of a free pass for polluters who say, 'Oh, no. It isn't even the CO2 from fossil fuel burning anymore that we have to worry about. It's the inevitable release of huge amounts of methane that we can't do anything about, now.' Um, and I have become convinced that while there are many people of goodwill – well-meaning – who have bought into this framing, it's been fanned, the flames of that movement are being fanned by the same polluting interests who are promoting outright climate change denial because it feeds a similar narrative of – or at least it supports an agenda of – inaction.

That, Mann seems to say, is the greater risk: inaction. It's more dangerous than climate change itself.

At the conclusion of our own interview, I ended with two questions: Does Mann sincerely look forward with optimism? And, if not: How does he maintain his own commitment to action? How does he stay in the fight?

Skipping straight over the first question, he said:

Constitutionally, that's just the type of person I am. I believe you fight the good fight and there is reward and nobility in doing that. It's the right thing to do regardless of the final outcome. You do it in part because, as long as there's a chance of winning – if there's even the slimmest chance of winning – then the decision not to fight is a decision to forego that possibility. The decision to fight is a decision to try to strive for that possibility regardless of what the odds may be. It's an axiomatic principle. It's a principle that can't be derived. It's a

principle that you accept to be true. That principle is: doing what is the right thing to do. ...

In the end, you do the right thing regardless of what the outcome ultimately will be. It doesn't mean that I always honor that. We all have our failings; we all fail to live up to our principles at times. But it's a principle that I strive for.

Naomi Oreskes

Among the people who are both loathed and feared by the community of climate change deniers, few besides Michael Mann have earned as much enmity as Naomi Oreskes. Like Mann, Oreskes wandered into a controversial conversation almost inadvertently. And like Mann, once she entered the fray – and found herself being slandered and threatened for her work – she dug in and redoubled her efforts.

For a sense of Oreskes' reputation among self-avowed “climate skeptics,” it's worth consulting one of the leading denialist websites, Watts Up With That (Grandia, 2019). In a post headlined, “Historian Naomi Oreskes fails in historical research,” writer Ron Arnold says, “Harvard historian of science Naomi Oreskes is best known to climate realists by her 2010 book, *Merchants of Doubt* (Oreskes & Conway, 2011) and its scurrilous demonization of climate skeptics as paid hacks parroting the fossil-fuel industry's self-serving opposition to the ‘consensus view’ of man-made climate catastrophe” (Arnold, 2016, para 1).

Absent the invective, much of this statement is true. Oreskes has been a Professor of the History of Science and Affiliated Professor of Earth and Planetary Sciences at Harvard University since 2013. Before that, she spent 15 years in a similar role at the University of California San Diego, having trained, originally as a mining geologist (Royal School of Mines of

Imperial College, University of London) and later completing a PhD in a Graduate Special Program in Geological Research and History of Science at Stanford University.

She is also justifiably well known for *Merchants of Doubt: How a handful of scientists obscured the truth on issues from tobacco smoke to global warming*, which she published in 2010 with co-author Erik M. Conway, the historian at NASA's Jet Propulsion Laboratory at the California Institute of Technology in Pasadena. *Merchants of Doubt* is a comprehensive and compelling account of the early history of climate change denial, and especially of the strategic switch of a couple of leading corporate-funded deniers (S. Fred Singer and Frederick Seitz) from working as apologists for the tobacco industry to dissemblers in climate change. At the time of publication, *The Guardian* described *Merchants of Doubt* as a "runaway contender for the best science book of the year" (McKie, 2010, para 12).

But that's not what first brought Oreskes fame or notoriety in the communities of climate science and climate change denial. In our interview in 2018, Oreskes recounted her introduction to the topic: "In the early 2000s, I was writing a book on the history of oceanography and I stumbled across a project called ATOC (Acoustic Tomography of Ocean Climate)." ATOC was conceived in the 1980s and advanced in the mid-1990s as a method by which to assess the impact of climate change by measuring ocean temperatures. Oreskes said: "These scientists figured out that you could do that by measuring the speed of sound. Speed of sound in the ocean is temperature dependent." And, she said, post-Cold War scientists "knew this very, very well," because they had developed a host of technologies to propagate sound in the ocean for anti-submarine warfare. "There's a huge focus on [this in] oceanographic work from about '43 onwards. It's a highly sophisticated technology, very well understood scientifically."

The problem, Oreskes said, was whales. “The whole thing blew up, because the frequency of the [sound]waves [the scientists] wanted to use overlaps with the same frequency in which some whales communicate.” So, a different community of scientists and environmentalists rose in opposition and a big, well-documented fight ensued. Oreskes went on:

When I was reading the records of the resulting controversy there was a quote from an unnamed intervenor at a public meeting, who said, ‘We don’t need these experiments to prove climate change. We already know there is a climate change.’

And I thought, ‘Really? Did we already know [when this comment was made] in 1992 that there was climate change?’ And I started reading the literature. I went back to the first IPCC Report. And then I thought, ‘Oh, this ordinary citizen is right. We actually *did* know.’

Oreskes could have been forgiven for her confusion, because the public conversation about climate change in the early 2000s suggested that the science was much in doubt. Even prestige newspapers – the *New York Times*, *Wall Street Journal*, *Washington Post* and *LA Times* – included contrarian opinions in almost all of their reports (Boykoff & Boykoff, 2004) and a bogus petition, launched in 1998 by the industry-funded Oregon Institute of Science and Medicine, proclaimed the names of 34,000 “scientists” who argued that the climate wasn’t changing and/or that humans weren’t to blame (Hoggan & Littlemore, 2009, pp. 88, 89).

So, Oreskes did what any good scientist or historian would do: she checked the record. She gathered abstracts from 928 climate change-related papers that had been published between 1993 and 2003 and she analysed each to see if any authors disagreed that human-induced

greenhouse gas emissions were driving climate change. And then she published the result in a paper in the journal *Science*:

The 928 papers were divided into six categories: explicit endorsement of the consensus position, evaluation of impacts, mitigation proposals, methods, paleoclimate analysis, and rejection of the consensus position. Of all the papers, 75% fell into the first three categories, either explicitly or implicitly accepting the consensus view; 25% dealt with methods or paleoclimate, taking no position on current anthropogenic climate change. Remarkably, none of the papers disagreed with the consensus position. (Oreskes, 2004)

Simple enough: notwithstanding the campaigns of misinformation and the resulting confusion in the media, there was a discernable climate change consensus. And people either loved or hated Oreskes for marshaling the evidence so clearly. Former U.S. Vice-President Al Gore, for example, included Oreskes' research in his climate change presentations and, ultimately, in the movie *The Inconvenient Truth* (Guggenheim, 2006).

But, Oreskes said: "When that paper came out ... I started getting attacked. ... That was totally weird, because at the time I didn't know the climate change denial machine existed."

Oreskes was undeterred. Rather than withdrawing, she turned into something of a climate messaging machine, expanding her research and adding public lectures and conference keynotes to her already busy academic schedule. And she is a marvelous lecturer, wryly funny and absolutely matter of fact in her presentation style – even while being capable of showing the outrage and frustration that comes of studying people who, through corruption or delusion, are arguing against action on climate change. (A February 22, 2019 Youtube search turned up more

than five dozen Oreskes lectures, any one of which is sure to advance your understanding of the climate file and likely to recruit you into the camp of Oreskes fans.)

Merchants of Doubt was an obvious follow-on. She said:

Then I met Erik Conway, who knew about what had happened to the scientists who worked on the ozone hole. That was really the key thing when Erik said, ‘Well, they all knew. What’s happening to you [the industry and professional attack] is the same as what happened to [1995 Nobel chemistry laureate,] Sherwood Rowland when he did the work on the ozone hole.’

It turned out that Erik was sitting on a pile of materials about the ozone story that he had never published. ... He sent me a big package in the mail. It was like, you take out the word ‘ozone’ and put in the words ‘climate change,’ and it was exactly identical.

Once they added research into the history of disinformation on behalf of the tobacco companies, Oreskes said: “We realized that we could really tell a deep historical story [answering the question]: Where does it all come from?”

She also doomed herself to many more years of staring into the abyss – thinking not just about the dangers we all face from climate change, but also about the perfidy of those who keep propelling us into that crisis. I asked: Does she wrestle with despair?

“Well, no. No. Because I have to say, probably – most of the time – I feel that despair is a kind of self-indulgence, actually. I don’t let myself go there.”

On the flipside, then, I asked if that meant she had some font of optimism, and she replied:

I get asked this question of optimism all the time. I'm so glad you started with that, because, frankly, most of it just seems like a diversionary tactic. It seems that people want to hear that you are optimistic so they can go home and watch television again. It's a very frustrating question. Usually, when people say, 'Are you optimistic or pessimistic?' My answer is, 'Yes.'

I still feel that way, because if you look at what Trump's doing – I mean, a lot of it is incoherent – but one thing that is not incoherent at all is his policy on energy and the environment. It's just like he wants to roll back every environmental regulation passed since the creation of the EPA (Environmental Protection Agency). He wants to undo every positive step we've made away from fossil fuels, drilling the Arctic, drilling offshore. It's a complete takeover of the U.S. government, I think, by the fossil fuel industry. It's pretty damn bad, and there's not much room for optimism or hope.

Oreskes paused for a long moment and then added: "It's really difficult. ... This week I'm trying to come back to work after a vacation [and] a part of me feels like, 'Well, what is the point of this work? [laughs] Why am I working so hard?'"

It's a familiar feeling – the sense of pointlessness, balanced against the urgent need for action, and the compulsion not just to keep working feverishly, but to worry about what might happen if you stop. Oreskes expanded on her concern, and her inspiration:

There are billions of people on this planet that wake up every morning and don't feel responsible for the fate of the earth, so why do I feel so responsible?

Maybe I don't have to be responsible. Maybe I could pass the baton. Maybe somebody else needs to carry this burden.

Then I think about people like Martin Luther King and Nelson Mandela. ... I think about the Civil Rights Movement. I think about women's rights. All social movements take a long time, nothing important happens quickly. Then I think, 'Well, I'm sure Martin Luther King must have been discouraged many times, but he didn't let himself give up. I don't really have to let myself to give up, either. I have to understand that this will take time.'

The problem, Oreskes said, is that we have used up – or simply wasted – so much time already. The historical record shows that scientists and politicians were discussing the possible dangers of climate change as early as the late 1960s or early '70s (Robinson & Robbins, 1968). Oreskes pointed out that we have already “squandered” half a century. “We had a lot of time. ... [Yet] no one wants to hear it's too late, because that makes you give up.”

And it's not too late, Oreskes said. “It's not too late to prevent total catastrophe. It's not too late to stave off the collapse of Western civilization. It is too late to prevent climate change.” Looking at the increasing number of catastrophic weather events, she said, “It's just shocking, and yet people aren't shocked. And still, we're doing the same thing we always do, [arguing] like, 'Yes, there is this climate change.'”

“It's like, 'Guys! Wake up! The climate is changing all around us.’”

Oreskes said she is also irked by those who imagine we can wait for a technological solution.

A couple of years ago, I started this teaching the History of Technology, because one optimistic thing people do is say, ‘Technology will save us.’ That’s, of course, a really, really tricky thing, because I think that, on some level, technology does have to save us. That is to say, we have to get the technology we need. I remember some years ago when I was on a panel with [the founder of the Program on Science, Technology, and Society at the John F. Kennedy School of Government at Harvard University] Sheila Jasanoff. She sniffed and said, ‘Well, some people think we’ll stave off climate change with a techno fix.’ I remember thinking, ‘Well, I bloody well hope so, because if there isn’t a technological fix, then we’re really in trouble.’

The problem, even so, is that technological fixes also take time:

If you look at the history of technology – big technological transformations, things like telephone, telegraph, electricity, the internet – it’s hard to define exactly how long it will take. ... It’s not like technology just suddenly happened, like God sends down a bolt of lightning and suddenly we have electricity. It’s that people built systems and those systems aren’t just about the machinery. They also need the financing, the regulatory policies that makes them work, like electricity standards, for example. To build an electricity grid requires a lot of regulations and new laws.

These systems require parts and the parts are not just machinery. Even though we are seeing some pretty big and important advances of renewable energy at the moment, we still don’t have the financing and regulatory structures that

would really make these systems become dominant and phase out fossil fuels.

.... For me, this is actually the hardest part.

People often like to say, ‘Well, we didn’t stop using whale oil because we ran out of whales.’ The problem with that argument is it’s completely bogus, because we didn’t save the whales.

Pointing to the historical record, Oreskes said that, even after people had access to affordable alternative products, they kept using whale oil and, thanks to the availability of fossil fuels for steam ships, the killing of whales accelerated in the 20th century.

What finally protected whales – to the extent that they were protected – was law. It was regulation. It wasn’t technology. Technology in every step of the way made whaling worse. ... Every technological invention in the history of whaling made whaling worse.

The lesson there is that we’re not going to leave fossil fuels in the ground simply because we get a better solar panel or a more efficient wind turbine or even better financing. ... We have to ban fossil fuels ultimately just as we have more or less banned whaling now. There’s a bunch of things that have to happen. It’s not impossible. It still could happen. But, man, it’s not going to be easy. I guess that’s why the whole question frustrates me. What I want to say to people is, ‘Stop looking for a magic trick and start realizing this has been really, really hard. You have to work. You have to get to work.’

Having embraced the fight so completely, Oreskes made it clear that she takes it personally, and thinks others should, as well.

I can't tell how many times I've heard people say, 'Oh, I hate politics. I don't want to talk about politics.' Or scientists who say, 'I just want to do the science. I don't want the science to be politicized.'

Everybody's got to make that choice for him- or herself, but I think the key thing was for all of us to understand that this is fundamentally a political problem. It's not going to be solved with more science. ...

There's a big mistake [among] a lot of progressives in America to think that progress is inevitable. ... I think history shows that's not true.

Oreskes quoted what she called "a favourite Progressive line" that came originally from Martin Luther King – it's one that President Barack Obama used in his valedictory speech: "The arc of the moral universe is long, and it bends toward justice." Oreskes said: "Well, maybe. But if so, it's a really, really long arc and, in the meanwhile, a lot of people get killed."

So, if the situation is dire, if others seem unaware of or unwilling to grapple with the urgency, and if despair is "self indulgent," I asked, finally, how Oreskes gets through her days.

She said, "I use the mountain climbing analogy because I climbed Kilimanjaro (in Tanzania) last summer, and it kind of proves that you 'just do it!' You put one foot in front of the other."

Oreskes said that, overall, "the [Kilimanjaro] climb was not hard except for the final ascent, which you do at night and it's cold and dark." In her exhaustion, she said, she fell into

prayer – which she defined as also being a kind of meditation. She said, firmly, that she is not someone who believes “in a God who answers prayers for sports teams,” but she went on:

... I found myself with the last couple of people – and that was just really, really tough. ... I had a sort of mantra that came to my mind, and it was, ‘Thank God for my right foot. Thank God for my left foot,’ and I just repeated that the whole time. It sort of feels like time stands still when you’re doing something like this. ... It’s about putting one foot forward a little bit. Right foot, left foot, right foot, left foot.

This, then, is the strategy she employs for dealing with the tasks and the stresses of climate change.

At the end of the day, what can anybody say on their own behalf? They can only say you did what you could, right? I think you and me both, we’re doing what we can with the tools that are available to us, and if everybody did that, the world would be a better place, right?

George Monbiot

Full disclosure: George Monbiot is my hero. I am an ardent admirer of all five of the people I was fortunate to interview for this project, but only Monbiot has the job of my dreams – and, it turns out, the job of his dreams, as well. Through guile, courage and prodigious effort, Monbiot has carved out an enviable niche as an environmental and political activist, journalist and author of books on an expanding range of topics. Most prominently, since 1996, he has been a weekly columnist for *The Guardian*, about which he says on his own website: “I cannot think

of any work I would rather do, except perhaps tracking wolves, but there's not much call for that in Britain" (2019).

He came to this work naturally – perhaps inevitably. Growing up in Henley-on-Thames in South Oxfordshire, England, Monbiot says his parents and teachers reported that he was always obsessed with the natural world. And he was encouraged by his grandmother, who lived in Berkshire, just south of Oxford. In our interview, in a rambunctious café over an Oxford bicycle store, Monbiot said that his Gran was:

... a tough old stick, but a great country woman. I used to love going to stay with her. My sisters couldn't bear it, because she was so strict and severe. She would have us out of bed at six in the morning and we'd eat her grey, lumpy porridge and then we'd be out in all weathers for the whole day. Bird watching, fishing, botanizing, visiting her wonderful crazy friends who lived on small holdings ... who grew their own food and kept their own animals.

If there was any doubt that Monbiot was taking Gran's lead seriously, he made every effort to make his future inclinations clear:

At the age of eight, I took my first direct action. I tried to stop a tree on the Common in the village from being cut down. It had a woodpecker's nest in. I stuck it out all morning and then, being an obedient boy, I went home for lunch and came back and the tree was gone.

The lesson – that you can't look away, even for a moment – stuck with him.

I grew up with a wealth of wildlife, but also with a profound concern about what was happening to it. As I grew older, the scope of that concern began to widen and widen and widen. It soon became clear to me that you could not detach what was happening to wildlife from what was happening to ecosystems, and you could not detach what was happening to ecosystems from what corporations were doing, and you couldn't detach what they were doing from the political context or the economic context, nor could you separate the issue from human rights and social justice. I found that in order to understand one thing I had to try to understand as many things as I could get my head around. I'm still trying.

What Monbiot has learned, however, has not left him in an optimistic state. He pretty much opened our conversation with this bleak state-of-the-world treatise:

We live in a post-apocalypse society. Our story is that of survivors of apocalypse and of repeated apocalypses, and we just constantly rebuild and rebuild – and collapse is always around the corner. The trouble is, now we've globalized [human impact], and soil depreciation, in particular, means that when this lot comes down ... we don't come back from that.

Civilizations can come back from war. They can come back from plague. They can come back from famine. You lose the soil, there is no coming back.

There's no possibility of return from that. You finished your market forever.

Well, at least for 1,000 years, if not for more.

Monbiot delivered this dire assessment in the breezy tone that characterizes many of the conversations that I have with people who are anxious about our enviro-future. He was matter of fact, like a weather forecaster delivering a deadly hurricane warning for the 14th time in a row. But faced with a direct question, Monbiot went straight to the emotional cost of dealing with those matters of fact:

Do I grieve? Yes. Well, I have nightmares almost every night. Largely about species extinction. ... I wake up every night having had a dream about whales or tigers or moths or grass snakes or whatever it might be. It just troubles me all the time. I get through the day fine – more or less fine – but it's at night that it comes to me. I feel haunted by these issues.

On the bright side, for Monbiot and for his readers, the specters that stalk him in the darkness are also his inspiration during the day:

I suppose I seek to try to exorcise these ghosts, which haunt me every night, and so try and find a creative way of dealing with this. ...

It's that intellectual challenge which helps me override despair. It's one of the factors which keeps me going. Because it is so fascinating. It is such an extraordinary thing. I have maneuvered myself into a position through my working life where I can make that fascination my living. And I'm in this wonderful position where, when I want to know about something, I'll say to the *Guardian*, 'I want to write a column about this.' By the time I write the column, I have to know something about it.

Frequent readers will find that Monbiot has a high bar for knowing “something” about his subject matter. He said that he reads an average of 600 pages for every column, which could sound like a boast coming from someone else. From Monbiot, it sounds like evidence-based reflection – and a further demonstration of the compulsion he brings to the work.

... This is, for me, part of the point of writing a column: I can almost pack the issue [away], for a little while at least. I say, ‘Right. Okay. I’ve dealt with that.’ In my mind I tell myself, ‘That’s dealt with. I can put that to one side and then worry about the next thing.’ Of course, it comes back after a while. Can I just say, it’s that creative response ... which is essential to keep me going. I need to have that creative outlet to try to handle this impossible load of grief.

...

It’s a way of compartmentalizing the thinking ... I can move it from the highly emotional part of the brain to the slightly more intellectual part of the brain and sanitize it to some extent in my own mind ... I can lock that thinking in a box called work and then it doesn’t bleed into rest of my life during waking hours.

Unfortunately, it does re-emerge at night.

Even in the work-filled daytime, Monbiot’s chosen method of self-therapy can leave him looking, to others, like someone shouting fevered warnings from the rooftop. How else might you respond to column titles such as, “The Earth is in a death spiral ...” (Monbiot, 2018)? In the course of exorcising his own ghosts, Monbiot said: “I’m the specter at every feast.” He seems to get away with this in his homelife, largely because his partner, Rebecca Wrigley, chief executive

of Rewilding Britain, is the resilient sort. “She is definitely glass-half-full, whereas I tend to be glass-half-empty.” But Monbiot said he doesn’t always feel as welcomed in the wider world.

I’m hated across the media in this country because I tell the stories that people don’t want to hear. And no one wants to hear it less than those around the media. For 30 years now, I’ve been – with the triumph of hope over expectation – going back and back and back to senior executives of BBC and Channel 4 to say, ‘You’ve got to make some programs about this stuff, about the big issues, about economic growth, about all these things.’ And I get laughed at. I get sworn at. ... they feel extremely threatened by this

I interjected, at this point, in a way that I intended as jocular and encouraging, saying, “... and yet you do rave on.” At which point, Monbiot stopped short, looked a little defensive, and said, “Too much, do you think?” It was a telling moment: here is someone who writes with command and competence, whose work I have admired for decades, and he is still prepared to second-guess the impact of his well-informed warnings. It led us to a side conversation about how best to communicate the climate message. We talked about the endless debate about whether it would be better to soften bad news so as not to frighten people into depression and paralysis. Monbiot said that, as advocates of action on climate change, “We always think we’re going to find the magic formula, don’t we?”

I said, no, that there is no single formula. I believe that the climate threat is so broad, so diverse and so all-encompassing that every voice should be raised and every strategy tested. I also said that I have the greatest respect for his willingness to “keep banging against the wall.” And that seemed to revive his determination – even his enthusiasm. He went on:

If you're not finding the cracks in the wall, it's because you're not looking at it right or not banging your head against the right place. There's always something, and you just have to stand back from it look at it from a different angle.

And here, Monbiot turned to a line of reasoning that sounded decidedly, urgently – perhaps even desperately – optimistic. He suggested that the current darkness may actually presage an unpredictable dawn.

We live in a period now of astonishing flux. I think that all societies go through long periods of stasis followed by sudden rupture, and at the moment, we're in sudden rupture.

During stasis, things might not seem so bad, but there's almost nothing you can do to change the way they're heading. But during the period of rupture, things might seem really bad, but there's a lot you can do, and opportunities open out as never before. ...

[For now], it's a phenomenal cock-up on all fronts, in Brexit and in the rest of it. But we need this time. We need this. We've been complacent for centuries. We've rested on this belief that we can effortlessly dominate the world, so we don't have to question ourselves. We don't have to address our own behavior. Now, we're going to have to face some uncomfortable truths and, of course, some really bad things can come out of that, but also tremendous opportunities.

Returning to an earlier theme, Monbiot said:

The system is destined for collapse. ... As soon as you create your complex society, you set up the conditions for the eventual collapse of that society. That's always been there since the dawn of civilization. But now we have a very particular kind of collapse driven by economic growth with entirely predictable outcomes.

We've also mined out all the most exploitable minerals, all the most readily dispatchable forms of energy – and you can't repeat it. Once you lose all this, you don't get it back. You can't come back to it. The trajectory we're on is a catastrophe – total catastrophe – 360-degree catastrophe where we take down not just ourselves but most of the complex life forms on the planet with us. ...

The possibility, remote as it may seem, is that it's a catastrophe which opens up the possibility for creating an entirely different model because you can't create that different model within the current system while that system is vaguely functioning. While it has any health at all, people are just going to cling on to it at all costs.

Monbiot likened humanity's current state to that of the denizens of the Ninth Circle of Hell in Dante's *Divine Comedy* (Dante, 1899). Dante outlined a host of torments in the lesser circles, but those in the ninth and last circle are frozen in ice. Monbiot said:

Everything is frozen in eternal stasis and that is hell. ... not the fire with people screaming, because there's constant change. There's a possibility of something

shifting. There's no possibility [in the final circle]. This is the genius of Dante: hell is when there is no possibility of change.

I asked, then, did this reflect the words of Monbiot the anarchist? And he said:

No. We're not blowing the system up. The system is being blown up around us. This isn't something I'm willing. This is a fact. This is how things are. ...

But we've got it, so now we have to make the most of it.

Monbiot has a long prescription of his own in the form of his book, *Out of the Wreckage* (2017). He also recommends Becky Bond and Zack Exley's *Rules for Revolutionaries* (2016), an analysis of the organizing techniques they developed and used so successfully in the surprisingly successful 2016 Bernie Sanders campaign for the U.S. Democratic nomination for president. Monbiot said: "Once we've got [this technique] right, we're going to be unstoppable." The forces of stasis are well funded, but,

They can't throw the people that we can at it. These proliferating networks of volunteers, hundreds of thousands that we can mobilize, real people, talking to real people, cell phone organizing, training each other. ... This is the future.

This is how we are going to turn things round.

So, apart from the ghosts in the night, Monbiot remains an optimist, rejecting the grim view of a future we cannot survive and working to debunk the notion of humans as ultimately – hopelessly – self-destructive. He wrapped up our conversation by saying:

The great thing about it is we do not have to change human nature; we just have to reveal it and we just have to clear all the clutter out of the way, which

stops us from being the amazing people we really are. ... we've been lied to about human nature. All the stories we are told about how we're inherently selfish and greedy and the rest of it: they are not based in science at all.

But (I had to ask), what of all the harrowing stories of environmental degradation and decline? What of the "death spiral," the half-empty glass – the seemingly well-informed pessimism? He said: "It's pessimism about what we do and optimism about what we are."

Father Michael Czerny

I am a ghostwriter. For the past two decades, I have earned most of my income by writing speeches, policy documents and books on behalf of others. It's interesting work. Beyond the usual challenge of trying to construct compelling, well-organized messages or stories, the ghostwriter also must render the words in another person's voice. It's like writing dialogue for a movie or a television script. Depending on the assignment, my influence on content can be infinitely variable. At times, I serve as little more than a stenographer, writing down the client's words and thoughts, perhaps touching up the punctuation and organization, and producing a draft for later delivery. At the other end of the continuum – and with other clients – I might be asked to generate an entire speech, or even the bulk of a book, on my own, conducting the research and preparing the narrative in its entirety. But even here, the message must be one that fits comfortably in the client's mouth. It's one thing to sit alone in a room and write something that may be memorable, perhaps even convincing. But it's another to stand up and say such things out loud – or to attach your signature and, therefore, your reputation, to the words on the page. The implication, however, is that, depending on the circumstance, and the power and status of the client, the ghostwriter might have a great deal of input – and influence – or none whatsoever.

And it's part of the deal that you never reveal which it has been. If someone hears that I have written a speech and asks about the extent of my role, I generally tell them that I wrote "a first draft," and then I change the subject.

If there is a ghostwriters' club, I am not a member, and I know only a few others who practice my craft. So, I was enormously excited to learn the identity of one of the ephemeral contributors to the 2015 Papal Encyclical, *Laudato Si: On Care for Our Common Home* (Francis, 2015). His name is Fr. Michael Czerny and he is a Czech-born Jesuit who grew up in Montreal. I was interested in him, his role – and his thoughts on matters of hopefulness – for a couple of reasons. First, perhaps obviously, it's hard to conceive of a ghostwriting job that carries greater potential for making a serious contribution. Second, *Laudato Si* is an extraordinary document. Pope Francis created (or commissioned and took responsibility for) a letter to all Bishops and to "every person living on this planet" that is outspoken, urgent, poetic, inclusive, impolitic and remarkably courageous. As Anna Rowlands writes in the journal *Political Theology*, "The encyclical pulls no punches in making explicit the ways in which vested interests prevent progress toward a hoped for 'global ecological conversion.' Francis is frankly excoriating about the state of contemporary political life" (2015, para 2).

To give some examples of the striking – sometimes strident – tone of the message and the quality of the writing, the Pope states, early on, that, "The earth, our home, is beginning to look more and more like an immense pile of filth" (p. 23). And, "We seem to think that we can substitute an irreplaceable and irretrievable beauty with something which we have created ourselves" (p. 30). He points out the distance that humans have put between themselves and the blessings of nature:

Many cities are huge, inefficient structures, excessively wasteful of energy and water. Neighbourhoods, even those recently built, are congested, chaotic and lacking in sufficient green space. We were not meant to be inundated by cement, asphalt, glass and metal, and deprived of physical contact with nature.

In some places, rural and urban alike, the privatization of certain spaces has restricted people's access to places of particular beauty. In others, 'ecological' neighborhoods have been created which are closed to outsiders in order to ensure an artificial tranquility. Frequently, we find beautiful and carefully manicured green spaces in so-called 'safer' areas of cities, but not in the more hidden areas where the disposable of society live. (p. 35)

And the Pope makes clear that in the modern, populated world, "There are no frontiers or barriers, political or social, behind which we can hide, still less is there room for the globalization of indifference" (p. 43).

The judgment, throughout the encyclical, is practical and acute. For example, the Pope states:

The problem is that we still lack the culture needed to confront this crisis. We lack leadership capable of striking out on new paths and meeting the needs of the present with concern for all and without prejudice towards coming generations. The establishment of a legal framework which can set clear boundaries and ensure the protection of ecosystems has become indispensable, otherwise the new power structures based on the techno-economic paradigm may overwhelm not only our politics but also freedom and justice. (p. 39)

The Papal argument is also fearless and critical:

The alliance between the economy and technology ends up sidelining anything unrelated to its immediate interests. Consequently the most one can expect is superficial rhetoric, sporadic acts of philanthropy and perfunctory expressions of concern for the environment, whereas any genuine attempt by groups within society to introduce change is viewed as a nuisance based on romantic illusions or an obstacle to be circumvented. (p. 44)

Finally – and interestingly for this contemplation – hope seems not to be an option, but a prerequisite. As the encyclical states: “Hope would have us recognize that there is always a way out, that we can always redirect our steps, that we can always do something to solve our problems” (p. 47).

On reading this document – and I had read it in full, a couple of times, before learning of Fr. Michael’s identity and role – I was fascinated to learn more of its origins. And Fr. Michael was welcoming and accommodating. We met in Rome, in front of the Basilica di Santa Maria di Trastevere, near one of the many Vatican offices scattered just outside the walls of the Holy City. Fr. Michael is tall, thin and exceedingly fit for his 71 years; he moves like a lanky former tennis pro. On the evening in question, he was wearing a trench coat and a baseball cap, in a style popularized by the actor Kevin Kline in the movie *A Fish Called Wanda*, and if you weren’t looking for it, you would never have noticed the clerical collar. I don’t know what I was expecting, but this wasn’t it. We then wandered up the block to a restaurant where Fr. Michael was greeted like a favourite family member and ushered to the quietest niche.

I asked first the question that I hoped would clear the way to a deeper discussion about ghostwriting: “How can I credit your contribution to the encyclical?” To which Fr. Michael offered a response that sounded both proper and familiar: “The department I worked for at the time was tasked by the Holy Father to write the first draft. That’s what we did.”

That department was the Pontifical Council for Justice and Peace, which Fr. Michael described as “a small government department” established 50 years ago and since reformed into the newer and larger Dicastery for Promoting Integral Human Development. He was serving as a “personal advisor or counsellor” to the department head, a Ghanaian Cardinal named Peter Turkson. (Fr. Michael has since moved to the position of Undersecretary for Migrants and Refugees, in which role he reports directly to Pope Francis.)

Asked next whether the encyclical was written in English or Italian, Fr. Michael laughed and answered, “I think I can say yes to that.” I laughed, too, and then asked, “How many people were involved in the writing?” This question, too, he received with gentle deflection:

“I can’t tell you.”

“Can’t tell me because you don’t know or because it’s”

“I just can’t tell you. [laughs] I’ll answer that way, but I can’t tell you. Remember that I’m a government representative, so there are limits to what I can say. I’m happy to talk, but I won’t say more than I can.”

It was an interesting reminder that the Vatican is, indeed, more than a global institution of religious leadership: it’s a government, and the same kind of on-the-record, off-the-record rules apply. In any case, any careful reading of the encyclical reveals the presence of multiple voices. Some of the text delves directly, deeply and with great clarity into the science of climate change and the general human strain on the earth’s ecosystems. Other sections explore policy questions,

and a great long section toward the end settles into the philosophical and theological questions you might expect in a more conventional Papal encyclical. The sweeping character of the document was not accidental, Fr. Michael said. *Laudato Si'*, is “not a *green* encyclical. It’s a comprehensive and social encyclical about how we have to live together.” There being many component parts, presumably Pope Francis called up many people to help in that “first draft.”

In an effort to clarify the specific areas of Fr. Michael’s contribution, I quoted one of my favourite passages, which states: “Our goal is not to amass information or to satisfy curiosity, but rather to become painfully aware, to dare to turn what is happening to the world into our own personal suffering and thus to discover what each of us can do about it” (p. 22). Even as I was reading the quote, Fr. Michael fell into the cadence and joined me in reciting the words “our own personal suffering.” It was that phrase, precisely, that seemed to affirm my own view that to contemplate the extent of our climate risk is to feel the pain of threat and loss personally. And, in his ability to quote it from memory, Fr. Michael seemed to confirm that this was a section that he knew with great intimacy.

It’s also clear that Fr. Michael came to this assignment as a religious scholar, and not a climate scientist. He grew up in Montreal, discovering the Society of Jesus at Loyola High School. He did a doctorate in interdisciplinary studies at the University of Chicago (1978) and in 1979, he became the first director of the Jesuit Centre for Social Faith and Justice, in Toronto. He later served in El Salvador for two years, then in Rome, and in Nairobi, Kenya, where he founded the African Jesuit AIDS Network (2002-2010).

The segue into climate change was a direct response to the Papal invitation to help draft *Laudato Si'*, and while Fr. Michael was affected by what he wound up reading, he wasn’t surprised. In describing a long history with environmentalism, he said, “My father was an

ecologist before his time and so I grew up with probably an unusual awareness of it.” Having then worked much of his career on human rights, social justice and AIDS, he also was all-too familiar with disheartening circumstances. He said:

I find the news often very depressing – very, very depressing. But I also know – and this is also true in the migrants and refugees work – that part of the depression comes from our distance from reality. In other words, if you’re closer to people and you’re involved in their real struggles and what they’re doing and their responses, it’s encouraging.

It’s the global overview that gets you down, he said. But when you work with populations that are “probably borderline incapable of reading the text [of *Laudato Si’*], but are living it, I think that is the real source of hope.” I was surprised by that contention and said that I would have thought it would be *more* dispiriting to see people who are already suffering the direct effects of environmental degradation. Fr. Michael said:

I think, for me, the real despair comes from the stupidity and self-centeredness of the decisions. And as you know, the decisions are not made near the ground, unfortunately. I mean, at the risk of generalizing, the poor don’t make stupid decisions. Because the poor don’t have the luxury for fooling around.

So, while it is depressing to see sweeping, corporate decisions that result, for example, in large-scale desertification, if you spend time among the farmers who suffer the consequences, “You’re enraged, but you’re not in despair.” On the contrary, Fr. Michael said, people on the front line are a source of inspiration.

And that's true, for example, with the work of garbage pickers or popular recyclers, people who have no choice but to collect stuff. They do magnificent work, and intelligently, and provide a real service to the society. ...

And peasants don't usually abuse the land. They might not use the best techniques available, but in the medium- to long-run, they learn what does and doesn't work, that this or that is counter-productive, and they have already learned how to handle it well. Whereas Monsanto-driven decisions have not been tested against nature where nature includes 'man.'

I jumped in at this point to make the case for hopelessness. I had already talked about the thrust of my research and of my own gathering despair, and I pointed out that, despite the best efforts of peasant farmers, a single decision by a Monsanto-sized company could lay waste whole regions. To which Fr. Michael answered with patience, humour and a bit of tenderness. He said: "If you're looking for a reason for depression, you'll soon reach your goal." Then he laughed and added, "I say that the ostrich is highly underrated. I think it's a hint – a very constructive solution. Of course, at times the ostrich has its head above ground; it selects what it will deal with."

I answered, "Yes, that notion of only looking at what you can manage," and Fr. Michael laughed again and said, "Exactly! ... you've got to work on the part of the piece that you can work on and if you do it wholeheartedly and without competing with the others" He trailed off, not in despair, but in a certain kind of triumph, as if the good in what he was suggesting was self-evident.

We moved on to what, for me, is the complicated realm of faith. I told Fr. Michael that I am a lapsed Anglican and then wondered if that phrase – “lapsed Anglican” – might sound to every Jesuit like a redundancy. If so, he didn’t say it. He waited, still patient, until I asked whether it is faith that carries him through. He said:

Faith runs through it all. It’s God’s identification with us. ... He not only created what we know and love, but He has personally identified Himself with it. God is not remotely furious about how things turned out. He has become one of us and is actively participating, and that’s true in AIDS and it’s true in migrants and it’s true in climate and it’s true in human rights. So, I have a deep-seated faith that Christ will alter our life. That’s because we’re saved, not because we’re going to engineer our way out of an impasse.

I asked: “What does being ‘saved’ mean? Is it salvation for people on earth? Or is it the salvation that’s promised after?” And he answered:

I wouldn't distinguish too much between before and after. But I also wouldn't distinguish much between the human and the rest of creation. God created all this and said it was good. He didn't say, 'I created all this merely as a good context, while man is the only thing I'm interested in.' ... I think that it's pretty clear that's not the way to think. I think the encyclical makes it pretty clear that's shortsighted. I believe what we do that is good and valuable and beautiful will not be lost. ... I can't explain that. And I'm not very worried. But I'm confident that the goodwill of all of us will win out – we will outlive

our mistakes, but not because of our efforts to bring credit to ourselves, of course.

I said: “When you say that which is ‘good,’ broadly, I assume you mean not the good people among us, but the good in all of creation.” And he said: “Yes.”

We went on to talk about precious examples of “creation,” from the children whose future I worry about to the heavens that are surveyed, daily, in the Vatican astronomical observatory. Fr. Michael said:

The Jesuits have always run the observatory. For your work, they are among the most interesting sources of thinking because they do think big picture, and yet they don’t think in the clouds. They’re astronomers but they’re not floating out in space. I find that part of my human consolation is in the larger picture, this amazing place we’re in. I can hardly imagine, even after you say five or 10 light years, I just can’t get my mind around that. [laughs] ... It’s breathtaking.

I agreed, saying, “There’s something pretty magical about it,” adding, “If the faith piece escapes me, the magic of it does not.” At which Fr. Michael smiled and said: “Just missing the Magician.”

The conversation turned to policy, the bad and the good, the problems and the promise. Fr. Michael said that just as he is encouraged by the efforts of those who are closest to the ground – and facing the most immediate risks – he is also most optimistic about the policy work and successes that he sees occurring at the level of government that is also closest to the ground:

Nearly unfailingly the stories coming out of cities are very encouraging. The Pope said to a bunch of mayors that he met a year or two ago He said, 'People like presidents or myself can deliver a good speech before the United Nations, but you people actually do things.' He said, 'Yours is the responsibility, you are the hope.'

This is part of a bigger thing which I feel – one word for what we're talking about is governance. That's the real problem we're talking about. The real problem running through climate, poverty, human rights, migrants – it's governance. It's that the complexities, the real or imagined complexities of our set-up, outstrip our ability to manage them. That's the core thing. That's the core issue.

... I think that the city is the last viable unit. The mayors are still able to connect and respond. Once you get to even what in Canada we call provinces ... the dysfunction is already setting in – the incapacity to decide, the corruption. The party system is broken so we don't have democratic channels to express our opinions. Then our higher leaders manipulate us to re-elect them and the hell with whether they delivered competently or not.

The mayors are more accountable in the decisions they make. They deal with everyday living, and the mayors and their municipal councils are constantly and concretely aware of the real living conditions.

For an urban example of good governance and successful policy, Fr. Michael pointed to the Blue Box – the container people use to divert recyclable material from their garbage.

This was a perfectly basic attempt. It proves what I think is true: if you argue with [people], you probably only make them more stubborn. If you try to convince them that they should be green, you're not going to get anywhere. But if you give people a chance, they'll choose well. If you put a Blue Box in front of them, there are very few who will spite you and say, 'Now I'll be damned if I'm going to use that thing.' Generally, massively, you see the devotion with which people put out their Blue Boxes and they follow the rules. ...

You say, 'We're going to hell in a hand basket.' But on the other hand: give people a chance, they'll respond. That's very typical at the city level.

He is right, of course, and I said so – before turning, perhaps annoyingly, back to defending the notion of hopelessness. I said: "I take your points that good work is happening at the city level. But it's a global problem. You can't resolve a global problem with a municipal infrastructure."

Fr. Michael didn't respond. He didn't say, again, that if I was determined to search out a depressing scenario, I would surely succeed. But toward the end of our session, in a lull, he spoke what sounded like an answer to a question that I hadn't quite asked. He said, simply but conclusively: "The curious thing is that I don't relate to people who have no hope. ... it's not my experience."

Conclusion

Truth is something for which we have to be prepared: not only to understand it but also to withstand it.

– Ravi Ravindra, *The Gospel of John in the Light of Indian Mysticism* (2004, p. 27)

I set out, with this research project, to inquire: How can people live an active, productive and conscious life, even in the shadow of threats they find overwhelming? The question was intended to step beyond the narrower query – How can you live without hope? – to ask: How can you live *well* without hope? This, in turn, arose from my own climate dismay and from the despair, panic and pain that I have witnessed in so many others as they learned enough about climate change to scare them hopeless. The question was further informed by the cascade of negative stories – of catastrophic weather events and cataclysmic climate predictions – that have become the new normal. For years, it seemed every time I updated my goals or desires, a whole new set of hopes would be dashed. I finally concluded that my best defence against the regime of hope and disappointment was to *stop hoping*.

I knew, therefore, that I could live without hope; I've been doing so for years. I didn't know how to live well. I didn't understand how the best of my colleagues can know what I know and yet still flourish. I couldn't comprehend how they seem to be able to draw energy from the dire realities of climate science and use it to fight harder against this existential threat. In reading, thinking and, especially, in interviewing my five research participants, I have come increasingly to believe that what I had regarded as the problem of hopelessness might actually be part of the solution.

Before digging into that question, it is relevant to review my definition of hopelessness: it is, literally and narrowly, a state of being without hope. Of course, the English language is full of ambiguities and overlapping meanings. And perception is personal; words land differently on different ears and some words evoke meanings or emotions that cannot be dismissed. So, no matter how much I insist that hopelessness means *only* “without hope,” some might still find the word loaded with despair or defeat. So be it. Those meanings also crowd into my consciousness in an unsettling way, but my task has been to understand how to fend off those incapacitating influences even as I manage my own life, without hope. That, in turn, might require that I strip the dark power from the potentially debilitating sense of hopelessness – and from the word itself. What follows should be understood in that context.

Is it reasonable to abandon hope?

There is camaraderie to be found among the hopeless. That, like so much in these pages, is subjective. Many might reasonably recoil from frank conversations about the risks of climate change, especially when talking with people who readily acknowledge the ominous nature of the problem. But, looking deeply into my own experience and reactions, I have been surprised during this study to find myself reassured, less stressed and, periodically, delighted to be in conversation with people who are completely open about their climate-related fears and apprehensions. Certainly, in reviewing transcripts and concentrating on the most despondent comments, I’ve had moments of emotional exhaustion and extreme sadness. I was reminded, once in a while, that it is cathartic to weep. But mostly, I have found an unexpected relief. I was grateful that no one tried to tell me that everything is going to be fine. Even those who said that they, personally, have hope, didn’t insist that I should, too. Admittedly, Naomi Oreskes implied that I am “self-indulgent” for giving way to despair. And Fr. Michael Czerny allowed that he

couldn't "identify" with my hopelessness. But no one took issue with the sincerity or reasonableness of my position.

With respect and admiration for my research subjects, I also don't mean to imply that *they* are hopeless (by any definition of the word). On the contrary, as a first theme from the research, all the research subjects proclaimed what they described as hopefulness. And even when I felt in the moment that they were kidding themselves – or perhaps that they were resorting to Václav Havel's strategy of redefining what hope means in order to claim its protection (Hardin, 2011) – I didn't push. Their professed hope was, itself, personal and subjective and my goal was to understand how they were coping; there was no research benefit to be gained from assaulting or deconstructing other people's emotional undergirding.

But, a second theme emerged in tandem with the first: even while claiming hopefulness, at least four of the five participants acknowledged that their own hope sometimes falters. David Suzuki and George Monbiot both described specific moments of panic or despair, and Naomi Oreskes and Michael Mann were frank in saying that they struggle when considering how the future will unfold. Even Fr. Michael Czerny said, "If you're looking for a reason for depression, you'll soon reach your goal." So, again, none of the research subjects challenged my own lack of hope. They didn't say that I am misinformed, that I am not trying hard enough or that I lack in proper moral conviction. Rather, after every conversation, I was left feeling that my lack of hope is entirely reasonable and completely understandable.

This is not to suggest that my hopelessness was, in some external way, validated. I was not looking for validation. I certainly was not searching for an affirmation that the world is headed for a cataclysmic reckoning; if I was, I could have spent my time among the new-age catastrophists. Rather, in the research interviews – and in numerous conversations that I have had

with friends and colleagues about this project – I have been struck by how many people accepted that hopelessness, sometimes with attendant despair, is a rational reaction – even if one they count as unfortunate. For those who suffer a sense of failure in not being able to read the news and still maintain a hopeful outlook, this may be a reassuring result.

I was further pleased to conclude that I am not, in some tragic, emotionally stunted way, weak. Looking to the opening quote from the religious scholar Ravi Ravindra, I would argue, instead, that those who have looked hard at the science of climate change and abandoned hope are revealing a kind of strength. Their ability to understand the extent of the climate risk is, by Ravindra’s logic, predicated on a concurrent ability to (with his italics) *withstand* that knowledge. This makes perfect sense to me. Every fibre of my being wants to reject the conclusion that humans have set the earth on a course of devastation – a path that will pre-empt my children’s opportunity to live a full life in a healthy ecosystem. It would be so much easier to turn away. It takes a daily act of courage – or perhaps just bloody-minded determination – to read the news and withstand its implications. So, I admire greatly those people who focus on the issue every day, who wrestle with the demons of fear and doubt many nights, and who fight on. I find their courage contagious.

Is it useful to abandon hope?

This brings me to a first and fundamental question: if my lack of hope is reasonable, perhaps even praiseworthy in revealing that I have had the courage to acknowledge a catastrophic threat, is it useful? In quoting James Baldwin, saying that, “Not everything that is faced can be changed, but nothing can be changed until it is faced,” the *Hope in the Dark* author Rebecca Solnit seemed to be suggesting that a threat could only be faced – and changed – if the would-be change agent was hopeful (2016, p. xviii). Perhaps, however, hopelessness itself must

be faced. In which light, I wonder: is anything to be gained by proclaiming, or even acknowledging to others, that I have abandoned hope – or it has abandoned me?

The usual response is a fervent: no! A typical example arose in an interview with the environmental author and essayist Barry Lopez, who says:

The only thing you can't do in public is to destroy people's sense of hope.

There are things we know that we don't bring into conversation. You've got to take care with what you say. Where am I going to go to keep my own sense of possibility alive? (Gill, 2019, para. 19)

Yet, as the interview unfolds, it seems clear that Lopez personally is not *hopeful*. When the interviewer, Ian Gill (himself an environmental author and activist of considerable influence), asks, “Do you think we have a shot at stability (if not progress!) in the next 40 years?” Lopez responds:

I would say no, but it's important to act as if it's possible. We have to stand up for what we believe civilization stands for, even if it's gone off the rails. (para. 31)

Why? Why should we pretend? The most recent report of the Intergovernmental Panel on Climate Change holds that we have only until 2030 to limit global warming to a safe level. The IPCC reports further that the community of nations has set mitigation targets that are inadequate to achieve that goal. And it states, finally, that no major emitting nation is currently on track even to meet those inadequate targets (Masson-Delmotte et al., 2018). A recently leaked Canadian report shows temperatures rising twice as fast in this country as in the rest of the world (Lewis &

Dickson, 2019). And yet the Canadian government's current plan is to facilitate expansion in the Alberta oil sands – the country's single-largest point source of greenhouse gas emissions (Morgan, 2018). Against that reality, why should we be treating our fellow citizens like children who are incapable of managing bad news? Why continue to offer them hope? As a strategy, there is no evidence whatever that soft peddling the risk has succeeded thus far. On this point, I was struck by the blunt profundity of Greta Thunberg's position. In a 2018 TED talk, the then 15-year-old climate activist described the extent of the climate threat and then said:

This is where people usually start talking about hope: solar panels, wind power, circular economy and so on. But I'm not going to do that. We've had 30 years of pep-talking and selling positive ideas and, I am sorry, but it doesn't work. Because if it would have, the emissions would have gone down by now. They haven't. (Thunberg, 2018)

I also was interested in Naomi Oreskes's take on the people who want to hear that she thinks everything might turn out just fine:

I get asked this question of optimism all the time. I'm so glad you started with that, because, frankly, most of it just seems like a diversionary tactic. It seems like people just want to hear that you are optimistic, so they can go home and watch television again.

Yes! The strategy of keeping the troops hopeful seems instead to give them an excuse to turn away – to resume their business-as-usual lives in misplaced confidence that someone, somewhere will come up with the miracle that will save us all. Even the research on this approach seems unconvincing: yes, it shows that hope can be an instrumental component in

supporting behavior change – but not if that hope is associated with denial (Ojala, 2012). Thus hope, nurtured as a precursor for action, can just as easily be repurposed as an excuse for complacency.

There is also a common – and, I think, questionable – notion that hope itself has merit. For example, in the encyclical *Laudato Si'*, Pope Frances says, “Hope would have us recognize that there is *always* a way out, that we can *always* redirect our steps, that we can *always* do something to solve our problems” (2015, p. 47) (my italics).

I hardly think so. In one of my last personal engagements with an institutional religious organization – now more than 30 years ago – I was married in an Anglican church, a requirement of which being that my fiancé and I had to participate in the church’s marriage preparation class. One memorable lesson from that class was that, in arguments, you should avoid the words “always” and “never,” because a single exception will disprove your point – often turning the dispute away from the matter at hand and towards a question of integrity. (“You say I ‘always’ leave my shoes in the hall, but just look...!”) In that light, the historical record shows that we cannot “always do something to solve our problems.” Sometimes, our problems are insoluble. Standing around and hoping otherwise cannot be helpful when the evidence is overwhelming that avoiding the problem is not among the choices. In such a case, hope isn’t a gift – a soft, insulating blanket. It’s a lie, and one that creates greater risk by denying us fair warning.

Of course, as Michael Mann pointed out, it can be equally dangerous to abandon hope – if it leads to surrender. If people become convinced that humans are doomed – that there is no possible upside to making sacrifices or even adjustments – that, too, can become an argument for inaction. That, in turn, inspires in Mann a reasonable case for what I might describe as “slim hope.” Without ever promising, or even imagining, an unreservedly rosy future, Mann says, “If

there's even the slimmest chance of winning – then the decision not to fight is a decision to forego that possibility.” By that logic, acknowledging a situation to be hopeless means abandoning even the most unlikely prospect of avoiding, or just delaying, an obnoxious result. In this scenario, we must maintain some motivating, mobilizing force or else surrender – not just to hopelessness, but to the worst version of a feared outcome.

Still, I remain mistrustful of hope as a reliable backstop. What happens when you attach that thin thread of emotional protection to a specific result? What happens, for example, if you invest yourself in the prospect that world leaders will agree, in Copenhagen or Paris, to a reasonable plan for reducing greenhouse gas emissions – and then they fail? What happens if you put all your faith, trust and hope in the notion that the worsening forest fire seasons won't consume your community, but you live in Fort McMurray, Alberta (CP, 2017) or Paradise, California (Gee & Anguiano, 2018)? What happens when you lose your home *and* your hope?

It comes to this, as reported from a correspondence between George Monbiot and Paul Kingsnorth, the writer and co-founder of the Dark Mountain Project. After a long, dark dialogue on the unavoidable chaos that is already baked into the climate system, Kingsnorth wrote to Monbiot, saying:

Some people – perhaps you – believe that these things should not be said, even if true, because saying them will deprive people of “hope,” and without hope there will be no chance of “saving the planet.” But false hope is worse than no hope at all. (2009, para 7)

So, we face what may be an irresolvable conflict. On one hand, false hope is toxic. The rash promise that we can continue living, consuming and emitting as we do today and still be

sanguine about the possible outcome is as dangerous as it is ridiculous. Agreed, full recognition of the extent of our risk can be demotivating – even paralyzing (at least in the short term). And if I could imagine any circumstance in which my children, and theirs, would have a chance of growing old in an unravaged world, I would be the first to promote hope as a motivational force. But how can we justify trafficking in the cheerful white lie when it has such power to distract? What if others need the shock of frightful recognition to shake them from their delusional torpor?

On the other hand, Ravindra's observation also has merit. An audience capable of withstanding a difficult truth might make excellent use of a stark and unsettling warning. But what of the audience that is thoroughly unprepared? Railing against their delusion might, instead, be counterproductive. Some could find the news devastating. Many might withdraw into paralysis. And, as we have seen before, among those who cannot withstand bad news, some will double down, searching everywhere – sometimes with great intelligence and determination – for any alternative argument, even a fallacious one. What then?

There is an implication in asking such a question that there is an all-purpose answer. There is a suggestion that there is a right or wrong way to communicate about climate change. But it's far likelier that informational strategies must be varied and personal, to reflect the variety and capacity of those in the broad audience. It's impossible to script a single climate message that will engage everyone. Still, I believe that Barry Lopez is wrong: in many instances, it might be entirely appropriate to challenge people's hope – especially if it is allowing them to ignore a threat that will loom larger thanks to their inaction.

So, in answer to the question – “Is it useful to abandon hope?” – the answer might be: “Absolutely!” This could especially be the case if challenging hope awakens people from distracted inaction. But that only applies if people can make use of the warning. It's only

worthwhile to shatter the denier's delusions if there is still a chance to mitigate the damage – which is to say, if there is still hope!

This pushes me into a philosophical contemplation similar to that which forced me to forsake atheism in university. I grew up in the Anglican church – if not exactly in an Anglican household. My father was always engaged, a happy attendee and volunteer in the church. He ran the Sunday school for years and I spent many weekends setting up chairs on Saturday afternoon and then taking them back down on Sunday – and then counting the collection. It was fun, in the way that a discrete task can be rewarding when you're doing it for a good cause and with people you like. I never regarded my dad as devout, exactly. He never behaved as a doctrinaire or evangelical Christian. Even in the Sunday school, he administered; he didn't preach. But it was clear that he felt he was doing the right thing and that it brought him pleasure – or, at least, fulfilment. Lt.-Col. George Edward Littlemore was a dutiful sort. My mother was less so, particularly where being dutiful might have involved churchgoing. Through one misadventure or another, she had come to associate the church with the flawed humans she found there. But that became less of an issue as she attended less, and less. So, as a child and adolescent, I heard the church's teachings – for many years, as a choir boy, I was listening to sermons three times every Sunday – and I had an obedient, constant model in my father. But I understood, through my mother, that faith was something you could reject – which I ultimately did, concentrating on the institutional church's imperfections and on the confusion and contradiction that I found rife in Biblical teaching.

Having disavowed the church, I couldn't leave well enough alone. I embraced atheism not just as a personal catechism, but as an evangelical mission. I stormed about, arguing like a fervent but poorly prepared Christopher Hitchens that *God is not great* (Hitchens, 2008). This

was good sport, but poor citizenship – or that was the view of my favourite English professor, the Nipissing University stalwart Dr. Ron Klingspon. One afternoon, after I had spent yet another seminar rattling the faith of a fellow student, Prof. Klingspon – whom we affectionately knew as “Klinger” – held me back and asked what I hoped to gain by beating up on someone whose worldview was tied so closely to his meal plan. It turned out that my fellow student was the son of a Baptist minister – and still lived at home. Klinger complained, first, that my attacks on this student’s faith were unkind. But he also said, “If it’s irrational for him to insist that there *is* a God, regardless that such a thing cannot be proved, how is it any more rational for you to argue there is *no* God?” Thus began my life as an agnostic: I find the existence of a higher power an unanswerable mystery, and I’m okay with that.

So, if I am prepared to be agnostic about God, how can I justify holding so tightly to the notion of hopelessness? Indeed, a third theme arose among research participants who found hope not in what they know, but in what they don’t know and cannot measure. David Suzuki, for example, looked hopefully to the mysteries of nature:

My hope is that we don’t know enough to say it’s too late. My hope is based on the knowledge of our own ignorance and that if we can give nature more room, she will be more generous than we deserve.

Naomi Oreskes argued that, “It’s not too late to prevent total catastrophe. It’s not too late to stave off the collapse of Western civilization.” And Michael Mann pointed out that, “It’s not a binary matter: it’s not screwed or not screwed. It’s a degree of screwedness.” I also like Suzuki’s contention that, “We’re each a drop in the bucket, but we can fill any bucket if there are enough of us doing things.”

These arguments all ring true – and they seem tempting. I want to believe that we *could* prevent the worst climate calamities from occurring. This, however, makes it all the more enraging that we're not making anywhere near the effort necessary to achieve a result.

Humans have understood the science behind global warming for more than a century. The first American president to proclaim it as a potential problem was Lyndon Johnson, who – *in 1965!* – told Congress, “this generation has altered the composition of the atmosphere on a global scale through ... a steady increase of carbon dioxide from the burning of fossil fuels” (Hoggan & Littlemore, 2009, p. 18). The first American president who promised to *fix* the problem was George H. W. Bush, who – *in 1988!* – campaigned on this promise: “Those who think we are powerless to do anything about the greenhouse effect forget about the ‘White House effect;’ as president, I intend to do something about it” (p. 19). Yet, as the Scripps Institution of Oceanography shows in its regular updates on the atmospheric composition of carbon dioxide, we humans have caused the emission of CO₂ to rise faster and further in the 31 years since Bush’s pronouncement than it had since accurate measurement began in 1956 (Program, 2019). So, to all the hopeful people: it’s *not* too late. Nature *might*, indeed, give us more room. We *could* stave off the collapse of Western civilization. We *could* fill the bucket. Even if we can’t roll back time and fix the problem entirely, we *could* still mitigate.

But we’re not. And with every reaffirmation of our inaction, that knowledge destroys my hope. I have learned to withhold judgment on whether there is a higher power in the universe, even while accepting that it is an intellectual copout. But I am depressingly confident in my faith that humans are bent on a course of self-destruction and that every effort that any of us has made to lead away from that path has failed. And I find that failure crushing.

I also take it personally, which raises a fourth theme that emerged from the research – a sense among interviewees that their unsuccessful efforts to prevent or mitigate climate change had made them somehow responsible for the current state of the world.

My own sense of failure first surfaced in 2009 when I came home from the climate conference in Copenhagen in a black mood. James Hoggan and I had just released *Climate Cover-up*, a definitive exposé of the international climate change denial machine (2009), and many in the community of climate activists had been looking forward to Copenhagen: the 15th Conference of the Parties to the United Nations Framework Convention on Climate Change. This, we believed, was to be the year in which the world finally began to take seriously the science, and the political challenge. Instead, it was the year of “Climategate,” in which Russian vandals hacked into the servers at the Climatic Research Unit at the University of East Anglia and stole thousands of emails, none of which ultimately proved to be inappropriate, but many of which were stripped of context in a disinformation campaign that overwhelmed the Copenhagen gathering (Mann, 2013). Having spent the previous five years working to expose the professional proponents and mechanisms of climate change denial, it was heartbreaking to see those very people preening in front of the microphones and cameras in the conference media centre. I left the place feeling that the deniers had succeeded and that I, personally, had failed in an epic way.

Accordingly, reports from this period indicate that I was not good company. My spectacularly patient and insightful wife, Elizabeth, was gentle and supportive for as long as any saintly spouse could be expected to be so, but she finally got to the moment of tough love. She turned on me one day and asked who in the world I thought I was. Had I really believed that a single small-circulation book from a quiet corner of Canada was going to swing the global

debate? Was it sensible or reasonable to assume that the current state of climate politics was *my* fault?

Of course, the answer to the latter question was a surprisingly grudging, no. Because, fool that I was, I really had hoped that my efforts – and those of so many others – might yield success.

Against the humiliation of that memory, it has been reassuring to hear that others have wrestled with the same sense of personal failure. Suzuki, for instance, recounted his own cold realization, of saying, at least figuratively, into the mirror, “Who the fuck do you think you are? You’re one person out of seven billion. ... it is a conceit for you to think you’re carrying the weight of the world on your shoulders.” It is instructive to me, given how much I admire Suzuki for all that he has achieved, to learn that he, too, beats himself up for having failed to achieve more. It brings me back to the notion of camaraderie among the hopeless: even if I am delusional to claim some narcissistic blame for losing the climate battle, at least I’m not alone in that craziness.

It’s not even just Suzuki and me. As Naomi Oreskes said, “There are billions of people on this planet that wake up every morning and don’t feel responsible for the fate of the earth, so why do I feel so responsible?” But Oreskes also points a way forward, adding, “Maybe I don’t have to be responsible. Maybe I could pass the baton. Maybe somebody else needs to carry this burden.”

Maybe, as well, it’s time to move to a place of greater acceptance – to embrace the words of former Israeli Prime Minister Shimon Peres, who said, “If a problem has no solution, it may not be a problem, but a fact – not to be solved, but to be coped with over time” (Patterson, 2004).

Peres's fatalism leads me back to the stages of grief that Elizabeth Kübler-Ross first described in her book *On death and dying*: anger, denial, bargaining, depression and acceptance (1969). It's tempting to believe that these stages should roll out in order – that you should be able to tick them off one by one and arrive at acceptance in a peaceful state, ready to embrace your own death. That's not what Kübler-Ross suggested, and it's not how the stages generally unfold. As I look back over the 25 years I have been obsessing about climate change, I recognize how haphazardly those stages can arise and recur. As previously acknowledged, I'm frequently *angry*, and I know I'm not alone. I've written extensively about *denial* – and I have spent long periods looking at any issue other than climate change, not really hoping it would go away, but seeking respite from my fears and delivery from *depression*. I also have indulged in endless rounds of internal *bargaining* and I see others doing so still – clinging to “slim hope” scenarios, saying, “Yes it's bad, but maybe it doesn't have to be that bad.”

But *acceptance* still stops me cold, because we are facing an unfolding global catastrophe that remains – categorically – unacceptable. We are not, in this instance, talking about death. I find death acceptable because it is inevitable. It is part of life. But climate change – human-induced climate change – has looked to me, for more than 30 years, like a car crash that was eminently avoidable. Had we taken action when the first U.S. President Bush promised to do so, we might already be living in a world where most of our energy was renewable and most of the earth's inhabitants were abstemious vegetarians, buying less, flying less and, perhaps, dancing more. Even the climate catastrophe we face today *could* still be mitigated. We *could* already be acting. It's just that we're not – or perhaps that the sum total of human action is still pushing us faster in the wrong direction.

I also understand the Buddhist entreaty to embrace the world as it is, not as you wish it to be. In that context, I can go this far: I can embrace – or, at least, accept – my hopelessness, even while I reject the threats, the inaction, the broad social delusion, the political abdication and the campaigns of disinformation that lead us away from the path of mitigation.

There is a variation on the Buddhist teaching of acceptance that speaks more directly to worry. His Holiness the Dalai Lama has said there are two ways to manage worry in the face of a crisis: “If it can be solved, there’s no need to worry, and if it can’t be solved, worry is of no use” (Silvester, 2017, n.p.). That is a lesson worth re-learning every day – and the imperative is clear. The Dalai Lama is not saying that we should accept the negative situation; he’s saying we shouldn’t suffer the health damages of stress over those parts of a problem that we cannot address. It’s a teaching that punctures my narcissism. It renders irrelevant my sense that I, personally, am to be blamed for failing to solve a global crisis – without absolving me (or anyone else) of the responsibility to keep trying.

So: we should not worry about things that cannot be changed. Perhaps, then, we should not hope for things that cannot be obtained. The topical reference is, again, that of *hopium* (“Urban Dictionary,” 2017). Like the narcotic that the name evokes, *hopium* might be useful in critical care. If you need an inoculation of something to get you through a difficult period, hope might be just the thing. But if you grow to rely on it – and nothing else – to treat a chronic condition, then *hopium*, like opium, quickly becomes part of the problem. Dulled and distracted – relying on hope not as a motivator but as an anesthetic – too many of us drive and eat and fly indiscriminately; our corporate leaders and our politicians make insane, unsustainable choices that they characterize as “pragmatic,” as if taking action to preserve the habitability of planet

earth is somehow impractical. I see them as addicts, living in a foggy haze of hopium, and I recommend a healthy tincture of hopelessness to them all.

Can hopelessness be helpful?

When my eldest son, Ted, came home from his first year at McGill University – this would be 10 years ago – he asked me one day what I regarded as the full implication of climate change. And I told him what I expect, in detail that was calamitously bleak if not completely hopeless. As parents, Elizabeth and I have always had a policy of answering questions fully and honestly, reasoning that if one of our three boys had come to the point of asking, he was indicating a readiness and maturity to manage the answer.

Soon after the conversation with Ted, I was chatting with someone at a social occasion. We'd drifted onto the topic of climate change (my favourite at the time), and I was, perhaps, dipping too deeply into the darkness. Suddenly, Elizabeth interrupted with uncharacteristic annoyance, suggesting that it was time I stopped dragging people into depressing conversations, especially as I clearly had no comprehension of the effects of my obsession.

This caught me off guard. Elizabeth is warm, supportive and incredibly patient, and we don't have a barking relationship. I can't think of a single other occasion when she has scolded me in public. So, when we were alone, I asked her what had set her off. It was Ted. After he'd asked me for the climate download, he spent the next three nights – between the hours of 3 a.m. and 5 a.m. – crying on his mother's shoulder. And I had slept through the whole affair, itself unforgivable. Even so, when Elizabeth told me the story, I was more satisfied than chastened. I was (and remain) proud of Ted for having the courage to ask the question. I was even more proud of the way he processed the answer. I respect his willingness to look unflinchingly into the trajectory of climate change. I admire his capacity to withstand, demonstrated so movingly in the

grief and compassion of his response. Further, I have appreciated the greater attention he has paid in the time since to limit his own contribution to the problem.

I was, therefore, unreformed. I was more careful in the months that followed not to launch into depressing predictions while standing too close to Elizabeth, but it's fair to say that people in our social circle knew better than to invite me into a climate conversation unless they were bent on ending the cheerful part of the evening. Worse, I remained the brooding, alarmist father. And, with apologies to youngest son, Llewellyn, who still had the courage to invite me to address his friends and classmates, I was the expert Al Gore presenter who never got asked back to terrify a second group of high school students.

Yet, Elizabeth returned to being concerned rather than angry. She has watched me struggle; and like Fr. Michael Czerny, she doesn't identify with my hopelessness. She wishes for me some manner of deliverance. And she made this wish clearer a couple of years later, when we were in Europe, to celebrate a big birthday for her, and to conduct two of the interviews for this thesis. When I returned to the hotel after interviewing Fr. Michael outside Vatican City, and again after meeting with George Monbiot in Oxford, she asked: "Are you feeling any more hopeful, now?"

I'm pretty sure I laughed, a sardonic response that she can only have found hurtful. Even as I tried again to explain that I was searching for a personal coping strategy rather than for hope, I could see her disappointment. I didn't really think it through, but I likely concluded that *she* was "not getting it."

Live and learn. One day, in the week after we got back from the trip, I got a call from another of our sons, Avery. I was delighted. Avery is living in Toronto, working as an electrical engineer, so I cherish every opportunity we have to talk. But I was brought up short by his

opening question. Softly, tentatively, he said: “I’m just calling to find out how you’re doing. Like, how was the trip?” It was heartbreaking. I was immediately overcome to think that he, too, was worrying about me. He knew that I was working on a thesis about hopelessness and, no less than his mother, he seemed to be hoping that I had found some relief.

I also realized, finally, that the hopelessness I was carrying around was not mine alone. Like some greying, paunchy version of my sophomore self, I had been evangelizing; I had been deriding hope to anyone who would listen, regardless of their ability to understand, or withstand my dark imprecations. I realized, finally, that the problem was not that I had lost hope. The problem was that I was acting like a jerk.

The lesson didn’t fully settle for a few more months. It was March 2018, a point at which I had already sought several extensions on the deadline for this thesis, but I was full of optimism about an imminent opportunity to write the whole thing in one sitting. I had committed to join my brother-in-law, Price Powell, on a three-week voyage from the Galapagos to the Marquesas. Price and his wife, Gail, are sailing a 48-foot catamaran around the world, and this was scheduled to be the longest open-ocean crossing in their five-year journey. They needed crew – to share the watches and the work – and I thought it would be a perfect occasion on which to think, and to write.

I realized my mistake the moment I stepped on the boat. We were about to set out from the last point of land off the coast of South America aimed for the first rocky outcrops in French Polynesia, more than 3,000 nautical miles away. During that time, we would be alone on the ocean – hours or days from the nearest vessel. At one point, we would be more than 10 days from the nearest point of land, in any direction. And in 13,000 feet of water. This, I recognized, was no place to be moping about, ruminating deeply on hopelessness. I had been invited aboard

for my good humour and my willingness to share the seagoing duties. Remaining cheerful was not just a reasonable gesture, it was the minimum requirement of good citizenship. In such a place, at such a time, hopelessness was *not* helpful. So, I tucked my thesis notes into the bottom of my bag and got on with the tasks at hand.

Let me say, though, that the boat was also no place for hope. As Gordon Sullivan has already noted, *Hope is Not a Method* (Sullivan, 2010). You don't point west into the broadest expanse of open ocean solely on the strength of "expectation and desire combined" (O. E. R. Dictionary, 1995). You plan. You look carefully at the risks and take appropriate precautions. And brother-in-law Price had assuredly done so. He had backup systems for everything from food to navigation – redundancies for his redundancies. All hoping aside, I was completely confident in his preparations. It's true, I'm sure, that we all *hoped* the trip would unfold without incident, and, largely, it did. But if something serious had gone wrong, hope would not have helped. On a crossing equivalent to the distance between Vancouver, B.C., and St. John's, Newfoundland, any serious crisis might have rendered our situation hopeless. And, beyond the safety briefing on the first day, there was precisely nothing to be gained by dwelling on it.

Is hopelessness necessary?

So, here we sail on planet earth – afloat in the solar system, at sea among the stars. And if this big boat breaks – if the earth loses capacity to support human life – we are screwed. There will be no degrees of screwedness. No passing freighter will appear in the skies to rescue survivors. This world is our only craft. So, if the lesson I took from the sailing voyage can be generalized, there seems an implicit suggestion that a good crew member on planet earth should adopt a similar strategy: do your part and make every sociable effort to contribute positively to morale. No whingeing.

The analogy, however, is nowhere near perfect. Because on this larger, lonelier vessel, a great number of crew members are currently consuming bits of the boat as we travel; we are chipping away at our planetary craft's long-term sustainability, simply so we may party harder in the here and now. Even if managed in good spirit, this is not behavior to be excused merely because the perpetrators are pleasant and civil. On the contrary, it seems timely to acknowledge our common risk and to try to startle our fellow passengers to attention. To that purpose, the passion, the anger, the alarm that hopelessness can trigger might be necessary, indeed.

But just as hope can be a powerful narcotic, dangerous if overused, hopelessness might also be applied more effectively in small doses – administered only to those most in need and only in appropriate and controlled circumstances. And, truly, the stuff needs a warning label if you plan to use it near children.

That leads me to a first major takeaway as I try to make sense of the lessons gleaned during this research project: while I have contemplated the tenuous protection of hope, the reliable certainty of hopelessness and the toxicity of denial, fear and anger, I have too often overlooked the primary right and responsibility we all share, which is that of citizenship. I live in the world – as a spouse, a father, a brother, a colleague, sometimes an activist – often just as a guy lining up for tea and scones at the local café: it's appropriate in all those roles to also be a good citizen. I can't save the world single-handedly, but I can make my corner of it more liveable by pulling my weight. Sometimes, clearly, that requires less indignation and more empathy.

If the situation is hopeless, is there any point?

Accepting my own hopelessness – if not the circumstances that cause it – I am left to navigate not between hope and hopelessness, but between the rock wall of reality and the chasm

of despair. I find these to be separated by a narrow and dangerous ledge, because every effort I make to address the climate crisis works to reveal how much I care. And caring is the most painful thing I do.

It is springtime in Vancouver, a place I have chosen to live for its beauty and its promise. Looking around this fortunate city, there are, assuredly, pockets of injustice. There are destitute people struggling unnecessarily amidst unimaginable wealth. There are, in British Columbia, more than four fentanyl deaths a day (Eagland, 2019). But there is surpassing civility in the streets and cafés. Exceptions notwithstanding, people stop at red lights, hold open doors, smile at strangers and, in that Canadian way, say “sorry” for almost any infraction. Drivers make room for me on my bicycle: they keep me safe, even when I am jumping red lights or stealing glimpses at the sun’s sparkle on the sea or the mountains. I look at daffodils, popping up everywhere, or at cherry blossoms, blowing like so much pink snow, and I ache at the notion that we would put any of it at risk. And that doesn’t even touch on my concern for the people I love, and the happy, healthy futures we would forsake – so needlessly. Perhaps perversely, I don’t weep over war and injustice. Pictures of floods and droughts, of famine and pestilence – of refugee children face down on the beach – just make me angry. It’s the evening sun, throwing its last warm glow over the crowds at English Bay that brings me to tears. I am outraged and energized by the damage that we do: it enlivens the activist in me. But, amid so much beauty, I am crushed by the impending loss – once so avoidable and now so inevitable. And because of this raw, urgent, overwhelming emotion, I am daily at risk of allowing my fearful anticipation of a fatally compromised future world to undermine the joy I should be feeling in the world that still thrives today. In grieving impending catastrophe, I am squandering the current blessing and, occasionally, undermining the enjoyment – even the equanimity – of others.

So, I need a battle plan, and in searching for that plan, I have appreciated enormously the opportunity to speak so frankly with people who also struggle with fear and doubt, with anger and depression – people who have chosen to understand and withstand the climate dilemma, without taking refuge in denial. I was interested to hear, from George Monbiot, that he finds work to be an effective therapy – that immersing himself in one issue after another feels like progress. As he said, “I need to have that creative outlet to try to handle this impossible load of grief.” I admire his determination and I was moved by the glimmer of what you might call hopefulness in his own, broad outlook: “It’s pessimism about what we do and optimism about what we are.” I even find myself agreeing, although with this caveat: I find people, broadly, to be generous, collaborative, intelligent and fair. It’s a toxic minority of powerful outliers who have put us at risk.

Even before launching the research for this thesis, I was struck by the wisdom and integrity of the American writer Wendell Berry, who in answer to a what’s-the-point? question from television interviewer Bill Moyers, says, “We don’t have a right to ask whether we’re going to succeed or not. We only have the right to ask, ‘What is the right thing to do’” (Moyers, 2013)?

Here, I come to a fifth and final theme, arising from related literature and directly from the research interviews. Irrespective of their degree of hopefulness, all showed a degree of stubborn determination to continue trying to affect events positively, regardless of the likely result. Michael Mann said: “I believe you fight the good fight and there is reward and nobility in doing that. It’s the right thing to do regardless of the final outcome.” Naomi Oreskes said: “At the end of the day, what can anybody say on their own behalf? They can only say you did what you could, right?” And David Suzuki, even at a low moment, wrapped it up with equal parts of despair and defiance: “I personally don’t think we have a chance in hell (of meeting the Paris

targets), but we've got to try. It's not what we succeed in doing; it's that we try. The trying is what defines us."

I want desperately to believe that Fr. Michael Czerny is also correct when he says, with such conviction, "I believe what we do that is good and valuable and beautiful will not be lost."

In all of my interview subjects, I also perceived something that went beyond stubborn resolve toward a determined – and admirable – belligerence, a position that, regardless of our prospects for victory, it would be wrong to let the bastards take us down without a fight. Better, even in hopelessness, to fight vigorously in the face of a foregone defeat than to stand down, never to know whether your effort might have turned the tide. In this, I am reminded of a favourite bit of advice from Sun Tsu, the fifth century BC Chinese military strategist. In prosecuting a difficult battle, Sun Tsu says:

On hemmed-in ground, I would block any way of retreat. On desperate ground, I would proclaim to my soldiers the hopelessness of saving their lives. For it is the soldier's disposition to offer an obstinate resistance when surrounded, to fight hard when he cannot help himself, and to obey promptly when he has fallen into danger.
(Giles, 2002, p. 50)

In the current fight, we surely have no escape. There has never been a more urgent, more decisive opportunity to join a worthy struggle with all possible effort – regardless of our prospects for success.

Thus, finally, I return to Ravi Ravindra – to the observation that if we are to understand the climate threat, we must be prepared to withstand the impact of that knowledge (2004). To this, I would add the input of one of the great thinkers from antiquity, Plato, who in the book, *Plato's Republic*, was reported to have coined the four Cardinal Virtues: prudence, temperance,

justice and courage (Grube & Reeve, 1974). The first three are virtues that I eagerly commend to the people who are bent on accelerating the climate crisis – people who seem to have no sense of prudence, no taste for temperance and, in our inequitable world, no compulsion to act justly. Yet, I cannot compel them to change, nor can I have nearly enough impact by being prudent in my own plans, temperate in my personal consumption and just in my own dealings. But I certainly can be more prudent and more temperate in what I say and do. I can exercise better judgment. I can aspire to justice in all my relations.

More importantly, for the topic at hand, is courage: it is the only virtue that can (and, I fear, must) serve us each, personally and independently. Perhaps, if I can find courage in sufficient quantity, in all the days to come, it will serve me better than hope. Perhaps, it will give me the strength – and the peace – to revel in all that is good and valuable and beautiful. For, if it is a crime that we put the world at risk – and it is – it would be a greater crime, for as long as it lasts, to ignore its surviving glory.

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Appendix A

Letter of Informed Consent

Study Title: Better Than Hope: In Search of a Defence Against Despair in the Battle Against Climate Change

Student Researcher: Richard Littlemore

Project Supervisor: Dr. Robert Kull

I, Richard Littlemore, am a graduate student at Royal Roads University, working with my thesis supervisor, Dr. Robert Kull, in the School of Environment and Sustainability's Master of Arts in Environmental Education and Communication program. I am doing a research study, in which I invite you to participate. This form has important information about the reason for doing this study, what I will ask you to do if you decide to be in this study, and the way I would like to use information about you if you choose to be in the study.

Why are you doing this study?

You are being asked to participate in a research study focusing on the place of hope and despair in climate communication, particularly as those elements may affect your own work and life.

What will I do if I choose to be in this study?

I have asked you to be interviewed on the subject of climate change, on your professional contributions to the public conversation and on your personal reactions to that work – the point being to identify and better understand strategies to cope with any sense of hopelessness or despair arising from that work.

Study time: Your participation will include several organizational emails, a single extended interview – in person or by Skype – with the potential of follow-up, and a subsequent review of the material arising.

Study location: Where possible, interviews will occur in person in locations of comfort and convenience. Otherwise, by Skype.

I propose to record and transcribe this interview to make sure the resulting material is accurate and comprehensive. The fully transcript will remain in a secure location in my care and otherwise available only to my thesis committee or evaluators for review.

What are the possible risks or discomforts?

Above and beyond the risk of harm than you would experience in everyday life, your participation in this study may also risks involving emotional discomfort from being asked to discuss climate threats that most regard as upsetting.

What are the possible benefits for me or others?

Possible benefits include an opportunity for frank discussion of a difficult subject and a further chance of sharing insights or strategies to managing the emotional load of working in the field of climate change or simply managing the news of global environmental degradation.

How will you protect the information you collect about me, and how will that information be shared?

Results of this study may be used in publications and presentations or expanded at a later date to form part of a book on the subject. It will be clear in all references, however, that the purpose of these interviews was primarily academic.

Financial Information

Participation in this study will involve no cost to you. You will not be paid for participating in this study.

What are my rights as a research participant?

- Participation in this study is voluntary.
- If at any time and for any reason, you would prefer not to participate in this study, please feel free not to.
- If at any time you would like to stop participating, please tell me. We can take a break, stop and continue at a later date, or stop altogether.
- You may withdraw from this study at any time, and you will not be penalized in any way for deciding to stop participation.
- I will share a copy of my final thesis with you.

Who can I contact if I have questions or concerns about this research study?

If you have questions, you are free to ask them now. If you have questions later, you may contact the researcher by phone at ..., or by email at ...

Consent

I have read this form and the research study has been explained to me. I have been given the opportunity to ask questions and my questions have been answered. If I have additional questions, I have been told whom to contact. I agree to participate in the research study described above and will receive a copy of this consent form after I sign it.

Consent to Quote from Interview

I am aware that the material collected during interviews will be used for the thesis and may be published later as a paper or as part of a book.

Initial one of the following to indicate your choice:

_____ (initial) I **agree** to the use of quotes

_____ (initial) I **do not agree** to the use of quotes

Consent to Use Name

I recognize that my profile is important in giving context to the material to be quoted in the thesis and elsewhere.

Initial one of the following to indicate your choice:

_____ (initial) I **agree** to the use of my name and other personally identifiable information

_____ (initial) I **do not agree** to the use of my name and other personally identifiable information

Consent to Audio-Record Conversations

Initial one of the following to indicate your choice:

_____ (initial) I **agree** to the audio recording of conversations to be used by researcher for data and analysis, and to potentially be reviewed by committee members and thesis evaluators.

_____ (initial) I **do not agree** to the audio recording of conversations to be used by researcher for data and analysis, and to potentially be reviewed by committee members and thesis evaluators.

Participant's Name (printed)

Participant's Signature

Date

Name of Person Obtaining Consent

Date