ECO-ANXIETY:
Navigating the Doom and Denial of Climate Crisis

(an excerpt from *Weathering Climate Change*)

When we look to the future, the unknown stares back, unnerving us. Our brains abhor gaps in knowledge as much as we dislike stepping stones missing from one side of a stream to the other. Just because we don't like the gaps, however, doesn't mean we should try to fill them in. Worse, we should resist filling them in with false stories and beliefs. Such inaccuracies may help us allay the anxiety of gaps but don't help us in the long run. (This, by the way, is the philosophical basis for the "god of the gaps" logical fallacy.)

Nobody knows the precise design of the future. There are too many potential x-factors, especially ones we haven't identified, between today and even a year from now. One example is "Ideal Plants," the super-carbon-sequestering bioengineered plants, that world-renowned botanist Dr. Joanne Chory is working on at the Salk Institute.[i] Human extinction is not guaranteed, nor is our escaping this mess alive. This said, the weight of evidence, as Chapter II makes clear, tilts heavily in favor of a greater degree of cataclysm. This likelihood becomes more probable if we do little to drastically alter our current trajectory. We will have to wait and see what we can do to collectively alter our current course. To this end, each of us can contribute our unique and most passionate part to the climate conundrum.

Future climate scenarios, therefore, are shades of grey possibilities, not only black and white determinations. One black or white guarantee is climate effects will get worse. "The world is headed for major upheaval, it's merely a question of the scale," reports the *The Guardian* in a discussion with top scientists. We are due for worse if only because we are locked into a decade more warming even if we stopped our emissions today.[ii] We currently have no means to pull out the excess CO2 we emitted ten years ago,[iii] and global emissions have increasing annually right through 2018.[iv] The shades of grey, therefore, include the precise nature of future malady, which no one knows: how much non-human life will be lost, what will the refugee situation bring, what kind of social disorder will ensue, which foods will grow, how much will there be to eat, who and how many of us might perish, etc.

Many who know enough climate change science seem to swing between insistent optimism and staunch pessimism about the future. As I mentioned in the Introduction, those of us who deeply investigate climate change science are few. Those ignorant enough about the climate change details are more likely to hang in the greys of the spectrum, which is most of the population. I hypothesize this is because once we learn what's really going on, fear kicks in and swings us to one extreme or the other. The most honest stance towards the future is likely one of holding the pieces of evidence in dynamic tension without swinging to an as-yet unevidenced extreme. I don't propose this merely as a cognitive challenge, but because it seems most accurate. In fact, I think this territory is such a matter of shades of grey that using qualifying and quantifying words to describe each future possibility would be unduly tedious and cumbersome, if we even had such words. And still we would not be precise enough. Indeed, the devil is in the details.

An example might help. I'll use numbers after the following statements of degree to indicate their strength: zero indicates the least extreme or least likely to occur and ten is the most likely. We know our predicament is bad (8–10), pretty darn bad (8.8–9?), but we don't truly know just how bad (9–10?) or not as bad (7–9?) it is. Words cannot qualify these numbers so precisely, and neither can the numbers themselves, though they come closer than the descriptions of "bad" and "very bad," for example. A similar vocabulary problem for the IPCC fails to communicate climate science accurately to the public.[v] So, our very language limits our ability to communicate precisely the most likely shade of grey. More lack of precision is the uncertainty that what we ascribe numbers to will come to pass. So, not only are we limited in how we can describe the future, but we don't know its precise design. (Note, this grey spectrum of dark to light and its corresponding numerical degrees is wholly accounted for along the circumference of the Yin-Yang circle described previously.)

After researching the latest climate science for thousands of hours over the last couple years, I recently had an epiphany. While learning some intriguing new neuroscience and watching my own behavior and that of many of my peers, a possibility (6–9 certainty?) occurred to me: *the hidden driver swaying our assertion of a particular climate future is less a matter of the certainty and veracity of that position than it is a discomfort of persisting in the anxious unknown.* Ego-entitlement and a sense of control in "knowing" also seems to contribute to the polarization. Our general incompetence to hold a tension of opposites prevents us from hanging out in the most accurate reality: living with a degree of both certainty and unknowing. An related tension of opposites is the ability to continue to do good in the world while soberly accepting a dismal future forecast. Accepting both is to tolerate cognitive dissonance; practice makes progress I have found.

Averting truth due to anxiety or fear is consistent with what I described in Chapter VIII as our "fear mark." In other words, those who know enough about climate change (each person has a unique threshold for "enough") tend to gravitate towards one extreme of optimism or pessimism to avoid the anxiety of some degree of not-knowing. This optimism might sound like: *Oh, there's nothing to worry about.* Extreme pessimism can sound like: *Nothing will stop our extinction and nothing we do matters.* Notice, each position contains the extreme and final "nothing." How reassuring!

The optimistic position is simply naïve. The pessimistic erroneously predicts the precise design of the future and doesn't acknowledge that we can do a lot in the name of compassion to make life easier on ourselves, one another, and other species—our triangle of resilience relationships. Many don't seem to be able to hang out in the 8–9.5 range, and I am regularly practicing this myself. If our fear is great, and especially if we have little tolerance for fear, we might even try to deny climate change altogether.

In the recent article, "*A World Without Clouds*," three leading scientists are asked their opinion about our climate future. Their responses vary significantly from "I'm worried . . . Are you kidding" to "pretty—fairly—optimistic." This demonstrates that others' opinions—even, though to a lesser degree, that of scientists—don't matter as much as we'd like to believe our own do. This must include my own, so please take my perspective for whatever sense it makes. I propose this recipe for accuracy and honesty: apprehend the preponderance of the scientific evidence, appropriately adjusted by critical thinking (such as the conservatism by the IPCC and scientists generally, as discussed in Chapter II), scrupulously checking our own emotional biases and cognitive assumptions, and tolerating a good

dose of the unknown. We could, for example, come up with a game-changing discovery to mitigate climate change at any time, even though none currently exists. Or, tipping points and exponential changes could tilt the scales into runaway chaos. We don't know at this point, though the latter scenario is *a more likely probability* consistent with the current trend of evidence.

If we can learn to tolerate anxiety as well as our fear, grief, anger, despair, and even remorse (via the emotional intelligence skills discussed earlier), we can stay open to facing climate reality more honestly and courageously. Our collective emotional immaturity causes us to think we can't handle these states. In truth, however, most of us can, especially with practice and support. Or we simply don't want to, so we deny the evidence. Most of us have little experience joining to support one another through the intellectual and emotional honesty of our shared present and future. This is what we need now: 1) soberly facing the facts (intellectual honesty) 2) embodying and welcoming, or at least tolerating, our difficult feelings (emotional honesty), and 3) working together through the pain and the best strategies forward.

If we can't tolerate or skillfully embrace these difficult emotional states, we seem to swing into either wishful optimism or unrealistic cynicism. I suspect this is driven primarily by fear as a way to avoid feelings such as grief, anger, despair, and panic. Rosy optimists don't let in facts that contradict their position because this puts their certainty in jeopardy and exposes them to anxiety as well as a drop in dopamine-driven pleasure and assuredness. Doomsdayers (a.k.a. "doomers") may not like to acknowledge positive news because it also compromises their certainty and introduces the anxiety of not-knowing, as well as any of the other uncomfortable emotions just mentioned. Either polarity serves to avoid hanging out in the anxiety of not knowing.

I got real-life practice hanging out in the unknown during the lava flow in Hawaii. During one stretch, the lava was erupting almost daily from newly formed fissures, suddenly bursting from the ground into a geyser of molten lava. This was unnerving, to say the least, as the lava has no mind for neighborhoods, homes, and roads. No one knew where it would erupt next. The fissure sites, as well as where the lave flowed, regularly foiled our predictions. Months of this, along with previous anxiety experience, helped train me to tolerate my own anxiety (and everyone else's), and surrender a little more to the possibility of destruction and death—which is what anxiety, in its best intentions, tries to help us avert.

Because climate science indicates at the least a worsening of our situation, doomers seem to live closer to reality, despite their general resistance to let in positive news. It's the rare person that can deeply acknowledge climate reality and not go into rosy denial. It's a rarer person that can hang out in an 8–9.5, well-informed doomsday position (realistic), and not knee-jerk into a fear-driven 9.5–10.

Positive hope makes optimists feel less anxious and doomers feel more anxious. In response to the pattern I notice in doomers to reject hopeful evidence, or any even mildly good news, I coined the term "reverse hopium." Hopium can be defined as "unrealistic positive hope to make us feel better in the face of bad news; a cognitive opiate to reduce existential angst." "Reverse hopium" is "unrealistic negative hope that denies realistic hope to make us feel better in the face of distressing good news; a cognitive opiate to reduce existential angst." Again, both serve the same function: to consolidate sureness and allay the anxiety of not knowing. Both include aspects of black-or-white

thinking and thereby miss the grey zone of what's more likely realistic. They entail Yin *or* Yang instead of appropriate levels of Yin *and* Yang commensurate with the evidence. And because new evidence is constantly discovered, we have to be flexible to adjust our points of view and beliefs in accord with it.

Emotional reasoning means arriving at conclusions based on the severity of emotion/s, rather than the veracity of facts. Emotional and intellectual integration help us avert emotional reasoning by processing and regulating emotional extremes and thinking as critically and clearly as we can. Black and white conclusions in the face of the unknown are often a sign of both emotional reasoning and cognitive sloppiness. Noticing and curtailing emotional reasoning helps us live more honestly, in alignment with the evidence that most closely reflects reality.

Hopium says, *Everything is going to be okay*; *there's no need for worry.* Reverse hopium says *Nothing is going to be okay and there's no hope.* Notice the "everything" and "nothing" in both statements. Both extreme positions are fueled by emotional reasoning. Let's look at a specific, real-life example. Say the bad news is the IPCC tells us we have only eleven years to reduce our carbon footprint by 45% before we experience even worse catastrophic climate effects. Hopium glosses over the danger, minimizes concern, and assumes we will figure an easy way out. Reverse hopium concludes we're screwed no matter what, there's no hope, and any helpful acts don't matter for anything. Notice, *both extremes absolve the speaker of any meaningful action.* They allow the owner of the opinion to continue business as usual, since there's no need for concern (optimist) or we're damned no matter we do (doomer). Both parties—perhaps you've noticed—will also defend their point of view "to the death." This "fight" part of "fight or flight" response allays the fear (anxiety) that invisibly drives the extreme beliefs.

Reverse hopium's conclusion can resemble the kind of catastrophic and negative thinking we experience when frustrated in an argument and we jump to the worst case scenario as a way to unconsciously allay our jumble of hurt feelings. For example, say you remind me that I forgot to take out the trash and this triggers me. In reaction I snap back, "Oh yeah, I'm a total screw-up and can't do anything right." This extreme, shut-down reaction can help distance me from more deeply feeling anxiety, insecurity, shame, guilt, anger, grief, and sadness. Similarly, my reverse hopium would react to the distressing timeframe from the IPCC and inaccurately conclude, "Oh yeah, we're all screwed and there's no hope for us." When we have the emotional resiliency to be with and allow our difficult feelings, we don't need to emotionally reason by jumping to less accurate, extreme logical conclusions to allay our distress—*conclusions we often lead us into a downward spiral.* This is why emotional intelligence is crucial for being more in touch with reality, finding compassion for ourselves and one another, and taking meaningful action (for *any* benefit this action creates).

The current climate reality we are left with, then, is mostly bad news, the unknown, and the anxiety that comes with both. With practice, we can modulate and become more comfortably uncomfortable with not-knowing, which modulation is an aim of this chapter. This is nothing short of a courageous spiritual practice to live in accord with what is most likely true. Unfortunately, most of us don't want to wait for any degree of mastery by growing *through* what feels bad (psychological rebirth). Nor do we want to make the effort to accord with what's most likely true, or put in the necessary time and effort to become emotionally intelligent and resilient. The same way we tolerate and breathe through the suspense of watching a thrilling movie, await the outcome of a medical exam

or a sporting event, or try to keep cool during a natural disaster, we can practice doing the same on the biggest screen of all: our planet and its tempest climate story. This way, we might avoid depression and panic as well as denial and our *hopium* for good or bad news, all of which render us more inaccurate, unwell, and unprepared.

In sum, we are in climate trouble (8-9). Big trouble (9.3-ish?). Irreversible, severe, climate change-driven damage has already occurred and there will be more and worse, as discussed in Chapter II. At the same time, there is realistic hope we won't experience the worst case climate possibility. But only if this hope is what Joanna Macy calls *active hope*—that is, positivity coupled with commensurate, wise action. Fortunately, the world seems to be waking up and helpful action is increasing. What the exact result will be we don't get to know.

Whatever the future brings, I propose we practice with every fiber of our being to hold the tension of opposites rather than take a polarized stance for which we can't be sure. The end of the world and humanity may indeed come to pass, but not because of any information we are sure about today. The resiliency and wisdom to hold a tension of opposites is what Marion Woodman says being human is all about. It's to live with gaps in knowledge and an imperfect crossing to the other side of today into tomorrow.

Throughout our species' evolution we've had to contend with anxiety. Prehistorically, we feared being eaten alive at every turn, and our angst was greater than during these relatively cushy industrialized times. The latter has spoiled us for what is more our historical norm. Perhaps this perspective can help us dig down and better tolerate these harrowing climate change times. We have good reason not to panic (we'll let Greta dish out panic to the stony politicians who need this kick in the ass), but also to be critically concerned for our possible extinction. When my beloved grandmother was ill at 92 years old, I remember *feeling* sure she was going to die and there was no coming back. She ended up making several comebacks and feeling better and living to 100, against all seeming odds. The wonderful scientist and activist David Suzuki similarly discusses the resilience of the natural world in a story about the salmon returning to his wilderness when their numbers plummeted one year and he figured them goners. They returned the next year in record numbers.[vi] So, if you find yourself dismissing these possibilities of renewal in light of climate crisis, please consider again what has been shared throughout here.

For this climate movie, we get to actively participate in the outcome of arguably the biggest plot in human history. We're inside this unfolding and we can still step outside it for perspective. While we can, stepping outside the big picture is as crucial as constantly being wrapped up and involved in climate drama. Doing so helps us modulate unnecessary anxiety. Because we are left with a good dose of unknowing, and because some degree of unknowing (maybe a 5-7?) seems most honest, learning how to manage our anxiety is paramount, for which I hope this chapter helps.

At the end of the day, we are left with the perennial wisdom we glean even in the absence of climate change: *carpe diem*. This injunction comes with an extra dose of poignancy now in the face of climate crisis. So, let's embrace the day and live as effectively and fully as we can for the benefit of everything—all with a sober, wary eye to the future and a hearty embrace of the present.

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[i] *https://www.theguardian.com/environment/2019/apr/16/super-plants-climate-change-joanne-chory-carbon-dioxide?fbclid=IwAR3EQ7S2L8LnVcCCeMYAdrdI2rdf_XHl9WLWe9MyJ2EeHkENJK2kk2GTO40*

[ii] *https://www.theguardian.com/environment/2019/apr/16/super-plants-climate-change-joanne-chory-carbon-dioxide*

[iii] *https://climatenewsnetwork.net/not-long-to-wait-till-released-co2-turns-up-temperature/*

[iv] *https://www.wri.org/blog/2018/12/new-global-co2-emissions-numbers-are-they-re-not-good*

[v] *https://academic.oup.com/bioscience/article/69/3/209/5382637?fbclid=IwAR0D7qphKpRfYYVSUU27LHvJc1XGFbLkzaadGSdoM2Cvnckas2h1ZNowVHE*

[vi] *https://www.youtube.com/watch?v=3LzafeCJu9E*