



Minutes – Friday, July 25, 2025
Video Conference
9 am to 11 am

Attending: Aimee Daily, Tom Hirasuna, Brian Eden, Susan Riley, Guillermo Metz, Hailley Delisle, Ray Burger, Kim Anderson, Terry Carroll, Roseanne Lorface, Dave Bradley, George Loreface, Jen Myers, Imogen Dietz, Margaret Johnson, Nick Goldmith, Dan Lamb, Scott Kusner, Emma Nelson, Peter Bardaglio

The Impact of Climate Change on Mental Health – Emma Nelson

Emma Nelson is clinical psychologist specializing in climate anxiety. Dr. Nelson is a postdoctoral fellow at Elemental Psychology in Brooklyn, and a self-described “spiritual seeker, climate and social justice activist, healer, and divergent thinker.” She serves as executive committee treasurer, development committee member, and clinical support committee member with the Climate Psychology Alliance of North America.

Overview

Emma Nelson, a clinical psychologist specializing in climate anxiety, discussed the concept of climate distress, emphasizing it as a healthy response to a real crisis. She introduced the Panu Picola process model, highlighting stages of semi-consciousness, awakening, coping, and transformation. Nelson stressed the importance of balancing action, grief, and self-care. She also addressed the systemic challenges, including the disproportionate impact on marginalized groups and the need for political action. The discussion included practical strategies for managing climate distress and the role of humor and community support. The session concluded with a call for collective action and resilience.

Introduction and Technical Setup

- Emma Nelson provides her background, focusing on the intersection of climate change, collective crises, and mental health.
- Emma mentions her work with the Climate Psychology Alliance of North America and her role in outreach and workshops.

Emma's Approach to Climate Distress

- Emma explains her approach to the talk, emphasizing the collective nature of the work and the influence of teachers and mentors.
- She outlines the structure of the talk: connecting with the audience, defining climate distress, working with climate distress, seeking support, and discussion.
- Emma instructs the audience to write about what psychological wellness means to them for a three-minute free write exercise.

- Participants share their thoughts on psychological wellness, with Emma encouraging them to reflect on the impact of their writings.

A Mental Health Crisis or Healthy Response

- Mental Health Crisis
 - Climate-related crisis
 - Pre-traumatic stress
 - Vicarious trauma
 - Betrayal trauma
 - Moral injury
- A Healthy Response to a Real Threat
 - Climate empathy
 - Climate compassion
 - A doorway to action
 - A memory
- A New & Evolving “Normal”
 - Solastalgia
 - Moral outrage
 - Frantic action
 - Maturation
 - Climate grief
 - Climate anxiety
 - Ecological Awakening
 - Transformation

What does it mean to be “psychologically well” right now?

- Emma’s answer (right now): Our individual and collective capacity to continually transform in response to increasing intensity and instability.

Through the Prism of Identity

- The mental health impacts of climate change filtered through **identity**: personal history, intergeneration trauma & resilience, systemic oppression & privilege.
- In general, effects are worse for:
 - Economically disadvantaged people
 - Indigenous People
 - Women
 - Older Adults
 - Children & Young Adults
 - Parents and people considering having children
 - Those who live in the equatorial hot zone
 - People of the Global Majority

Understanding Climate Distress

- Emma discusses the concept of climate distress, emphasizing it is a healthy response to a real system in crisis.
- She introduces the term "climate empathy" and its positive correlation with climate action.

- Emma asks the audience to consider what they remember when feeling climate distress, leading to a discussion on memories of environmental changes.
- The conversation highlights the dialectic nature of climate distress, where it is both a healthy response and a mental health crisis.

Balancing Climate Distress and Mental Health

- Emma explains the concept of ecological awakening and the importance of having language and support to process it.
- She introduces the Panu Pihkala process model of eco anxiety and ecological grief, describing the stages of semi-consciousness, awakening, coping and changing, adjustment and transformation.
- Emma encourages the audience to reflect on where they see themselves in the model and to share their experiences.
- The discussion includes the importance of balancing action, grief, and self-care in managing climate distress.

Therapeutic Support and Individual Capacity

- Emma discusses the role of therapy in addressing climate distress, emphasizing the need for individual and collective capacity to transform.
- She highlights the impact of marginalized groups on climate action and the importance of resourcing for those groups.
- Emma introduces the concept of climate grief and ecological awakening, and the need for adaptability in maintaining psychological wellness.
- The conversation touches on the challenges of balancing personal and collective responsibilities in addressing climate distress.

Practical Strategies for Managing Climate Distress

- Emma provides practical strategies for managing climate distress, including individual and group therapy, and the importance of finding meaning in actions.
- She discusses the challenges of balancing action and self-care, and the need for conscious breaks to avoid burnout.
- Emma emphasizes the importance of community and collective support in addressing climate distress.
- The conversation includes the role of humor and creativity in coping with climate distress.

Addressing Systemic Challenges

- Emma addresses the systemic challenges of addressing climate distress, including the impact of privilege and marginalization.
- She discusses the importance of finding meaningful and sustainable actions, even when faced with the reality of limited impact.
- The conversation includes the role of politics and economics in addressing climate change and the need for systemic change.
- Emma encourages the audience to reflect on their own experiences and to seek support and resources for managing climate distress.

Closing Remarks and Resources

- Emma provides resources for further support, including her website, workshops, and a feedback form.
- She encourages the audience to continue the conversation and to seek help if needed.
- The conversation concludes with a focus on the importance of community and collective action in addressing climate distress.
- Emma expresses her willingness to return for further discussions and to provide additional support.

Climate Change in the News – Peter Bardaglio

In keeping with past tradition, it's time for a review of the year's climate change developments. Extreme weather events have become so frequent in the past few years that the climate crisis has become climate chaos. This year was no exception, perhaps even worse.

- Atmospheric CO2 hit another record high this year
- In May, Mauna Loa Observatory recorded average concentration of atmospheric CO2 at 430.2 ppm, compared to 315 ppm in 1958
- Increase of 3.6 ppm since May 2024 – highest ever seasonal peak concentration of CO2
- CO2 levels were consistently around 280 ppm for almost 6,000 years of human civilization
- Average level of carbon dioxide rose faster in 2024 over previous year than at any other point since recordings began
- Average readings for 12 months was 3.58 ppm higher than previous year's average, breaking record set in 2016
- Annual emissions have increased every decade since mid-20th century -- from 11 billion tons of CO2 per year in 1960s to 37.4 billion tons in 2024
- CO2 levels in atmosphere higher than they've been in human history and highest in at least 14 million years
- Despite decades of negotiation, global community unable to significantly slow annual increases in CO2 levels
- June 2025 third warmest June in 174-year NOAA record – June global surface temperature was 1.76°F above 20thC average
- Cooler than June 2023 (second warmest) and June 2024 (warmest)
- All ten warmest Junes on record have occurred since 2016 – June 2025 extended streak of consecutive Junes with above-average global temperatures to 49 years
- As Van Jones points out, we have three alternative futures: Eco-Apocalypse, Eco-Apartheid, or Eco-Equity
 - Currently on road to Eco-Apocalypse – Eco-Apartheid just a speed bump on way to Eco-Apocalypse
 - Only viable option is Eco-Equity
- In landmark case, UN's highest court on July 23 said countries must meet their climate obligations, and that failing to do so could violate international law
 - Potentially opens door for affected nations to seek reparations in future legal cases
 - International Court of Justice (ICJ) said states must address “existential threat” of climate change by cutting emissions, following through on global

climate agreements, and protecting vulnerable populations and ecosystems from harm

- About 80% percent of world's top climate scientists now expect global temperatures to reach 2.5 degrees above pre-industrial levels
- Climate breakdown would bring about "semi-dystopian" world of extreme weather events, crop failure, geopolitical conflict, and mass migration
- Poorest 74 countries are responsible for just 10 percent of world's GHG emissions, yet these countries have seen climate-related disasters increase eightfold since 1980s
- World Bank estimates there will be 216 million climate refugees by 2050 – sub-Saharan Africa (86 million), East Asia and Pacific (49 million), and South Asia (40 million)
- Most sobering climate change news of year: Surface of ocean now warming 4 times faster than 40 years ago
- Surge in ocean temperatures to record-breaking levels took place in 2023 and 2024 – sign that pace of climate change has accelerated dramatically
- Global ocean temperatures hit record highs for 450 days straight in 2023 and early 2024
- Rise in sea surface temperature jumped from 0.06°C per decade in 1980s to 0.27°C per decade now
- As ocean heats up even faster, according to 2025 report, total amount of warming seen over past 40 years might be exceeded in less than 20 years
- Runner Up: Earth losing record amounts of fresh water
- Earth may have hit point of irreversible moisture loss in its soil as result of climate change
- Planet seeing its land-based water storage drop without recovering
- Major shift in land-based water storage such as groundwater, rivers, lakes, soil moisture, and ice from 1992 on
- Due to severe and widespread droughts over recent decades, more than 2,600 gigatons of water has been transferred permanently from continents to ocean
- Decline in soil moisture has outpaced Greenland's melting ice sheets in its contribution to sea level rise
- Northern India, central California, and eastern China areas have seen greater groundwater depletion than other regions
- Recent extreme weather events once again called attention to accelerating climate crisis
- Catastrophic floods struck Central Texas over July 4th weekend, killing at least 135 people, including at least 37 children
- Guadalupe River has flooded more than dozen times since 1978, but July 4th flood among worst in its history
- River rose more than 20 feet in few hours in several locations as it rushed downstream toward Kerrville (pop. 24,000)
- Warming temperatures over land and especially in Gulf of Mexico fueling extreme rainfall events more often, in arc across U.S., from Texas to Northeast
- Air holds 7% more water for every 1.8°F rise in temperature

- Recent flash flooding in NC, NM, NY, and NJ – NYC subway station platform submerged as passengers inside car watched and stood on train seats to avoid water coming into car
- Human-caused climate change increased Iceland and Greenland’s temperatures by several degrees during a record-setting May heat
- Greenland ice sheet melted many times faster than normal during heat wave
- Parts of Iceland saw temperatures more than 18°F above average
- Country set record for its warmest temperature in May when it hit 79.9°F on May 15
- Without human-caused climate change, such an event would be “basically impossible,” according to climate scientist at Imperial College in London
- Extreme heat 40 times more likely compared to pre-industrial climate
- Record heat accelerated ice sheet melts in Greenland, releasing massive amounts of fresh water into ocean, raising sea levels
- Sweltering heatwave arrived early in India and Pakistan this year
- In Pakistan, temperature soared to 122°F, more than 15°F above April average – temperature in India hit 111°F
- Both countries experience heatwaves during May and June, but this year’s season arrived sooner than usual
- Early arrival of heatwaves testing survivability limits and putting enormous strain on energy supplies, vital crops, and livelihoods
- Climate scientists characterized 2025 heat wave as part of broader pattern of changing climate conditions affecting Indian subcontinent
- “When it comes to heatwaves, the question is no longer if they are linked to climate change, but what kind of thresholds we are reaching.”
- Historic wildfires broke out in South Korea in late March 2025
- Killed 32 people, injured 45, and displaced about 37,000
- In total, fires burned more than 247,000 acres
- Nearly four times more extensive than South Korea’s previous worst recorded fire season 25 years ago
- Hot, dry and windy conditions that drove fire made twice as likely and 15% more intense as result of climate change
- Average temperatures from March 22-26 were 18°F higher than usual in southeast – patterns of low and high pressure to north and south generated powerful winds that helped spread fire
- Such disasters could become even more frequent if temperatures continue to rise
- IEA released update of its 2021 report on “Net Zero by 2050” in Sept. 2023
- By 2035, emissions need to decline by 80% in advanced economies and 60% in emerging market and developing economies compared to 2022 level
- Ramping up renewables, improving energy efficiency, cutting methane emissions, and increasing electrification can deliver more than 80% of emissions reductions needed
- Cutting methane emissions from energy sector by 75% by 2030 one of least expensive opportunities to limit global warming in near term
- World needs to increase its current \$1.8 trillion investment in clean energy to about \$4.5 trillion a year by early 2030s
- How do Americans view climate change in 2025?

- Yale annual survey, “Climate Change in the American Mind”: Seven in ten Americans (70%) think global warming is happening
 - 15% of Americans think global warming is not happening – 16% say they don’t know if global warming is happening
 - 51% of Americans are either “extremely” or “very” sure global warming happening
 - 9% are “extremely” or “very” sure global warming isn’t happening
 - 60% of Americans understand global warming is mostly human-caused – 28% think it’s due mostly to natural changes in environment
 - 46% of Americans say they have personally experienced effects of global warming – 53% of Americans say they haven’t experienced effects
 - 65% of Americans say they are at least “somewhat worried” about global warming
 - 29% of Americans say they are “very worried” about global warming – has trended upward since survey began in 2008
 - 2 in 3 Americans (66%) say they “rarely” or “never” discuss global warming with family and friends – 1 in 3 (35%) say they discuss global warming “occasionally” or “often”
- Gallup Poll, March 2025: 63% of Americans believe effects of global warming have already begun -- up from 59% in 2024
 - Matches all-time high of 62% recorded in 2017 – ran between 59% and 61% in intervening years
 - Percentage who said global warming’s effects will be apparent in future dropped to 23%
 - Percentage believing the effects will never occur remained steady at 12%
- Pew Research Center Survey, May 2025: Large majority (77%) of Americans support stricter building standards in places at high risk of extreme weather
 - Both Republicans and Democrats back stricter building standards in communities at high risk of extreme weather
 - Majorities of Americans who have experienced extreme weather make a link to climate change
 - Democrats more likely than Republicans to make a link between extreme weather and climate
- Ready for some good news? UN secretary general António Guterres earlier this week: “We are on the cusp of a new era. Fossil fuels are running out of road. The sun is rising on a clean energy age.”
- More than nine in 10 renewable power projects globally are now cheaper than fossil fuel alternatives
- Solar power about 41% cheaper than the lowest-cost fossil fuel alternative – onshore wind generation less than half price of fossil fuels
- Costs driven down by increasingly widespread use of technologies, huge focus on low-carbon manufacturing in China, and growing investment in clean energy sector
- Reached \$2tn last year – \$800bn more than went into fossil fuels and increase of 70% in last decade
- Renewable energy sources accounted for 29.9% of electricity generation globally in 2023 – renewable electricity generation grew by 5.6% over 2022, while non-renewables grew by 1.2% over same period

- Since 2010, largest growth in renewable electricity has been solar and wind energy – together they represented 13.2% of global electricity mix in 2023
- Renewable hydropower continues to provide bulk of renewable electricity generation
- More good news: Trump’s climate research cuts unpopular
- Nearly 80% of registered U.S. voters want government agencies to keep researching and sharing global warming data, including majority of Republicans
- Trump seeking to cut or eliminate numerous programs that conduct climate research across multiple federal agencies
- In addition to canceling climate research, Trump administration also closing down channels that communicate this critical information to public
- Greta Thunberg: “The climate crisis is both the easiest and the hardest issue we have ever faced. The easiest because we know what we must do. We must stop the emissions of greenhouse gases. The hardest because our current economics are still totally dependent on burning fossil fuels and thereby destroying ecosystems in order to create everlasting economic growth.”