
Climate Psychiatry I: Where we are and how it feels

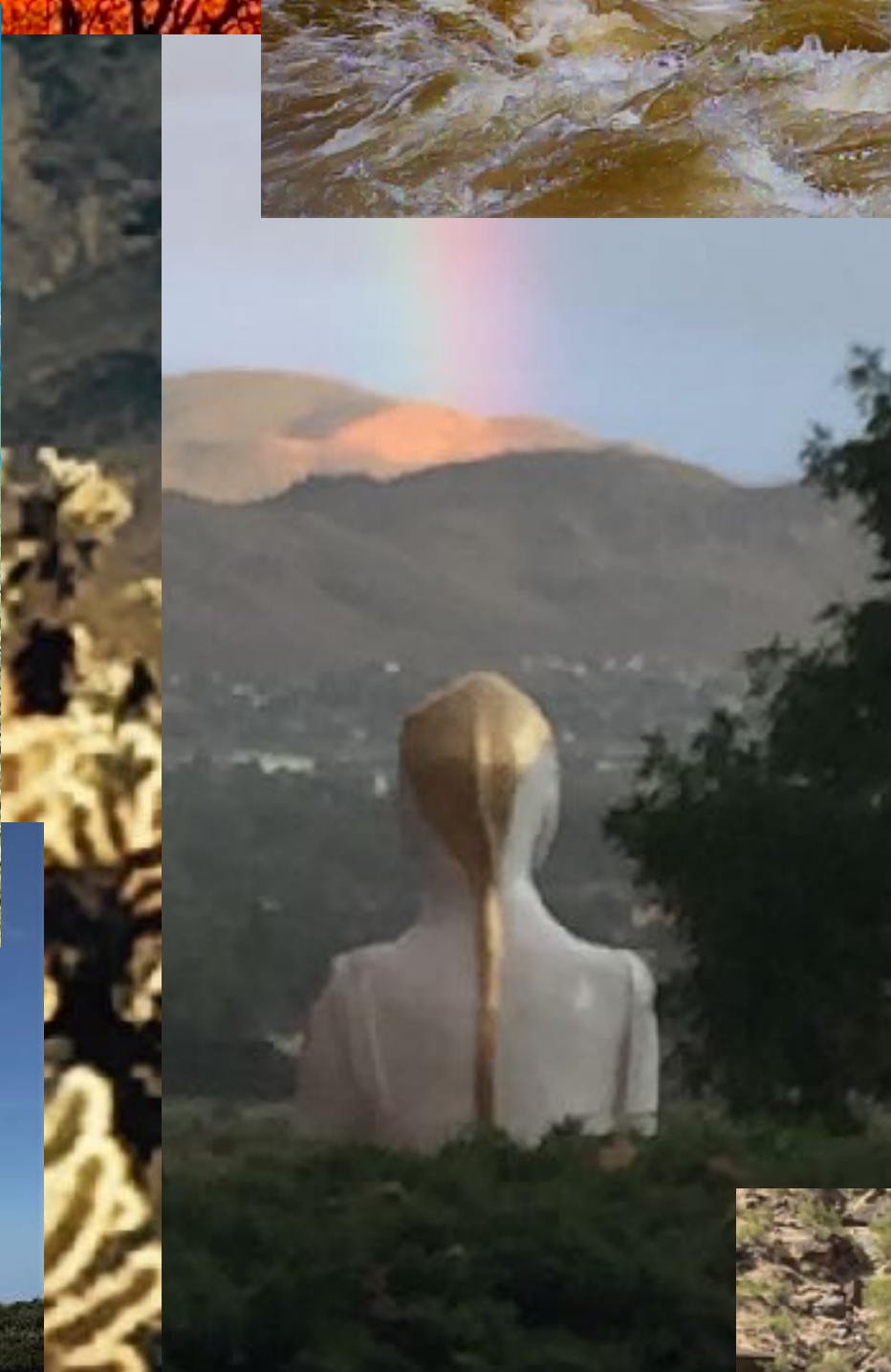
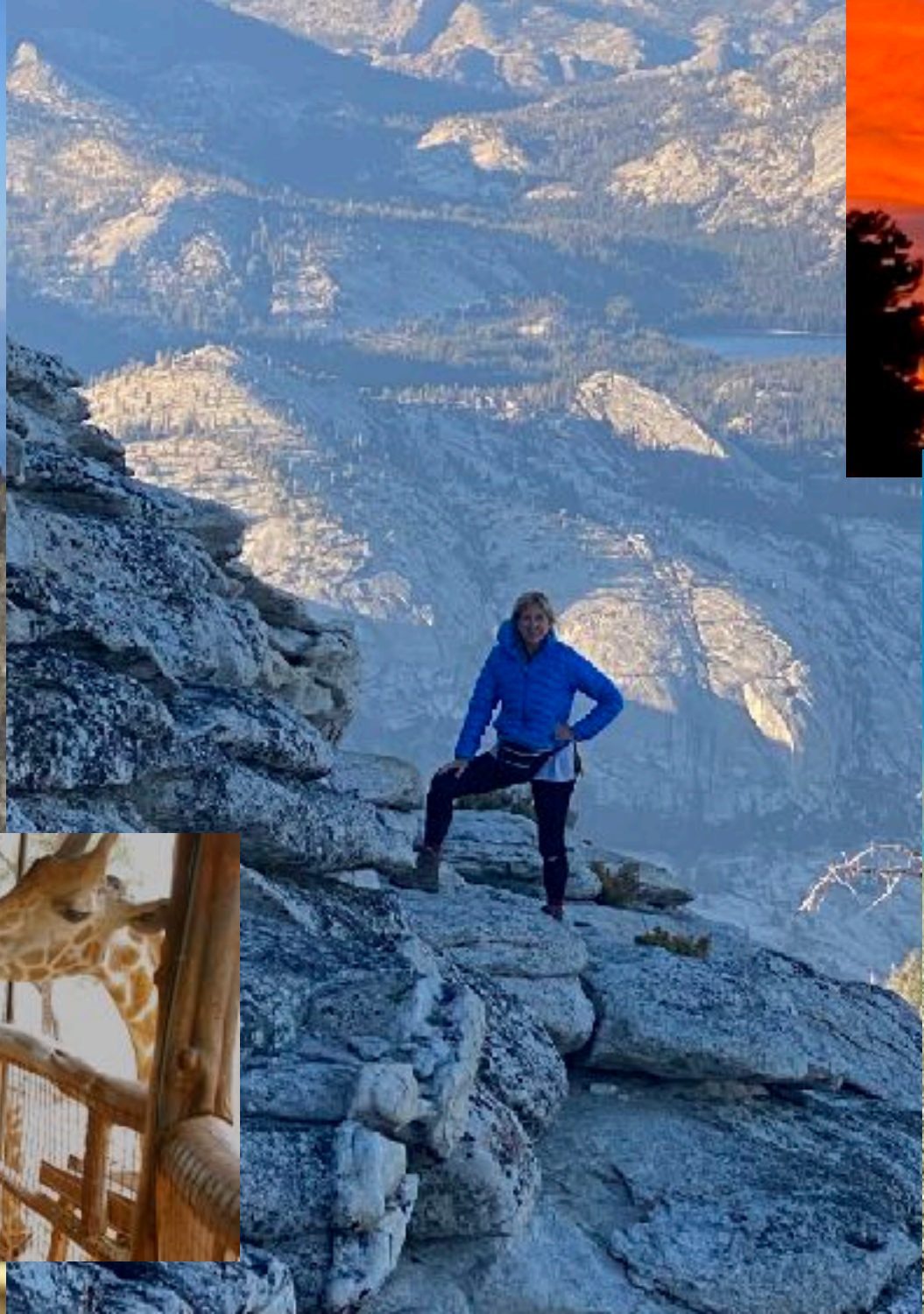
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CLIMATE REALITY LEADERSHIP CORPS

WHAT DO WE DO WITH OUR CHILDREN TODAY TO PREPARE THEM FOR TOMORROW?

climate psychiatry alliance

How did Climate Psychiatry get Started?

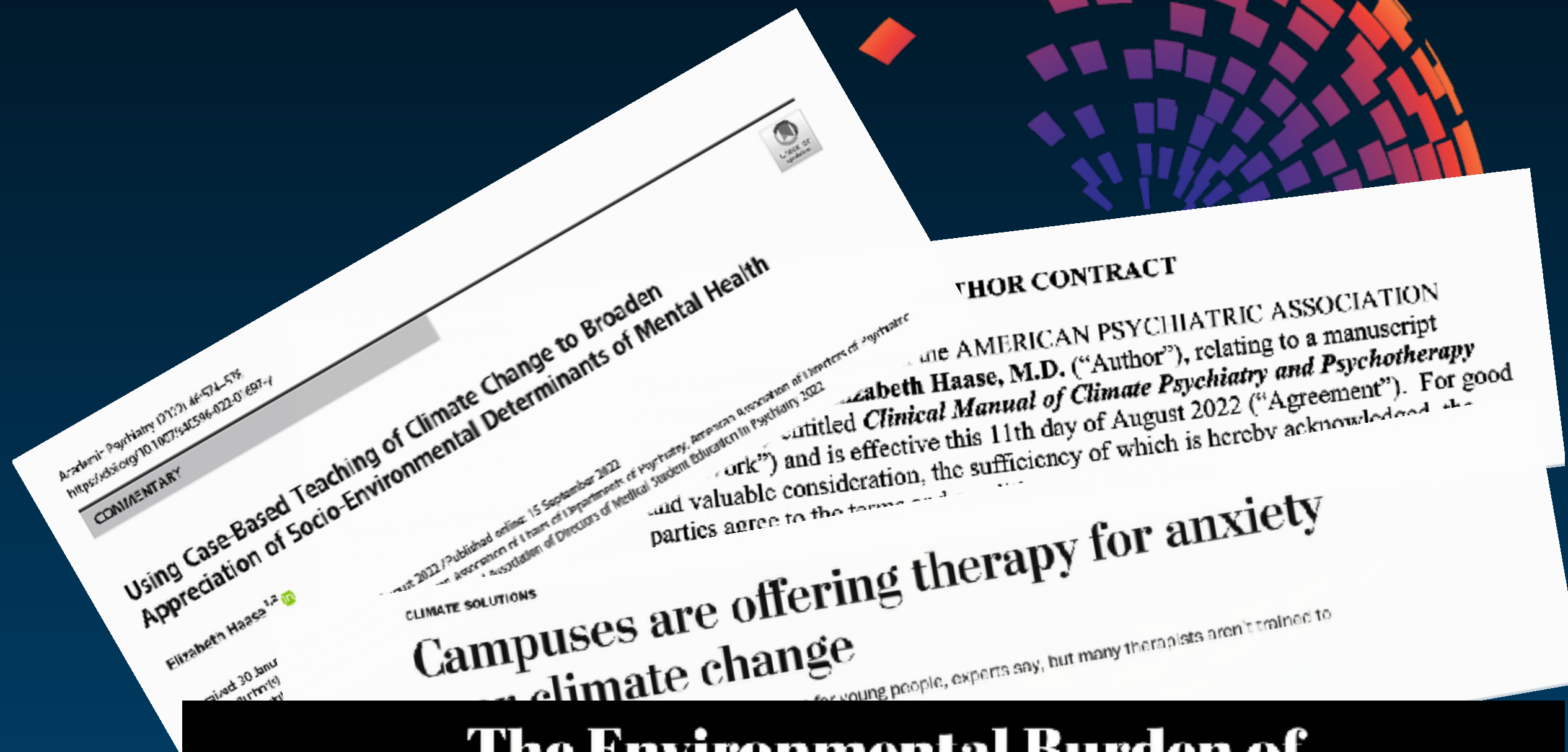
- 2011: First monograph on climate and mental health
- 2016 Climate Psychiatry Alliance is founded; GAP Climate Committee is founded
- 2017: APA Position statement on climate change and mental health
- 2018: Action paper for gradual APA divestment from fossil fuels
- 2018: Formation of Caucus on Climate Change
- 2019 Action papers for research on climate-related service needs, media responsiveness, curriculum development, greening of psychiatric practice, joining US Call to Action

Agenda Item #	Action	Comments/Recommendation	Administration Responsible	Referral/Follow-up & Due Date
6.16	Research Assessment of Climate-Related Psychiatric Service Needs (ASM Item #2019A1 12.R)	The JRC referred action paper Research Assessment of Climate-Related Psychiatric Service Needs (ASM Item #2019A1 12.R) to the Council on Research (LEAD) and the Council on Quality Care for input and follow-up.	Research Philip Wang, MD, DrPH Diana Clarke, PhD	Council on Research Council on Minority Mental Health and Health Disparities Report to JRC - October 28, 2019 Deadline: October 4, 2019
6.17	APA Recommendations for Lowering Prescription Drug Prices (ASM Item #2019A1 12.T)	The JRC referred action paper APA Recommendations for Lowering Prescription Drug Prices (ASM Item #2019A1 12.T) to the Council on Research (LEAD) and the Council on Quality Care for input and follow-up.	Research Philip Wang, MD, DrPH Diana Clarke, PhD	Caucus on Climate Change and Mental Health (LEAD) Membership Committee APA General Counsel Report to JRC - October 28, 2019 Deadline: October 4, 2019
6.15	Work Group to Establish a Media Response and Talking Points on Climate Mental Health Impacts (ASM Item #2019A1 12.P)	The JRC referred action paper Work Group to Establish a Media Response and Talking Points on Climate Mental Health Impacts (ASM Item #2019A1 12.P) to the Council on Communications (LEAD) and the Council on Research for input and follow-up.	Communications John McDuffie James C...	Report to JRC - October 28, 2019 Deadline: October 4, 2019
6.20	Development and Dissemination of Model Curricula on Climate Change and Mental Health (ASM Item #2019A1 12.W)	The JRC referred action paper Development and Dissemination of Model Curricula on Climate Change and Mental Health (ASM Item #2019A1 12.W) to the Council on Research, and the Council on Minority Mental Health and Health Disparities for input and follow-up.	Research Philip Wang, MD, DrPH Diana Clarke, PhD	Council on Research Council on Minority Mental Health and Health Disparities Report to JRC - October 28, 2019 Deadline: October 4, 2019
6.21	Greening Psychiatric Practices: An Environmental Sustainability Benefit for APA Members (ASM Item #2019A1 12.X)	The JRC referred action paper Greening Psychiatric Practices: An Environmental Sustainability Benefit for APA Members (ASM Item #2019A1 12.X) to the Caucus on Climate Change and Mental Health, Membership Committee, and the APA General Counsel for input and follow-up.	Research Daniel H. Gillison, Jr. Vabren Watts, PhD Membership Philip Wang, MD, DrPH Benjamin Doty Membership Jon Fanning, MS, CAS Lisa Diener	Caucus on Climate Change and Mental Health (LEAD) Membership Committee APA General Counsel Report to JRC - October 28, 2019 Deadline: October 4, 2019

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Climate Psychiatry Takes Hold:

- 2016-2023 Many many papers, presentations, and media contacts on climate mental health
- 2020: Establishment of the APA Committee on Climate Change
- 2021: First panels on research needed for a psychiatric response, first textbook chapter - now in Tasman's, Community Psychiatry, and others
- 2022: Special Issue of Academic Psychiatry



The Environmental Burden of Generation Z

Kids are terrified, anxious and depressed about climate change. Whose fault is that?



Climate Psychiatry Current Work:



- 2022: Establishment of COP2 (Care of People x Planet) international climate mental resilience initiative through the UN Race to Zero
- 2023: Thriving community of >1000 members of CPA, 536 members of the APA Climate Caucus and APACCCMH multiple offshoots include ECN and Child groups, alliances with Climate Psychology Alliance, Climate Care Collaborative, etc
- 2023: CMWRA (Tonko/Fitzpatrick) and Green New Deal for Health introduced into Congress
- 2023 Held v. Montana victory; Juliana v. U.S advanced
- Ongoing books, research, talks, media contact

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Growing Climate Health Professional Network



Roles for the Psychiatrist in the Climate Crisis:

- Clinician
- Advocate
- Activist
- Research
- Educator

Effective Climate Communication:

OPEN YOUR MOUTH

Address local issues

Talk about what's right

Focus on health, family, and solutions

Human Attention Limit:

3 sentences

9 seconds

Defining Climate Psychiatry:

Climate psychiatry is psychiatry that is responsive to the psychological and mental health effects of global warming. Climate psychiatry draws on an understanding of the links between climate change and mental health and wellbeing to transform psychiatric practice, so that psychiatrists can better and more equitably support patients, families, and communities suffering climate effects and contribute toward positive climate adaptation and mitigation.

The practice of climate psychiatry broadly includes, but is not limited to, clinical, educational, public health and systems, research, and advocacy work, and the related roles for the psychiatrist of clinician, public health officer, mental health advocate, activist, researcher, community leader, and policy advisor.

- Haase, Hayes, and Augustinavicius, 2023

Introduction to EcoAnxiety and other Climate Distress



Whitcomb I, April 2021, The Guardian, Climate Anxiety and PTSD are on the rise: Therapists don't always know how to cope

The Public Response to Climate Risks: EcoAnxiety



Marc Daalder

Marc Daalder is a senior political reporter based in Wellington who covers Covid-19, climate change, energy, primary industries, technology and the far-right. Twitter: @marcdaalder.

COVERING CLIMATE NOW

Climate change as a psychological crisis



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Children of the Climate Crisis

A generation of kids faces a more dangerous world as they come of age in the era of eco-anxiety

By **ALEX MORRIS**



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The Washington Post Magazine

ehaase

The Environmental Burden of Generation Z

Kids are terrified, anxious and depressed about climate change. Whose fault is that?

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ENVIRONMENT

Today's children will inherit a climate-changed planet. Can they handle it?

Children are already experiencing "eco-anxiety" — and psychiatrists don't really know how to help them cope

MARION RENAULT • JANUARY 14, 2019



EcoAnxiety: Normal reactive distress?

Verplanken & Roy, 2013, Haase & Hudson, in press



Hakai Magazine, June 2016

Existential EcoAnxiety: Despair



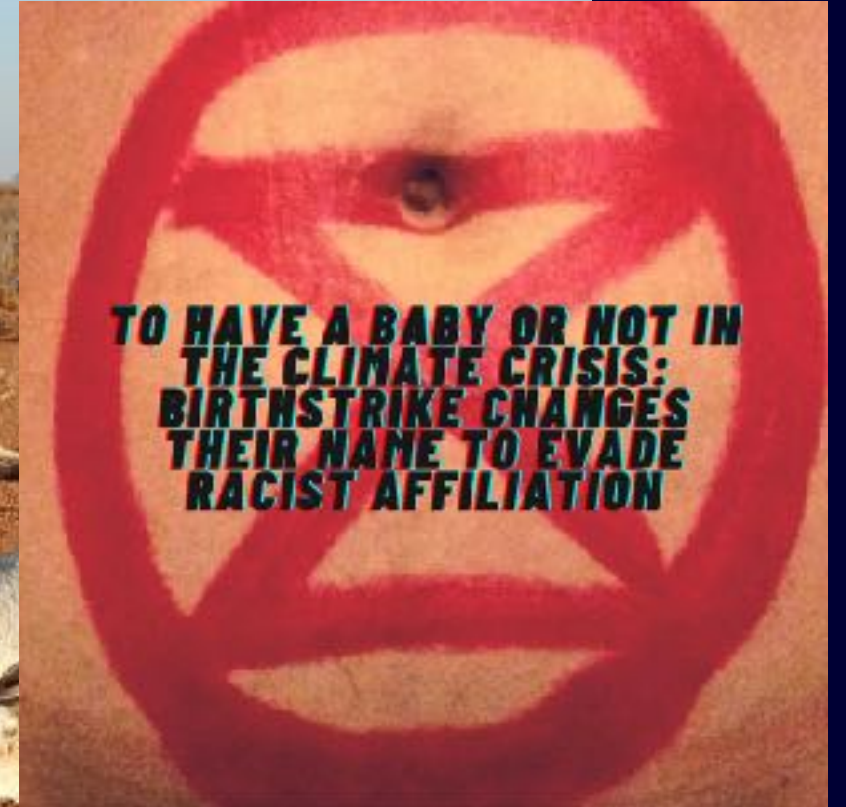
Ghana



Delhi



Maine



Young women everywhere

Prevalence and Symptomatology of EcoAnxiety:

- **Youth:** 59% very to extremely worried; 84% at least moderately worried (Hickman et al, Lancet, 2021)
- **Youth:** 59% very to extremely worried; 84% at least moderately worried (Hickman et al, Lancet, 2021)
- **Adults:** 9/10 worried internationally, 70-80% Americans somewhat to extremely worried (Leiserowitz et al 2022, APA 2019);
- **Adults:** No studies of relationship to clinical pathology
- **Associations:** Young; women; know about climate change & health, connected to nature, imaginative, appreciate new ideas, problem-solving. Or poor and impacted.

EcoAnxiety: Cassandra Syndrome



President: "You cannot go around telling people that there is a 100% chance that they're gonna die." - Don't Look Up

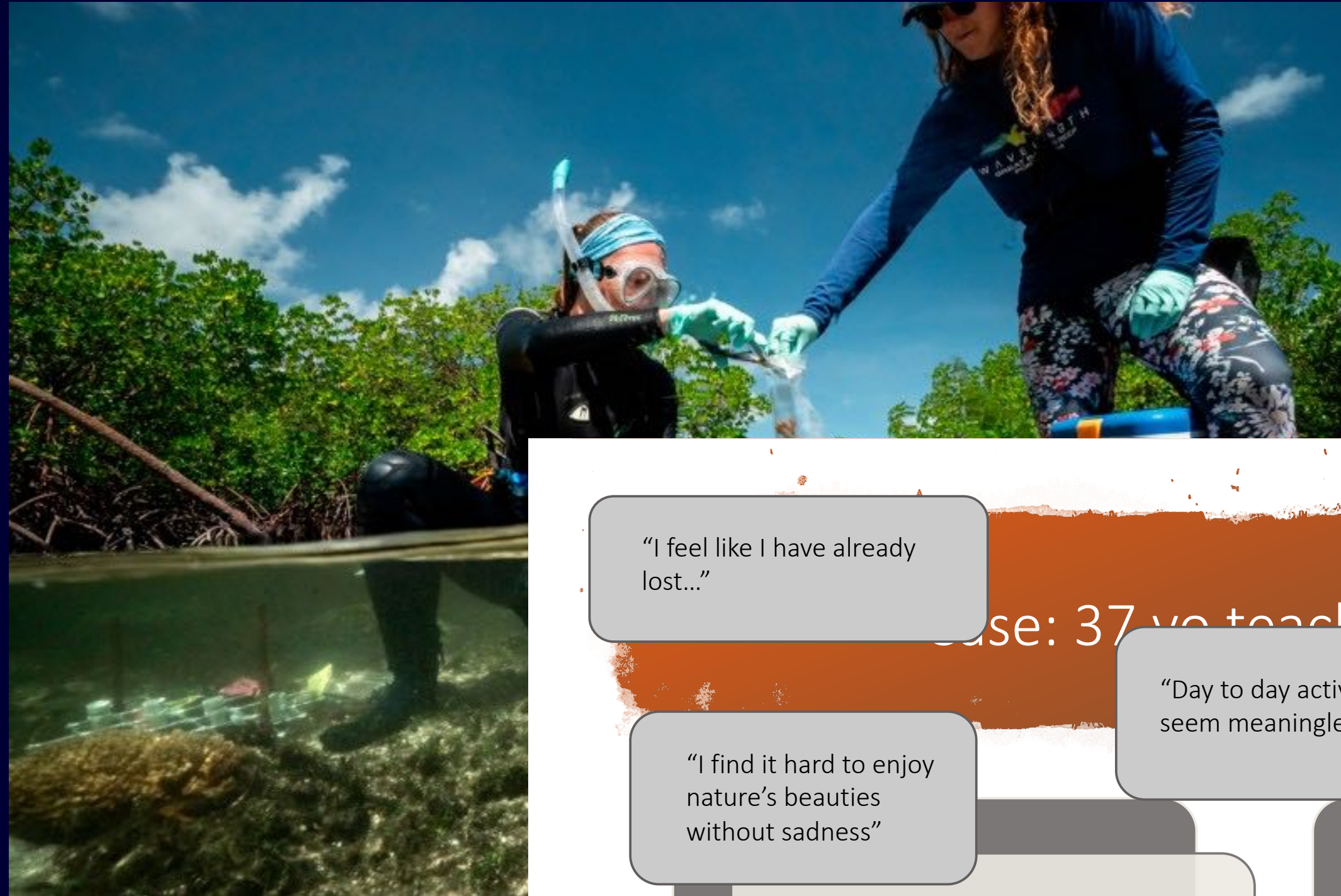
"I have to at least try to make this planet a better place" - David Buckel, 1957-2018

EcoAnxiety: Gen Dread and EcoRage/Terrafuria



Extinction Rebellion activist, London, 2019 (Reuters)

EcoGrief



Case: 37 yo teacher/m

"I feel like I have already lost..."

"I feel that it is irresponsible to have children..."

"Day to day activities seem meaningless..."

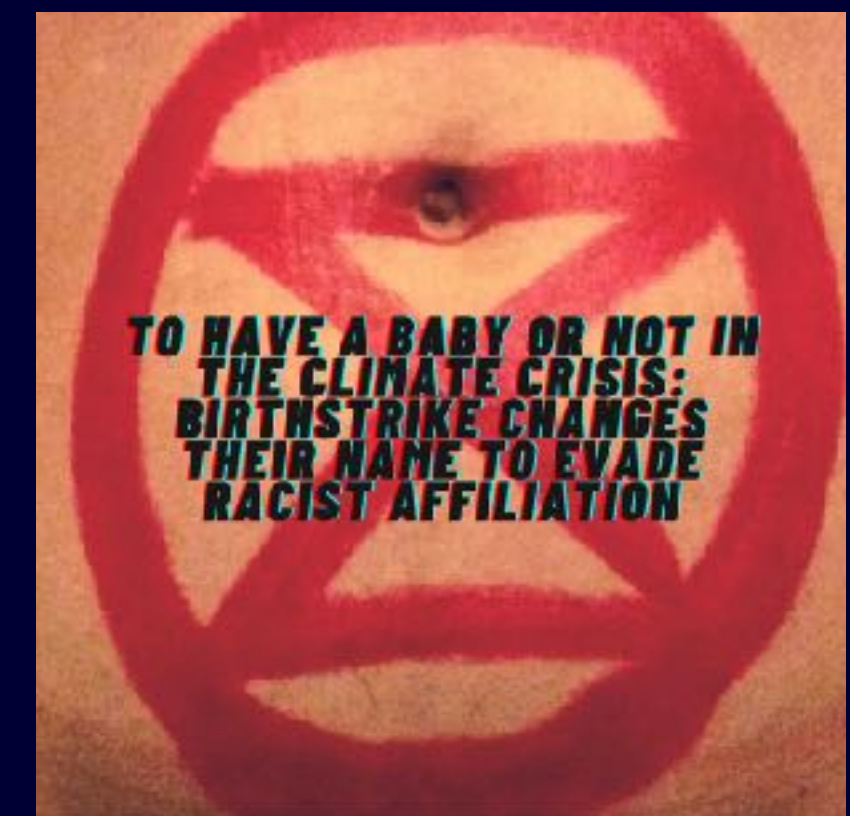
"I find it hard to enjoy nature's beauties without sadness"

"I have lost respect and hope for humanity.... The greed and destruction make me not want to be a part of this species".

"I think my anxiety peak...Though I don't know how to live with the fear of... the apocalypse, I guess? My son was home with me and I had to call my friend over to watch him because I couldn't even look at him without breaking down".

"Summers have been stressful to me since having my son... It's hard to enjoy a season that's a constant reminder that the world is getting warmer."

'They should be allowed to cry',
The Independent, Oct 2019, ref
Science, Gordon et al
10/11/2019



Ecological grief grips
scientists, Nature, 2019

Anne Richardson, MD personal communication

Solastalgia and Place-Based Identity loss



Albrecht G, 2007: Solastalgia: The Distress Caused by Climate Change,

Evidence for Solastalgia and Place-Based Identity loss

- Qualitative study of Great Lakes residents (Lertzman, 2010) identified “arrested mourning”
- Qualitative study of Australian family farmers (Ellis & Albrecht, 2017) identified cumulative and chronic forms of place-based-distress in this “emplaced” population
- Qualitative study of Australians in area changed by mining (Albrecht 2005)
- Quantitative study of Kentucky ED visits suggested greater risk of depressive and substance use disorders in areas with mountain top removal mining, controlling for other demographics (Canu & Jameson, 2017)
- Qualitative and quantitative studies of Inuits in Nunatsiavut, Labrador (Cunsolo, 2016, Cunsolo & Ellis, 2018)

Sources of Climate Related Distress:

Physical reality

- Catastrophic and real threats to self and beloved
- Empathy for current and future suffering of beings
- Worries for children and grandchildren
- Loss of imagined legacies
- Trauma and demoralization from repeated disaster
- Disorientation and Grief from habitat change
- Change to sense of self

Sources of Climate Related Distress:

Social reality

Cognitive dissonance from inevitable participation in damaging practices

Anomie, per Durkheim

Lack of words and terms for current experience

Lack of appropriate discussion about climate change at every level

Inadequate societal response to emergency

Conflict, social discomfort in bringing it up

Uncertainty of the future

(Often false) sense of isolation in one's distress

Clinical Presentations of Climate Distress:

- Post-disaster trauma
- Grief & empathy over species suffering/nature loss
- Betrayal and anger at leaders/elders/therapist if older
- Victim of climate injustice and sick of it
- Self-destructive acting out of hopelessness
- Young couple and conflicts over decision not to have children
- Relationship failure due to differing views and level of climate concern
- Disavowal of their actions while expressing climate concern - “as if” lifestyle
- Shame and guilt over carboniferous lifestyle
- Existential anxiety/Terror/fears
- Other emotions: dissonance, confusion, angst, frustration, solastalgia, numbness

Ongoing Questions about Climate Distress:

- Is what I've said so far verified by research?
- Does it need professional intervention?
- What psychiatric disorders are comorbid?
- What experiences tip it into psychopathology?
- Are there common life schemas and defenses associated with climate anxiety?
- Are the interventions we are recommending any good?

Core Psychological Difficulties with Climate Crisis:



We don't know where we are going..

Climate Change is a Threat Multiplier; It takes us from these:

Extreme Weather

Heat

Habitat Change

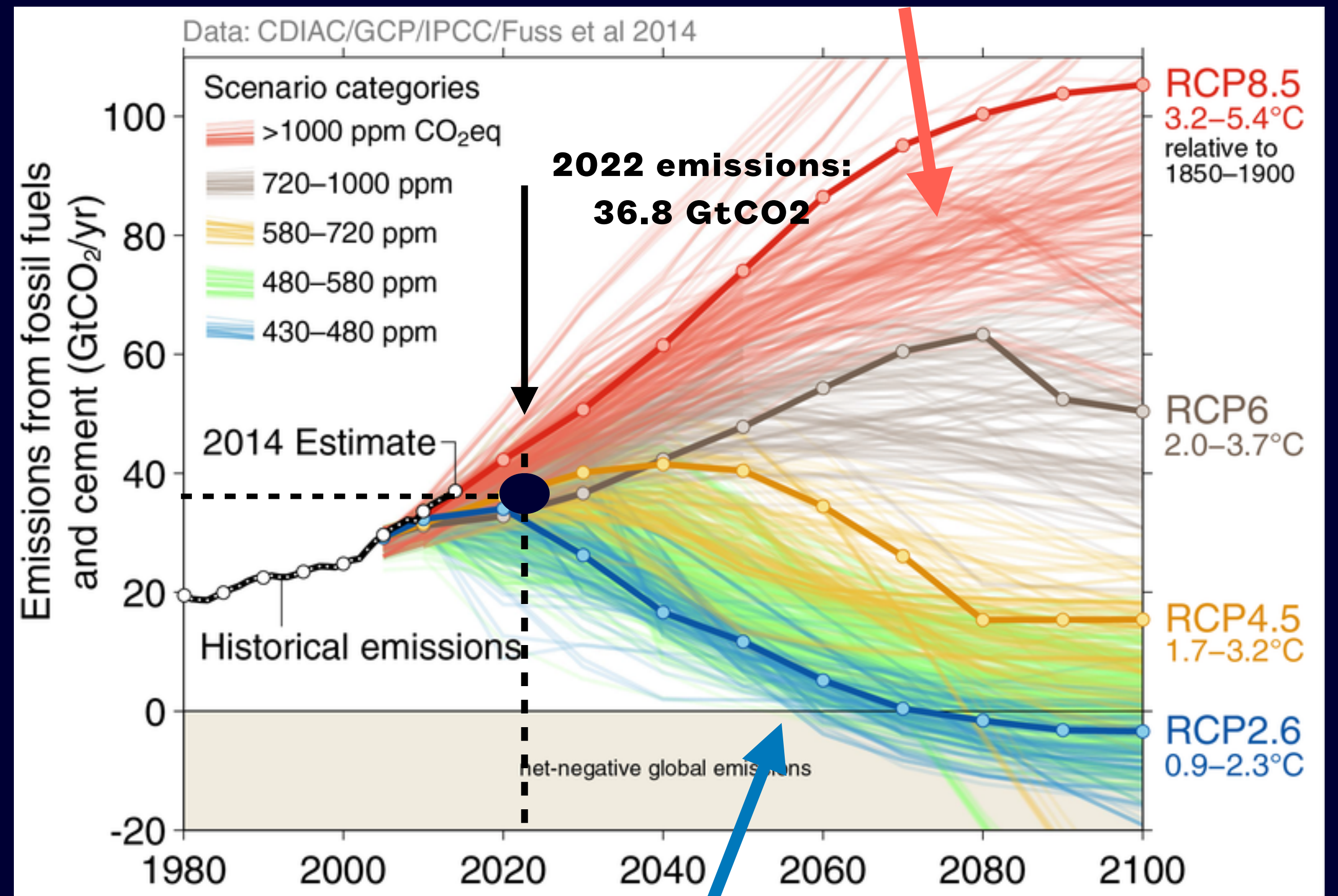
Air Pollution

To this:



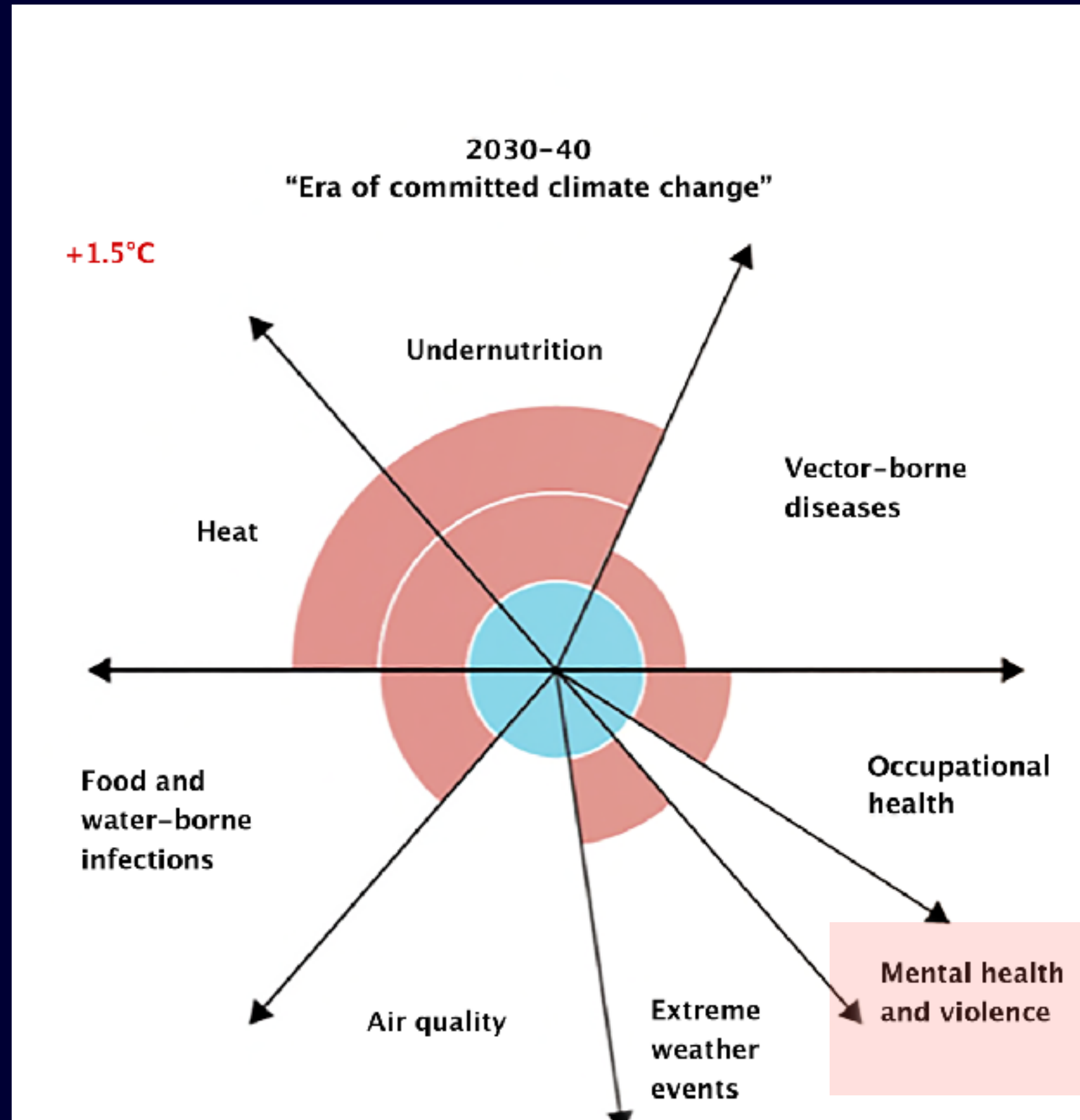
Do We Even Know the Risks? Yes,....

- RPC=Representative concentration pathways, IPCC 2014 based on whether CO₂ emissions peak in 2020 (RPC2), 2040 (RPC4), 2080 (RPC6), or continue to rise (8.5)
- Named after Radiative forcing values (sunlight energy absorbed - energy radiated back to space)
- 1500 stochastic runs per trajectory for variance in biogeochemistry, aerosol radiative forcing, albedo, and a range of emissions scenarios. Albedo refers to reflecting white surfaces.



WB2C: Well Below 2 C

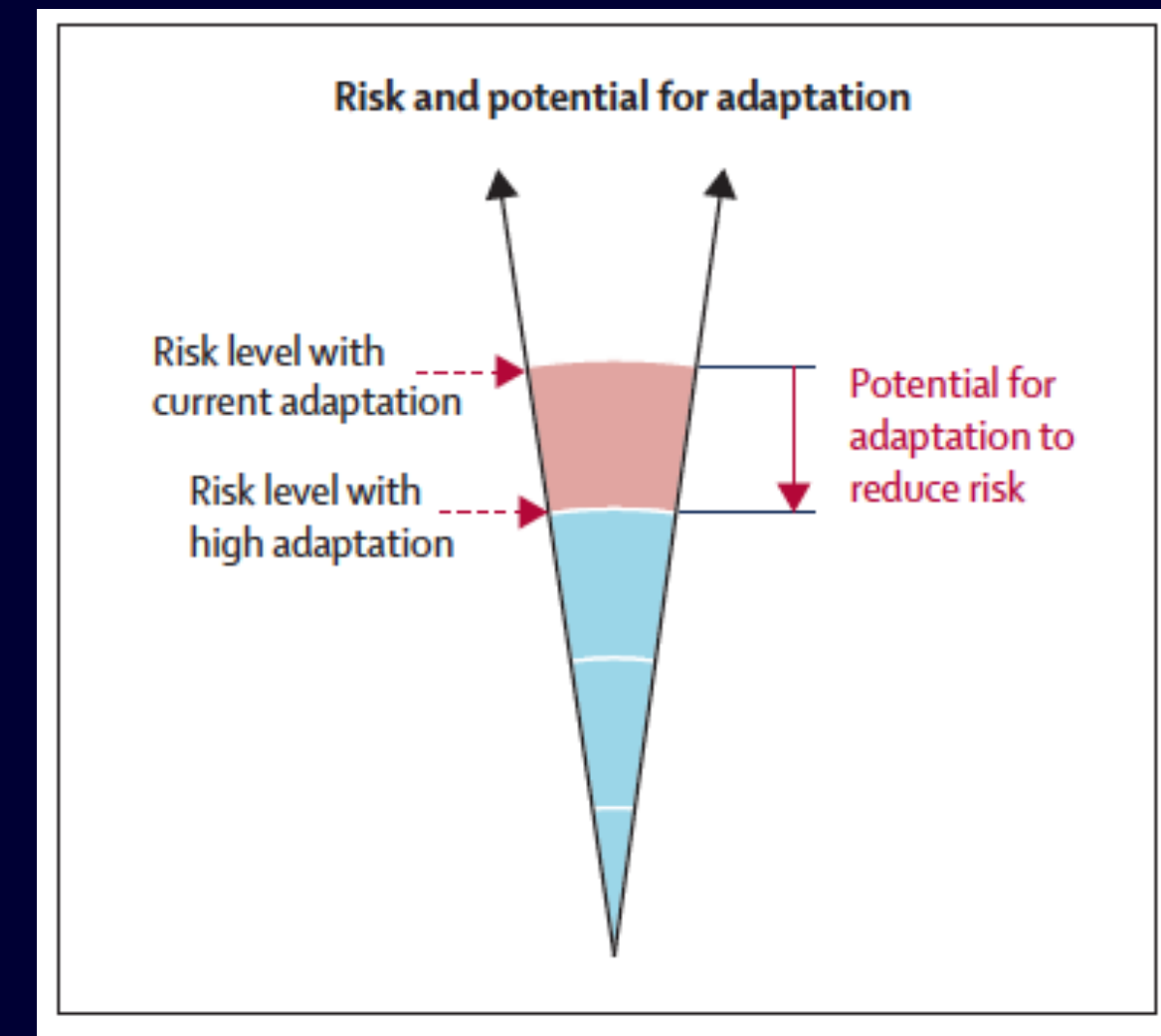
But Mental Health Risks Hard to Prevent: 2030-2040, IPCC model



RCP +1.5°C

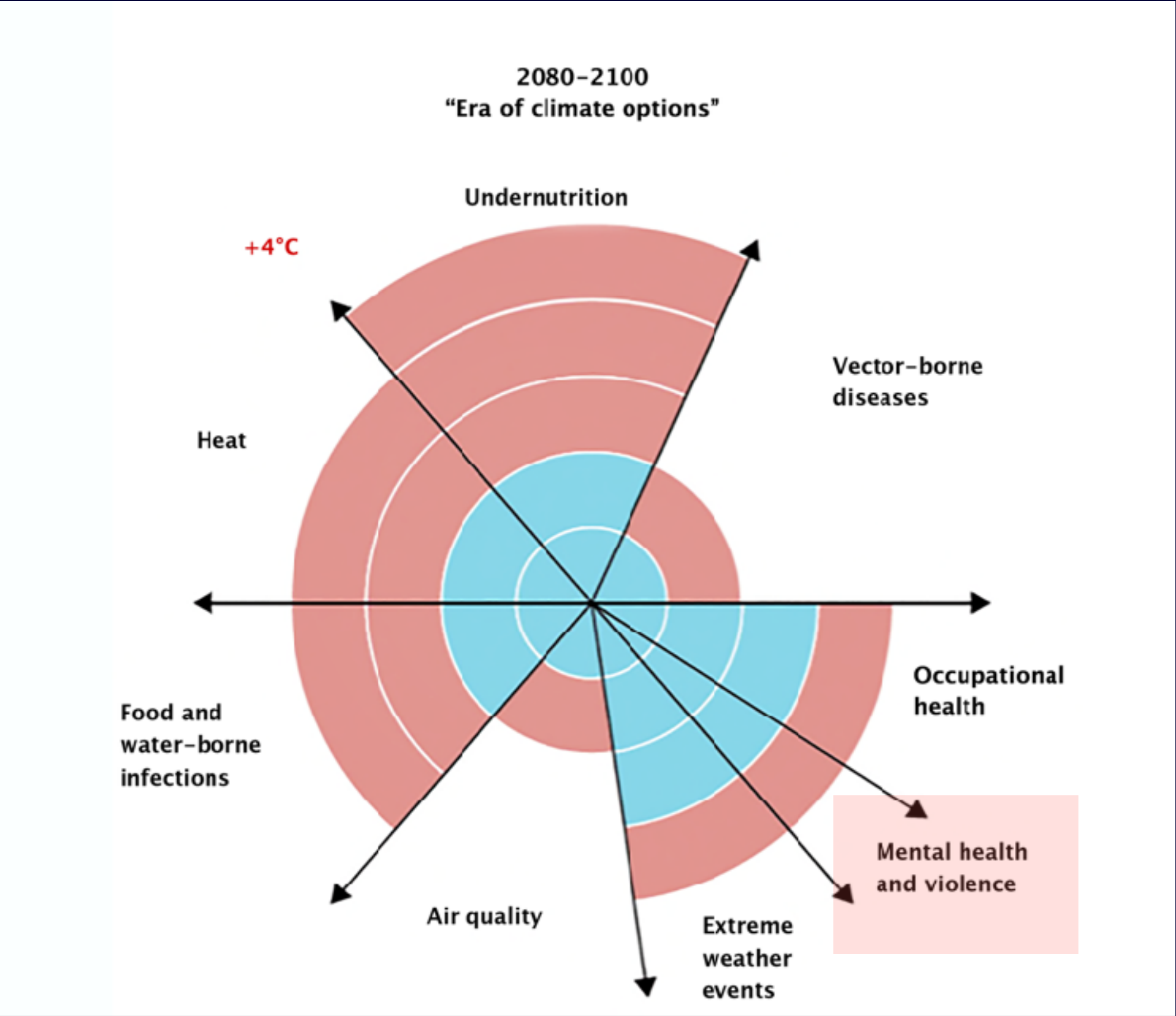
Red = can be prevented by fast action

Blue = Nothing to be done. Underway



Climate Change and Health: On the latest IPCC report, Lancet, 2014

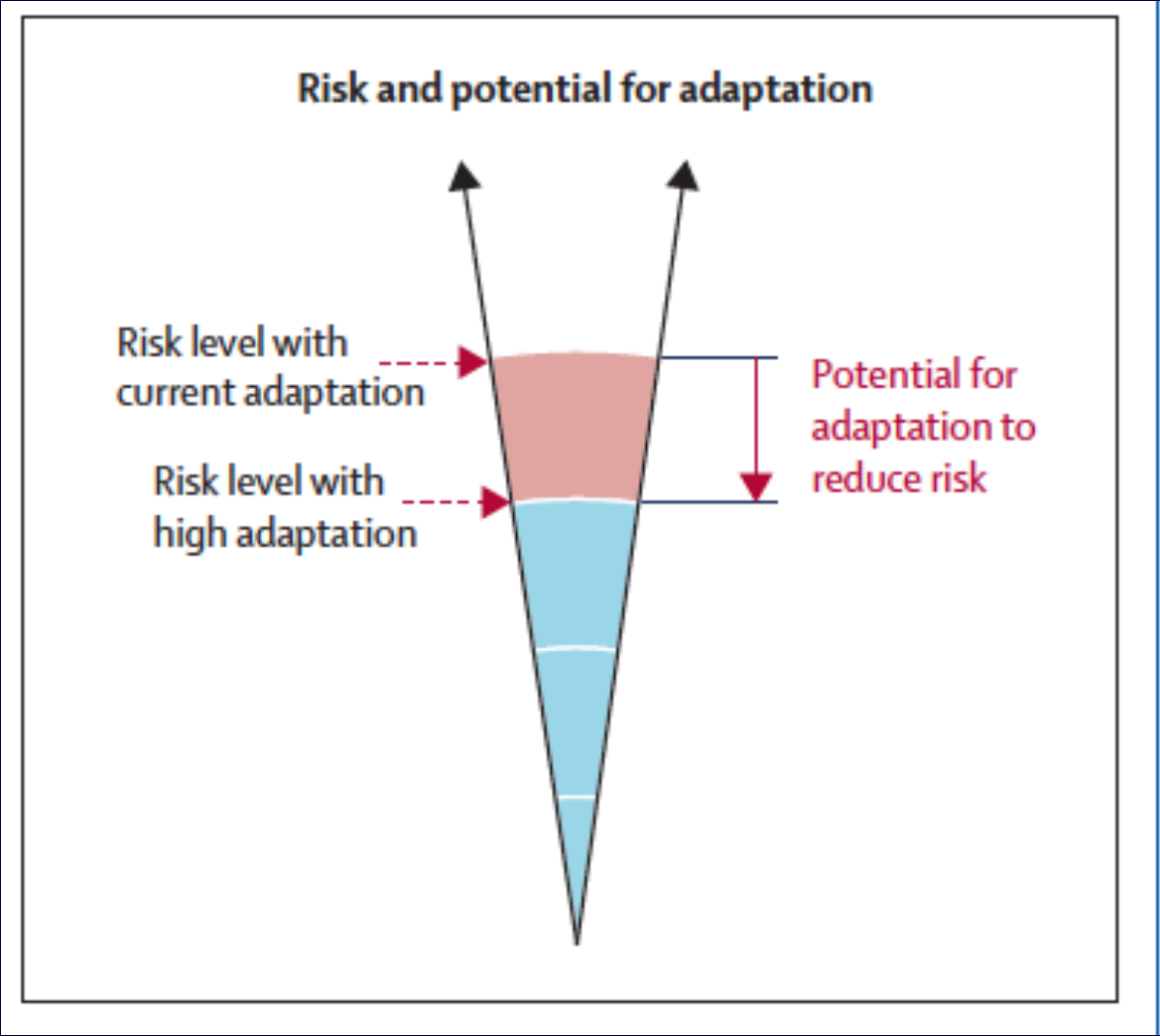
With High Irreversible Mental Health Risk This Century: 2080-2100



RCP +4°C

Red = can be prevented by fast action

Blue = Nothing to be done. Underway



And Scary: Probability of Existential/Catastrophic Threat:

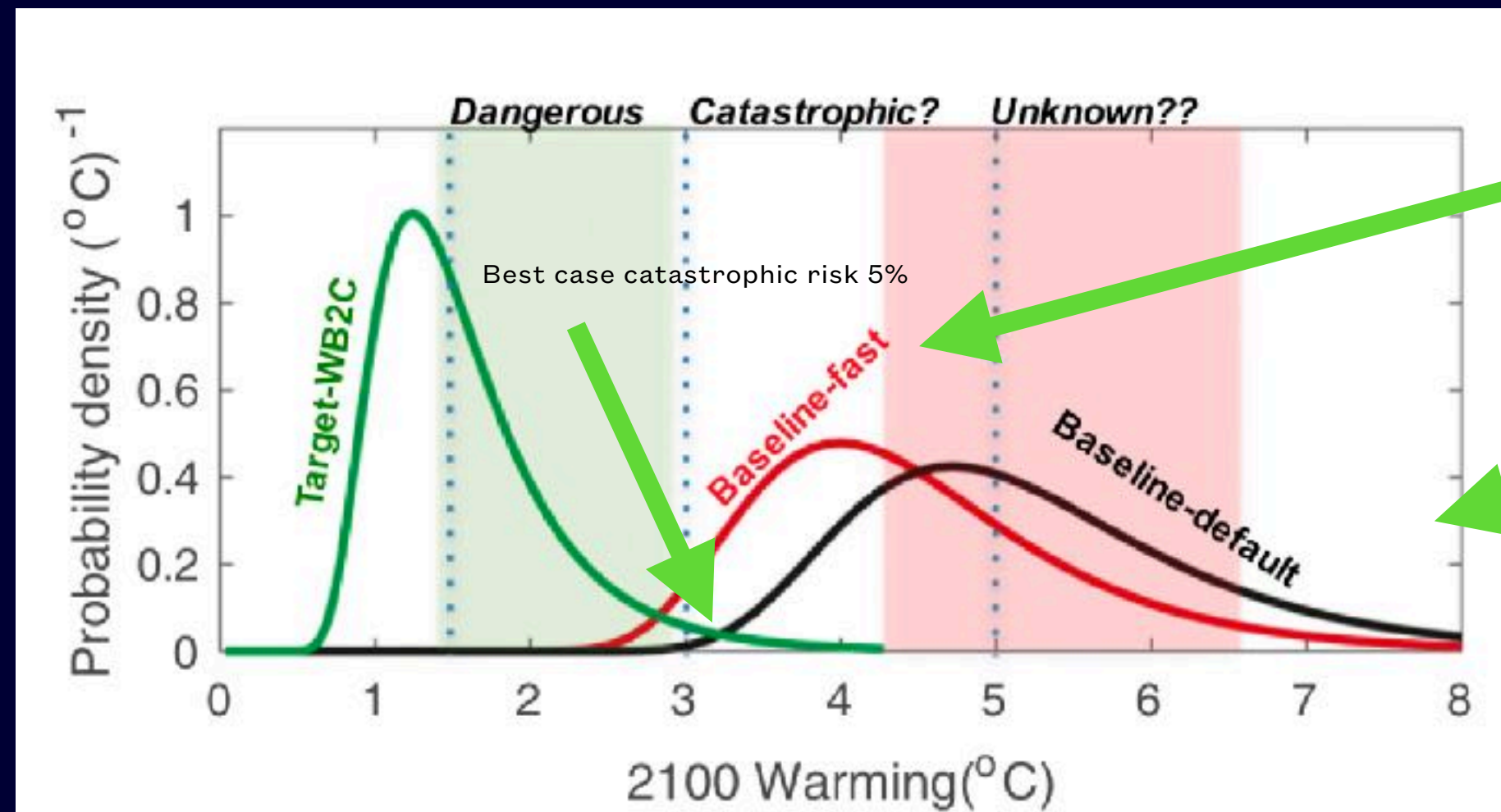


Fig. 2. Probability density function of projected warming in 2100 for the baseline-default, baseline-fast, and Target-WB2C (CN2030 + SLCP2020 + CES1t) scenarios. The green and red color shading shows the 50–95% range of the projection for the Target-WB2C and baseline-fast scenarios due to uncertainty in climate sensitivity. The vertical dotted lines indicate the range of the three risk categories as defined in this study.

- Baseline-Fast Scenario: Aggressive 80% reduction in the energy intensity of the economy c/w 2015 Paris Accord
- Baseline-Default Scenario: Current rates of emission-reduction until 2100, 50% reduction c/w 2015
- EITHER WAY: 5% chance of Doom
 - 74% people subjected to deadly heat,
 - 3 billion of us rely on 18thC technology,
 - 400 million coast refugees,
 - 90% of species threatened

**Catastrophic/Unknown = Collapse the Western Antarctic Ice Sheet, Shutdown of Deep Water Circulation in the North Atlantic, Dieback of Mazon and Boreal Forests, Collapse of the West African Monsoon

And No...Risks Include Sudden Irreversible Unpredictable Change:

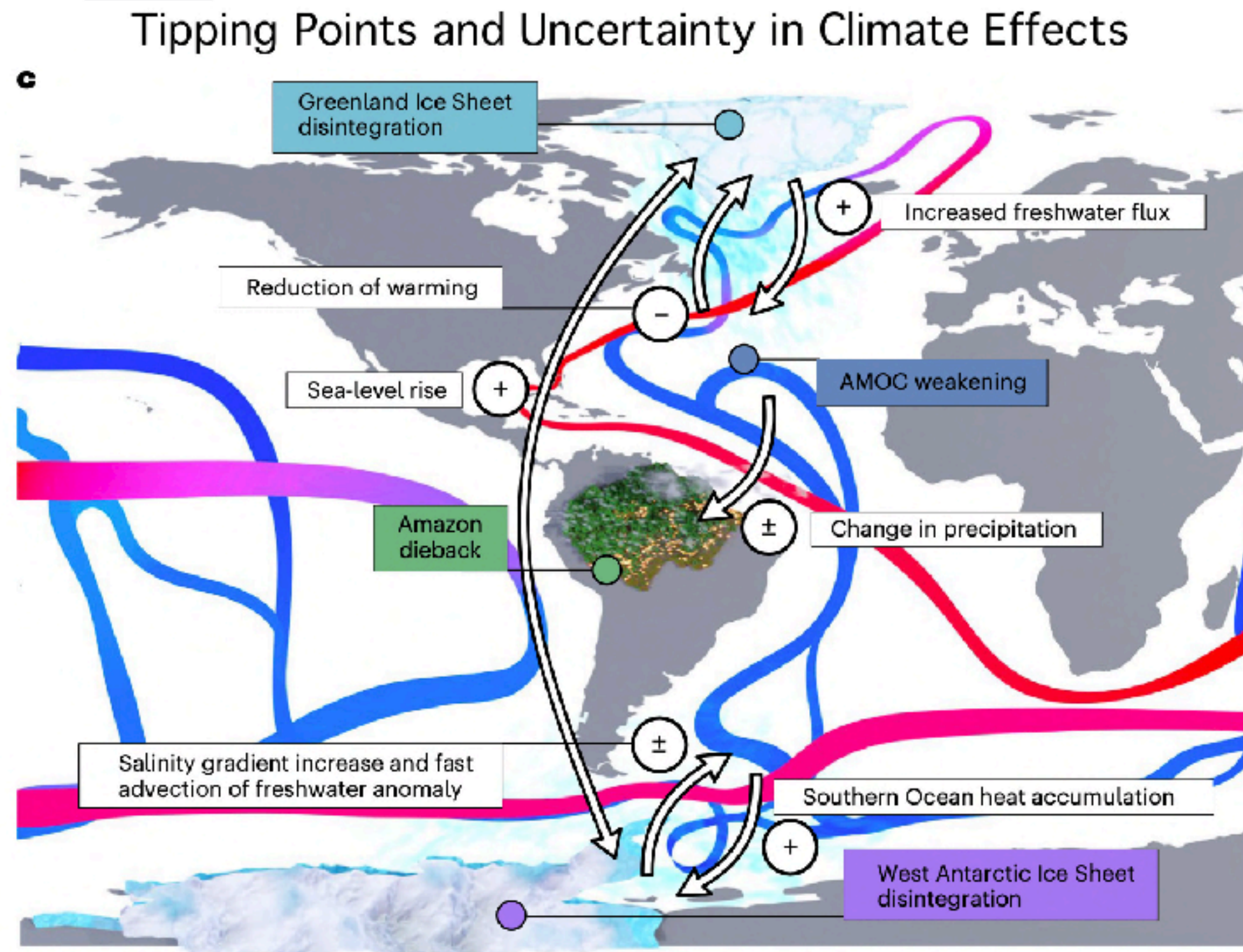


Fig. 1 | Interacting climate tipping elements. **a**, Exemplary global warming overshoot scenario with a peak temperature of $T_{\text{peak}} = 2.5^\circ\text{C}$, a convergence temperature of $T_{\text{conv}} = 2.0^\circ\text{C}$ above pre-industrial and a time to convergence to 2.0°C of $t_{\text{conv}} = 400$ yr. This scenario is applied to a set of four interacting climate tipping elements with an exemplary draw of critical thresholds from their full uncertainty ranges (Supplementary Table 1). **b**, The effect of the overshoot trajectory shown in **a**: the Greenland Ice Sheet, the West Antarctic Ice

Sheet and the AMOC tip. The grey shaded areas depict the two possible states, either not tipped (baseline regime) or tipped (transitioned) state. **c**, Map of the four interacting climate tipping elements. Each arrow represents a physical interaction mechanism between a pair of tipping elements, which can be destabilizing (denoted as +), stabilizing (denoted as -) or unclear (denoted as ±). AMAZ, Amazon rainforest; GIS, Greenland Ice Sheet; WAIS, West Antarctic Ice Sheet. The underlying map in **c** has been created with cartopy⁶¹.

- Definition: Tipping points are points after which small additional change can cause large, abrupt, irreversible and cascading effects
- Fast tipping points: The Amazon, Boreal Forest loss, the AMOC (Atlantic Meridional Overturning Circulation), loss of West African Monsoon.
- Slow tipping points: The West Antarctic, Wilkes Basin and Greenland Ice Sheets

Climate Change is Threatening to American Identity

Inconsistent with American values	Instead:
Control over Environment	Dependent on Nature
Change	Long cycles
Speed	Social change moves slowly
Individualism/Privacy	Group identity
Self-help	Shared responsibility/social programs
Competition	Cooperation
Practicality & Efficiency	Complex global systems resist easy change
Materialism/Acquisitiveness	Dematerializing
Action & Work	Learning and receiving

R. Kohl, The Washington International Center/Meridien Center, 1984

The Qualities of Climate Change are Psychological Complex:

- **Hyper-object:** Unknowable
- **Wicked Problem:** Imperfect
- **Complex** (vs Complicated): Recursive
- **Emergent:** chaotic, uncertain, & filled with creative possibility



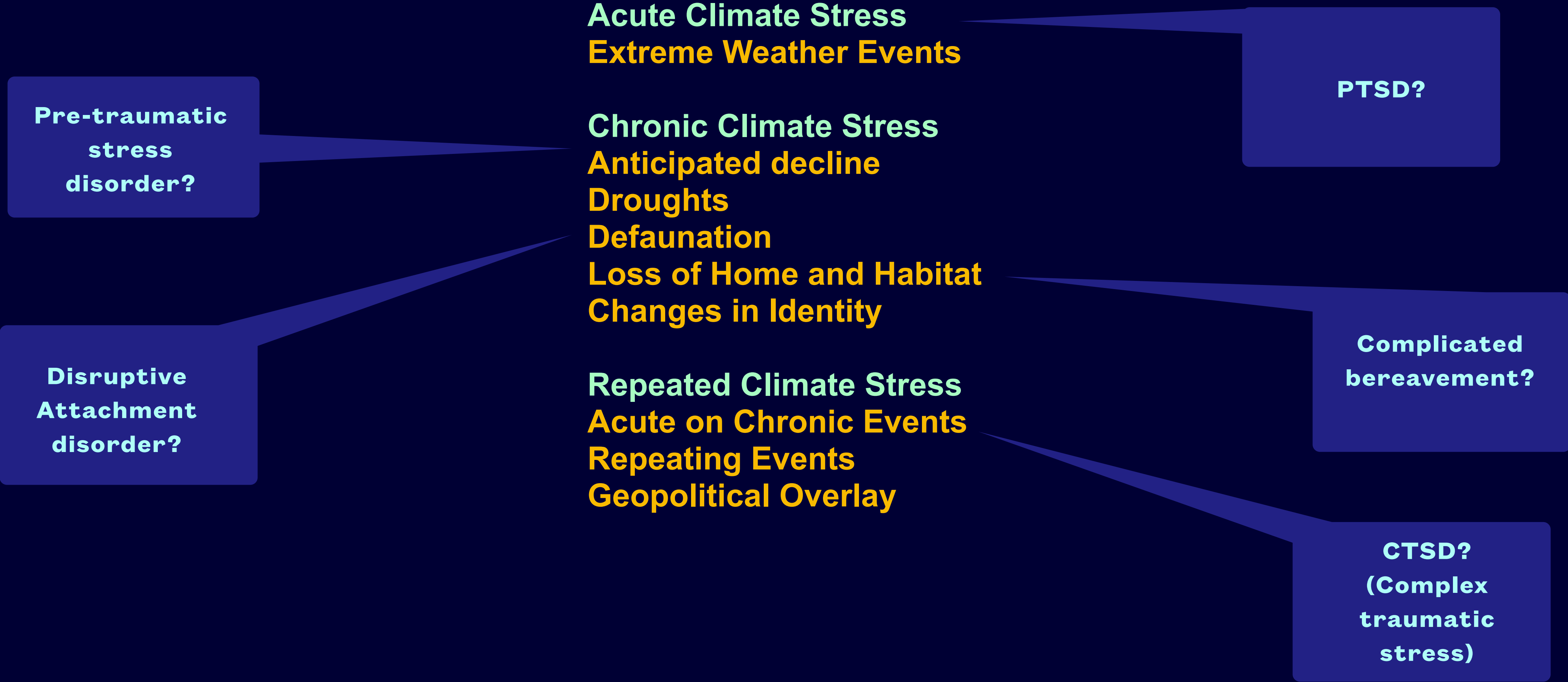
Characteristics of Complex Systems:

- Elements interact dynamically
- Diversity of behaviors
- Interactions are nonlinear
- Rich and layered levels of interaction
- Feedback loops
- Complex systems are open systems
- Conditions do not operate in equilibrium
- Individual elements are ignorant of the behavior of the whole system within which they are embedded
- Chaos and self-organization (emergence, evolution)

Hopeful aspects of complex systems include the Butterfly Effect, Emergence, and Exponential Time



It's also not clear which theoretical models best fit this Eco-distress

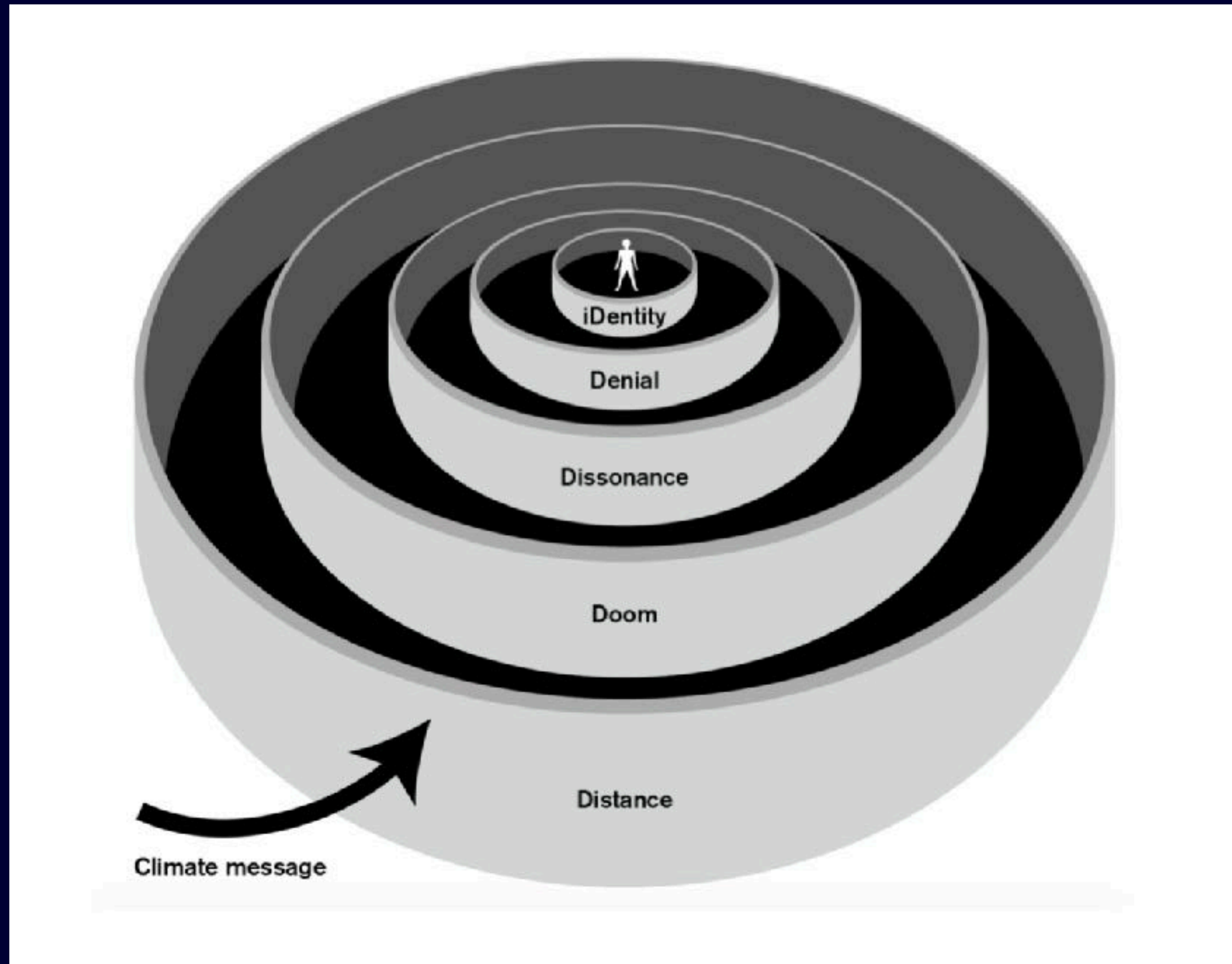


Complex Post-traumatic stress Disorder: overlaps with the Climate Crises

- C-PTSD first described by Judith Herman, 1992; also called DTD; proposed for ICD-11, not PTSD (continuous = constant violence)
- Includes **repetitive chronic trauma, helplessness (due to power imbalance or developmental stage), captivity/entrapment (no viable escape route), terror, worthlessness, and fragmentation of sense of self.** It is the latter that most differentiates it from PTSD.
- Like those suffering from EcoAnxiety or Solastalgia, no lack of empathy with world around them
- Similarly suffer **dissociation and ambivalent attachment** patterns
- Treatment includes establishing a sense of safety, remembering and mourning what was lost,** and **reconnecting with a new community not based on exploitative relationships, creating a new identity.**
- Average number of climate-related traumas for children in California communities affected by fires 5-7 (Emily Diamond, PhD)



So, How Do We Work with EcoAnxiety?



The Basics of Working with EcoAnxiety:

- * **Validate** fear (and other feelings)
- * **Yes, it matters** (confront disavowal)
- * Transform anxiety into **Action** (don't suppress it)
- * Avoid forms of **Collapse** (something you DO)

More Basic Techniques for Working with EcoAnxiety:

- Secure attachment to Nature
 - Nature therapies: Horticulture, Forest bathing, Animal husbandry, WTR
- Cultivating Hope (Something you DO)
 - Active Hope (Macy et al) (Hope through doing)
 - Reasonable hope (Weingarten) (similar)
 - Radical Hope (Lear) (Hope when thought is not possible)
 - Tragic and Dark Optimism (Frankl; Chamberlin) (celebrate human spirit)
- Staying in Community
 - Good Grief Network; Climate Cafes; Local and Personalized Participation

EcoAnxiety work with Guilt, Collapse, and Overwhelm:

- **Metaphor of the “baby”:** Innocence instead of guilt and shame
- **Comfort with Uncertainty:** Confusion is the beginning of sense-making and imagination
- **Wait for it:** Role of unconscious innovation and humor
- **The “Uncertainty cloud of the future self”/Futures literacy**
- **Creation of New Stories**

Deep Processing of EcoAnxiety:

- Containment
 - Many modes: Relational, Spiritual, Narrative, Agentic (through action), Cognitive
- Preventing dialectic collapse
 - Poles are regressive; poles involve false splits; collapse is an attack on linking (Bion)
- Techniques for Transformation (Rites of Passage/Rituals)
- Reflection (Meaning Based Coping)

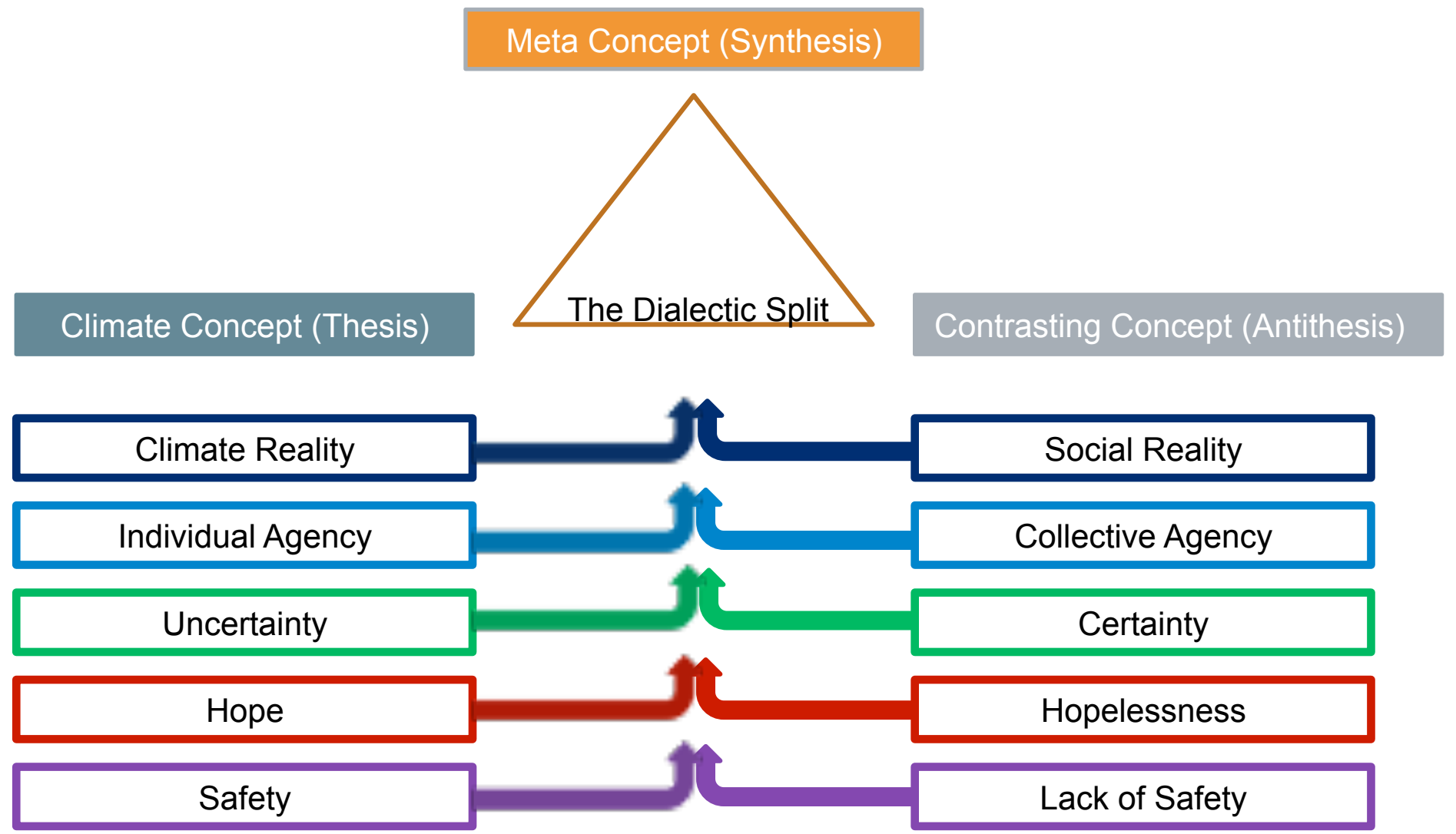
Work with Rigid, Stuck, and Irrational Points of View:



Try a new angle!

Avoiding Collapse/Maintaining Dialectic Tensions:

5 CORE CLIMATE DIALECTICS ()



Mitigation versus Adaptation is another

Can also be considered psychodynamically:

Affective: The imperative to hope when it is impossible to be hopeful

Cognitive: The imperative to think when the topic is too vast, unknowable & unimaginable

Drive: The need to find empowerment through personal action when you are powerless

Attachment: The need to maintain a mutually caregiving attachment to nature in a dangerous, alienated and unnatural world

Self: The struggle for a reality-based ego when the the self is embedded in a social reality response that disavows and denies

Cognitive and Ego difficulties to focus on:

- Disavowal and Cognitive Dissonance
- Identity confusion from invalidating environment:
- The unborn child is already dead; The future is already determined
- Generative action is degenerate; Current values are not valuable
- Self-limitation due to Existential Guilt and Shame
 - Metaphor of the Baby; shared social reality
- Identity threats
 - Mortality Salience Theory/Terror Mortality Theory

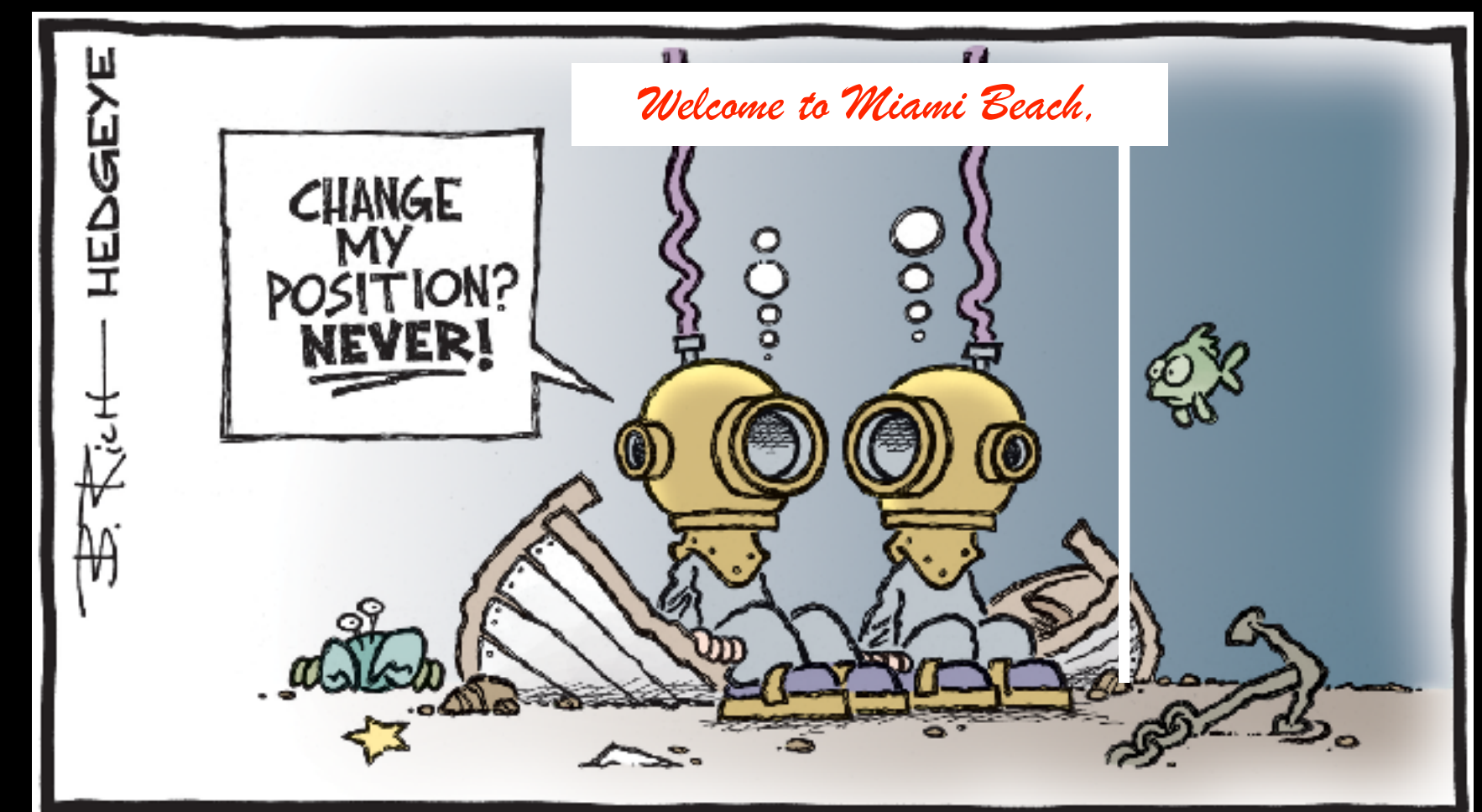
Cognitive difficulties to focus on:

Judgemental discounting: Undervaluing of distant or future risks, even regarding lesser risk for your village than one down the road

Optimism bias: Underestimating personal risks. People underestimate risks of radon, and in fact 22 hazards (Pahl et al 2005) are rated as higher for others than the self, both by environmental activists and others.

Sunk costs: unwillingness to walk away from something you are invested in even when it makes sense to do so (Habit)

Robert Gifford, *Dragons of Inaction*, 2011



Group Therapies for Climate Distress:

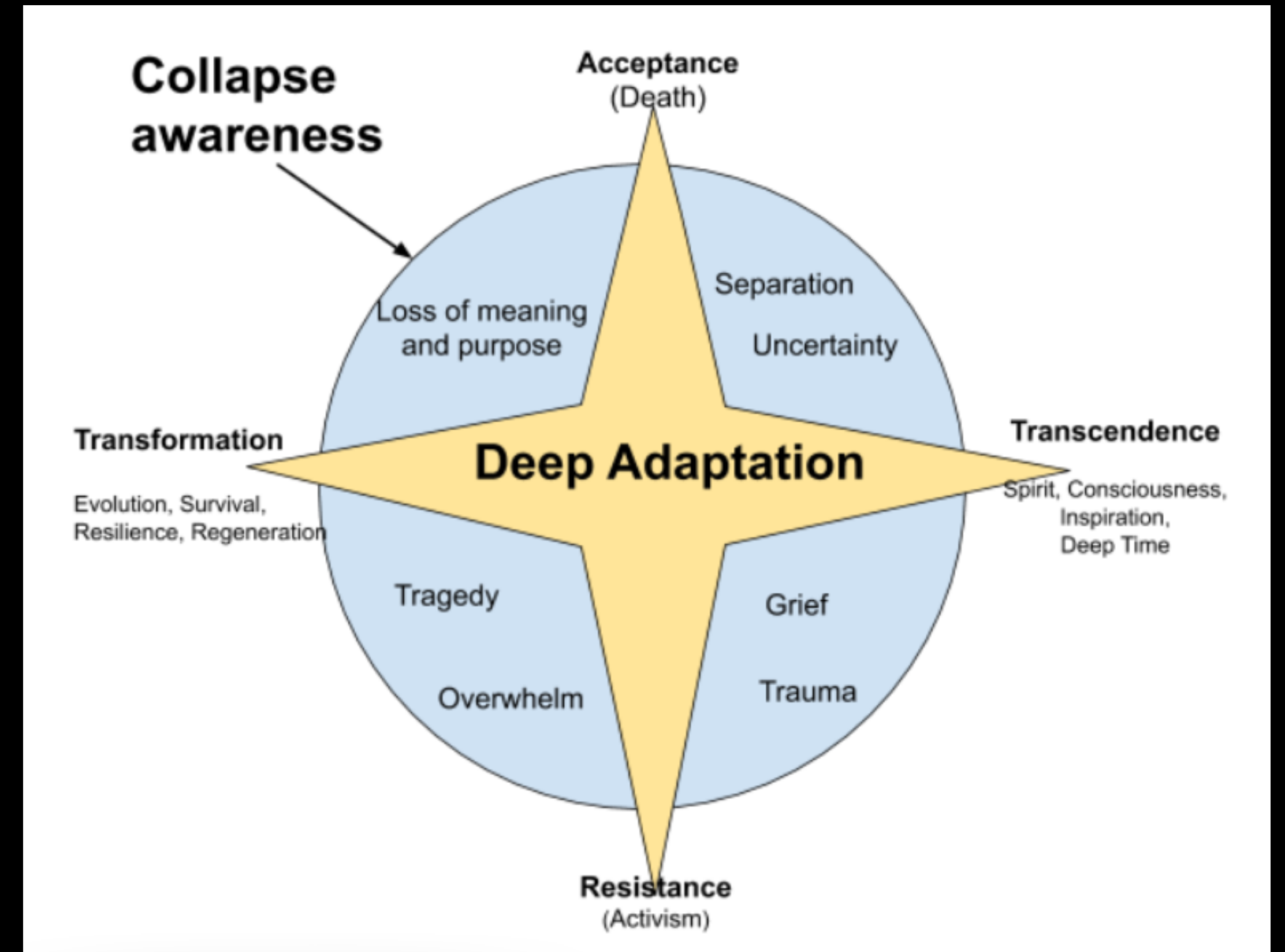
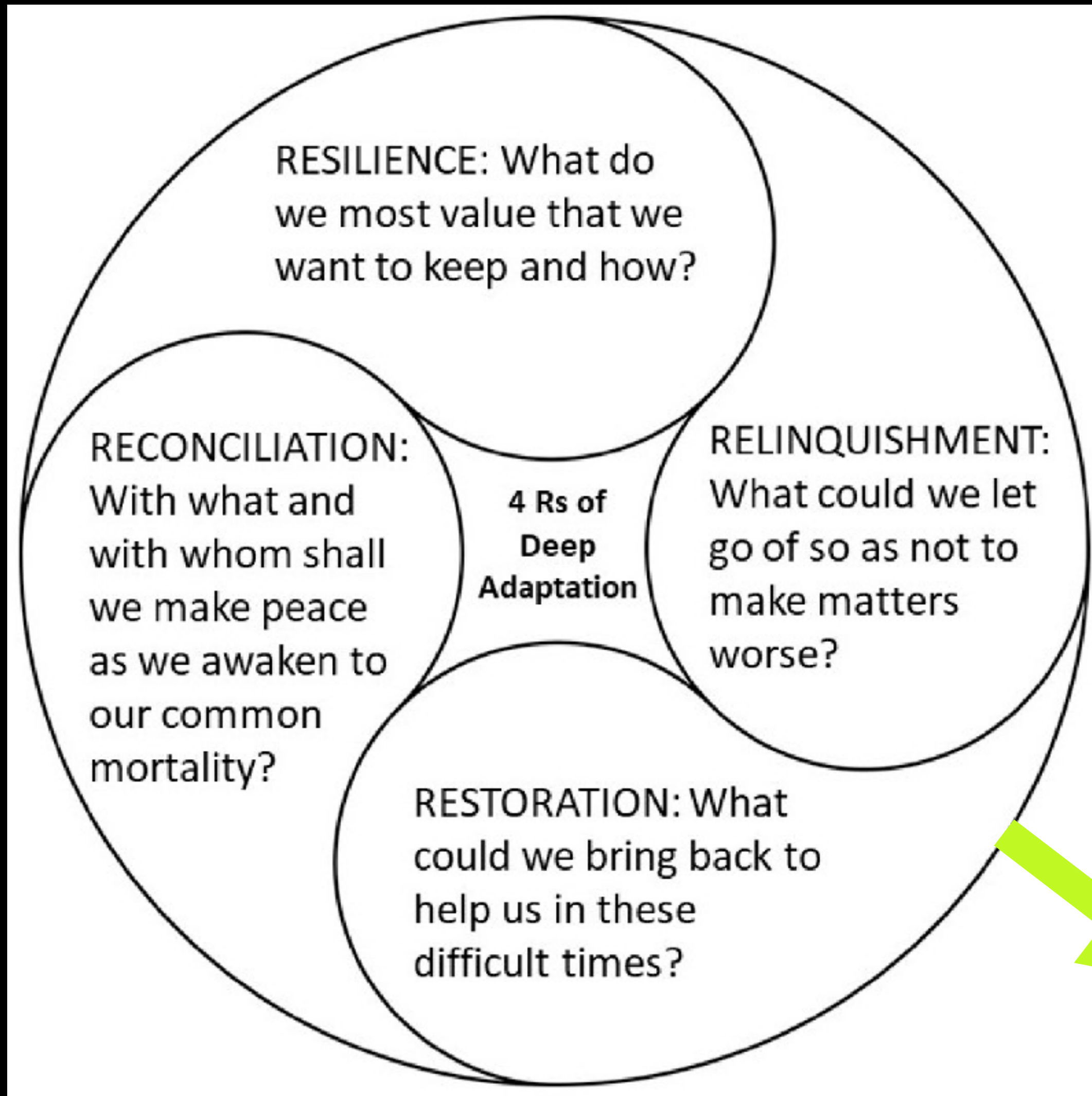


10-STEPS TO PERSONAL RESILIENCE & EMPOWERMENT IN A CHAOTIC CLIMATE

- 1 Accept the Severity of the Predicament
- 2 Practice Being With Uncertainty
- 3 Honor My Mortality & the Mortality of All
- 4 Do Inner Work
- 5 Develop Awareness of Biases & Perception
- 6 Practice Gratitude, Witness Beauty, & Create Connections
- 7 Take Breaks & Rest
- 8 Grieve the Harm I Have Caused
- 9 Show Up
- 10 Reinvest Into Meaningful Efforts



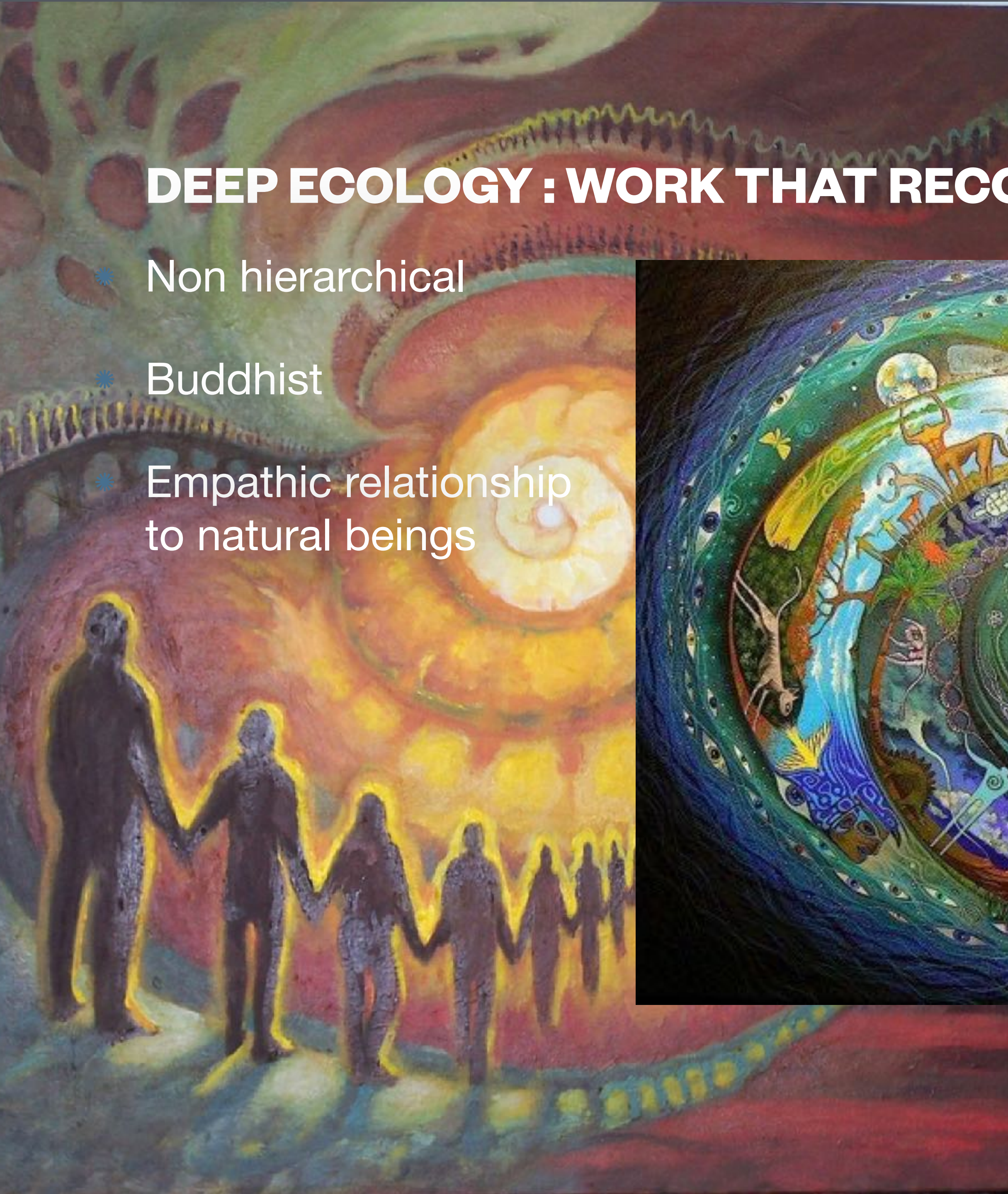
Community: Deep Adaptation



NEW STORIES

DEEP ECOLOGY : WORK THAT RECONNECTS

- Non hierarchical
- Buddhist
- Empathic relationship to natural beings



Enjoy the rest of the day!