



Weathering Climate Change

Transforming the mental health impacts of our planetary health crisis into resilience and meaningful action

Kyunghyang Forum 2020

BRITT WRAY, PHD

@BRITWRAY

SHARE

POLICY FORUM | ECOLOGY AND ECONOMICS: COVID-19



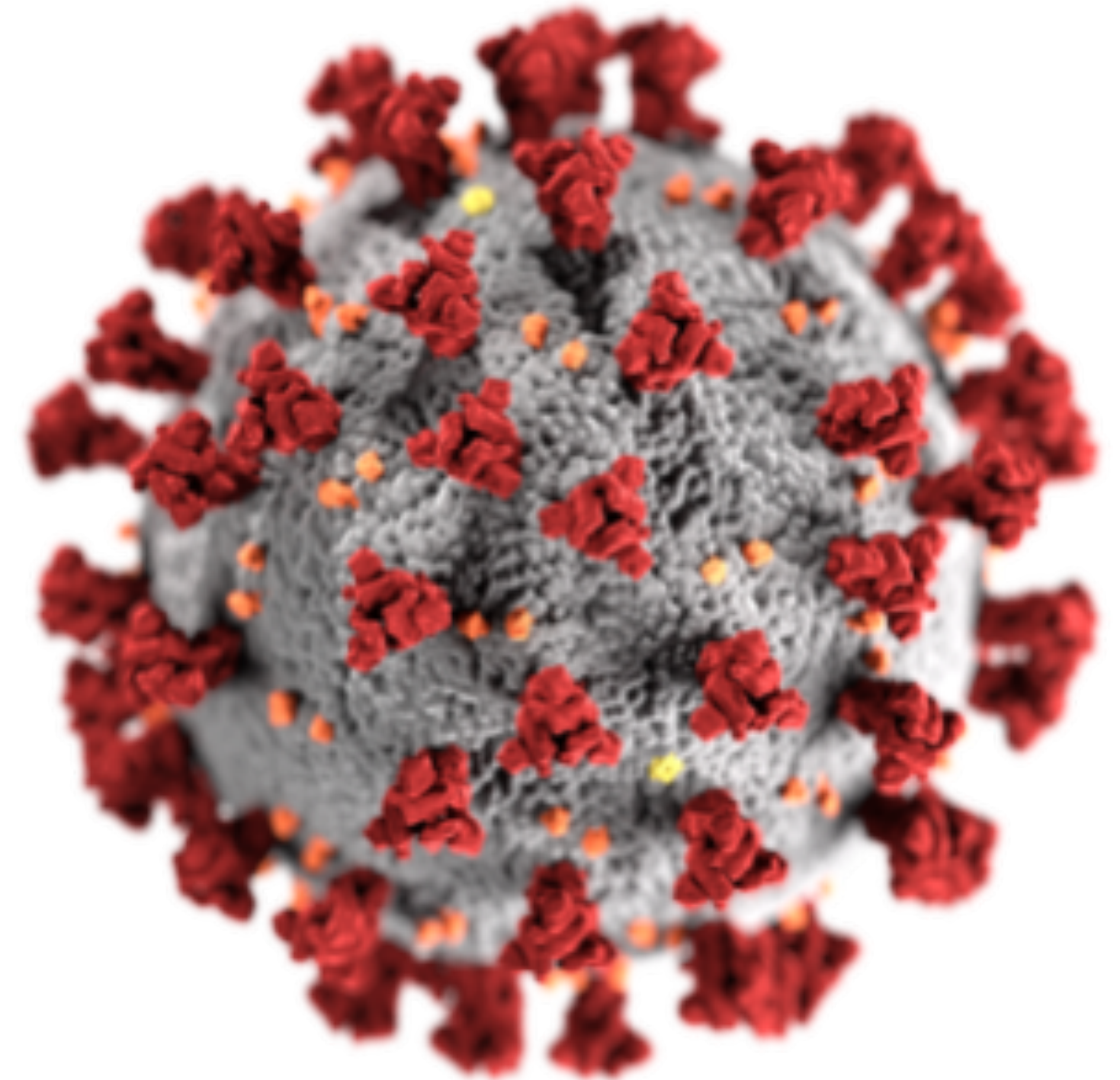
Ecology and economics for pandemic prevention

Andrew P. Dobson, Stuart L. Pimm, Lee Hannah, Les Kaufman, Jorge A. Ahumada, Amy W. Ando, Aaron Bernstein, Jonah Bu...

+ See all authors and affiliations

Science 24 Jul 2020:
Vol. 369, Issue 6502, pp. 379-381
DOI: 10.1126/science.abc3189

- **UN named climate change as one of the top 7 drivers of zoonotic diseases like Covid-19**



Soft sides of a hard problem





Emotional intelligence

Do you feel it?

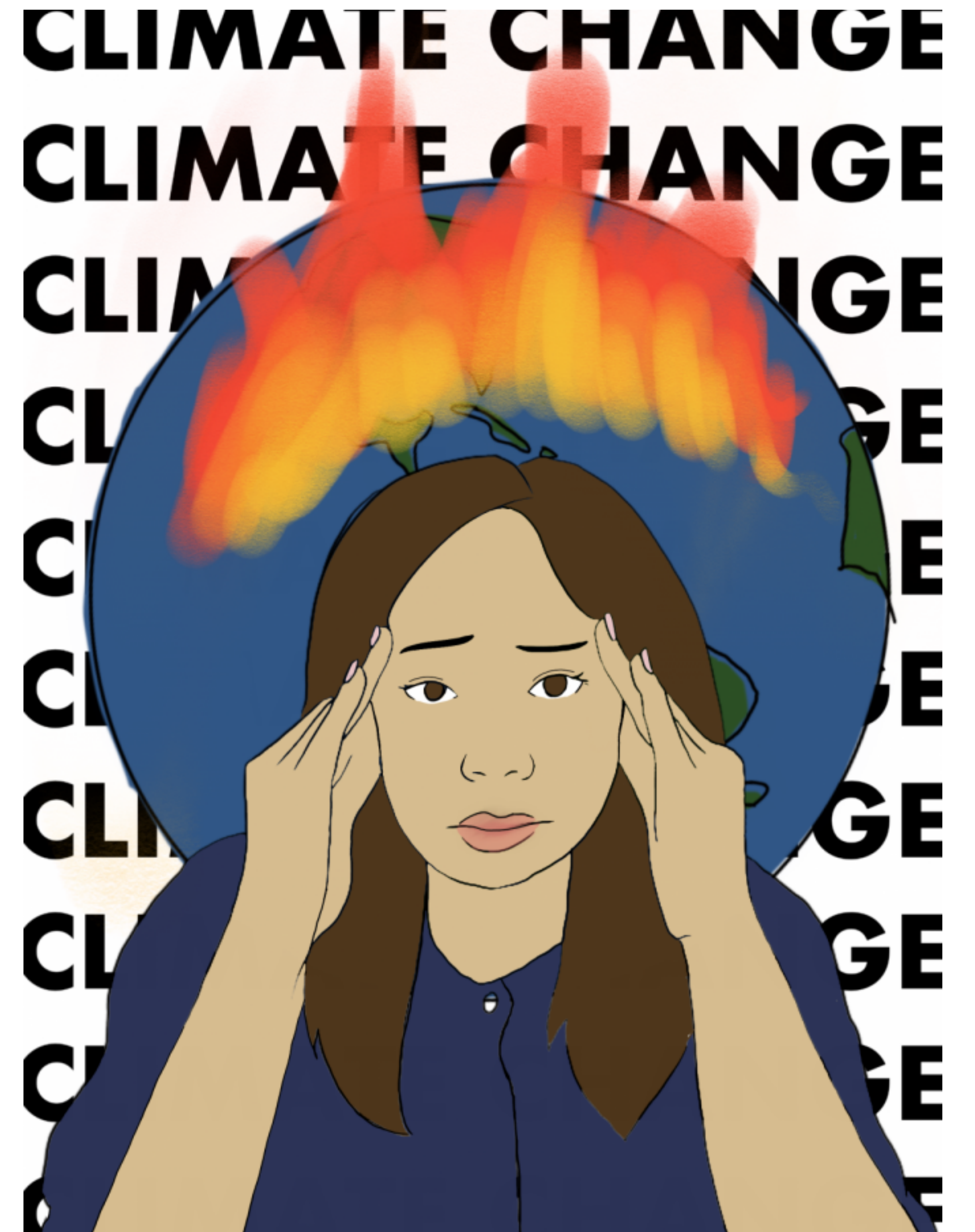


Illustration by Jane Park

Do you see it?





Fiesta

THE RULES
have it
FOR IT







Do you hear it?



Do you taste it?



Do you sense it?



Do you smell it?



Do you touch it?



brokenrecordrecordbreaking:
“a reccurring feeling of déjà vu, quiet terror, and slow shock which is both acute and familiar that occurs when opening a newspaper, radio program or website and reading a headline that year (month, season, day) has broken the record for the hottest on record.”



Buzzwords

Eco-anxiety (American Psychological Association)

Climate anxiety

Ecological grief (Cunsolo & Ellis)

Solastalgia (Albrecht)

Pre-Traumatic stress (Van Susteren)



A sign for a senior center is positioned in the foreground on the left side of the image. The sign consists of three horizontal black bars with white text. The top bar reads "SENIOR CENTER", the middle bar contains a list of safety instructions: "WEAR A MASK", "WASH YOUR HANDS", "SOCIAL DISTANCE", and "STAY SAFE", and the bottom bar reads "COME JOIN US". The background is a large, intense fire with bright orange and yellow flames, and a thick layer of grey smoke or ash hangs in the air, partially obscuring the sky. The overall scene is dramatic and somewhat somber, contrasting the message of safety and community with the destructive power of the fire.

SENIOR CENTER

**WEAR A MASK
WASH YOUR HANDS
SOCIAL DISTANCE
STAY SAFE**

COME JOIN US

Soft denial



Disavowal





Trends

New York Times Magazine



Survey conducted by OnePoll for Seventh Generation with a sample of 2,000 American adults (split evenly into four generations) from Jan. 27-31, 2020.



FOR THE CULTURE

2019's biggest pop-culture trend was climate anxiety

By [Miyo McGinn](#) on Dec 27, 2019

SIGHTLINES

As Environmental Catastrophe Looms, Is it Ethical to Have Children?

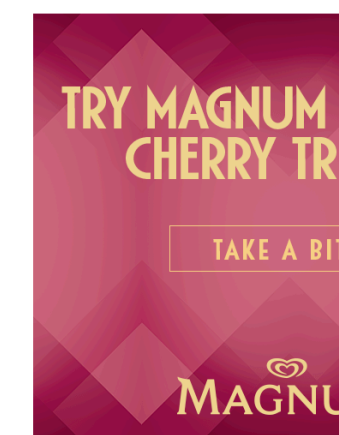
Two philosophers discuss the morality of family planning in the age of climate change.

SUBSCRIBE

These People Don't Want to Have Kids Because of Climate Change

And Donald Trump isn't helping.

BY [JAYA SAXENA](#) JUN 7, 2017



MORE FROM LIFE & LOVE

No Children Because of Climate Change? Some People Are Considering It



The Tengger Desert in China is growing because of climate change. Around the world, many would-be parents are looking at effects like this and hesitating. Josh Haner/The New York Times

#NO FUTURE NO CHILDREN

More than **5163** people have pledged so far

BIRTHSTRIKE



ITV.COM 'We're choosing the planet over pregnancy'

Youth activism



Home / Newsroom / Detail / Newsroom / Emergencies / Data / About Us

World failing to provide children with a healthy life and a climate fit for their future: WHO-UNICEF-Lancet



World failing to provide children with a healthy life and a climate fit for their future: WHO-UNICEF-Lancet

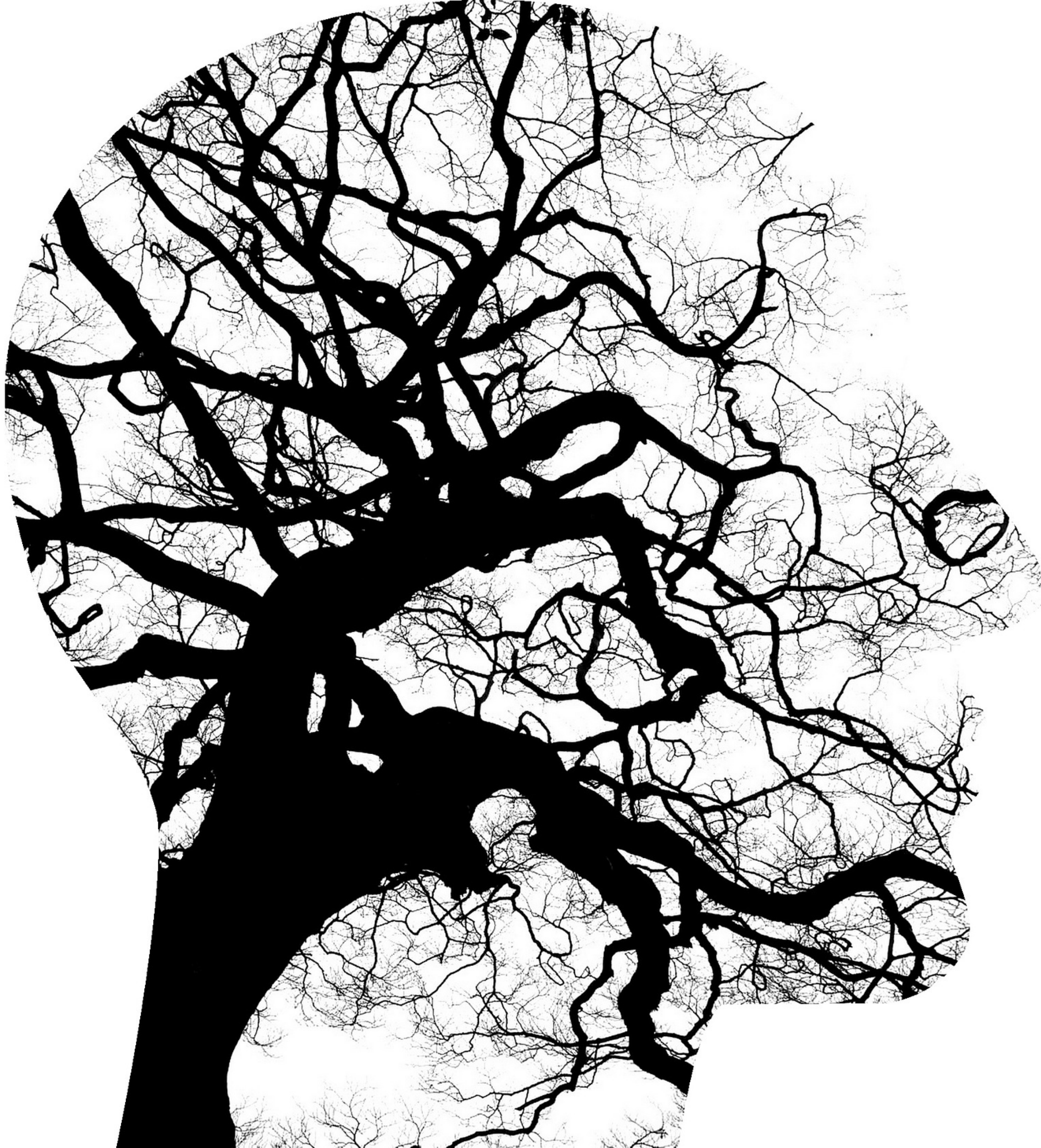
العربية 中文 Français
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19 February 2020 | News release | New York / London / Geneva

Media Contacts





climate
psychiatry
alliance

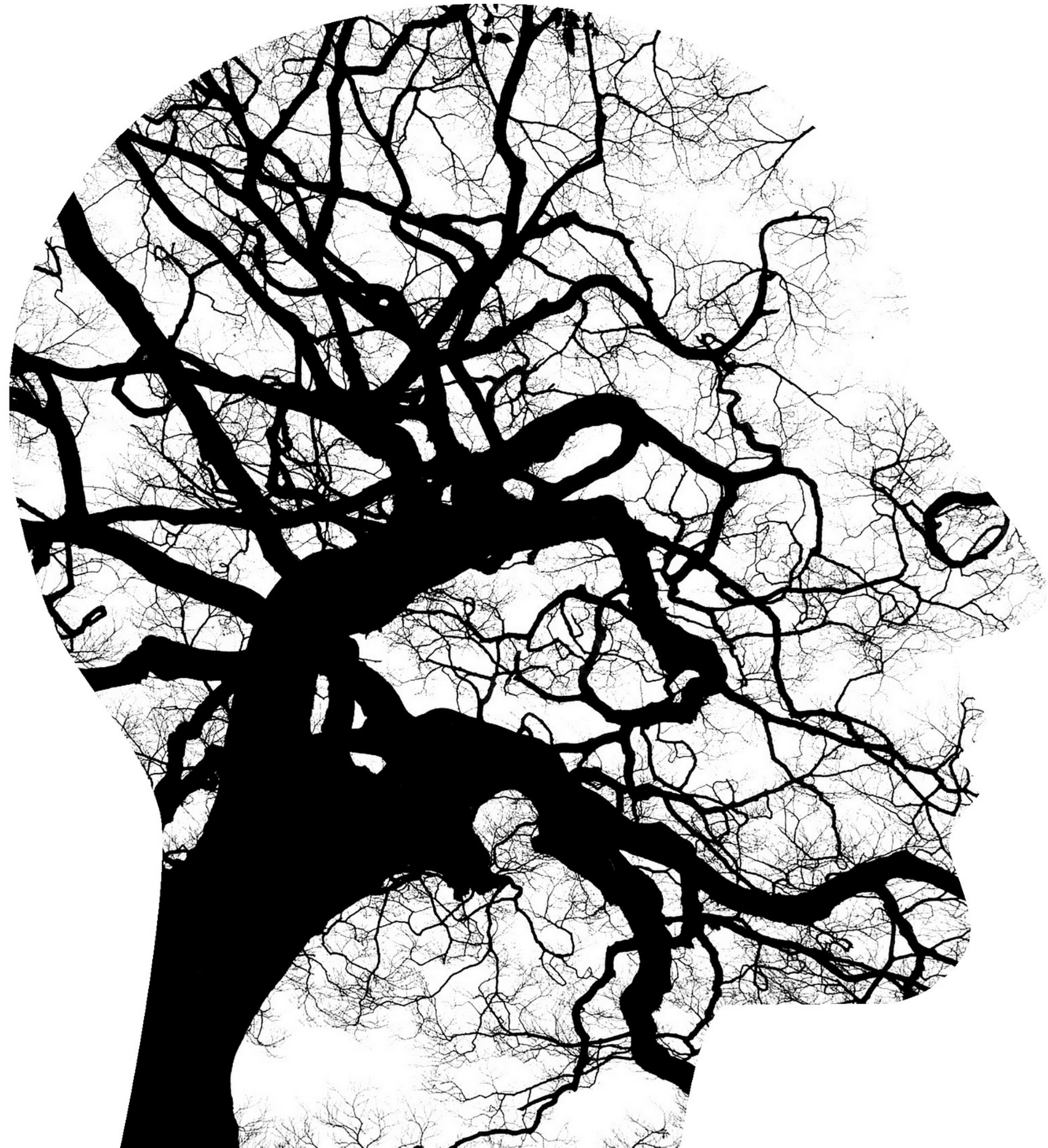


Climate Psychology Alliance North America
Minding Mother Earth

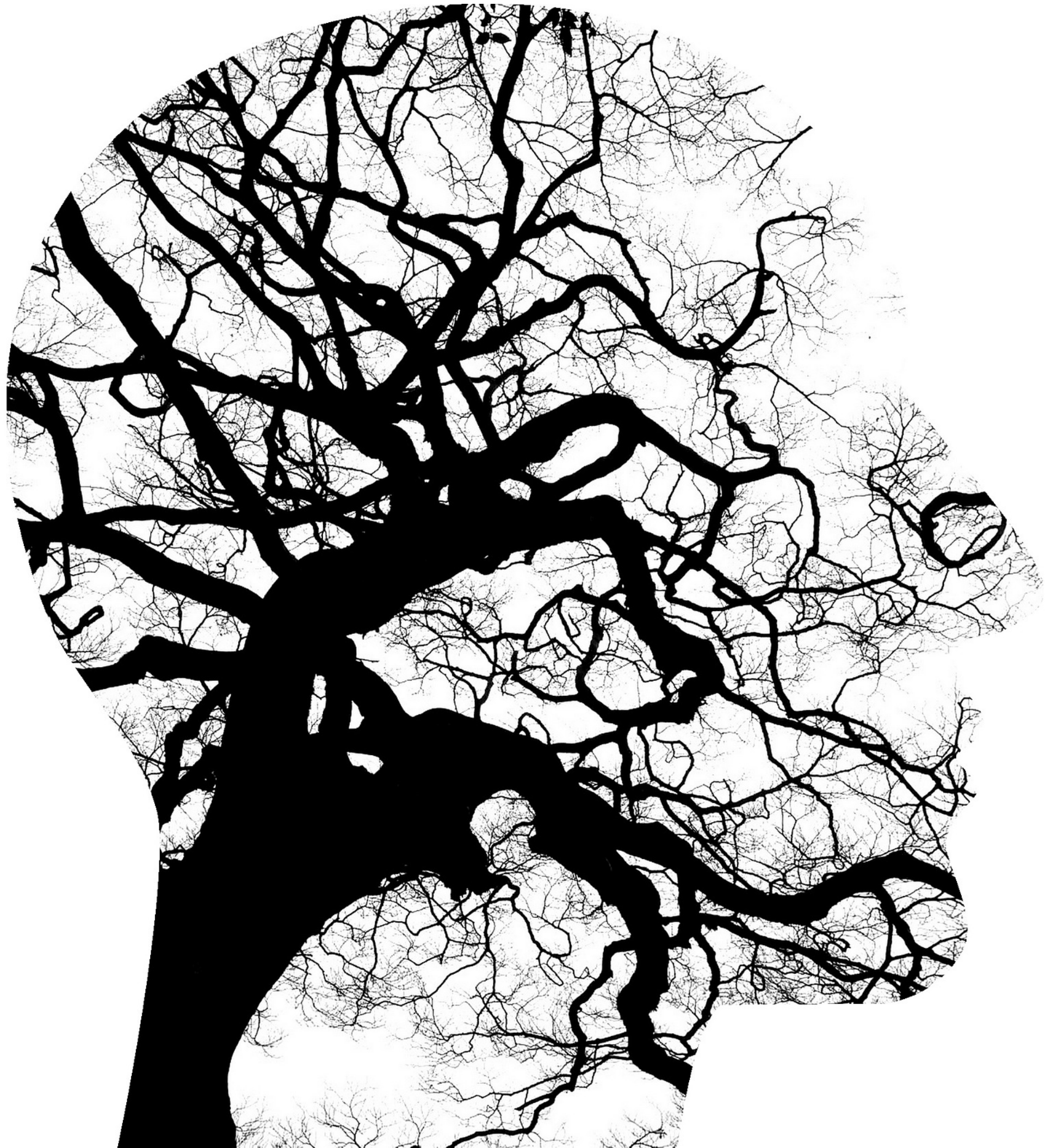
**FACING
DIFFICULT
TRUTHS**

Climate Psychology Alliance

Appropriate and not to be pathologized



Appropriate and not to be pathologized



PNAS Proceedings of the National Academy of Sciences of the United States of America

Keyword, Author, or

Home Articles Front Matter News Podcasts Authors




NEW RESEARCH IN

Physical Sciences

Social Sciences

RESEARCH ARTICLE

Future of the human climate niche

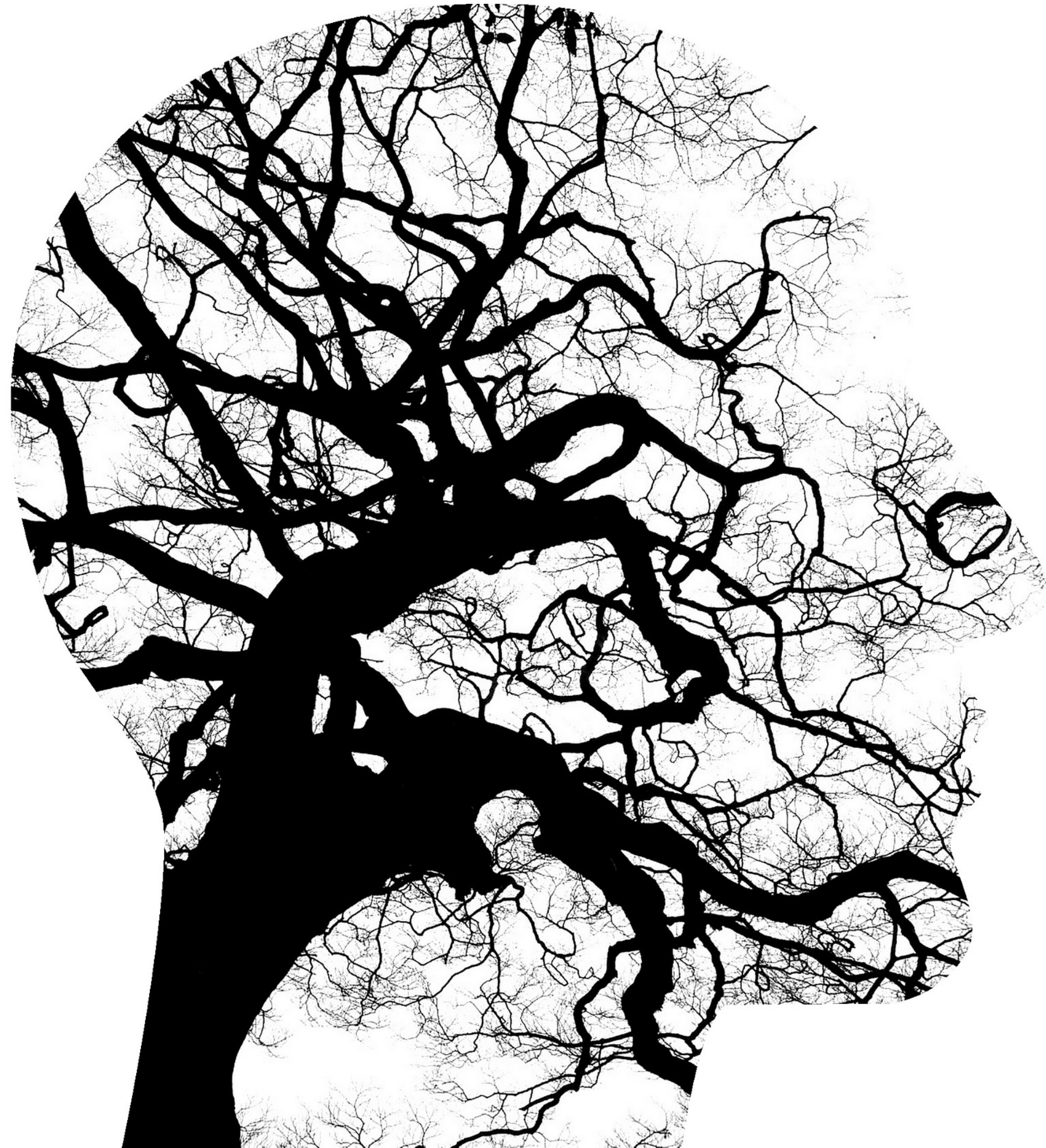
 Chi Xu, Timothy A. Kohler,  Timothy M. Lenton,  Jens-Christian Svenning, and Marten Scheffer

PNAS May 26, 2020 117 (21) 11350-11355; first published May 4, 2020 <https://doi.org/10.1073/pnas.1910114117>

Contributed by Marten Scheffer, October 27, 2019 (sent for review June 12, 2019; reviewed by Victor Galaz and Luke Kemp)



Appropriate and not to be pathologized



Scientists shocked by Arctic permafrost thawing 70 years sooner than predicted

- Ice blocks frozen solid for thousands of years destabilized
- 'The climate is now warmer than at any time in last 5,000 years'



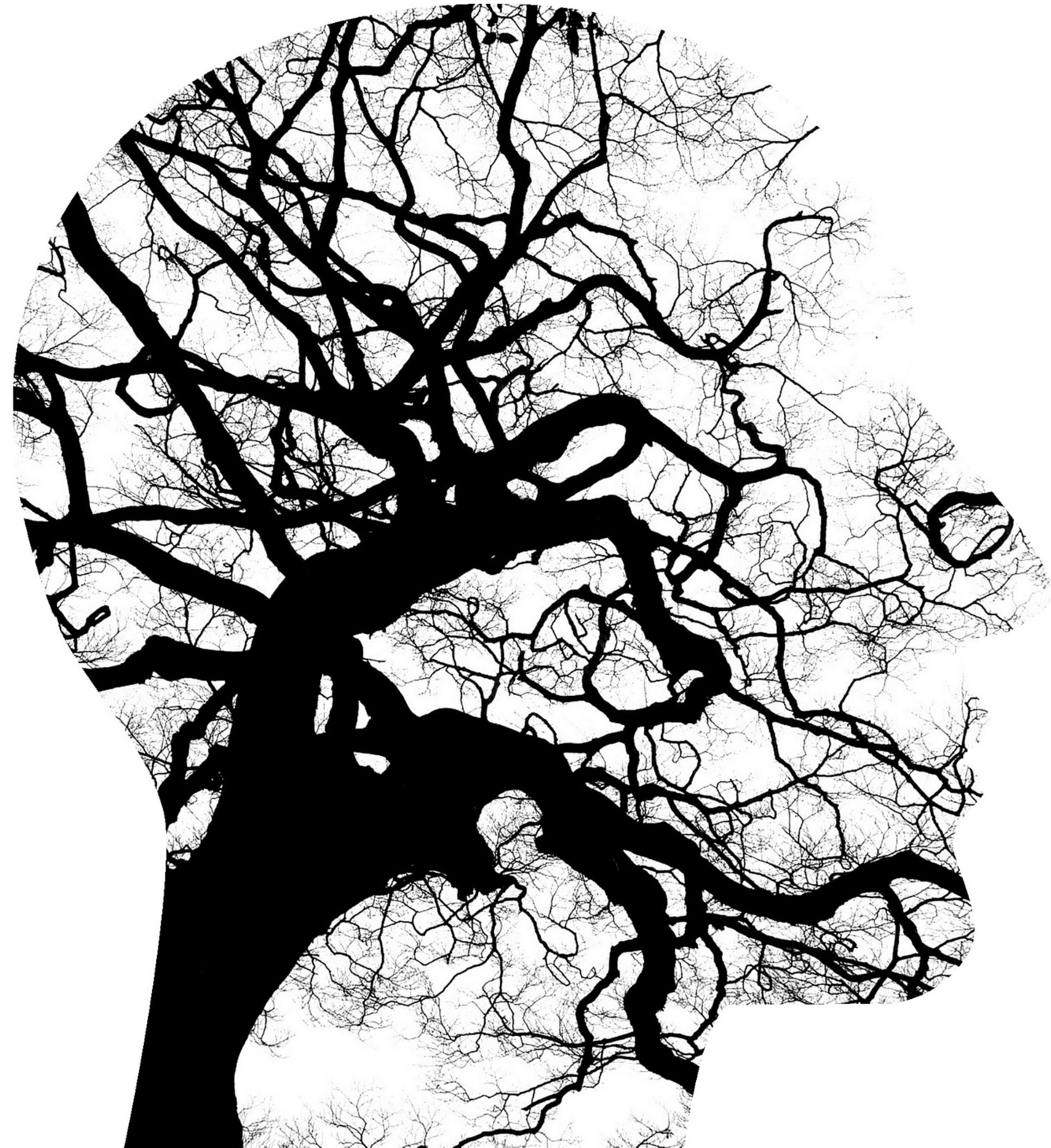
science alert Trending



(María-José Viñas, NASA Earth Science News Team)

ENVIRONMENT

Greenland's Melting Ice Sheet Has 'Passed The Point of No Return', Scientists Say



Eco-empathy

Eco-anxiety occurs on a spectrum



MILD - feelings of upset are transient and can respond to reassurance, focus on optimism and hope in others (maybe ungrounded)

MEDIUM - person may get upset more frequently; feel doubt in “others” capacity to take action; start making some changes in lifestyle

SIGNIFICANT - minimal defences against anxiety; it becomes harder to mitigate distress, guilt and shame; little faith in others to take action; significant impact on relationships.

SEVERE - intrusive thoughts, sleep affected, struggles to get any respite, anticipate human extinction, no belief in others’ ability to care, may be unable to work or suicidal; a complete and utter loss of personal security.

Psychiatric trauma post-disaster:

Depression

PTSD

Suicidality

Substance abuse

Domestic abuse

Disrupted sense of belonging

Loss of meaning

Increased vulnerability of the mentally ill

Berry, Helen L., Thomas D. Waite, Keith B. G. Dear, Anthony G. Capon, and Virginia Murray. (2018). "The Case for Systems Thinking about Climate Change and Mental Health." *Nature Climate Change* 8 (4): 282-90.

Clayton, S., Manning, C. M., Krygsman, K., & Speiser, M. (2017). *Mental Health and Our Changing Climate: Impacts, Implications, and Guidance*. Washington, D.C.: American Psychological Association, and ecoAmerica.

Hayes, Katie, G. Blashki, J. Wiseman, S. Burke, and L. Reifels. 2018. "Climate Change and Mental Health: Risks, Impacts and Priority Actions." *International Journal of Mental Health Systems* 12 (1): 28. <https://doi.org/10.1186/s13033-018-0210-6>.





Ex: Plante, Courtney, Johnie J. Allen, and Craig A. Anderson. "Effects of rapid climate change on violence and conflict." Oxford Research Encyclopedia of Climate Science. 2017.
Anderson, C. A., Anderson, K. B., Dorr, N., DeNeve, K. M., & Flanagan, M. (2000). Temperature and aggression. *Advances in Experimental Social Psychology*, 32, 63-133
Sanz-Barbero, Belén, et al. "Heat wave and the risk of intimate partner violence." *Science of the total environment* 644 (2018): 413-419.



Creeping impacts:

- Indian farmer suicides
- nearly 60 000 over last 30 years
- +70/day with each additional degree (Carleton 2017)



North Atlantic
Ocean

**NEWFOUNDLAND
AND LABRADOR** ● **Rigolet**

QUEBEC



OP-ED

DR. ASHLEE CUNSOLO
Northern-led leadership in higher education



GOOD NEWS

**1. If we want to
protect populations...
we must look beyond
the biomedical model**

1. Look beyond the biomedical model



What if wealthy countries tried something similar?



**2. If we want solutions
to be sustained. . . focus
of fostering social
capital & connectedness**

2. Social capital and connectedness are key. Founding research by Dr. Alexander Leighton



Image: Nova Scotia Archives

“The pearl in the oyster” Dr. Helen Berry

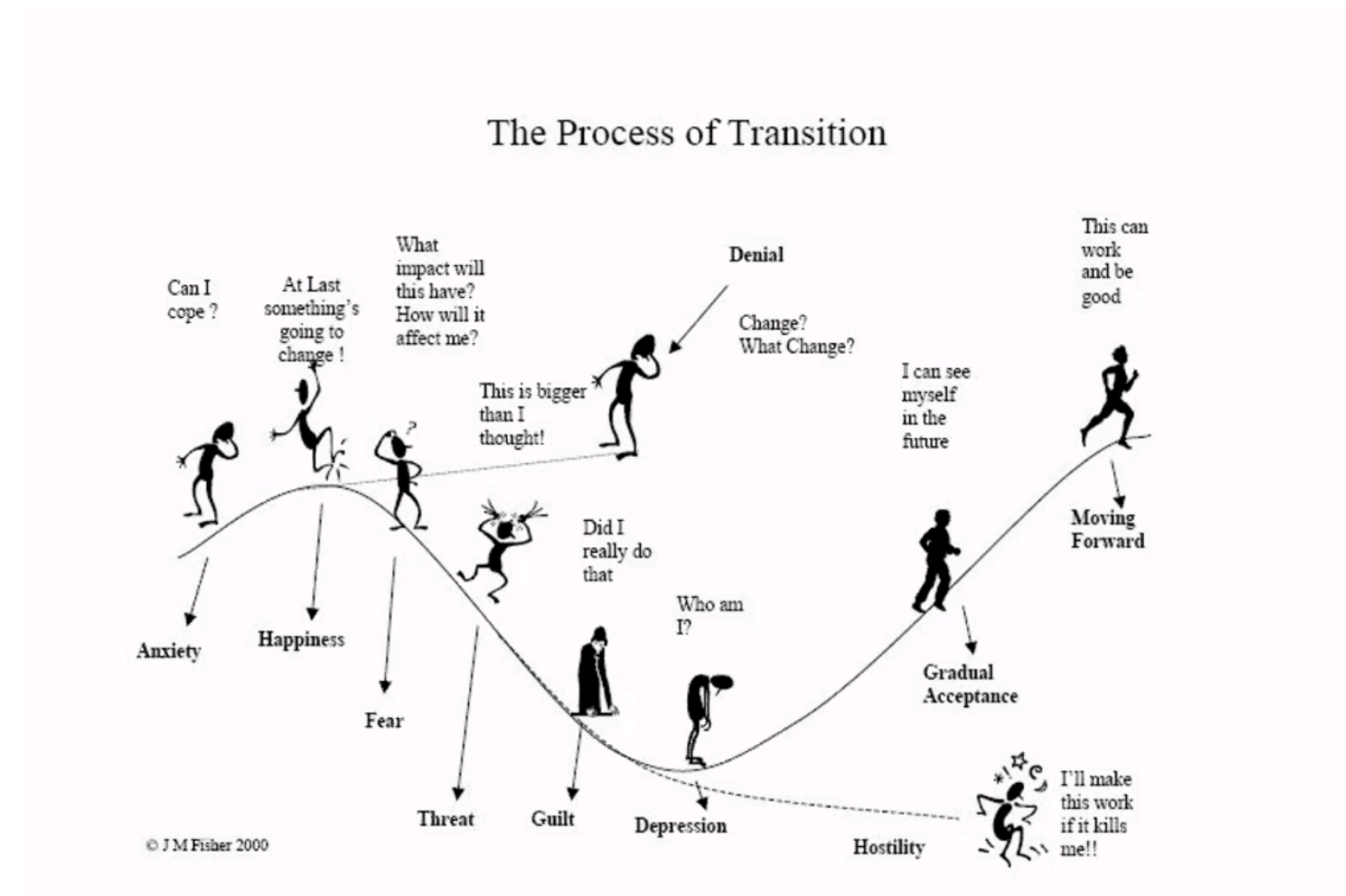


Image: Nova Scotia Archives

***often even outweighs the effectiveness of economic assistance and relief from aid or government groups.**

**3. If we want to be
emotionally resilient. . .
we must question
positivist psychology**

3. Question positivist psychology





**4. If we want to overcome
isolation. . .find supportive
people who can mirror these
disenfranchised feelings**

**5. If we want to
stay integrated
no matter what
happens. . . use
meaning
focused coping**



“The psychology of watching it regrow – it’s a massive comfort” - Casey Kirchoff



These feelings are arising for a reason

Eco-anxiety

Climate anxiety

Ecological grief

Solastalgia

Pre-Traumatic stress



We need to feel about this

We need to think about this



Gen Dread

gendread.substack.com



감사합니다

Thank you!

@britttray



2. Social capital and connectedness are key

Social connectedness: A potential aetiological factor in the development of child post-traumatic stress disorder

Brett McDermott, Helen Berry, Vanessa Cobham

First Published February 6, 2012 | Research Article | [Find in PubMed](#) | [Check for updates](#)

<https://doi.org/10.1177/0004867411433950>

[Article information ▾](#)



Abstract

Objective: The aim of this study was to investigate a new social connectedness factor and Posttraumatic Stress Disorder (PTSD) in children who experienced a cyclone disaster.

Method: Three months post-disaster school-based screening for PTSD was conducted. 804 children (mean age=10.22 years, SD=1.24) participated. 12.0% of children reported severe or very severe PTSD symptoms.

Results: Low connected children, adjusted for age, gender and independent of cyclone exposure and threat perception, were 3.96 times more likely to experience severe to very severe PTSD. A structural model of child PTSD indicated that connectedness was the most important factor explaining variance in children's symptomatology. The final model accounted for 60% of the variance of child PTSD scores.

Conclusions: We conclude that child connectedness is a new, significant, independent factor in a model of post-disaster child PTSD. Connectedness may represent a vulnerability factor that can be targeted preventatively in children in disaster-prone regions. Conversely, a pre-disaster intervention that helps children develop high connectedness may have the potential to confer resilience.



Pre-existing distress



Environmental Research Letters

TOPICAL REVIEW • OPEN ACCESS

Indigenous mental health in a changing climate: a systematic scoping review of the global literature

Jacqueline Middleton^{1,4} , Ashlee Cunsolo^{2,4} , Andria Jones-Bitton¹, Carlee J Wright³ 
and Sherilee L Harper^{1,3,4} 

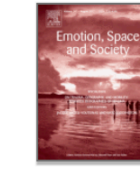
Published 23 April 2020 • © 2020 The Author(s). Published by IOP Publishing Ltd

[Environmental Research Letters](#), Volume 15, Number 5



Emotion, Space and Society

Volume 24, August 2017, Pages 34-41



Keeping the heart a long way from the brain: The emotional labour of climate scientists

Lesley Head , Theresa Harada 

MENU  nature climate change

Comment | Published: 03 April 2018

Mental health risk and resilience among climate scientists

Susan Clayton 

Nature Climate Change 8, 260–261(2018) | [Cite this article](#)

678 Accesses | 4 Citations | 238 Altmetric | [Metrics](#)

Awareness of the threats to mental health posed by climate change leads to questions about the potential impacts on climate scientists because they are immersed in depressing information and may face apathy, denial and even hostility from others. But they also have sources of resilience.



Review > [Asia Pac J Public Health](#). 2011 Mar;23(2 Suppl):119S-32.

doi: 10.1177/1010539510392556.

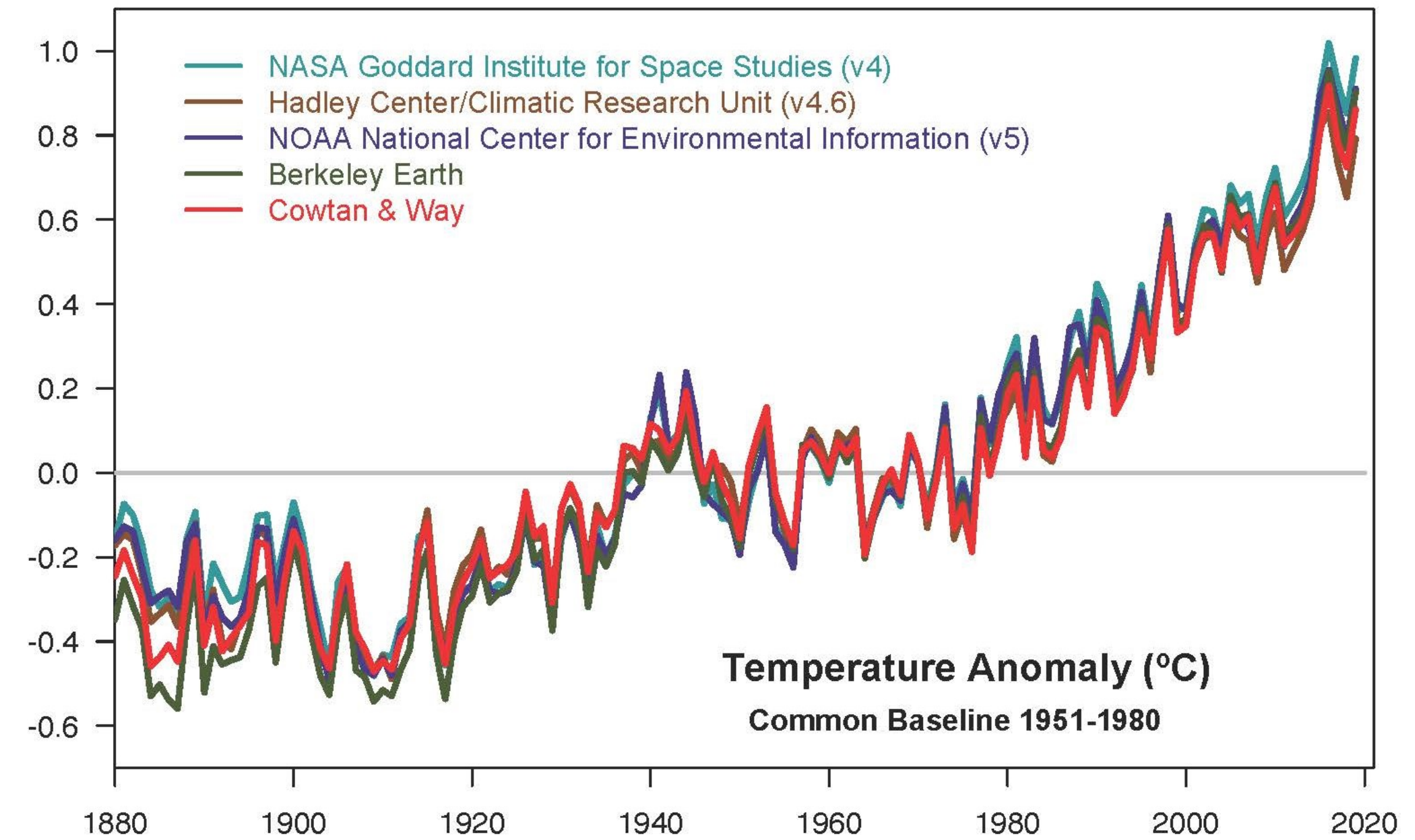
Climate change and farmers' mental health: risks and responses

Helen L Berry ¹, Anthony Hogan, Jennifer Owen, Debra Rickwood, Lyn Fragar

Affiliations + expand

PMID: 21447547 DOI: [10.1177/1010539510392556](#)

Do you know it?



Planetary Boundaries

after Johan Rockström, Stockholm Resilience Centre et al. 2009

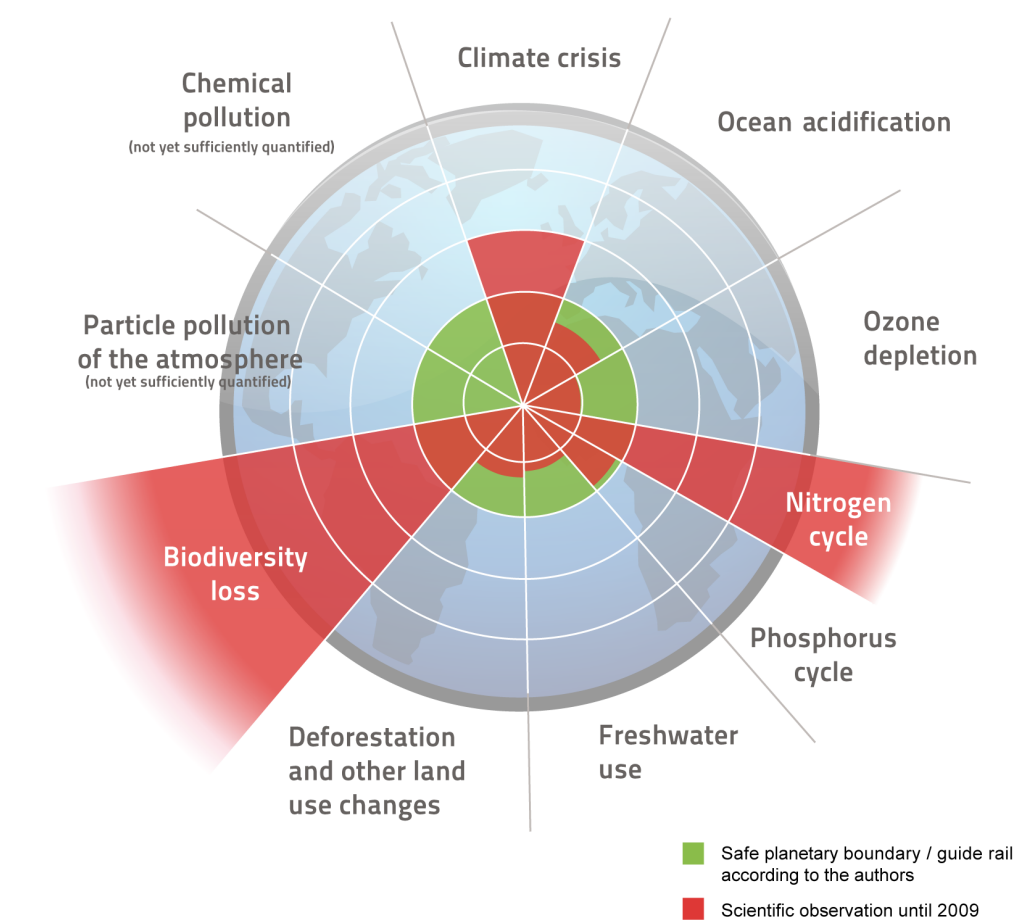
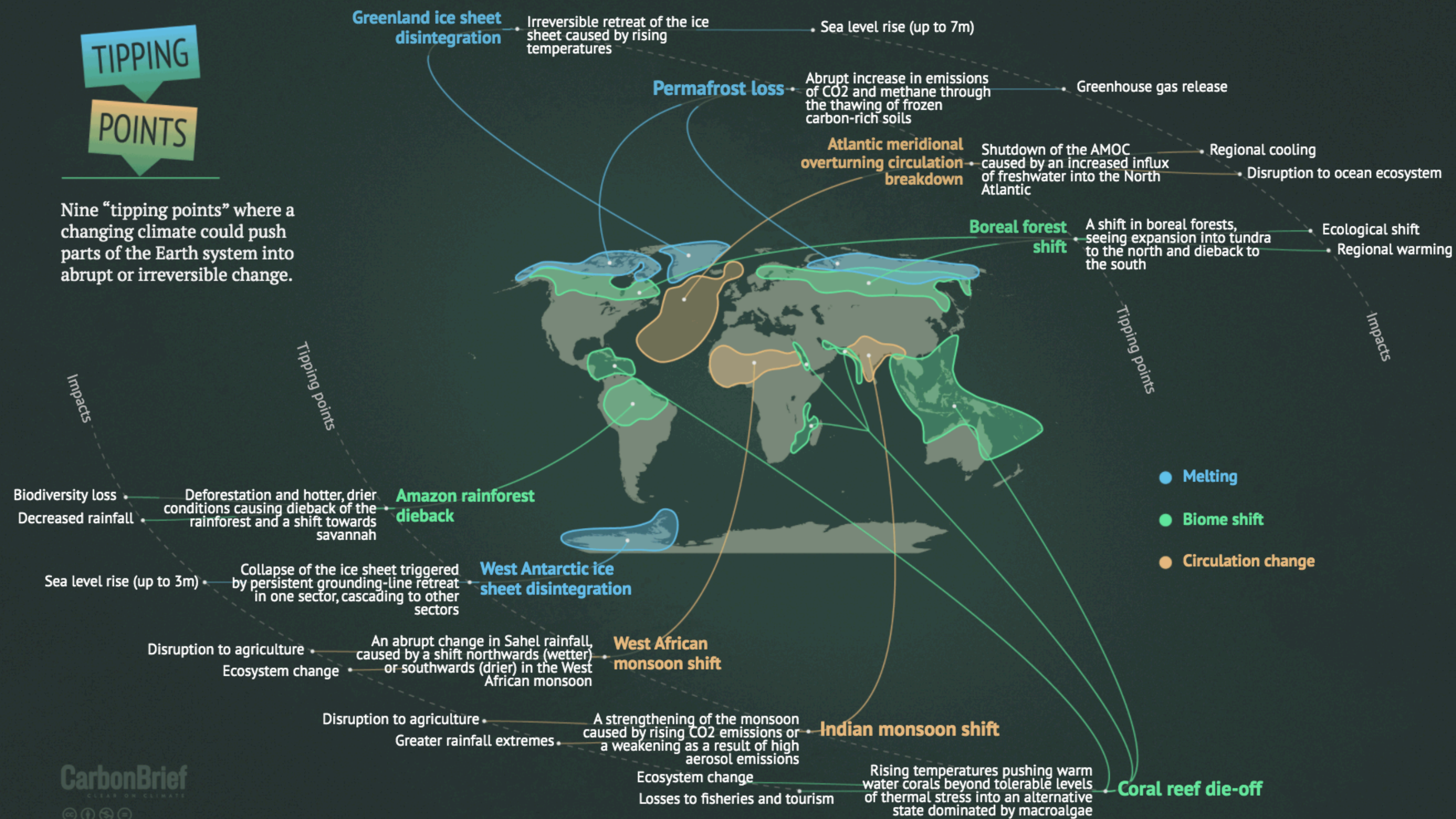


Illustration: Felix Müller (www.zukunft-selbermachen.de) Licence: CC-BY-SA 4.0

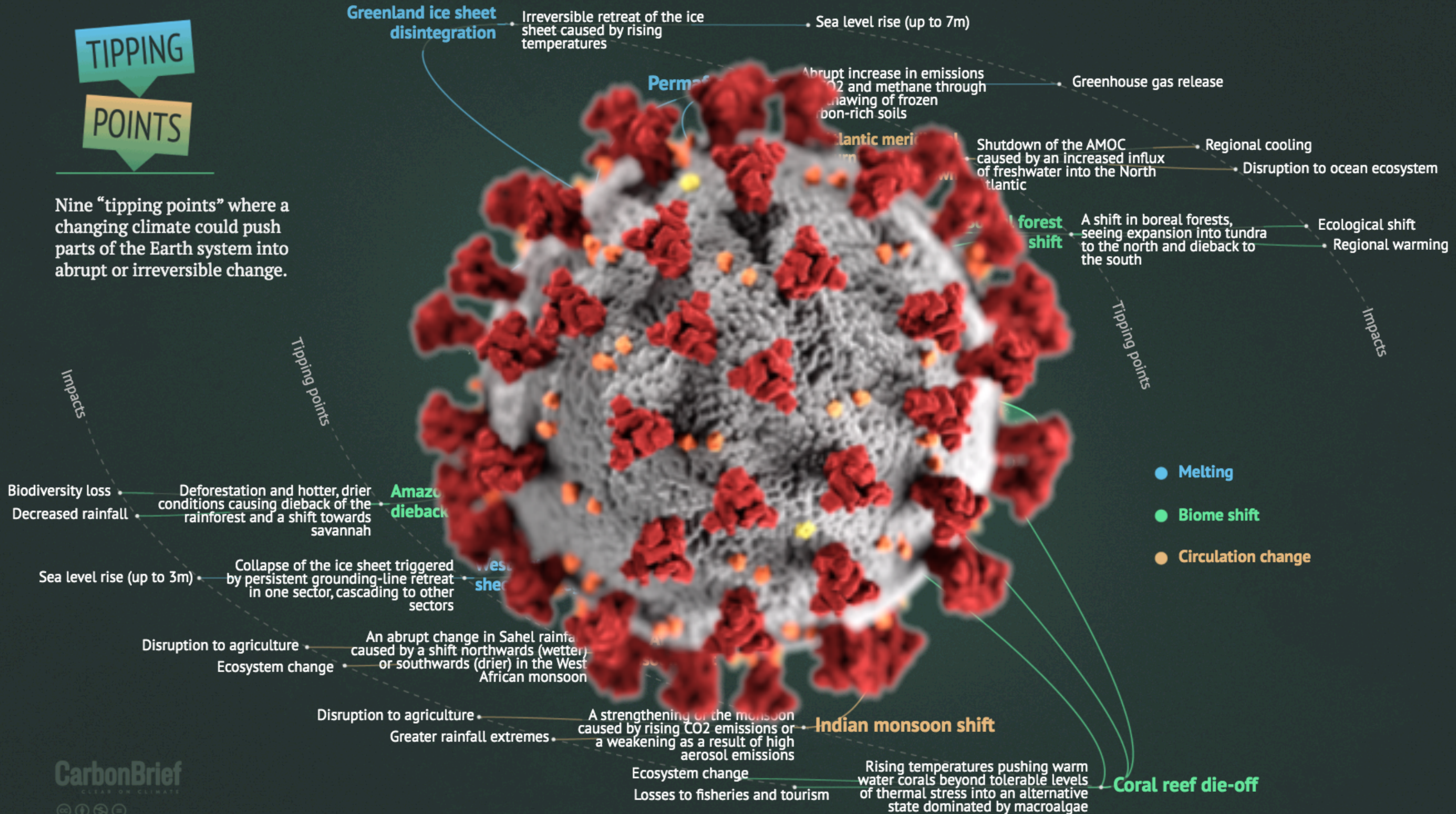
TIPPING POINTS

Nine "tipping points" where a changing climate could push parts of the Earth system into abrupt or irreversible change.



TIPPING POINTS

Nine "tipping points" where a changing climate could push parts of the Earth system into abrupt or irreversible change.





**Good social tipping points
can still emerge**