THE CHALLENGE OF TACKLING SOCIETAL CHALLENGES AND OPPORTUNITIES

FAPESP LEIDEN, 27/10/2026

prof. Clinical Psychology in Psychiatry, AmsterdamUMC
Directorate Interfaces science and public, Institute for Advanced Study
Co-director Centre for Urban Mental Health,
University of Amsterdam

Amsterdam UMC

ACCUMULATION OF SOCIETAL GLOBAL CHALLENGES: WICKED PROBLEMS

CLIMATE CHANGE

POLARISATION & WAR

AI & SOCIAL MEDIA

URBANICITY

AGEING

WORLD IN TRANSITION, CHARACTERIZED BY INSTABILITY

HUMANS ARE KEY FOR CHANGE

MENTAL HEALTH CRISIS: WICKED SOCIETAL PROBLEM

CLIMATE CHANGE

MENTAL HEALTH CRISIS

AGEING

AI & SOCIAL MEDIA

POLARISATION & WAR

URBANICITY



Rise in young people

WHO

RISE IN YOUNG: CANARY IN A COLE MINE?



PREVALENT, BUT IS A MENTAL CONDITION MORE THAN A FEELING?

- Die 10 to 20 years earlier
- Characterized by hopelessness
- Hopelessness is the enemy of change

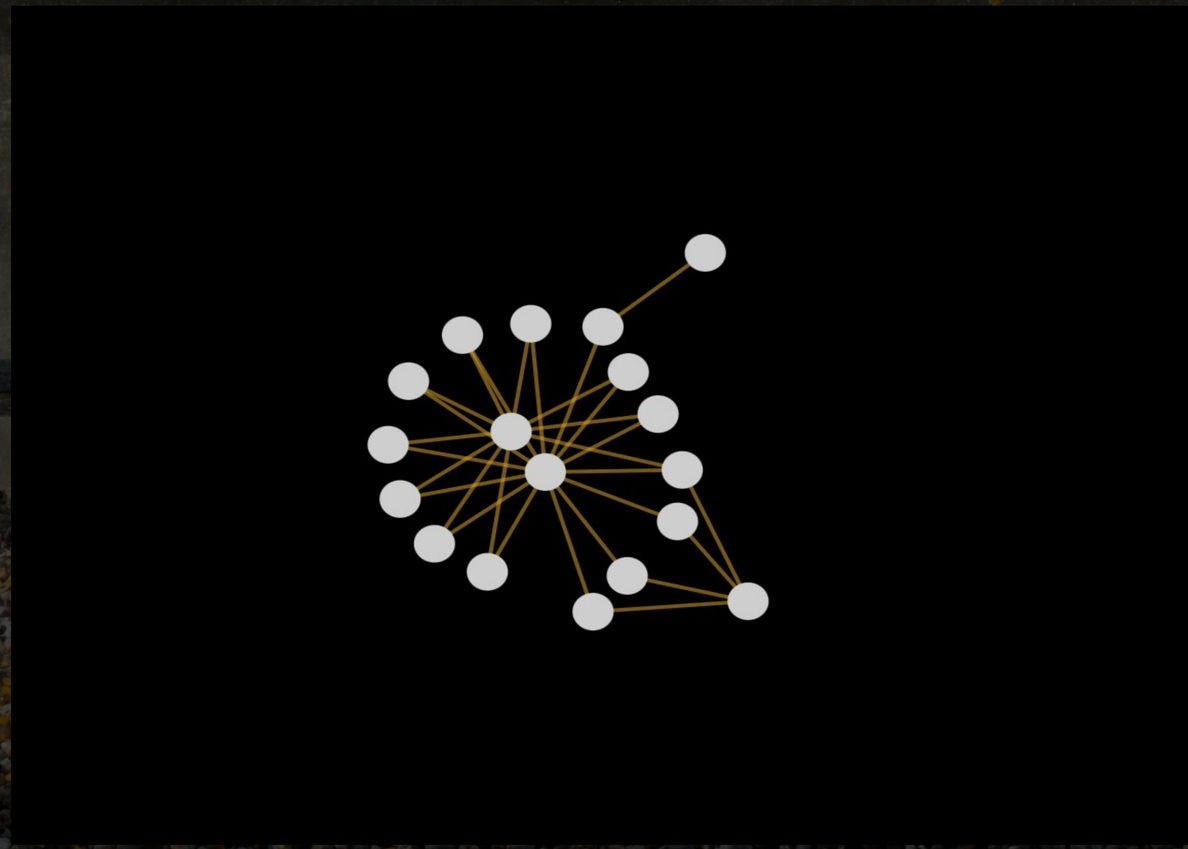
WHO, 2019, 2024, Momen et al., *NEJM*, 2020

MENTAL HEALTH CONDITIONS AS COMPLEX SYSTEMS

Result interplay

individual x environment,

including societal changes



Scheffer, Bockting, Borsboom, Cools, DeleCroix, Hartmann, Kendler, vd Leemput, vd Maas, v Nes, Mattson, McGorry, Barnaby Nelson, *Jama Psychiatry* 2024, Bringmann et al., 2022, Hayes&Hofmann, 2023, Olthoff et al., 2023, Hayes A. et al., 2020, Robinaugh et al., 2020, Bockting&Craske, In: Holmes, E. A., et al. *Lancet Psychiatry*, 2018, Hofmann et al., 2018, Borsboom, 2017, Fried et al., 2017, Cramer et al., 2016, Hofmann et al., 2016, Hayes, A. et al., 2015

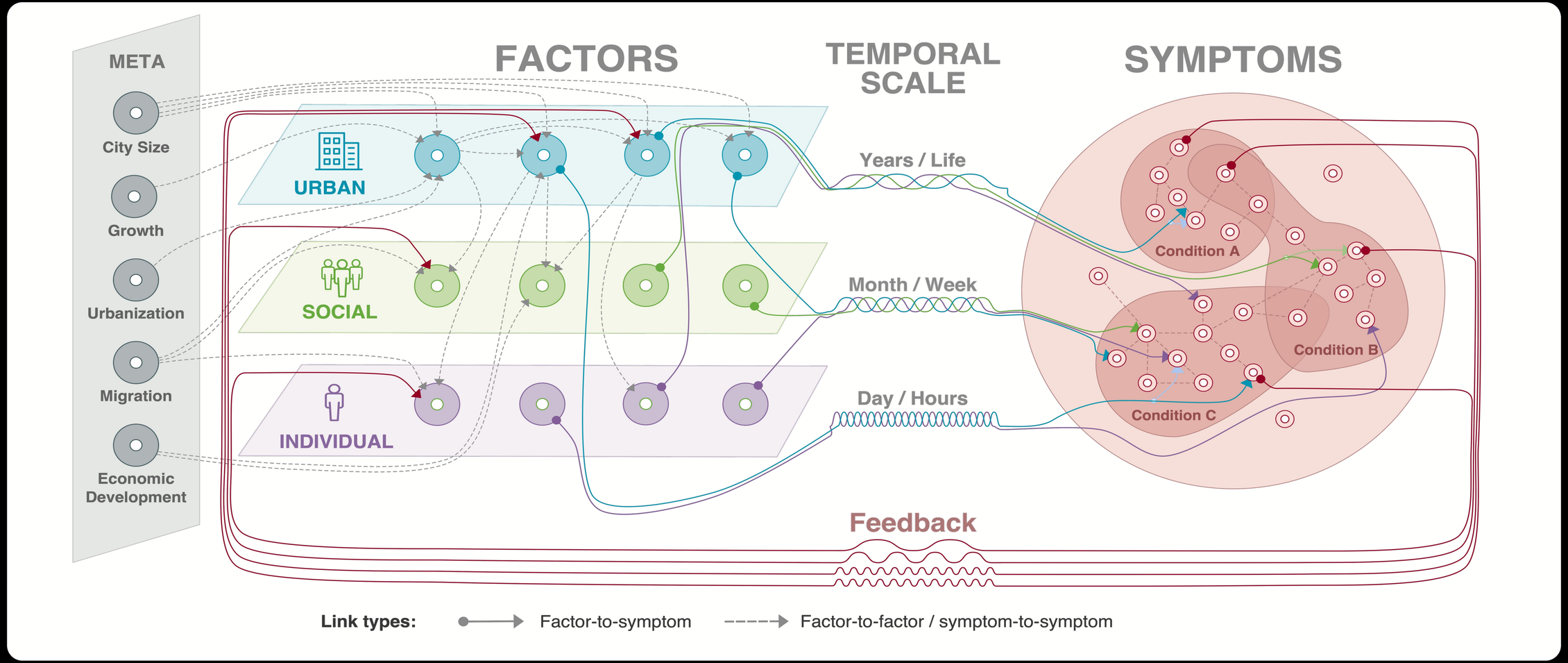


URBAN SPECIES

68% 2050

van der Wal et al, *Lancet Psychiatry*, 2021

INCREASED PREVALENCE: CENTRE FOR URBAN MENTAL HEALTH



Van der Wal et al., Lancet Psychiatr


Zundel et al., Neurotoxology, 2023; meta-analys

NWO–FAPESP MERIAN: Centre for Urban Mental Health, University of São Paulo

REACH Nexus

Understand how urban heat, flooding and air pollution shape mental and physical health in vulnerable neighbourhoods leading to policy making

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4
Case sites

5
Years (2026–2030)

2
Countries



Mural in Jardim Pantanal depicting children playing in the rain by t
Tietê river. · @sprart1, 202



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Generative AI

How People Are Really Using Gen AI in 2025

by Marc Zao-Sanders

April 9, 2025

Bockting, Figueroa, Vasilakos , 2026; https://hbr.org/2025/04/how-people-are-really-using-gen-ai-in-2025

CHALLENGES AI

- Decreased tendency to resolve an interpersonal problem after chats
- Polarization of beliefs
- Reported psychosis triggered by chatbot conversations
- Law suits because chatbot conversations might trigger suicide
- Leak of sensitive data



Bockting, Figueroa, Vasilakos , *2026, CPE*

DECREASE SOCIAL CONNECTION

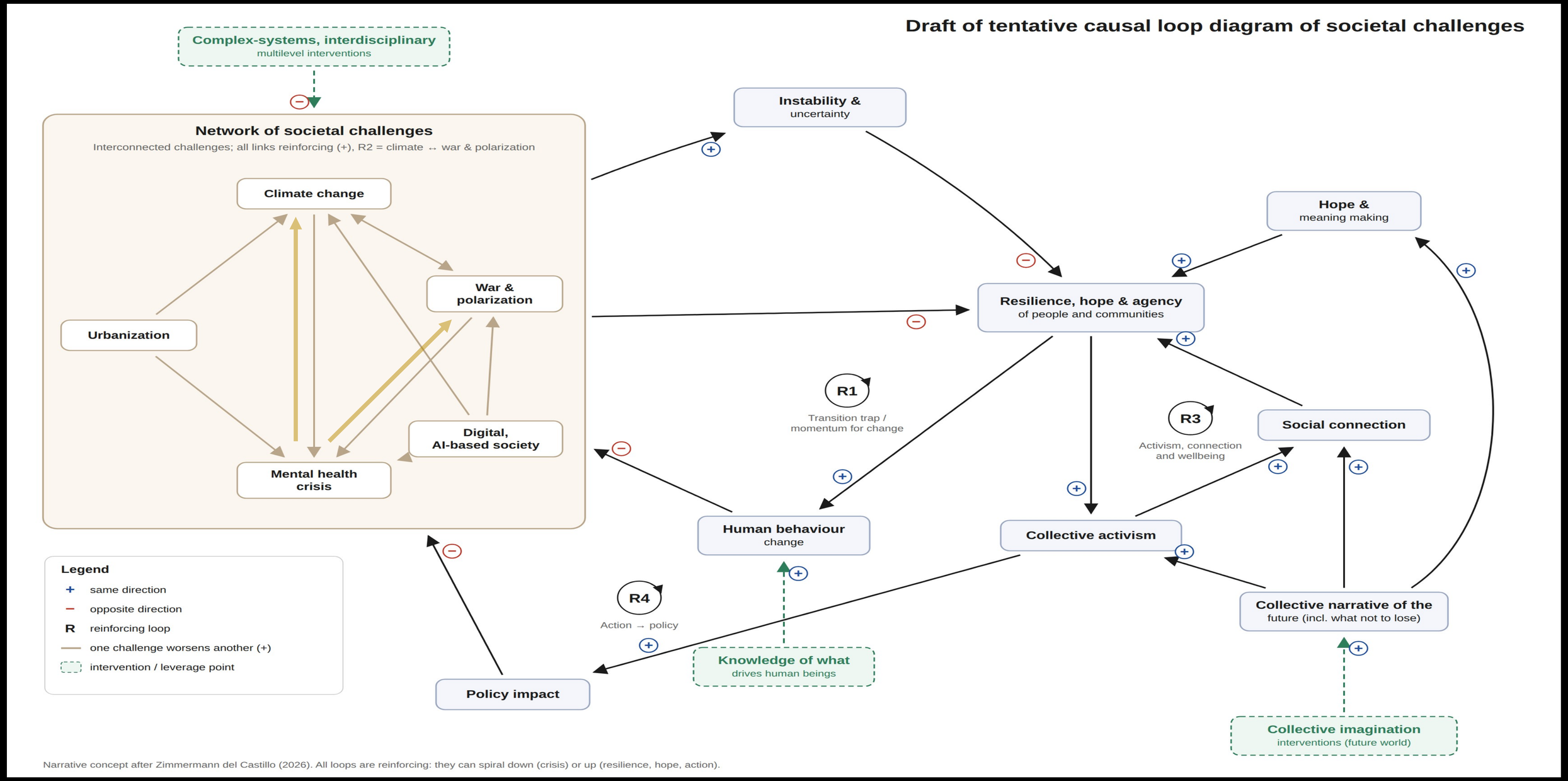


Bockting et al., CPE, 2026, Van der Wal et al., *Lancet Psychiatry*, 2021, Franzoie, Bockting, et al., *SSM population health*, 2023, Breedvelt et al., *BJP Open*, 2022

MENTAL HEALTH PROBLEMS FEED HOPELESSNESS AND HOPELESSNESS IS THE ENEMY OF HUMAN CHANGE

WE NEED A MENTALLY RESILIENT (YOUNG) POPULATION TO DEAL WITH THESE SOCIETAL CHALLENGES THAT THREATEN THE FUTURE OF HUMANITY

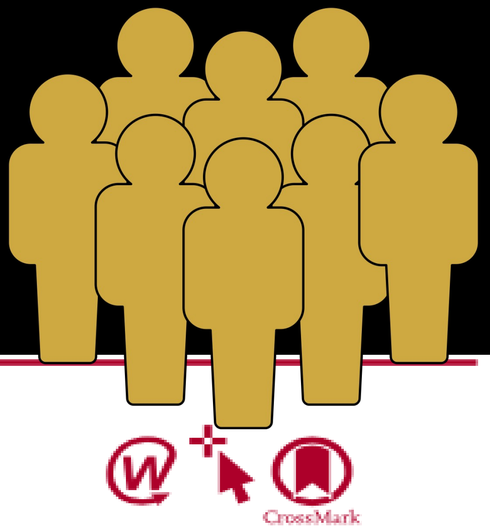
INTERCONNECTED CHALLENGES: OPPORTUNITY TARGETS FOR CHANGE IN HUMANS?



Narrative concept after Zimmermann del Castillo (2026). All loops are reinforcing: they can spiral down (crisis) or up (resilience, hope, action).

TARGET: MENTAL RESILIENCE GLOBALLY

Digital interventions & lay guidance



Effectiveness of digital psychological interventions for mental health problems in low-income and middle-income countries: a systematic review and meta-analysis

Zhongfang Fu, Huibert Burger, Retha Arjadi, Claudi L H Bockting

Summary

Background The effectiveness of digital psychological interventions in low-income and middle-income countries (LMICs) remains unclear. We aimed to systematically investigate the available evidence for digital psychological interventions in reducing mental health problems in LMICs.

Lancet Psychiatry 2020; 7: 851–64

Published Online August 28, 2020 https://doi.org/10.1016/

Arjadi et al., *Lancet Psychiatry*, 2018, van de Wal et al., 2020, Fu et al., *Lancet Psychiatry*, 2022

TARGET: POLICY AI REGULATION INDEPENDENT OVERSIGHT

nature

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COMMENT | 19 October 2023

Living guidelines for generative AI — why scientists must oversee its use

Establish an independent scientific body to test and certify generative artificial intelligence, before the technology damages science and public trust.

By Claudi L. Bockting ✉, Eva A. M. van Dis, Robert van Rooij, Willem Zuidema & Johan Bollen

TARGET: IMAGINATION

‘A NEW COLLECTIVE NARRATIVE OF FUTURE HUMANITY; IMAGINATIONS OF OUR FUTURE SOCIETY WHERE HUMAN WELLBEING IS KEY, GIVEN LIMITED RESOURCES ’

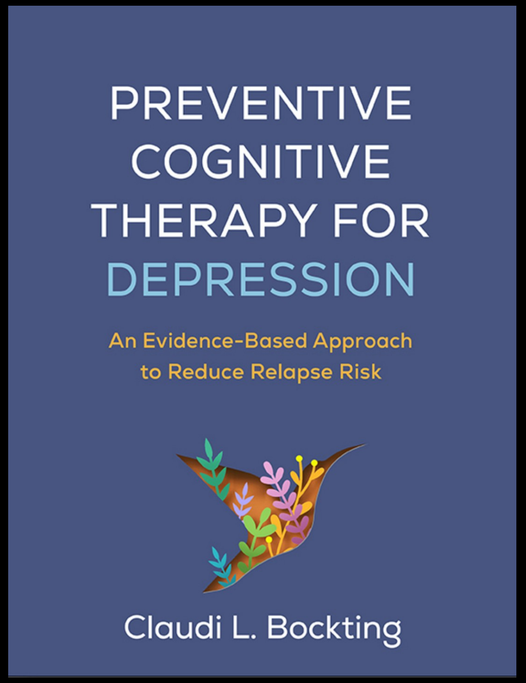
CLUB OF ROME; ZIMMERMAN DEL CASTILLO, 2026

- **NOT ONLY A NEW NARRATIVE, BUT ALSO ‘DEFINE WHAT WE MUST NOT LOSE’**

IMAGINATION

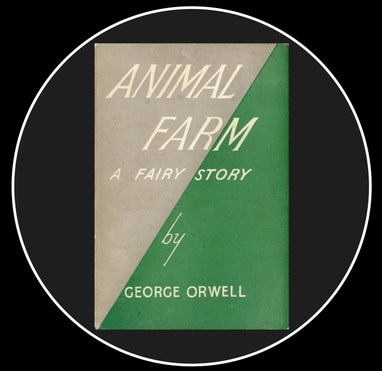
- **Imagination of the future self**, as psychological intervention is a powerful mean to generate sustainable effects on hope, beliefs and behavior change

- Collective imagination of the future world might not only generate **hope**, but also lead to **action**



Bockting et al., 2025, Guilford Press, , Bockting et al., 2005, 2009, 2015

IMAGINATION OF FUTURE HUMANITY IN NARRATIVES, IN HISTORY, LED TO ACTIVISM AND CHANGE



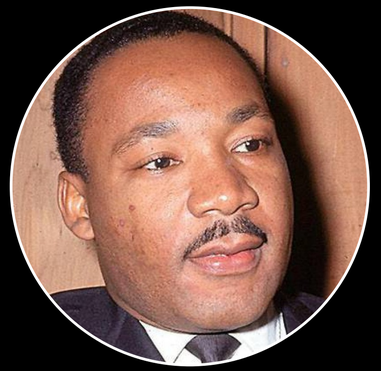
Animal Farm
George Orwell, 1945



Simone de Beauvoir
Le deuxième sexe, 1949



Bob Dylan
The Freewheelin', 1963



Martin Luther King Jr.
"I Have a Dream", 1963



David Bowie
Ziggy Stardust, 1972



Nelson Mandela
President, 1994
'I have a dream' 1963

Image: Wikimedia Commons. Animal Farm 1e druk 1945 (PD) · De Beauvoir, Liu Dong'ao (CC0) · Dylan 1963 (PD) · King (PD) · Bowie, Boris Yaro (CC BY 4.0) · Mandela, Kingkongphoto (CC BY-SA 2.0)

IN SUM

- We need a mental resilient population, especially in young, to tackle societal challenges: a catch-22
- Scientific insight in what drives human beings to change and how to get there (e.g. psychology)
- Investing in targeting mental health is key, also to be able deal with our major societal challenges
- A new narrative of future humanity might drive change and action that is needed now

THE INTERVENTION LAB

c.l.bockting@amsterdamumc.nl

TEAM


Junus van der Wal


Evi-Anne van Dis


Moniek Zeegers


Deepak Tugnawat


Nele Bergers


Joost Gülpen


Annabel Bunschoten


Duygu Gulgun


Christian Ramelow


Luana Gâvan


Theogene Uwizeyimana


Camila Scheffer


Rutger van der Linden


Wilco Janssen


Nancy Schipper


Neelke de Jonge


Agnes Ayuningtias


Nadia van der Spek



Key living guideline; EU AI act

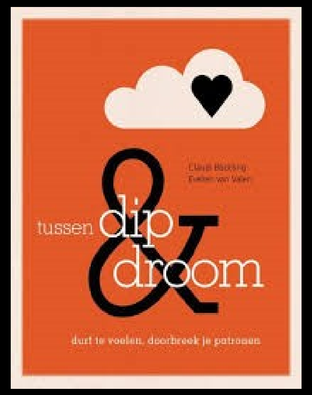
To promote the responsible use of generative AI in science and society by improving **accountability**, **transparency, and independence**

Independent oversight is needed!

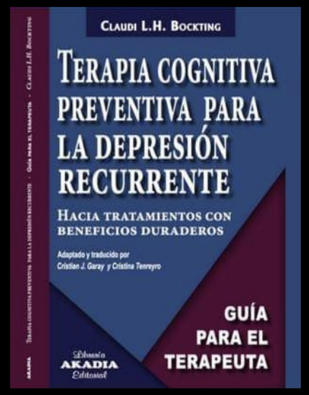
Impact on well being, mental health, also democracy, science

Bockting et al., *Nature*, 2023, van Dis et al., *Nature*, 2023

PERTURBATION WITH LONG-TERM EFFECTS









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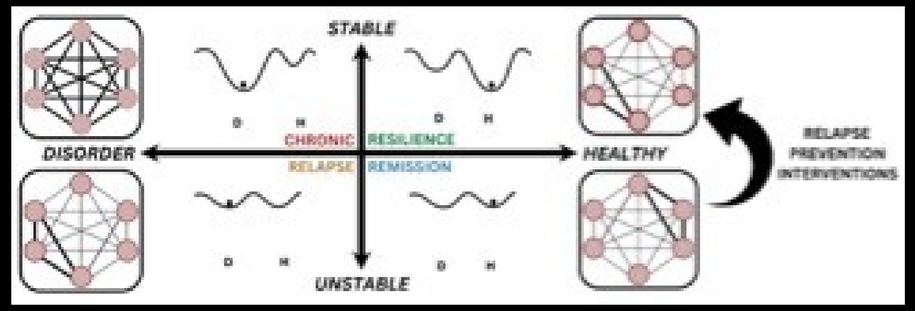







Bockting et al. (2015, 2009, 2005), Robberegt et al., 2022

PCT: TARGET COGNITIVE BELIEFS & AFFECT WITH POSITIVE IMAGERY

- Partly mediated by change in rigid beliefs (Bockting et al., 2018, *Lancet Psychiatry*)

- Mediated by improvement positive and subsequently negative emotion regulation during stress tasks (FMRI study, van Tol et al, under rev.), of relevance given that positive effect regulation predicts relapse (19% expl. variance, Robberegt et al, under rev.).

- Improved regulation of daily stress (daily stress not a predictor of relapse after PCT, Bockting et al., 2006) *PP*)

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ChatGPT: five priorities for research

Conversational AI is a game-changer for science. Here's how to respond.

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MXM

European Commission

UNESCO

Ψ

IAS

REPRESENTING THE WORK WITH MY RESEARCH TEAM

@Amsterdam UMC & Centre for Urban Mental Health, University of Amsterdam



Ricardo Trinidad
Suicidality and family therapy



Neelke de Jonge
Interventions in young



Agnes Utari
Task sharing



Nadja van der Spek
Treatment, Suicidality, Attachment



Luana Gavan
Suicide prevention



Centre for Urban Mental Health

UNIVERSITY OF AMSTERDAM





Josefien Breedeveldt
Personalisation, Prevention, Relapse prev.



Anneke Vuuregge
Multimodal interventions, UMH



Vera Korenblik
Multimodal interventions/ Microbiome UMH



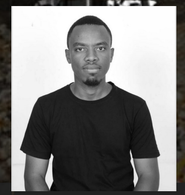
Evi-Anne van Dis
Multimodal interventions



Joost Gülpen
Multimodal interventions



Wilco Jansen
Suicide prevention



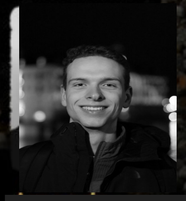
Theogene Uwizeyimana
Digital interventions











Rutger van der Linden
AI in mental health



Nancy Schipper
Multimodal interventions, Virtual reality



Suzanne Robberegt
Multimodal interv. in young, anxiety, and depression



Bas Kooiman
Multimodal interventions in young, anxiety and depression



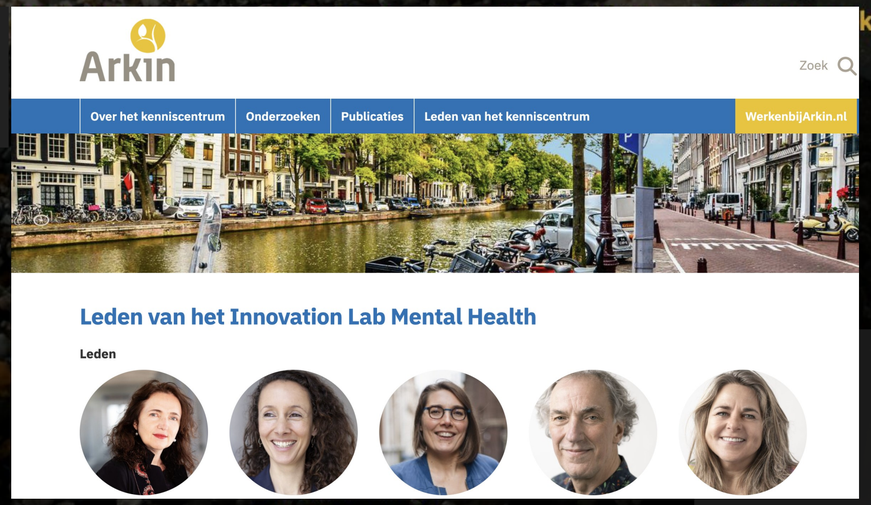
Retha Arjadi
Global mental health, Online interventions



Zhongfang Fu
Global mental health, Online interventions



Junus van der Wal
Complex systems and depression



WHAT IF WE PERTUBATE ON THE INDIVIDUAL, AFTER REMISSION, TO PREVENT RELAPSE?

Brief psychological intervention of 8 sessions:

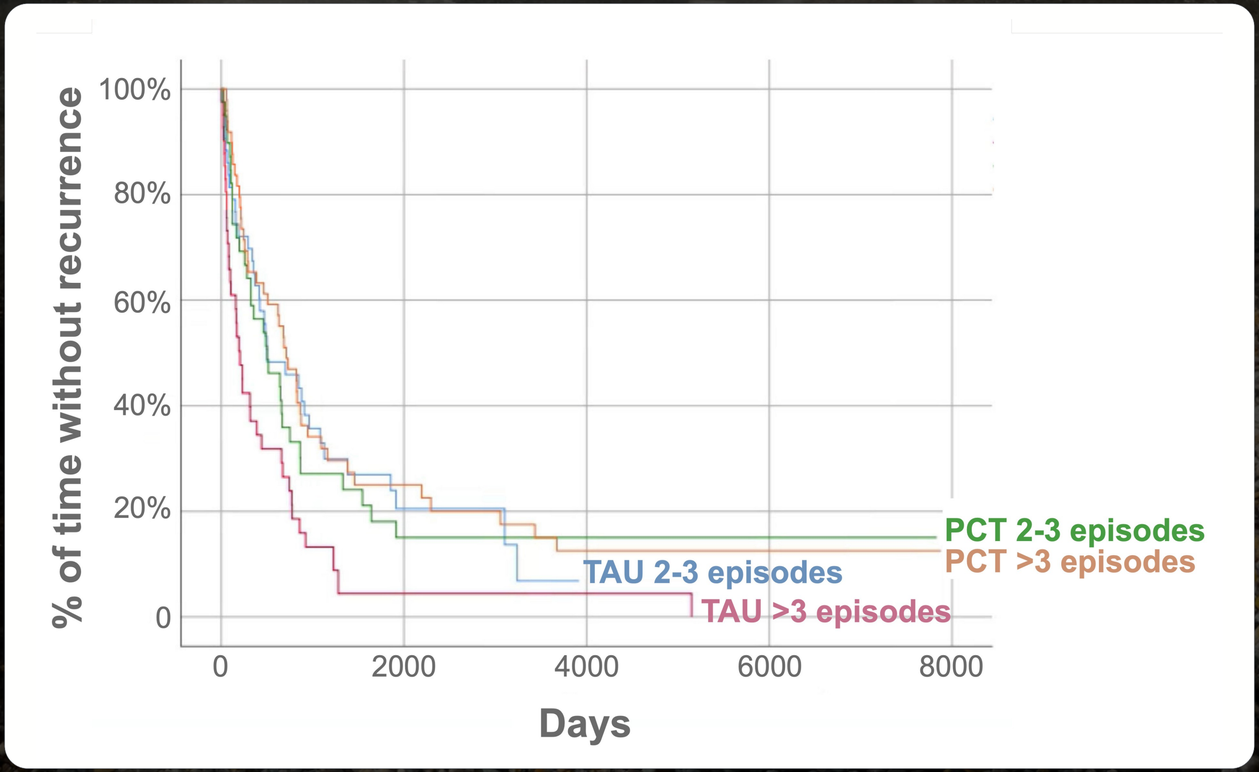
Targeting cognitive beliefs and cognitive functioning & positive affect



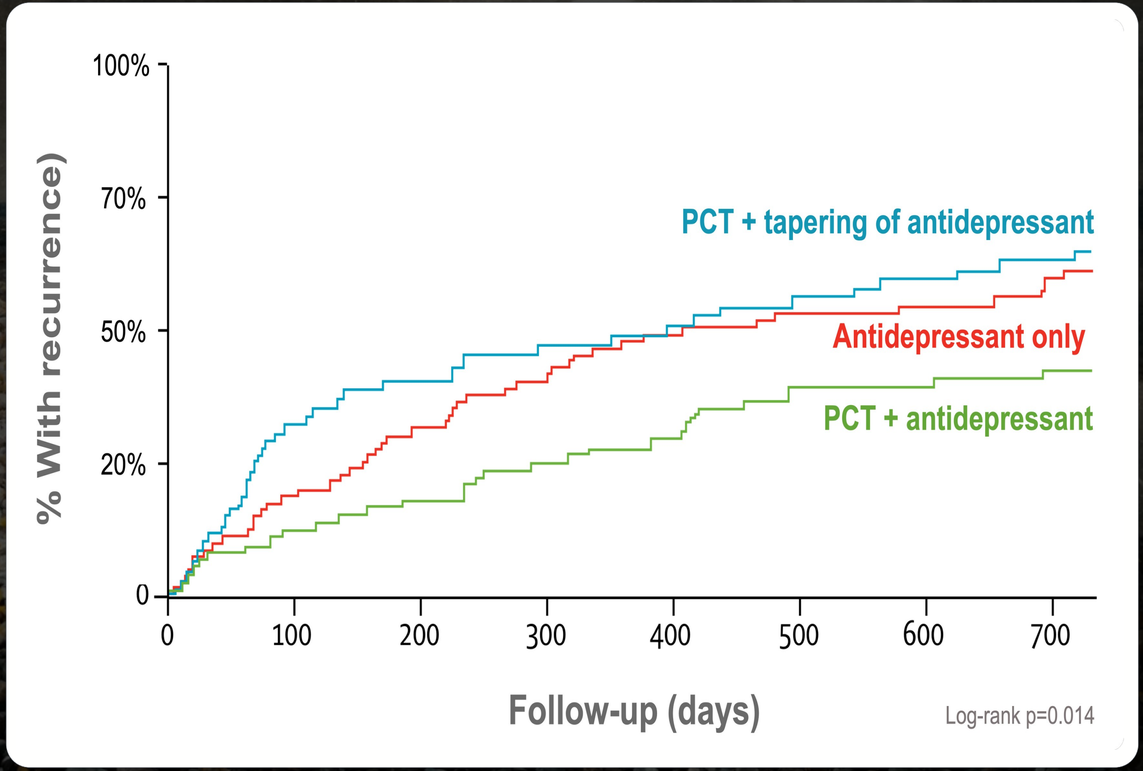


Bockting et al., 2005, 2009, 2015, *in press Guilford*

EVIDENCE PREVENTIVE EFFECTS UP TO 20 YEARS



Legemaat et al., Psychoth Psychosom., 2023



Bockting et al., Lancet Psychiatry, 2018

Bockting et al., 2005, 2009, 2015, de Jonge et al., 2019, Brouwer et al., 2019, Biesheuvel-Lelieveld, 2018, Breedvelt et al., 2021a, 2021b, 2024, Gulpen et al., 2025

TARGETS ON NEIGHBOURHOOD?



Van der Wal et al., *Lancet Psychiatry*, 2021, Franzoie, Bockting, et al., *SSM population health*, 2023, Breedvelt et al., *BJP Open*, 2022

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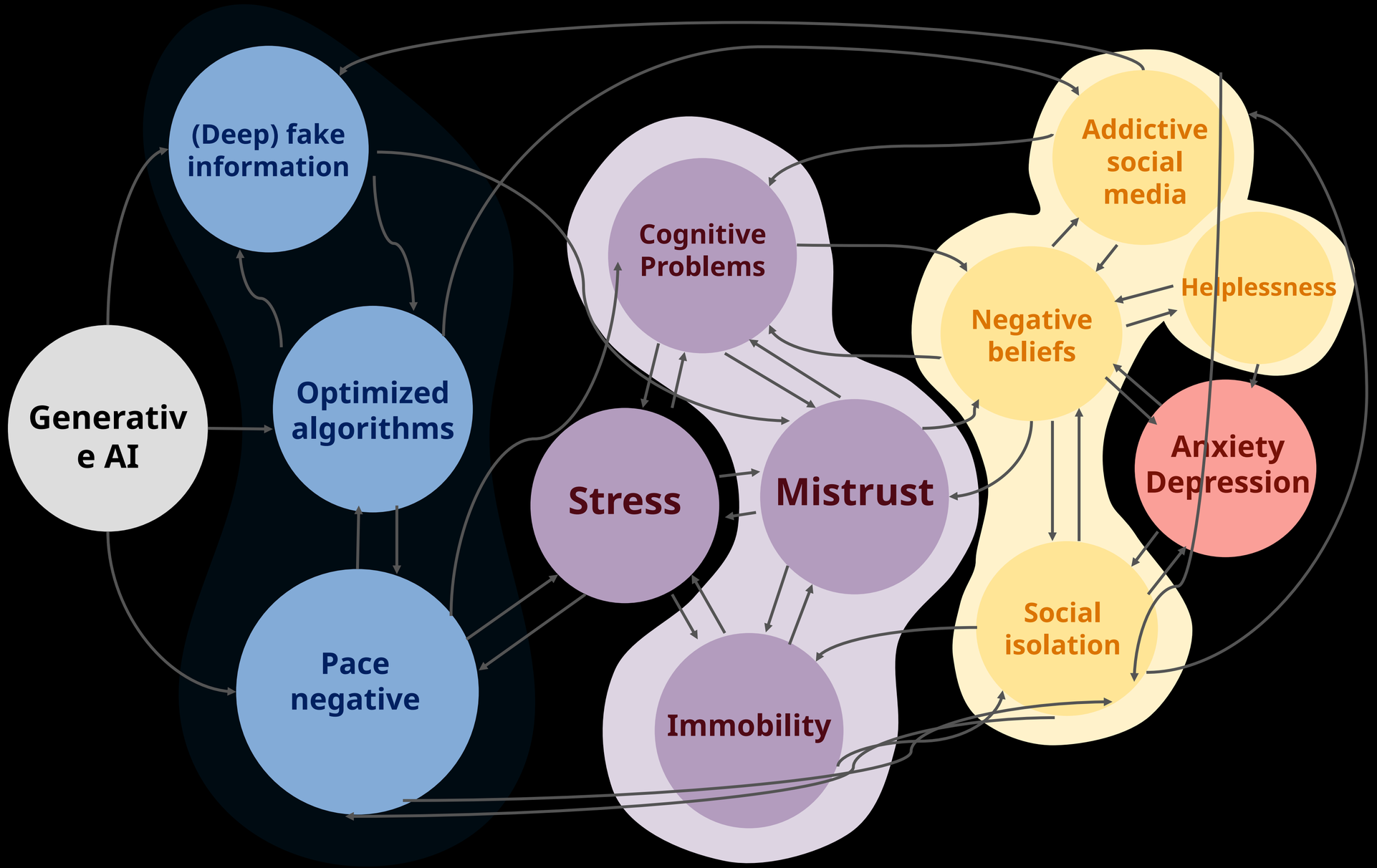
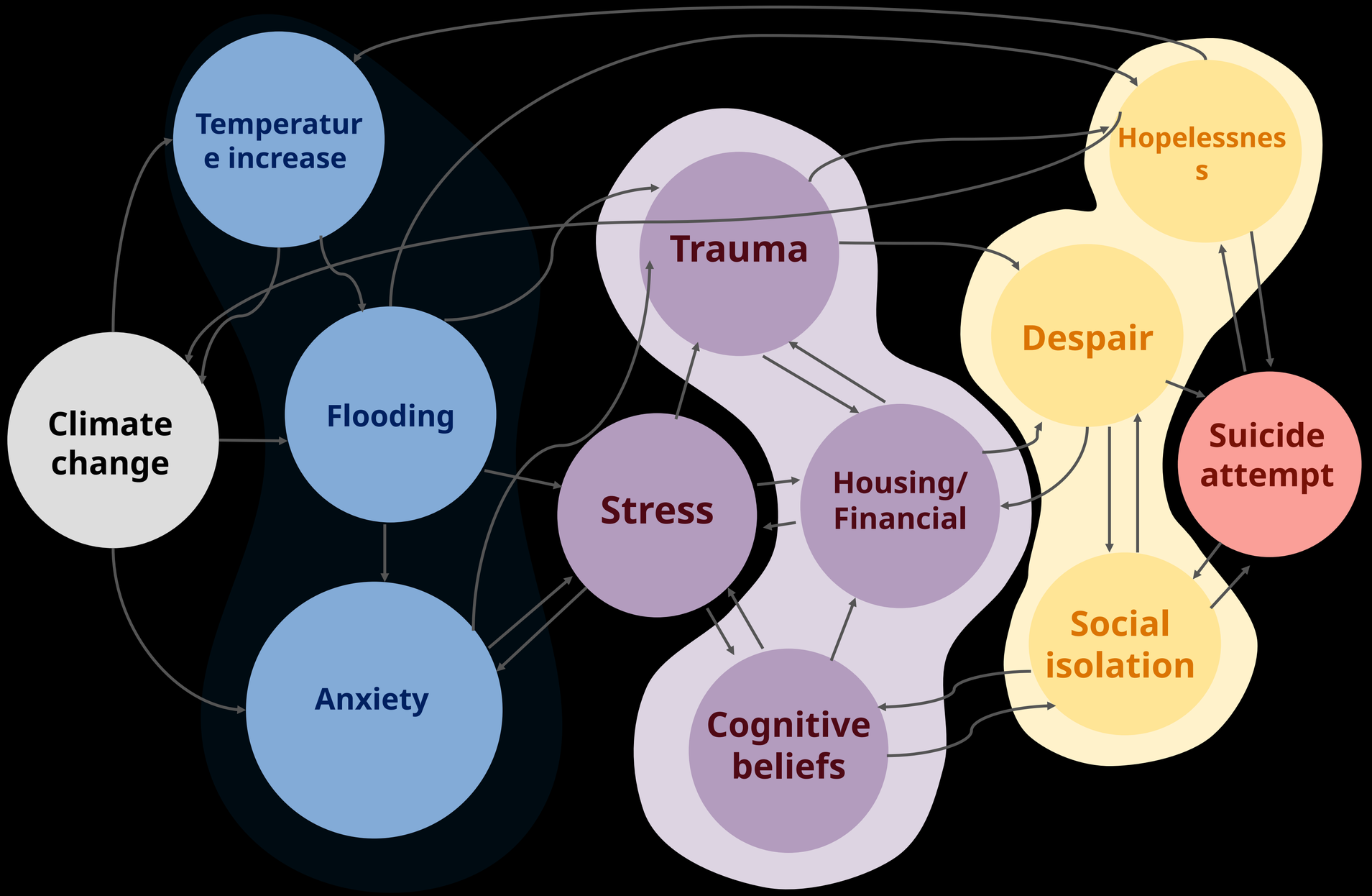


Bockting, et al., *Nature*, 2023, van Dis et al., *Nature*, 2023



Burke, et al., *Nature Climate Change*, 2023

ALERT



- Makes no sense to study mental health as well as these societal challenges in isolation; complex systems science backbone
- We do need to invest in interdisciplinary research on mental health in the light of societal challenges
- Centre of Excellence in Mental Health Sciences needed

➢ Warmly invite you to contribute, just like the president Klaus Mainzer

C.L.Bockting@amsterdamumc.nl