

MCR philosophy reading group

Overshoot: A Conceptual Review of Exceeding and Returning to Global Warming of 1.5° C

or

Navigating from Context to Consequence

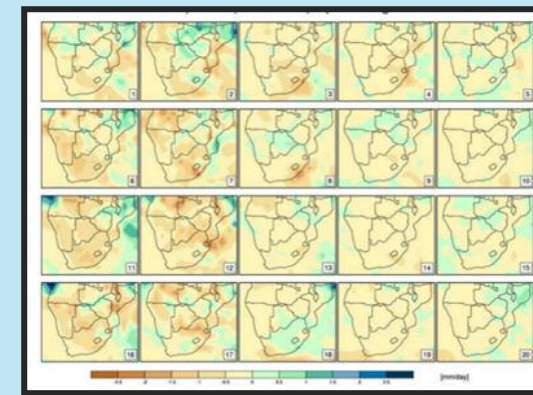
or

An Ethical-Epistemic Challenge

Managing climate risk is as much about how we THINK about climate change, as it is about what we DO about it

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Data



Location



Context

Overshoot: A Conceptual Review of Exceeding and Returning to Global Warming of 1.5°C

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Reisinger et al. – WHY this paper?

Overshoot (pathways or simple exceedance) is arguably a/the leading challenge society faces, with issues of:

- Inevitability of near term consequences
- Irreversibility and tipping points
- Impossibility of return below 1.5 without CDR
(Return itself might even be impossible)
- The imperative of ambitious mitigation (a global north power)
- The imperative of ambitious adaptation (a global south criticality)

Of the 12 authors on this paper, 2 are global south resident, both of whom are small island nations. This is not a critique, but suggests that the paper's content needs to be considered through a dominant lens of Global North experience and perspective.

(A sidenote on the forthcoming UNEP Spotlight report on Overshoot)

Thinking about a future that's built on the present

1. The challenge of Awareness and Comprehension

- One can be aware, but not comprehend. For example: the how does one comprehend the decision makers experience of developing adaptation to recurrent flooding in informal settlements in Lusaka.
- Telling a story that helps one find a resonance to a personal lived experience, can help move to comprehension.

2. Perceptions and values differ, and have influence more than people realise, even using the same words

- climate literacy – how to become sufficiently conversant and comprehending of another's lived experience and context to enable a productive dialogue (e.g. contrast a climate modeler and an informal settlement official)
- Risk exposure and understanding what is “actionable information” across a heterogeneity of decision contexts and value systems
- Ethics and values in a heterogeneous world – who's values and by what authority – navigating the inevitability of power relationships

Managing climate risk is as much about how we THINK about climate change, as it is about what we DO about it

FRAMING ISSUES:

Whose thinking?

Whose values?

Whose culture?

Whose priorities?

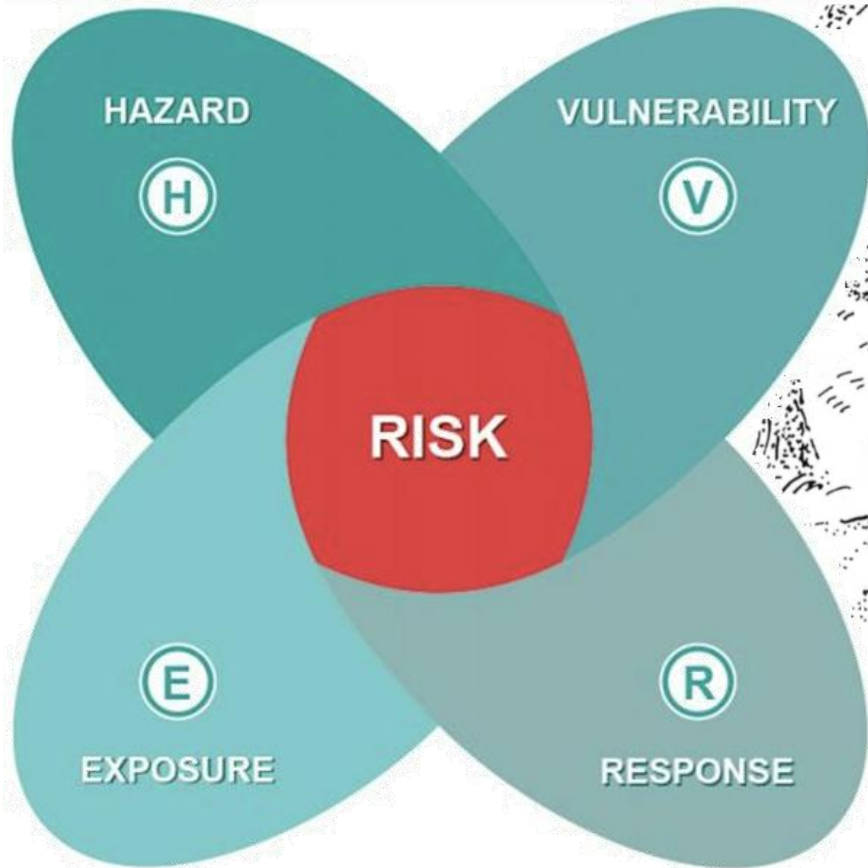
Whose history?

Whose authority?

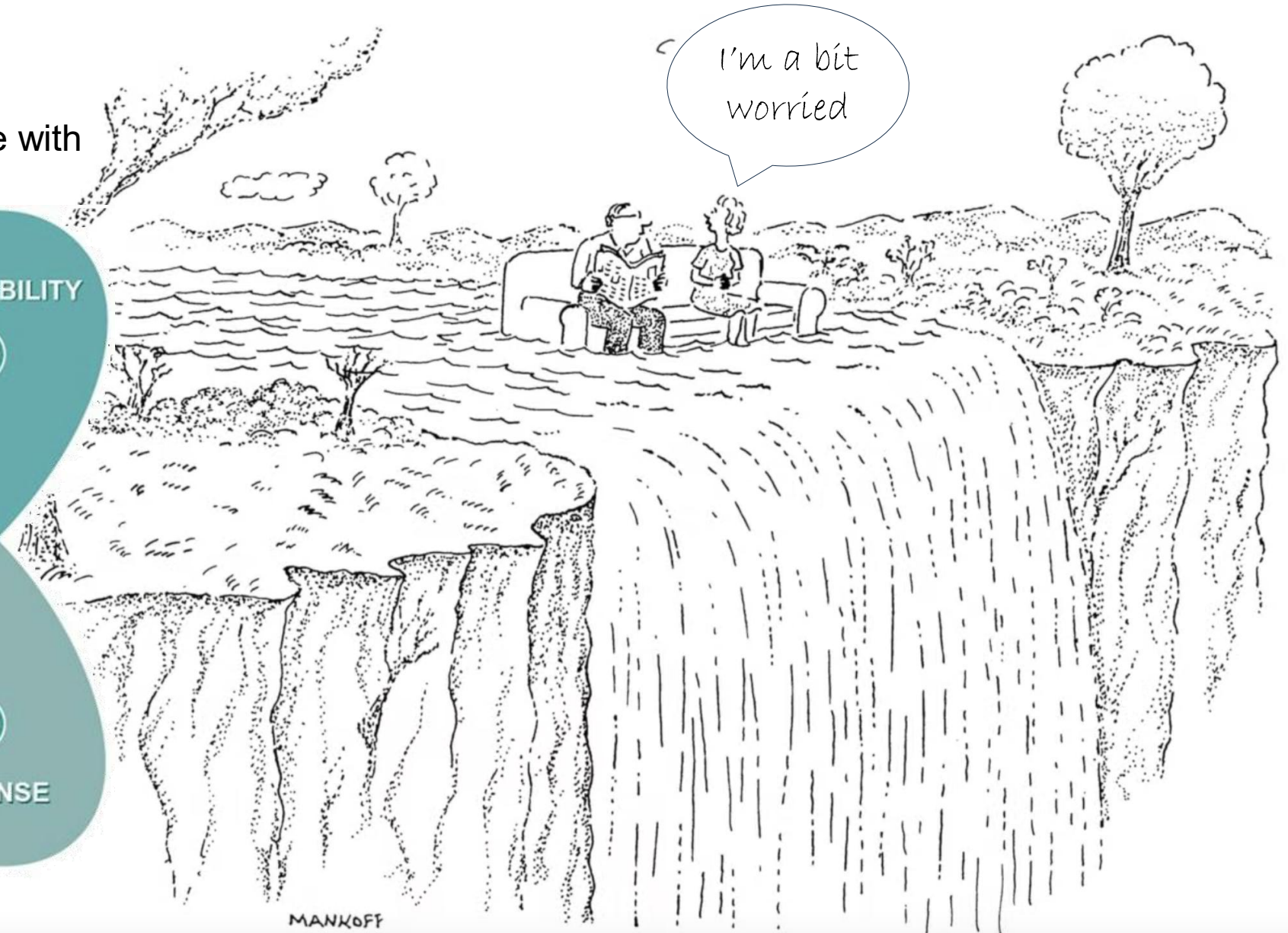
WHO DECIDES

Perceptions of a rapidly changing Climate among the Web of Actors

How perceptions of these evolve with time is critical



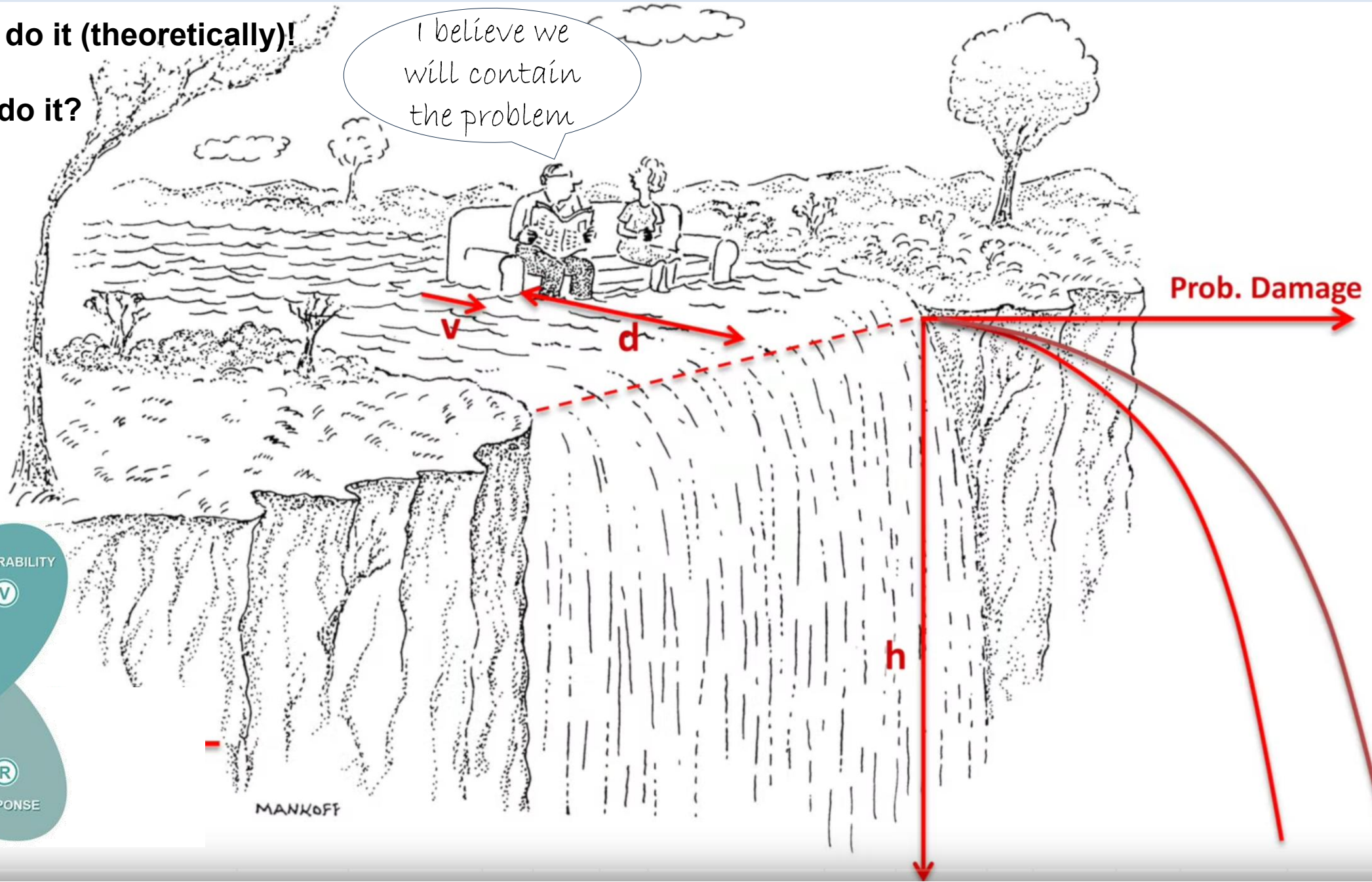
Simpson et al. 2021

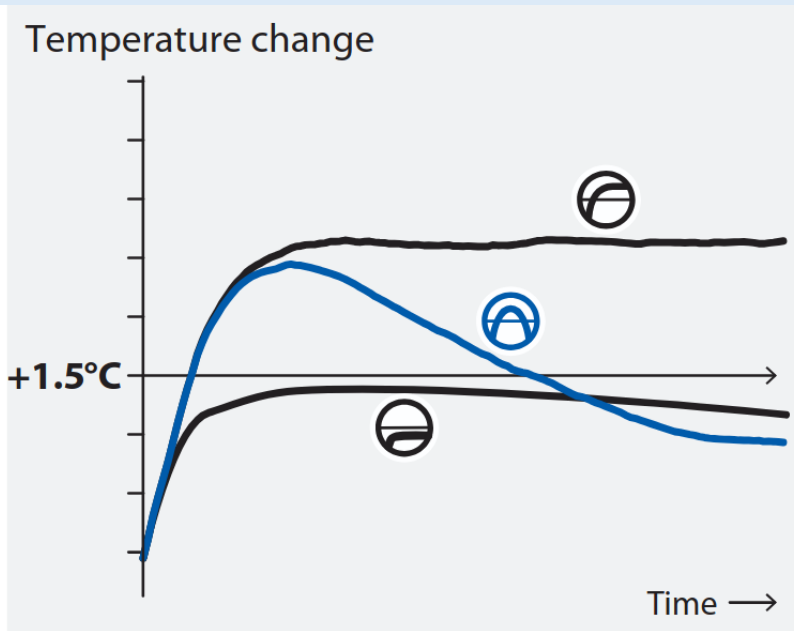


The tension in the international negotiations between REALISM and IDEALISM

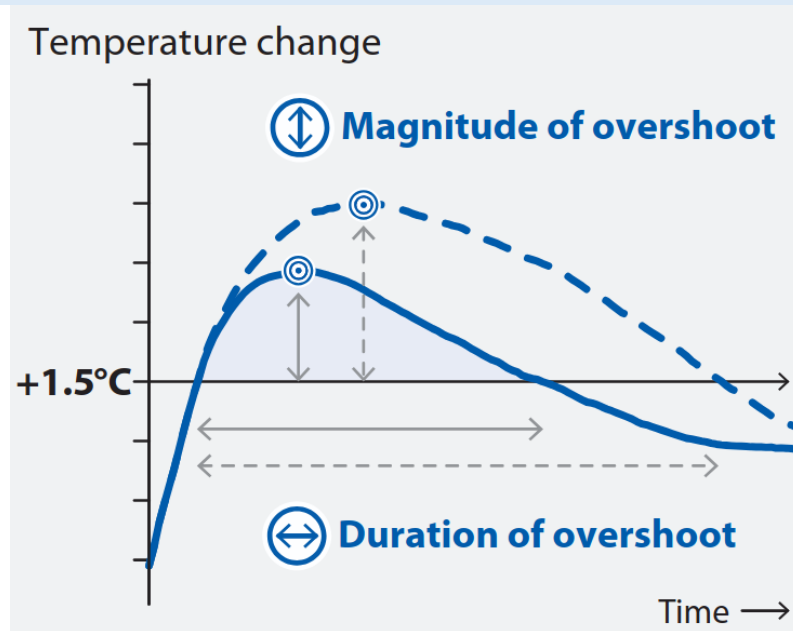
Idealism: We can do it (theoretically)!

Realism: Will we do it?





- C** **Exceed and stabilize**
Global warming rises beyond a specific level and remains consistently above that level over the long term
- A** **Overshoot: exceed and decline**
Global warming first exceeds a specified level and then returns to or declines below that level before a specified period of time
- B** **Remain below 1.5°C**
A world where global warming would never have exceeded 1.5°C above preindustrial levels



- ↕** **Magnitude of overshoot**
The extent by which temperature exceeds a specified level before declining
- ↔** **Duration of overshoot**
The time period during which temperature exceeds a specified level before being brought back down below that level
- ⊙** **Peak of overshoot**
The maximum level of warming experienced during the overshoot period

Takeaway:

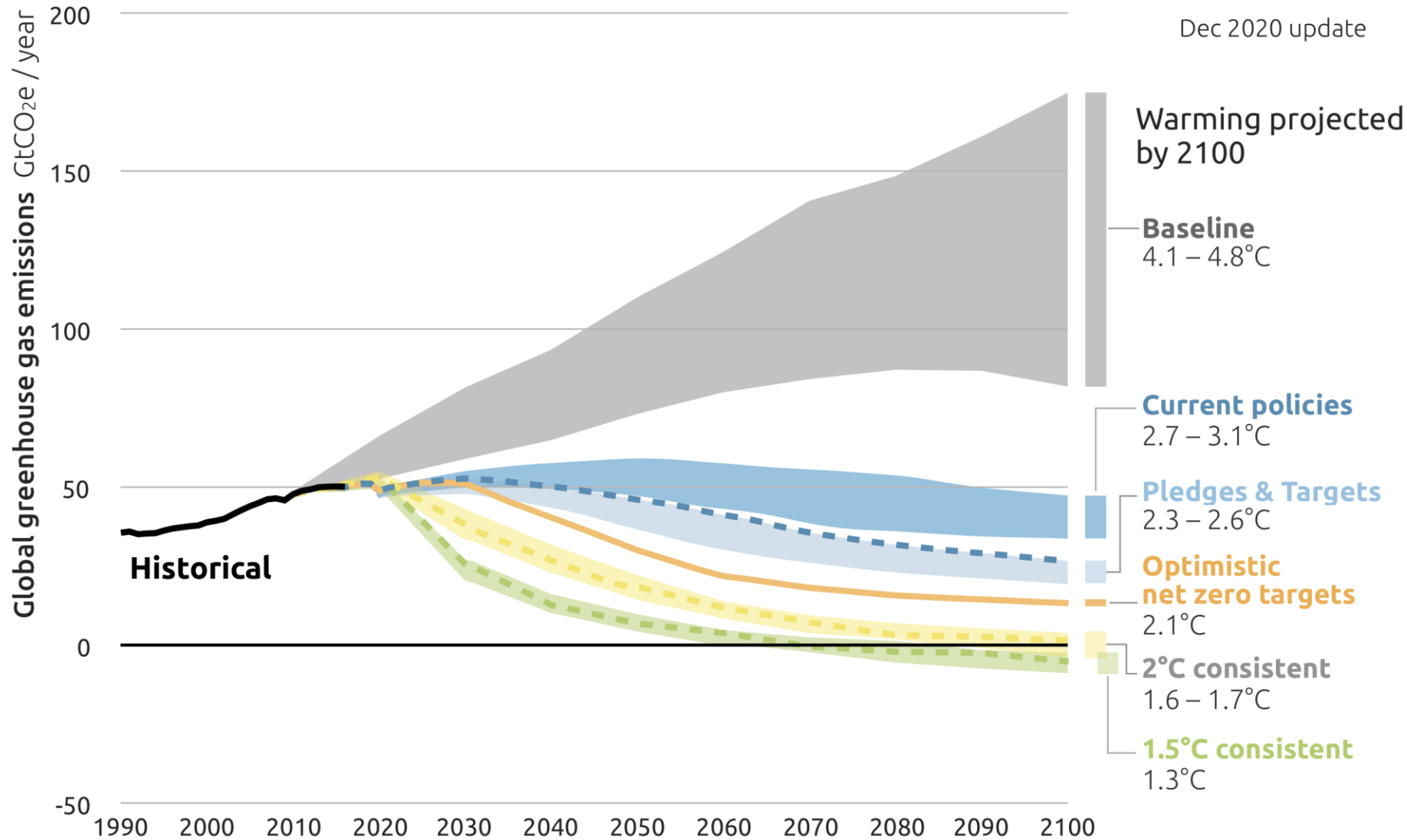
Mitigation will **determine** what type of overshoot we get in the long term – currently this is largely the purview of the global North with their financial power and resource base

Adaptation will **determine** how well we manage the regional impacts, risk exposure, and societal consequences for ~80% of the global population in an overshoot world – this is the critical immediate priority of the Global South for coming decades

The realities of overshoot inevitability

2100 WARMING PROJECTIONS

Emissions and expected warming based on pledges and current policies



Dec 2020 update

Takeaway:

There is evidence that we are already in the 20 year window where the global change in temperature will define overshoot of the Paris Agreement.

The world's nations are radically FAR away from anything close to achieving global warming targets.

Idealism says we can, realism says we won't.

The enhanced Risk exposure and Effort expected

The extent of overshoot, the duration, and questions of irreversibility, together place enhanced demands on your context.

Ambitions mitigation and ambitious adaptation are both essential – equal but differentiated responsibilities of the Global North and South.

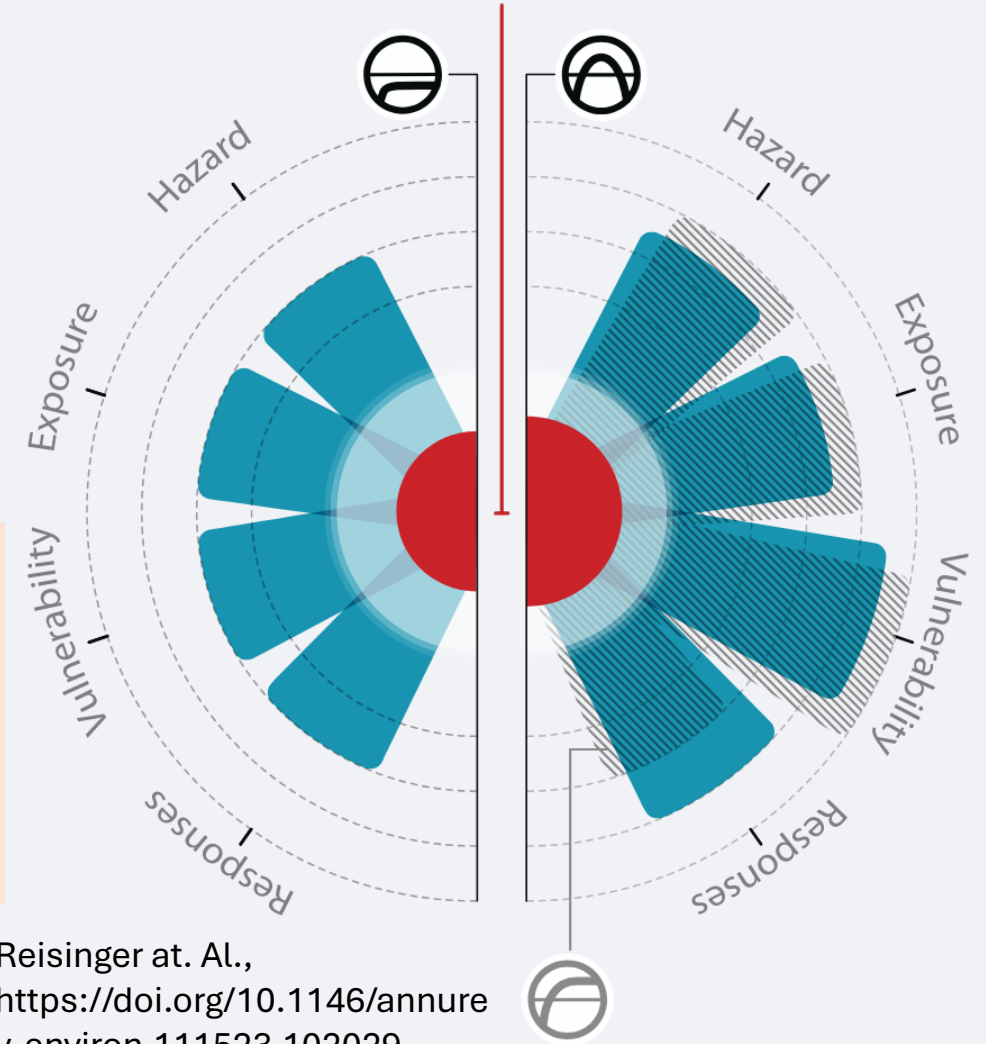
The tradeoffs determined by YOUR context.

PROPELLER DIAGRAM
Each risk propeller diagram illustrates how climate risk may differ in a 1.5°C world (left side) versus an overshoot world and a world with permanent exceedance (right side).

Drivers of climate risk
The four blades on each side represent the drivers of climate risk:
- Hazard
- Exposure
- Vulnerability
- Responses to climate change
The height of each blade illustrates the contribution of each driver to the overall climate risk.

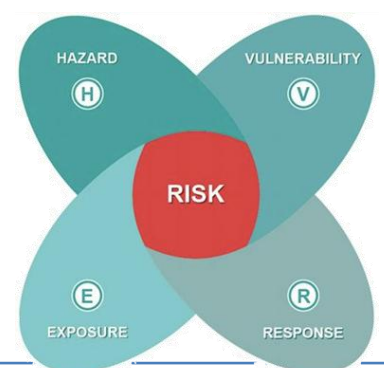
Example a: **Malnutrition and rural poverty from extreme drought** (increased climate risk in overshoot with partial reversal of hazard and elevated vulnerability)

Drivers of climate risk
Overall climate risk



The figure alongside presents an important message with details that are regionally and context dependent.

Yet it also does not convey a comprehension of the reality of real suffering that is / should be a driving imperative to action.



Reisinger et al.,
<https://doi.org/10.1146/annurev-environ-111523-102029>

So what are some of the philosophical issues raised by this paper

In philosophy, we start with a question or claim and use careful reasoning to examine whether the ideas behind it really hold up.

The paper posits a range of positions, raising critical issues for the global south, including:

1. Overshoot is likely inevitable: the global South is most vulnerable but with least capacity – who (does/should) lead the agenda of research funding (power), and define metrics of outcomes?
2. Every fraction of a degree of warming is important: we will reach tipping points and irreversibility – the global South's limited capacity thus places a deep ethical responsibility on the global North
3. This conversation relies on science-based evidence: who is designing the research, interpreting this, what are the modalities of communication into a heterogeneity of values and contexts, and how is actionability determined (see RIfS science activities)?
4. Mitigation and CDR are essential: this is more within the reach of global North, which exacerbates the power relationships, and it remains questionable if the North will rise to the need in time, and if CDR is scalable to the point of effectiveness.
5. Adaptation is at the heart of the Global South's response, but within the realities of the global socio-political, financial, and scientific centres of power, who drives the adaptation agenda for the South?

What is the argument for accountability that we should be exploring and articulating, recognizing that EACH of us in whatever role we play carries an implicit accountability for reducing or exacerbating consequence?

The Global South challenge

The journey through overshoot is not a single decision but rather a complex path with different motivations and pressures pulling in multiple directions

In the face of multiple drivers:

Idealism: We can manage it (theoretically)!

Realism: What will we do, and will it be enough?

Three suggested ethical responsibilities for each person in the web of actors:

- 1. Deepen Global North comprehension of issues from the view of the global South's heterogeneity of lived experiences, values, and cultures.**
- 2. Foster an equality of voice in setting the agenda about funding, research, and informing adaptation and decisions.**
- 3. Build a "sufficiency of literacy" about each others context to enable effective peer partnership collaborations.**

