



# THE FUTURE WE WANT

Karen O'Brien, University of Oslo

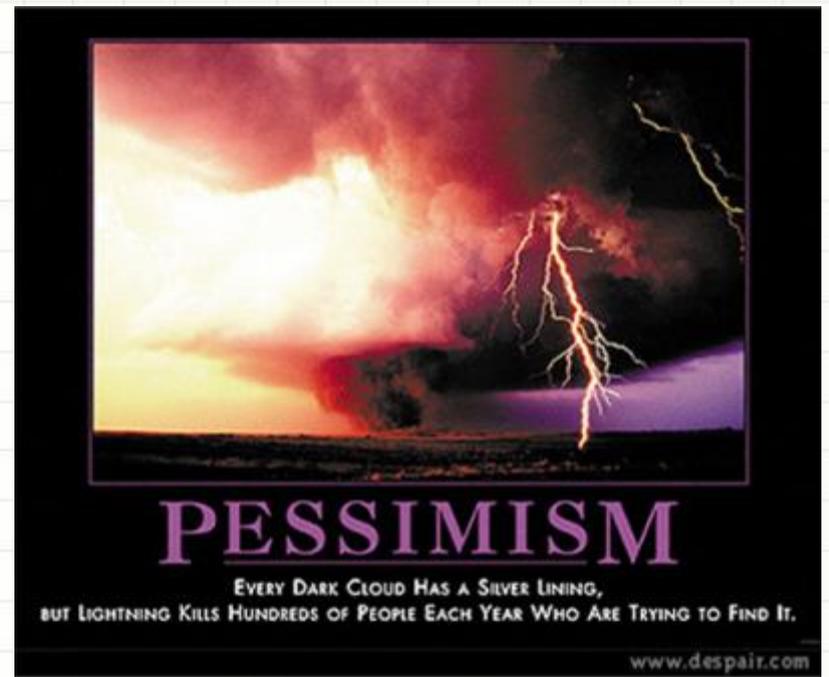
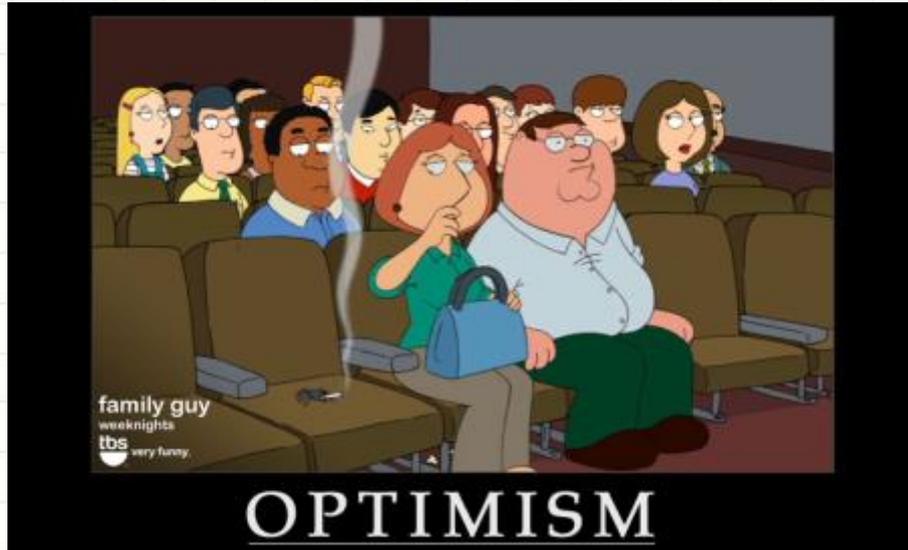
*Adaptation to Climate Change in Mountain and  
Coastal Areas: A Transatlantic Dialogue*

18 April 2013

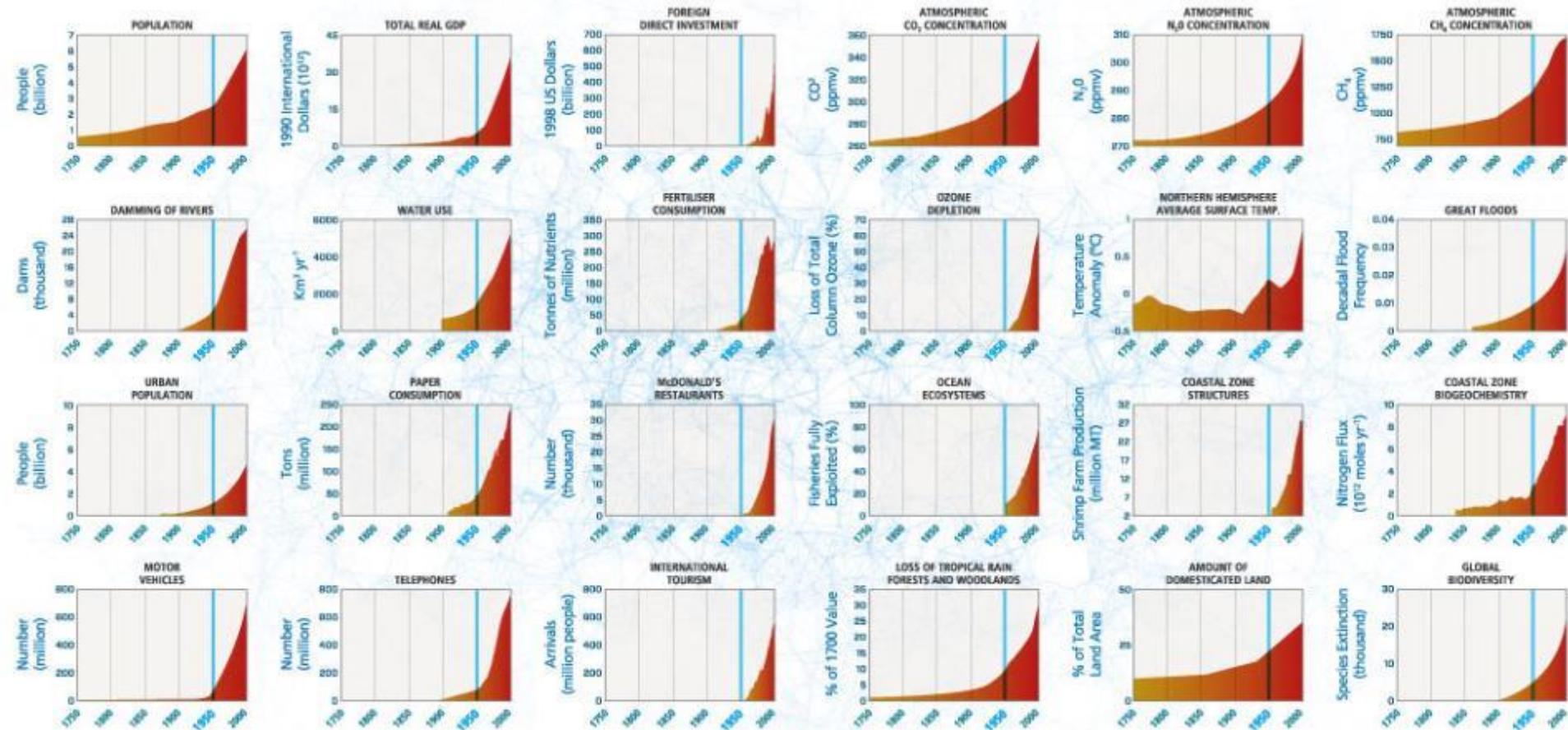


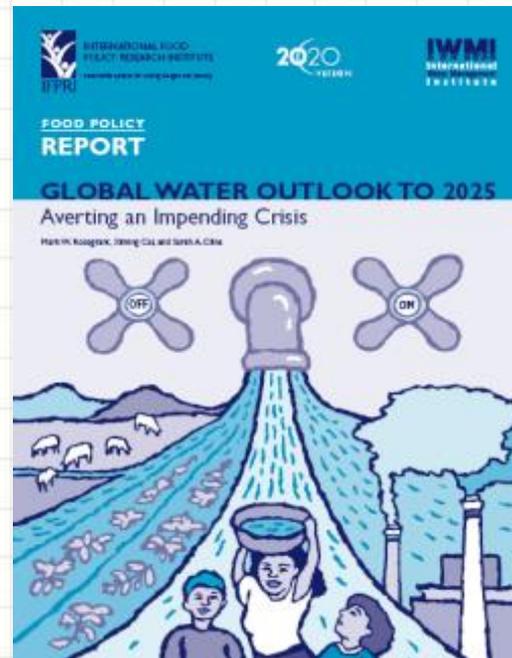
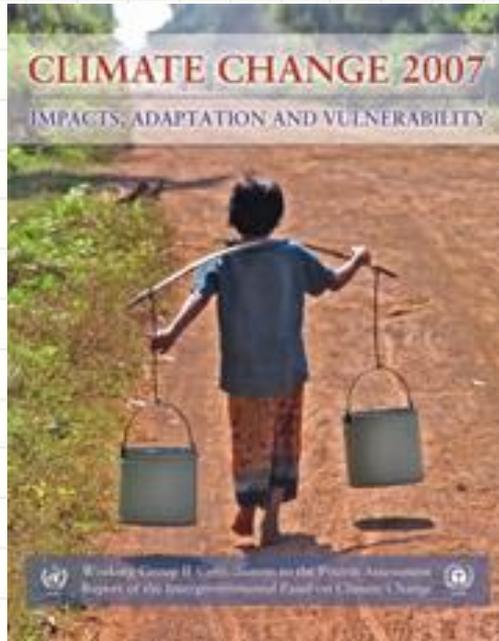
How do we think about the future?





# What future are we getting?



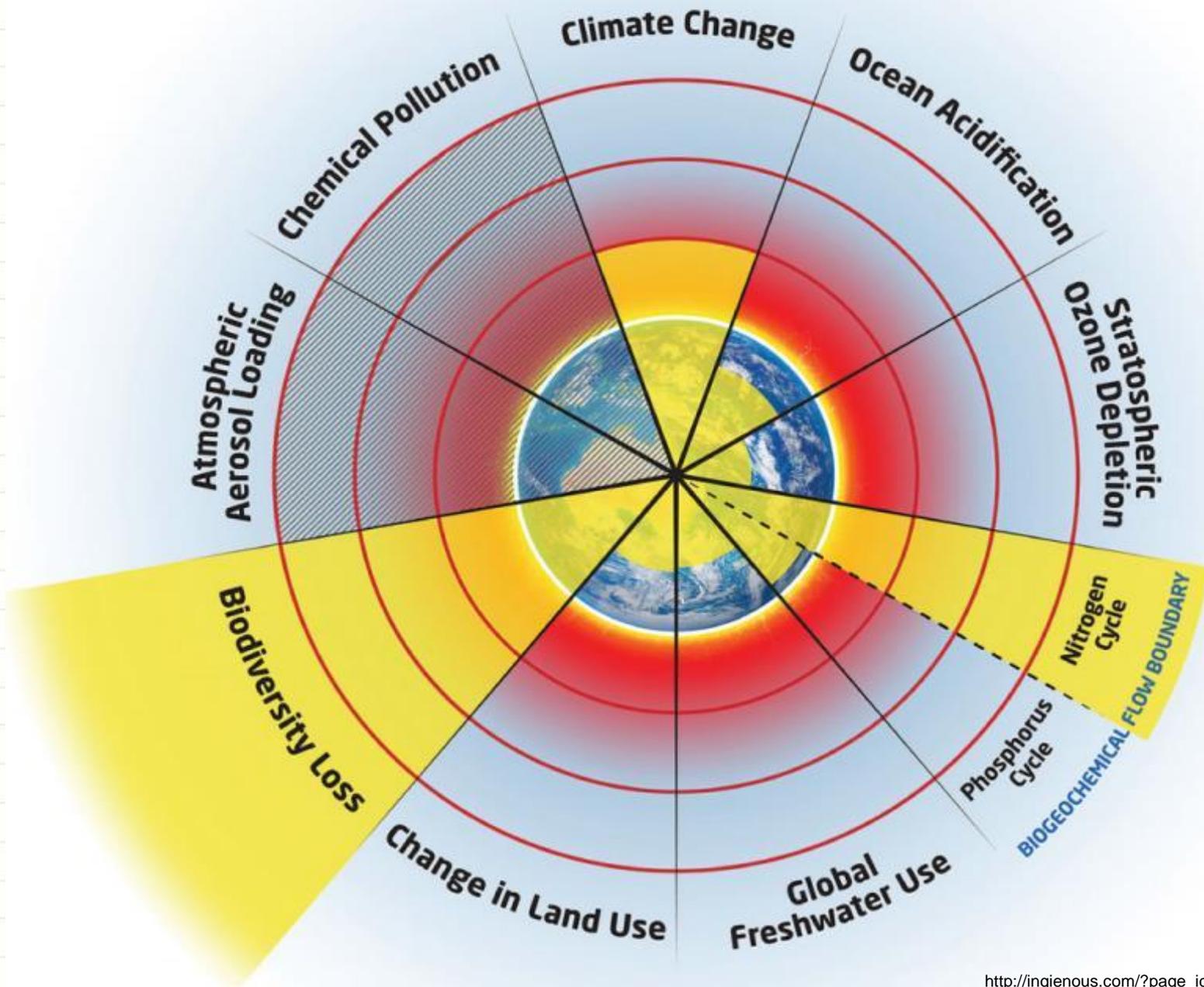


## FULL PLANET, EMPTY PLATES

*The New Geopolitics of Food Scarcity*



Lester R. Brown





“ *We basically have three choices: mitigation, adaptation and suffering. We're going to do some of each. The question is what the mix is going to be. The more mitigation we do, the less adaptation will be required and the less suffering there will be.*

– John Holdren

# Transformation

- ▶ Defined as physical and/or qualitative changes in form, structure, or meaning-making. It can also be understood as a psycho-social process involving the unleashing of human potential to commit, care and effect change for a better life.

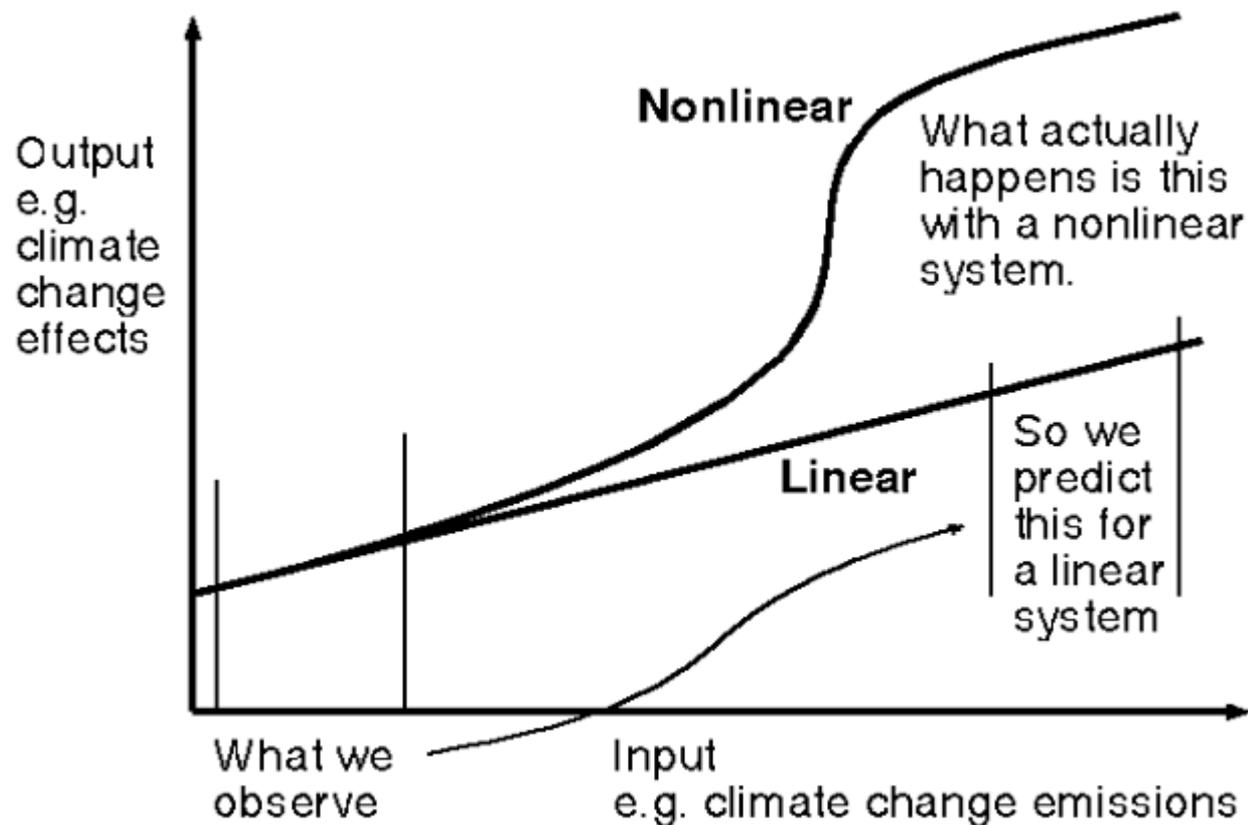


## Some important questions about “transformations”:

- Do we have a sufficient knowledge base to inform strategies and actions for deliberate, ethical and sustainable transformation at the rate and scale that is called for?
- Can we innovate rapidly enough, and with sufficient intelligence, to transform systems along pathways towards global justice, gender equity, and long-term social and ecological resilience?
- Can we do this in a participative manner, without resorting to fear, force or folly?
- Does science itself need to change?
- ***Do we know how to make all of this happen?***

# Non-linear problems

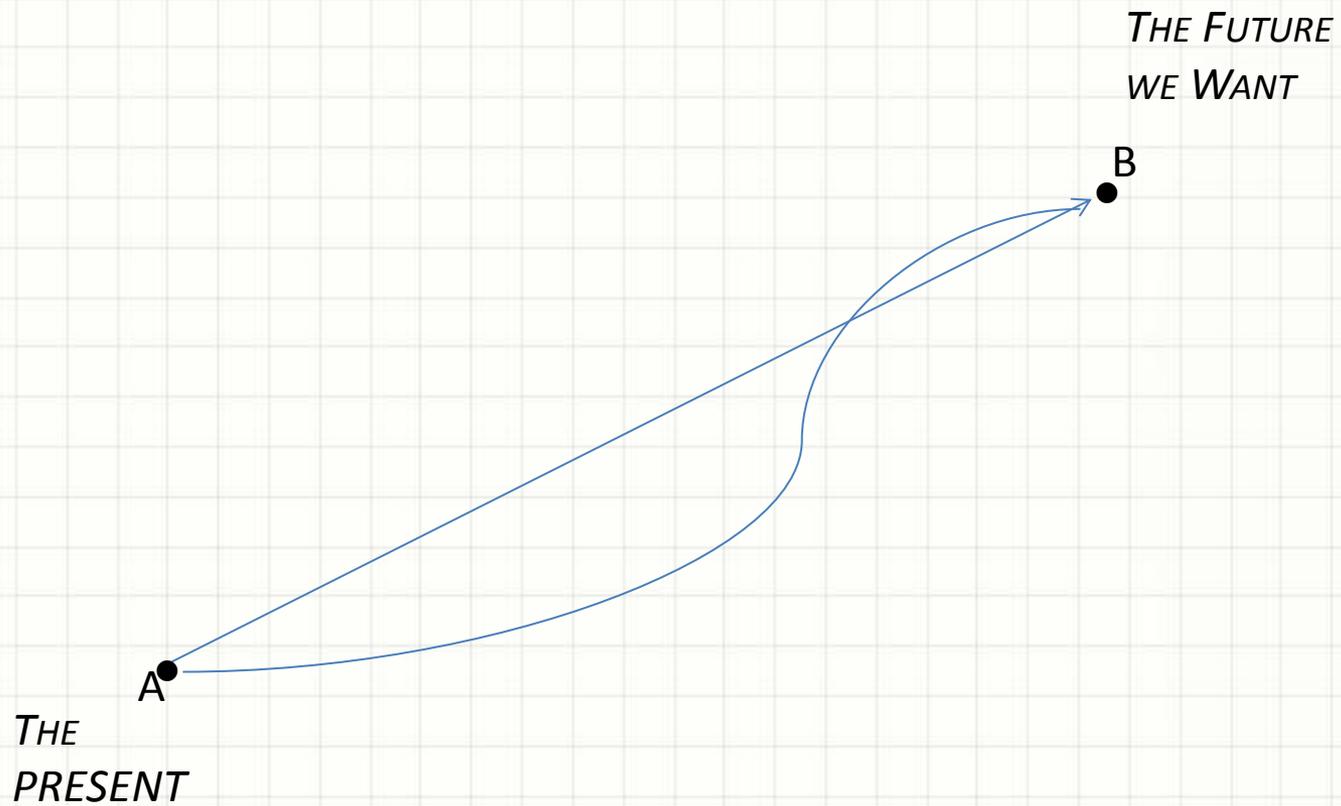
- The theory of nonlinear, complex systems has become by now a proven problem-solving approach in the natural sciences. And it is now also recognized that **many if not most of our social, ecological, economical and political problems are essentially of a global, complex and nonlinear nature.**
- Mainzier, K. 1994. *Thinking in Complexity. The Complex Dynamics of Matter, Mind, and Mankind.* Springer



**Linear and Nonlinear Systems**

# Non-linear solutions

“One of the greatest difficulties of nonlinear problems is that it is not generally possible to combine known solutions into new solutions.”

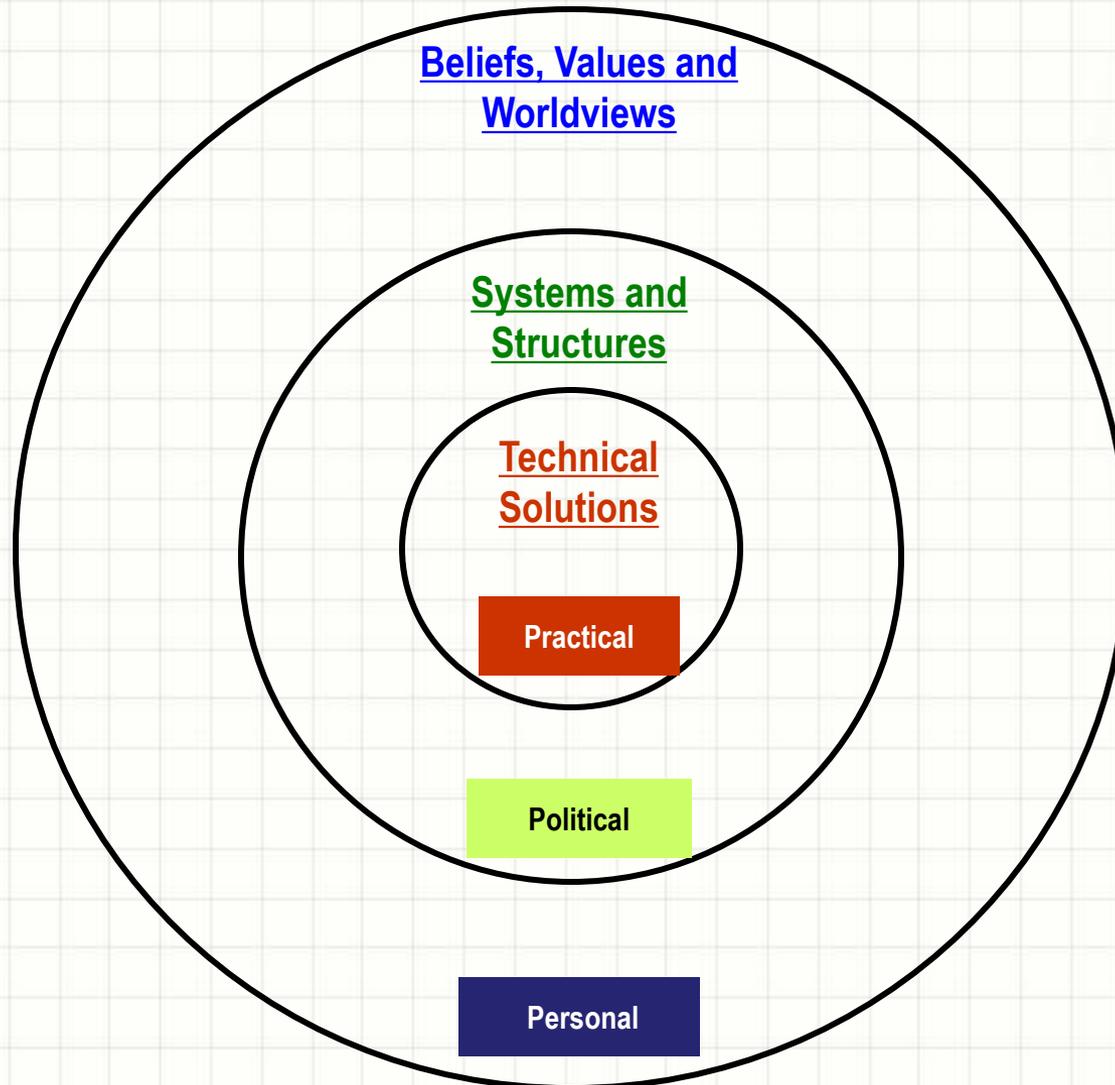


Transition → Transformation

# Hyper-complex problems

- **Dynamic complexity** (defined by cause and effect being distant in space and time)
- **Social complexity** (defined by conflicting interests, cultures, and worldviews among diverse stakeholders)
- **Emerging complexity** (defined by disruptive patterns of innovation and change in situations in which the future cannot be predicted and addressed by the patterns of the past)

# The three spheres of transformation



# Going deeper: what are our beliefs and assumptions?

- We are often not aware of many of our beliefs and assumptions (some were acquired when we were young, some were acquired unconsciously, some are socially and culturally influenced)
- Nonetheless, they form our individual and collective operating systems (we see what we believe!)
- “the success of an intervention depends on the interior condition of the intervenor” (Bill O’Brien)

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- What would individuals or society have to believe to experience having to adapt to global temperature increases of 2°C, 3°C, 4°C or more in this century? *What evidence supports this belief?*

**It's inevitable** (*Evidence: We have already put too much CO<sub>2</sub> into the atmosphere*)

**It's already too late** (*Evidence: The ice is melting and the weather seems crazy*)

**It's God's will** (*Evidence: The bible says so*)

**People like me can't do anything about it** (*Evidence: I can barely keep my plants alive...*)

**People will never change** (*I've tried to get my husband to change for years...*)

**Powerful interests will never change** (*Evidence: The rich keep getting richer....*)

**Humans have always adapted** (*Evidence: We are still here...*)

**People are greedy for money and power** (*Evidence: My Uncle Joe is really greedy and power hungry*)

**Humans are not very smart** (*Evidence: Just watch one of those reality shows on television*)

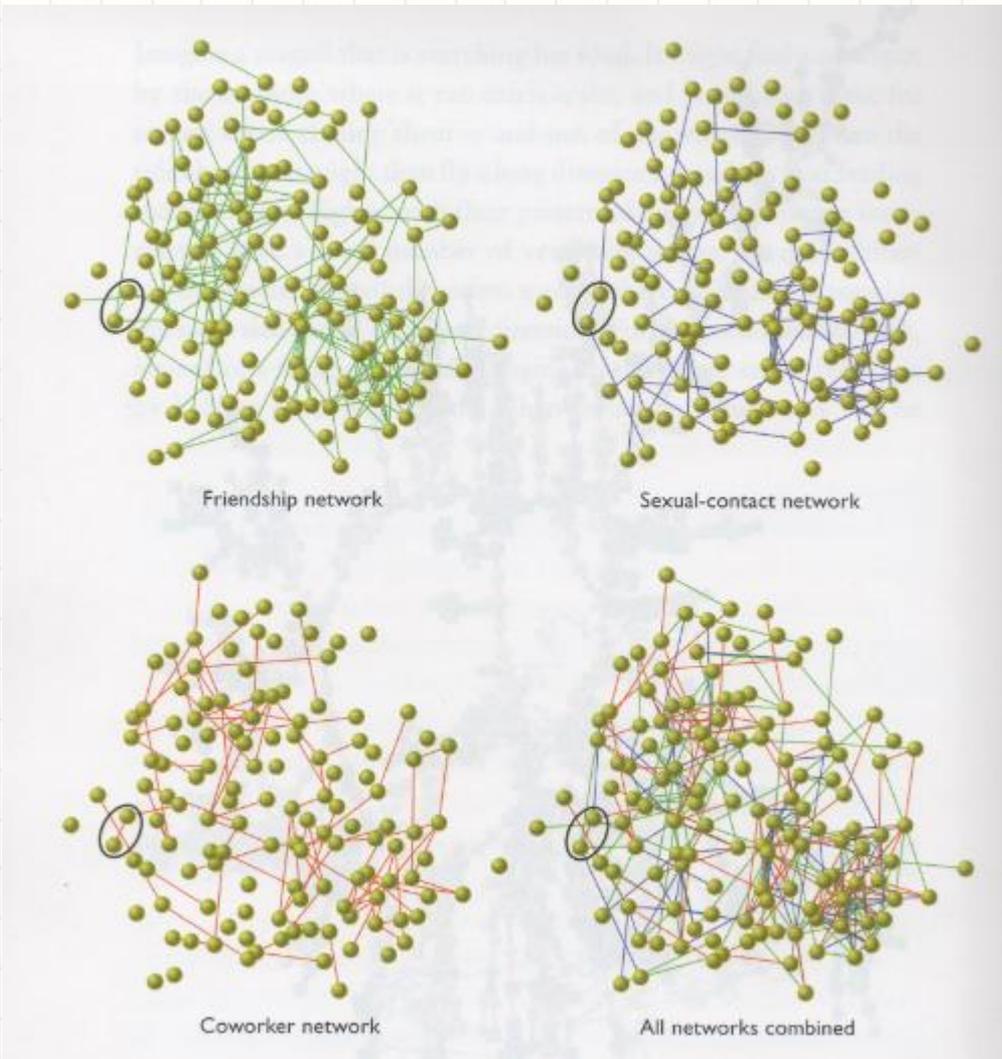
**Oil companies rule the world** (*Evidence: They make a lot of money*)

# What happens when we question our assumptions and beliefs?

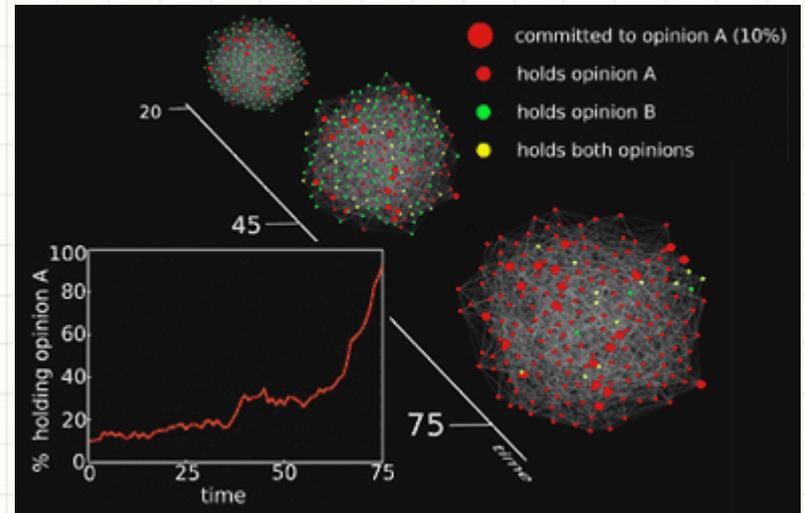


*"I'm afraid you've had a paradigm shift."*

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(Christakis & Fowler, 2009)



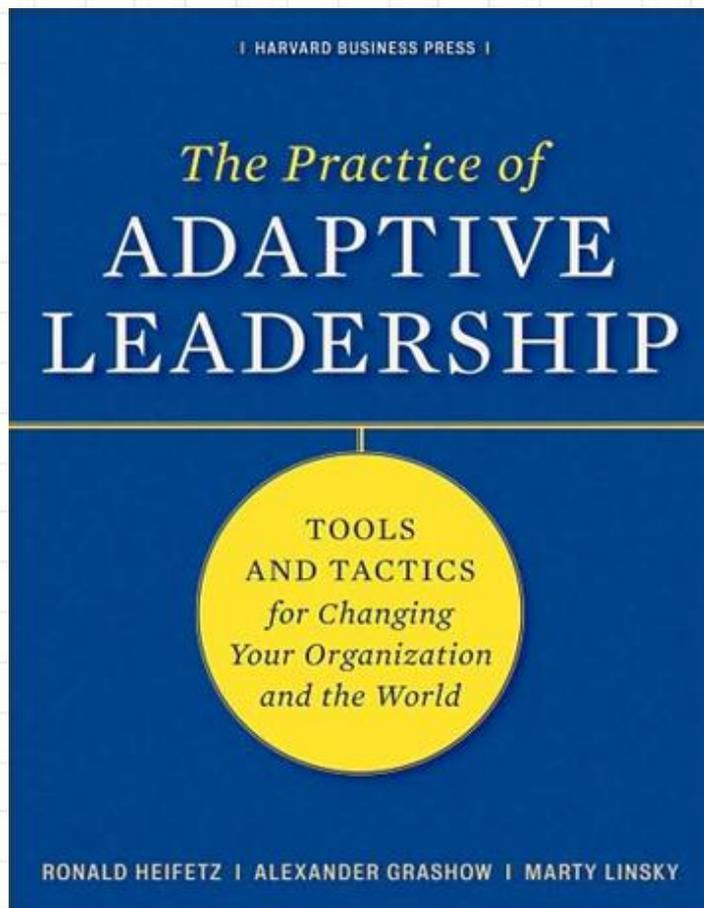
In this visualization, we see the tipping point where minority opinion (shown in red) quickly becomes majority opinion. Over time, the minority opinion grows. Once the minority opinion reached 10 percent of the population, the network quickly changes as the minority opinion takes over the original majority opinion (shown in green).

Image credit: SCNARC/Rensselaer Polytechnic Institute.

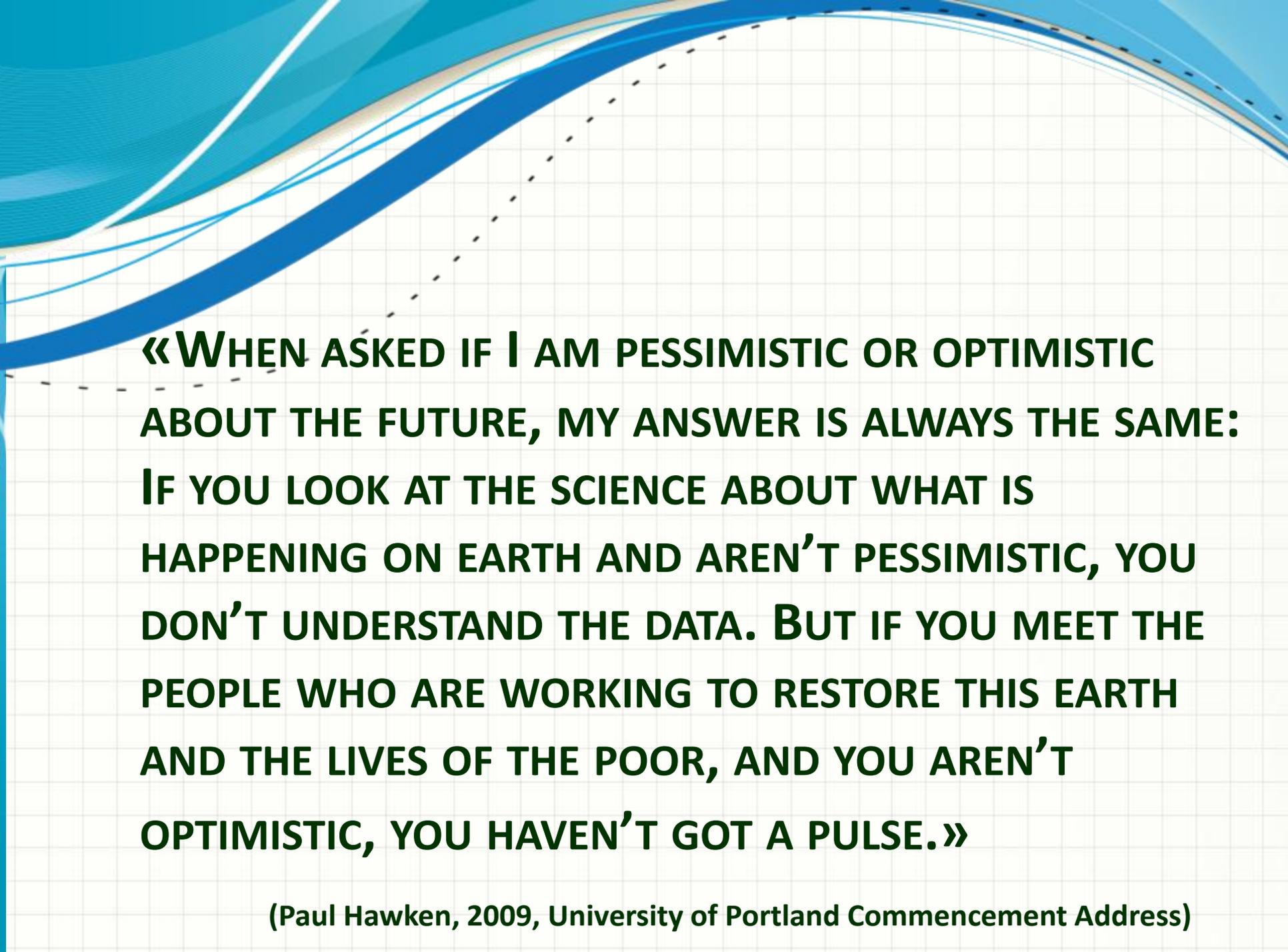
(Xie et al. , 2010)

# Collaborative Power

- “the power of many to do together what no one can do alone” (Slaughter 2011)
- the nonlinear capacity of a person, organization or group to work collectively with others to achieve a desired intention.



- Requires connecting with the values, beliefs and anxieties of the people you are trying to move (who are not often convinced by logic and facts);
- Recognition that the current situation is often preferable to trying something new where the consequences are unpredictable and likely to involve losses for key parties;
- What you see as dysfunctional works for others in the system. Focus on how to mobilize and sustain people through the period of risk rather than trying to convince them of the rightness of your cause;
- Involves helping people to “navigate through a period of disturbance as they sift through what is essential and what is expendable, and as they experiment with solutions to the adaptive challenge at hand.”



**«WHEN ASKED IF I AM PESSIMISTIC OR OPTIMISTIC ABOUT THE FUTURE, MY ANSWER IS ALWAYS THE SAME: IF YOU LOOK AT THE SCIENCE ABOUT WHAT IS HAPPENING ON EARTH AND AREN'T PESSIMISTIC, YOU DON'T UNDERSTAND THE DATA. BUT IF YOU MEET THE PEOPLE WHO ARE WORKING TO RESTORE THIS EARTH AND THE LIVES OF THE POOR, AND YOU AREN'T OPTIMISTIC, YOU HAVEN'T GOT A PULSE.»**

**(Paul Hawken, 2009, University of Portland Commencement Address)**



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