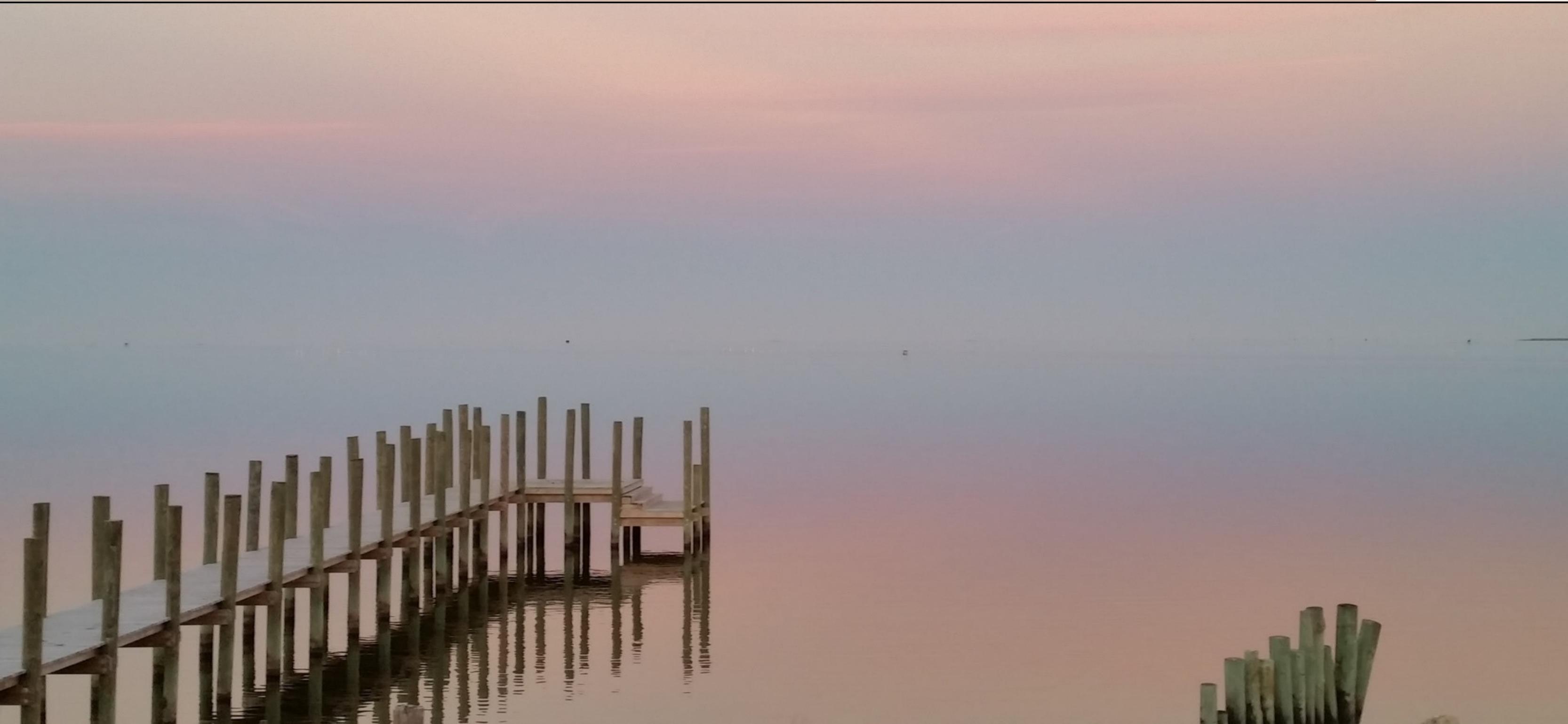


Sustainability Leadership



Sustainability Leadership



Class 5:

Part 1: Risk Assessment

Part 2: Foresight



Perspective

The Challenge of Degraded Environments: How Common Biases Impair Effective Policy

Alan Berger,¹ Case Brown,² Carolyn Kousky,^{3,*} and Richard Zeckhauser⁴

Economic activity can damage natural systems and reduce the flow of ecosystem services. The harms can be substantial, as our case studies vividly illustrate. Most degraded landscapes have at least some potential to be reclaimed. However, uncertainty plagues decision making regarding degradation and reclamation, in relation to the extent of the damage, the success of reclamation, and how exposure will change in the future. We examine how a range of observed decision biases can lead to far-from-optimal policies regarding how much degradation to allow and when, as well as how and how much, to reclaim degraded sites. Despite our focus on degraded landscapes, we believe these are generic biases present in a wide range of risk situations. Our three case studies show these biases at work. The first two studies are of mining operations in the United States and Canada, and the third is of climate change.

Risk Analysis:

- Approach to develop foresight
- Assess potential of an event and its consequences

Risk Analysis:

- Approach to develop foresight
- Assess potential of an event and its consequences

Challenge:

- Include all possible types of events
- Understand the full spectrum a specific type of events
- Understand the possible consequences for the system and their impacts (cascading effects)
- Understand the possible events triggered by an event

Gaining a Better Understanding of How to Cope with Extreme
Low Probability and High Impact Shock Events

And What About Sea Level Rise?

Questions for you:

1 In Simonetta (2016), the principles of “thermodynamics” are used as an example to explain cyclic “Collapse of Civilizations.” After studying <https://www.grc.nasa.gov/WWW/K-12/airplane/thermo.html>, discuss your interpretation of the article's main point. Do you agree with the analogy? Give an example.

HOME / SOCIETY

THE OTHER SIDE OF THE GLOBAL CRISIS: ENTROPY AND THE COLLAPSE OF CIVILIZATIONS

By [Jacopo Simonetta](#), originally published by [Cassandra's legacy](#)

March 7, 2016



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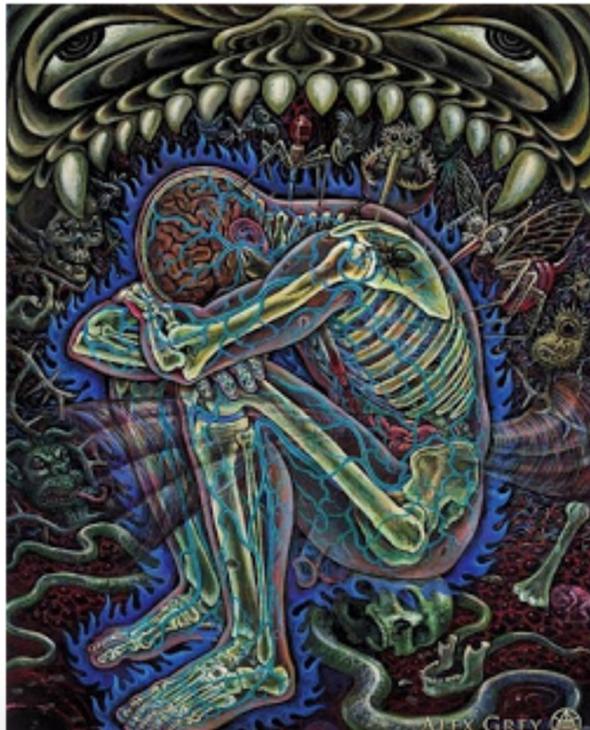
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When we discuss the impending crisis of our civilisation, we mainly look at the resources our economy need in a growing quantity. And we explain why the diminishing returns of resource exploitation pose a growing burden on the possibility of a further growing of the global economy. It is a very interesting topic, indeed, but here I suggest to turn 180 degrees around and take a look at the "other side;" that is to what happens where the used resources are discarded.

Eventually, our society (as any other society in history) is a

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**Our nation is divided.
Our planet is under threat.
Our communities are struggling.**

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BUILD



Questions for you:

1 In Simonetta (2016), the principles of “thermodynamics” are used as an example to explain cyclic “Collapse of Civilizations.” After studying <https://www.grc.nasa.gov/WWW/K-12/airplane/thermo.html>, discuss your interpretation of the article's main point. Do you agree with the analogy? Give an example.

2 Rusbridger (2015) raises the following questions: “Even when the overwhelming majority of scientists wave a big red flag in the air, they tend to be ignored. Is this new warning too similar to the last? Is it all too frightening to contemplate? Is a collective shrug of fatalism the only rational response?” How do Rusbridger's questions relate to biases and their impacts on risk perception? Discuss your point of view with an example.

Climate change

Keep it in the ground

Climate change: why the Guardian is putting threat to Earth front and centre

As global warming argument moves on to politics and business, Alan Rusbridger explains the thinking behind our major series on the climate crisis



This article is 2 years old

25,372 | 2,455

[Alan Rusbridger](#)

Friday 6 March 2015 07.32 EST



i Connection by Antony Gormley. Illustration: Antony Gormley

Journalism tends to be a rear-view mirror. We prefer to deal with what has happened, not what lies ahead. We favour what is exceptional and in full view over what is ordinary and hidden.

Famously, as a tribe, we are more interested in the man who bites a dog than the other way round. But even when a dog does plant its teeth in a man, there is at

Questions for you:

- 1 In Simonetta (2016), the principles of “thermodynamics” are used as an example to explain cyclic “Collapse of Civilizations.” After studying <https://www.grc.nasa.gov/WWW/K-12/airplane/thermo.html>, discuss your interpretation of the article's main point. Do you agree with the analogy? Give an example.
- 2 Rusbridger (2015) raises the following questions: “Even when the overwhelming majority of scientists wave a big red flag in the air, they tend to be ignored. Is this new warning too similar to the last? Is it all too frightening to contemplate? Is a collective shrug of fatalism the only rational response?” How do Rusbridger's questions relate to biases and their impacts on risk perception? Discuss your point of view with an example.
- 3 How does Lewandowsky's (2016) message relate to the relevance of biases and their impacts on risk analysis?



Edition: **United States**

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Why is populism popular? A psychologist explains

June 21, 2016 7.34am EDT

Part 2: Foresight

Contents:

1 Introduction

2 Hazards

3 Vulnerabilities

4 Foresight

5 Decision-Making & Stakeholders

6 Options

7 Discussion, Summary, Recommendations

Background check in Falls Church:

- train + taxi/Uber
- needs to be done by June 2, 2017

Pickup/final part in Norfolk

Driver training

Pre-Internship project:

- based on literature
- assignment during the Sustainability Class

Part 4: Internship

Background check in Falls Church:

- train + taxi/Uber
- needs to be done by June 2, 2017

Pickup/final part in Norfolk

Driver training

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