

Learning to be sustainable (?)

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Ivey Business School

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Learning to be sustainable (?)

Thank Lauren—prep helpful for me.

Last time around...

- 1. Data in search of question



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└ Last time around...

- There is 4.
- 1. Indicates I am also not quite there yet on empirics.
 - 4. What data do I need to make an argument?

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Why learning?

Sustainability & Learning

Data



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Objective

What I **am** doing

- ▶ Expand on last presentation
- ▶ Show my thinking
- ▶ Test out the argumentation of my thesis

What I am **not** doing

- ▶ Traditional paper presentation



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Learning to be sustainable (?)

- Objective

- Mention Mark, Lee & Wren here
- Mention extensive reading sustainability lit

What I am doing

- ▶ Expand on last presentation
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What I am not doing

- ▶ Traditional paper presentation

Invitation to conversation!

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Definitions¹

1. Reliability: is the learning outcome public, stable, and shared

Humor me, please suppress your own idea of what these terms mean and work with my definition of the terms for the length of this presentation. Join me on this journey.

Definitions¹

1. Reliability: is the learning outcome public, stable, and shared
2. Validity: does learning aid in understanding, prediction, and control

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¹March et al. (1991)

Valid learning

Creation of quantitative/mental models that inform in advance or lead to desirable states.

- ▶ Robust climate models (Manabe & Wetherald, 1967; Forster, 2017)

vs. invalid learning

- ▶ Surprising, unpredicted arctic ice loss (Guarino et al., 2020)



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Reliable learning

Developing a mental or formal model that is widely accepted.

- ▶ Collective learning process (Wright & Nyberg, 2017)
- ▶ Bridging epistemic communities (Aronczyk & Espinoza, 2019)
vs. unreliable learning
- ▶ Unintentional or deliberate rejection of learning (Hermwille & Sanderink, 2019; Koontz & Thomas, 2018)
- ▶ Persistent resistance or ignorance (Boudet et al., 2020)

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└ Why learning?

└ Learning & Sustainability II

Technology, pigs, real-time observation.

Learning & Sustainability II

Reliable learning

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What keeps valid knowledge from being reliable?

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└ Why learning?

Think about reliability & validity as a two-by-two.
What prevents the joint optimization of both?

Learning & Sustainability III

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└ Why learning?

└ Learning & Sustainability III

Example of conflicts

- ▶ Biases (e.g., Makov & Newman, 2016)
- ▶ After building coalition, validity of knowledge in doubt (e.g., Aronczyk & Espinoza, 2019; Wright & Nyberg, 2017)
- ▶ Entrenched invalid learning (e.g., Boudet et al., 2020)
- ▶ Knowledge gap between layman and (relative) experts (e.g., Camilleri et al., 2019)
- ▶ Self-interest (Rerup & Zbaracki, 2021)

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- “Economic Gains Stimulate Negative Evaluations of Corporate Sustainability Initiatives” (Makov & Newman, 2016)
- “Event Attribution and Partisanship Shape Local Discussion of Climate Change after Extreme Weather” (Boudet et al., 2020)

Example 1

Maguire and Hardy (2009)

1. 1950s: DDT is most used pesticide

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└ Why learning?

└ Example 1

Let me show you how we think this works.

Acknowledge that this is deliberately using their language.

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 - Human health
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4. 1972: EPA investigates, bans DDT nationwide
 - DDT use already down 67%

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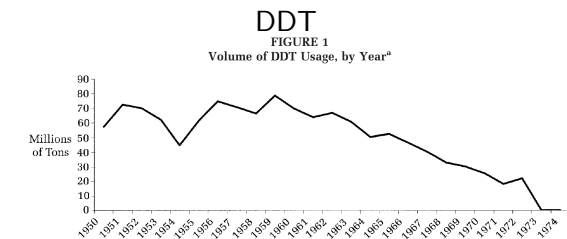
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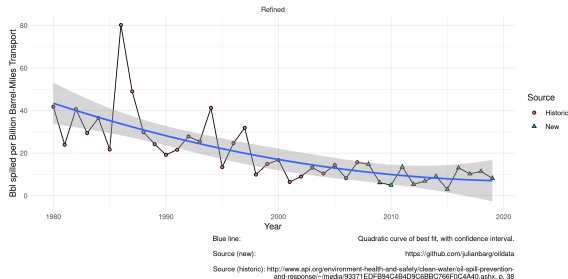
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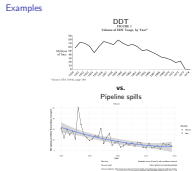


^a Source: EPA (1975), page 149.

vs.
Pipeline spills



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└ Why learning?
└ Examples



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Example 2

Pipeline industry²

1. Mid-century enthusiasm for oil & pipelines
Consensus—engineering epistemology reliable & valid

²Estes (2019)

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└ Why learning?

└ Example 2

- Mid-century: wave of infrastructure building into 60s & 70s
- Exxon Valdez led to coalescence of resistance
- Example standing rock, water warriors
- At the end, no new valid and reliable understanding

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Coexistence of two epistemic communities
Limited communication



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- You can see how the concepts are useful?
- Useful concepts to describe phenomena in sustainability.
- The interaction of physical & social world makes them important here.

Great insights into pollution and climate change

Limited dissemination

The first thing I am working on is to explore reliability & validity by its own right. Without focus on pipeline data.

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An analysis of sustainability, using the language of learning, reliability & validity.



Why should we (sustainability researchers) care about reliability & validity?

The sustainability literature, read with attention to learning, reliability & validity.

Implicit model of learning in the literature.

- “A Natural-Resource-Based View of the Firm” (Hart, 1995)
- “Limits to Anthropocentrism: Toward an Ecocentric Organization Paradigm?” (Purser et al., 1995)
- “Who Sustains Whose Development? Sustainable Development and the Reinvention of Nature” (Banerjee, 2003)
- “Evolving Sustainably: A Longitudinal Study of Corporate Sustainable Development” (Bansal, 2005)
- “Business Sustainability: It Is about Time” (Bansal & DesJardine, 2014)
- “Institutional Theory and the Natural Environment: Research in (and on) the Anthropocene” (Hoffman & Jennings, 2015)
- “(Un)Sustainability and Organization Studies: Towards a Radical Engagement” (Ergene et al., 2020)

Sustainability theory I

Validity–
Environmental management

- 1. Organizational level narratives

Reliability–
Ecocentrism

- 1. Organizational level and above

3



³For now borrowing terminology from Purser et al. (1995).

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Learning to be sustainable (?)

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└ Sustainability theory I

- 4. Counterforce is power, organizations learning how to live with the rules, e.g., Wright and Nyberg (2017).

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Validity– Environmental management

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4. Learning meets counterforce

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⇒ Underlying models of change & collective learning

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How models on dissemination of learning, models of the world influence research and the findings that we look for.

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Why learning?

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See empirically how reliability & validity play out.

Examples, context where competing ideas are pushed, valid knowledge is suppressed, reliability cannot be achieved etc.

Exemplary phenomena

1. Industry-driven deregulation in Texas/Louisiana

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2. Pipeline spill into Houston River 94'

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Exemplary phenomena

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Learning to be sustainable (?)
└ Data

Show existence of epistemic community, how they affect the direction taken. Reliability dimension in addition to validity dimension. Also "Validity strikes back" when an interest group gets its interest and a disaster (like in Texas last month) occurs.

Thanks!

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Thanks!



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