# Moral Hazards and Geoengineering

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## Introduction

- Part of a larger research project on remediation.
- "Remediation and Respect" (general)
- "Getting the Bad Out" (air capture)
- "Ocean Fertilization" (just as it sounds)
- "What's so Moral about the Moral Hazard?"

#### Overview



- I. Moral Hazard?
- II. Geoengineering MH Arguments

#### **Thesis**

- Moral hazard arguments alone don't offer a strong enough reason to reject geoengineering.
- They are deceptive.
- Can trick us into thinking that we're making strong arguments.

What is a Moral Hazard?

## Moral Hazard

- Kenneth Arrow, 1963
- American Economic Review
- Fire Insurance
- Might have reason to be less careful

## Moral Hazard

- Policy Applications
- Insurance: Fire, Auto, Health, etc.
- Corporate Bailouts
- Levees and Dams
- Fire Depts and Street Lamps
- Geoengineering

## **Policy Applications**

- P1: Because citizens know that they will be bailed out in the event of a disaster, they have incentives to be less cautious (or do not have incentives to be more cautious) about disaster.
- P2: They act on these incentives and change their behavior, which is wrong.

C: Therefore, we ought not to (offer to) bail citizens out in the event of disaster (or we ought not to (Offer to) bail them out as much).

## **Policy Applications**

P2: They act on these incentives and change their behavior, which is wrong.

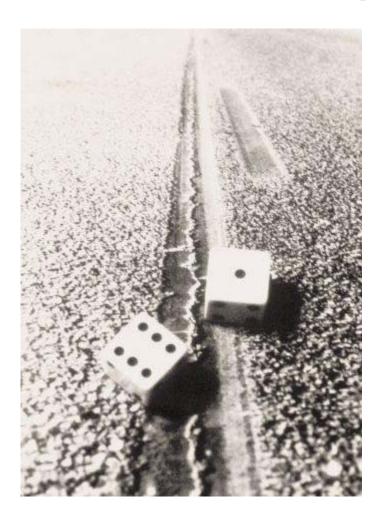
Don't know where wrong is; or nature of wrong

- Act
- Behavior
- Intention/Motive
- Reasons/Maxims/Principles
- Wrongness/Badness

#### But What is a Moral Hazard?

- 1. E.J. Faulkner: "the intangible loss-producing propensities of the individual assured."
  - Efficiency
- 2. Steven Shavell: "tendency of insurance protection to alter an individual's motive to prevent loss."
  - Motives (Reasons)
- 3. John M. Marshall: "excessive expenditure due to eligibility for insurance benefits."
  - Excess (Vice)

### Working Definition



"The danger that, in the face of insurance, an agent will increase her exposure to risk."

## Earlier Paper

T1: There is nothing inherently moral about the moral hazard.

## **Thesis**

T1: There is nothing *inherently* moral about the moral hazard.

T2: Establishing moral wrongness of the moral hazard requires a separate *exogenous* argument.

#### Problem/Thesis for this Paper

- If you subscribe to the efficiency views of moral hazards, it is a simple actuarial matter.
  - Many climate scientists and geoengineering proponents subscribe to this view, and thus will not be persuaded by the moral hazard argument.
- If you subscribe to the motive or the vice view, then we need an extra argument against the action or character trait.
  - Not persuasive to those who do not find these motives or vices a problem, which is likely also true of many proponents of geoengineering.

## Example

Install air scrubbers on cars and factories, does it matter how much you burn?

(Hint: I think it does, but *for reasons* other than risk, harm, or cost.)

15 Geoengineering MH Arguments

#### 1. Business as Usual Argument

- Geoengineering will make it possible to continue with BAU without any change in our behavior.
- Hazarded wrong: encourage bad behavior by continuing with BAU.
  - Like consuming fossil fuels
- Objection: Only continues exposure to risk; which is not a moral hazard.
- BAU is the point of geoengineering.

#### 2. Perverse Behaviors Argument

- Will begin behaving in perverse ways, maybe increasing consumption...
- Hazarded wrong: it will encourage worse behavior, beyond BAU.
  - Like helmets, seat belts, and/or birth control
- Objection: The bad of the behavior will be removed by geoengineering. Behavior must be shown to be perverse.

#### 3. Counterfactual World Argument

- Creates a new trajectory of world that is worse than a world on a different trajectory.
- Hazarded wrong: Encourages use of geoengineering, where a better world would be one in which geoengineering is not deployed.
  - Like food or urban infrastructure
- Objection: Contingent on facts; and cannot be avoided, as there are always opportunity costs of choosing any technology. Emphasis on geoengineered *world* as worse than other world.

#### 4. "Nail World" Argument

- If you have a hammer, everything looks like a nail.
- Hazarded wrong: If the technology exists, we will use it and continue to use it.
  - Like hammers or guns.
- Objection: Sometimes it is okay to use hammers. Turns on objection to geoengineering as a method. Must be shown what's wrong with *geoengineering*.

#### 5. Responsibility Abdication Argument

- Will enable us to abdicate accepting responsibility for our actions.
- Hazarded wrong: We will not hold ourselves or others accountable for wrongdoing
  - Like broken windows, restoration, reforestation
- Objection: If geoengineering removes the harm, it removes the wrong. Needs argument against harms view.

#### 5a. Political Noise Argument

- Permits an out for those who want to avoid or avoid discussing other possible measures
- Hazarded wrong: Offers a ruse for more sincere approaches
  - Like Strategic Defense or treatments for HIV, no longer need concern ourselves with issue
- Objection: Similar to the Responsibility Abdication Argument: needs an extra claim.

#### 6. Free Riding Argument

- Offers opportunities for one country, or one group, to rely on another for the save
- Hazarded wrong: Free riding
  - Like international aid; flood insurance
- Objection: Need an argument for why a given group must pull its fair share; need an argument for fairness.

#### 6a. Cheating Argument

- Permits cheating of responsibilities
- Hazarded wrong: makes one an exception to the rule
  - Like cheating on an exam
- Objection: Turns on making oneself an exception to the rule. Need argument for universality of rule.

#### 7. Perverse Profits Argument

- Creates opportunities for some companies to profit off of this travesty, thereby pushing travesty along.
- Hazarded wrong: industry may encourage pollution.
  - Like Halloween and dentists; allegations against climate scientists.
- Objection: Implies that motives of profit (on tragedy) are wrong. Turns on a specific duty or obligation.

#### 8. Technical Dependence Argument

- Will create immovable technical obstacles to adoption of other technical solutions.
- Hazarded wrong: that we will increase exposure to risk by limiting our options
  - Like VHS or 220 Volt Outlets
- Objection: Similar to Counterfactual World Argument. What if we build in other options?
- Turns on existence or absence of reasons. What's so important about having other reasons?

#### 9. Hubris Argument

- Will create impression that we are Gods, that we can control the climate
- Hazarded wrong: Encourages the vice of hubris; misunderstands our role or purpose
  - Like nuclear energy or medical technologies
- Objection: This can be said of almost any intervention; and playing God is not an objection. Turns on human role or purpose.

#### 10. Extravagance Argument

- Permit us to continue extravagant lifestyle
- Various other vices too: gluttony, sloth,
- Hazarded wrong: encourages bad character traits
  - Like birth control
- Objection: Extravagance must be defined, as must any other vice. Turns on bad character traits.

#### 11. Attitude Argument

- Permits us to continue with the same attitudes toward nature/the world
- Hazarded wrong: encourages vicious attitudes
  - Do right thing, maintain wrong attitudes
  - Like sewing machines and child labor
- Objection: Not clear that one must have the right attitudes. Turns on bad attitudes.

#### 12. Moral Education Argument

- Permits avoidance of important moral growth process
- Hazarded wrong: Failing to progress through moral education process
  - Like cheating on an exam
- Objection: Why must we go through a painful moral education process? Turns on moral education.

#### 13. Governance Argument

- Will enable individuals (nations or entrepreneurs) to conduct large scale experiments without global consultation or permission.
- Hazarded wrong: Opens door to uncoordinated use of this technology.
  - Like fertilizer or pesticides; I could spray whole town.
- Objection: True with almost all interventions.
   Just a governing problem. Need better framework. Turns on abuse of technology.

#### 14. Regulatory Capture Argument

- May lead industry to try to capture regulations or technical knowledge
- Hazarded wrong: Opens door for manipulation of regulatory framework.
  - Like corn-based biofuels; once in place subsidies are hard to remove.
- Objection: Nothing inherently wrong with capturing regulatory framework. Turns on value of capture free democracy.

#### 15. Political Strategy Argument

- Can be used to hold other nations hostage, making it possible for individual nations or rogue entrepreneurs to *take advantage of* one another.
- Hazarded wrong: opens door to use geoengineering as a weapon.
  - Like nuclear weapons or guns.
- Objection: Can be prevented. Needs another argument: what's wrong with taking advantage of one another? That's what governments are supposed to do.

#### **Problem**

- Entire suite of arguments hangs on where the wrong is.
  - If it's in the consequences, geoengineering elides the problem.
  - If it's in the motives or the reasons, moral hazard arguments do not offer enough information. We need another argument, and we either accept or reject this argument. Tendency is to avoid this argument.
  - If it's in the vices, character traits or moral education, we face a similar problem. We need another argument, or some moral sense, that there is something wrong. Tendency is to assume that others see the wrong.

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