

Goals for today

- Appreciate interdisciplinary perspectives.
- Introduce a third metaphor (the bus heading towards the cliff) to join the tragedy of the commons and the invisible hand.
- Consider the debate between pessimists (Malthusians) and optimists (Cornucopians).
- Bring Selfishness Week to a close by thinking about selfishness and sustainability.
- Watch some [economics comedy](#).

Proof. Compare the following:

- Claim #1: Trade *can* make everyone better off
 - Claim #2: Trade *will* make everyone better off
- Now, claim #2 is clearly better, so why is #1 used?
- ▶ Claim #2 must be false!!
 - ▶ Trade can make some people worse off!!!!
 - ▶ Trade can make everyone worse off!!!!!! §

§ Consider a small town with three families: Family #1 wants a snowblower, Family #2 wants a leafblower, and Family #3 wants a lawnmower, each family values their particular need at \$200. It also just so happens that Family #1 owns a leafblower, Family #2 owns a lawnmower, and Family #3 owns a snowblower. These sit unused in their respective garages; each family has no use for its current equipment, and therefore values it at \$0. The situation appears ripe for gains from trade! Unfortunately, life in this small town is not so simple: the town is located in a valley that is susceptible to severe air pollution problems. Blowers and mowers emit so much pollution that use of any one piece of equipment will increase hospital bills (for asthma & etc) by \$80 for each family. Three additional blowers and mowers will therefore increase each family's bills by \$240. Result #1: All three trades will still take place. For example, if Family #3 sells Family #1 its snowblower for \$100 then each family gains \$100 from the trade, minus \$80 in hospital bills, for a net gain of \$20. Result #2: The three trades together make everyone worse off: if each family sells its unused equipment for \$100 and buys its desired equipment for \$100 then each family gains \$200 from its trades. But each family loses \$240 in hospital bills, for a net loss of \$40. Conclusion: Trade can make everyone worse off!

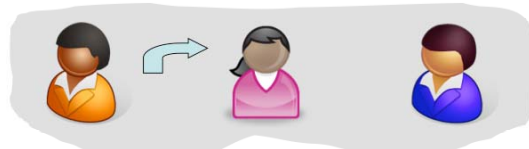
Trade can make everyone worse off



Orange, Pink, and Blue live in a small town with an air pollution problem. They also each have a garage full of gadgets they currently don't use.

Trade can make everyone worse off

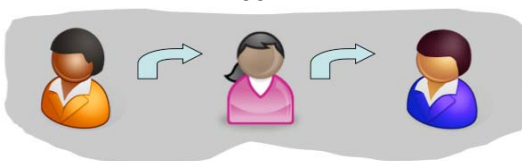
+100 - 80 +100 - 80 - 80



1. Orange sells a lawnmower to Pink.

Trade can make everyone worse off

+100 - 80 +100 - 80 - 80
- 80 +100 - 80 +100 - 80



1. Orange sells a lawnmower to Pink.
2. Pink sells a snowblower to Blue.

Trade can make everyone worse off

+100 - 80 +100 - 80 - 80
- 80 +100 - 80 +100 - 80
+100 - 80 - 80 +100 - 80



1. Orange sells a lawnmower to Pink.
2. Pink sells a snowblower to Blue.
3. Blue sells a leafblower to Orange.

Trade can make everyone worse off

- 40 - 40 - 40

Each person's trades are individually rational, but all the trades together hurt everyone!

Connection to climate change?

The author of "Plenty of Gloom" was...

1. An optimist about the fate of the world
2. A pessimist
3. Neither
4. Hard to say, the article was too subtle and nuanced.

Response	Percentage
1. An optimist about the fate of the world	57%
2. A pessimist	31%
3. Neither	8%
4. Hard to say, the article was too subtle and nuanced.	3%

Who won the Simon/Ehrlich bet?

1. Simon (the economist / optimist)
2. Ehrlich (the ecologist / pessimist)

Winner	Percentage
Simon (the economist / optimist)	79%
Ehrlich (the ecologist / pessimist)	21%

"Plenty of gloom" said that which environmental problem wasn't exaggerated?

1. Global warming.
2. DDT and pesticides.
3. CFCs and the ozone hole.
4. Overpopulation.
5. Deforestation.

Problem	Percentage
Global warming	10%
DDT and pesticides	49%
CFCs and the ozone hole	17%
Overpopulation	8%
Deforestation	16%

What question is at the heart of Solow's "sustainability paradox"?

1. How can self-interest lead to sustainability?
2. What about poor people today?
3. Won't people in the future be much wealthier?

Question	Percentage
1. How can self-interest lead to sustainability?	40%
2. What about poor people today?	58%
3. Won't people in the future be much wealthier?	3%

"What would a society motivated by individual greed and controlled by a very large number of different agents look like? There would be chaos."

1. Strongly Agree
2. Agree
3. Neutral
4. Disagree
5. Strongly Disagree

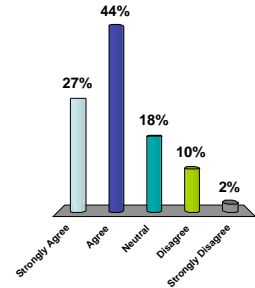
Response	Percentage
1. Strongly Agree	15%
2. Agree	45%
3. Neutral	10%
4. Disagree	26%
5. Strongly Disagree	4%

“What would a society motivated by individual greed and controlled by a very large number of different agents look like? There would be chaos.”

- Economists strongly disagree.
- Arrow and Hahn (1971): “There is by now a long and fairly imposing line of economists from Adam Smith to the present who have sought to show that a decentralized economy motivated by self-interest and guided by price signals... could be regarded, in a well-defined sense, as superior to a large class of possible alternative[s]...”

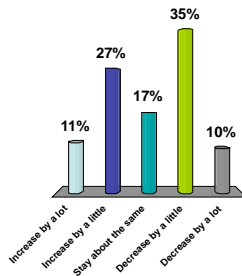
“Individualism and shortsightedness are the greatest problems of the current social system... and the deepest cause of unsustainability.”

1. Strongly Agree
2. Agree
3. Neutral
4. Disagree
5. Strongly Disagree



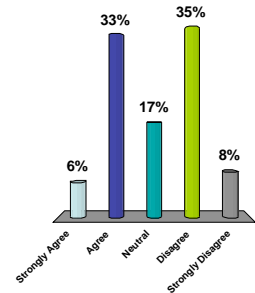
Over this century, quality of life for the average person on Earth is going to

1. Increase by a lot
2. Increase by a little
3. Stay about the same
4. Decrease by a little
5. Decrease by a lot



“Human civilization is like a group of people on a bus barreling towards the edge of a cliff... and nobody is driving the bus.”

1. Strongly Agree
2. Agree
3. Neutral
4. Disagree
5. Strongly Disagree



“Human civilization is like a group of people on a bus barreling towards the edge of a cliff... and nobody is driving the bus.”

- Some economists on the bus are having a great time, drinking whiskey and telling jokes.
- Others ask: “Aren’t you worried about going over the cliff?”
- The reply: “Don’t worry... [punch line here?]”
- “There’s an *invisible hand* driving the bus!”
- Two central class metaphor: the invisible hand and the tragedy of the commons.

The pessimists/Malthusians

“Nothing could be more misleading to our children than our present affluent society.” --Paul Ehrlich, *The Population Bomb*, p. xi.

“I wouldn’t be shocked to find out that by 2100 most things were destroyed.” --Climate scientist David Rind, from *Field Notes from a Catastrophe*, p. 111-12.

PS. Darwin’s theory of evolution was inspired in part by Malthus’s ideas about population and food.

The optimists/Cornucopians

"This is my long-run forecast in brief:

The material conditions of life will continue to get better for most people, in most countries, most of the time, indefinitely.

Within a century or two, all nations and most of humanity will be at or above today's Western living standards."

-- Julian Simon, quoted in Lomborg's *Skeptical Environmentalist*, p. vi.

Optimists vs. pessimists

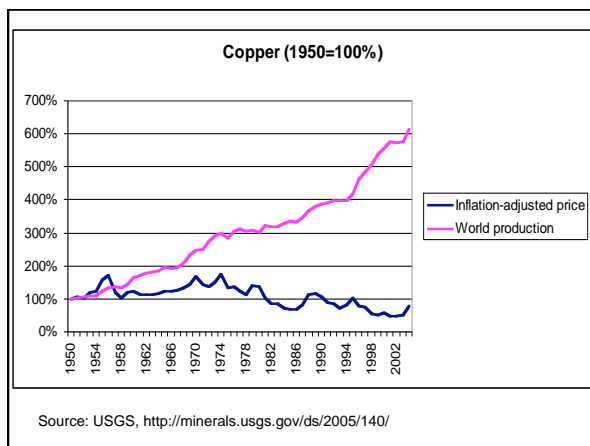
- I'm not going to tell you who's right and who's wrong, but I'll give you a hint.
- The pessimists are wrong.
- "Nothing could be more misleading to our children than our present affluent society..."
--Paul Ehrlich, *The Population Bomb* (1968)
- Look at nonrenewable resource consumption.

Are we running out of nonrenewable resources?

Meadows et al., *The Limits to Growth*, 2nd ed. (1974): "Given present resource consumption rates and the projected increase in these rates, the great majority of the currently important nonrenewable resources will be extremely costly 100 years from now... The prices of [some resources] have already begun to increase. The price of mercury, for example, has gone up 500 percent in the last 20 years; the price of lead has increased 300 percent in the last 30 years..."

Are we running out of nonrenewable resources?

- Simon, *The Ultimate Resource* (1981): "This is a public offer to stake \$10,000... on my belief that mineral resources (or food or other commodities) will not rise in price..."
- Paul Ehrlich decided to "accept Simon's astonishing offer before other greedy people jump in."
- In October 1980, he bet \$1000 that the inflation-adjusted price of five metals (chrome, copper, nickel, tin, tungsten) would rise by October 1990.



Are we running out of nonrenewable resources?

- Ehrlich lost the bet, and sent Simon a check for \$576.07, noting that "Julian Simon is like the guy who jumps off the Empire State Building and says how great things are going so far as he passes the 10th floor" (Tierney 1990).
- "Simon wrote back a thank-you note, adding that he would be willing to raise the wager to as much as \$20,000, pinned to any other resources and to any other year in the future." (Tierney)
- Ehrlich refused to take this new bet.

Where did Ehrlich go wrong?

- My theory: He failed to respect the social sciences and their practitioners, who argue that private property rights and market prices often do a good job of aligning private (individual) incentives with social (group) goals.
- “Well-functioning markets” create private incentives for exploration, for substitution, even for conservation!
- This is the invisible hand idea.

Selfish individuals often act (“as if led by an invisible hand”) in socially valuable ways.

- Why will selfish individuals explore to find new sources of natural resources?
- Why will selfish individuals work hard to find substitutes for natural resources?
- Why will selfish individuals work hard to conserve natural resources?
- There is a profit motive if you can save money or make money by conserving, or by saving a resource for later use.

The Nano car (made by Tata Motors of India)

- Costs just \$2,500!
- No radio, no sun visors, one wiper blade



Optimists vs. pessimists

- I'm not going to tell you who's right and who's wrong, but I'll give you a hint.
- The pessimists are wrong.
- The optimists are wrong too.
- Look at global warming or the ozone hole.

The ozone hole

“The ozone layer and its ‘hole’ over Antarctica certainly deserve study. But this is very different than recommending action. The best principle might be: ‘Don’t do something. Stand there.’
...[I]t is important that the government not attempt to fix what is not broken.”
--Julian L. Simon (1996)

Global warming

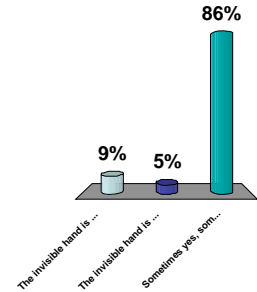
“[M]y guess is that global warming will simply be another transient concern, barely worthy of consideration ten years from now...
--Julian L. Simon (1996)

Where did Simon go wrong?

- My theory, part I: He failed to respect the natural sciences and their practitioners.
- Part II: He forgot that private property rights and market prices *do not always* do a good job of aligning private (individual) incentives with social (group) goals.
- We've seen examples of *market failure* with the "tragedy of the commons".

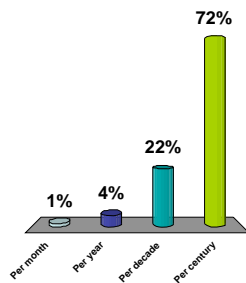
Thinking about overpopulation, climate change, resource consumption, etc.

1. The invisible hand is always driving the bus.
2. The invisible hand is never driving the bus.
3. Sometimes yes, sometimes no.



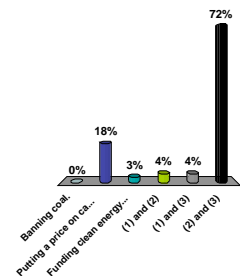
"The heat is on" says global temperatures are projected to rise by 1.4 - 5.8°C...

1. Per month
2. Per year
3. Per decade
4. Per century



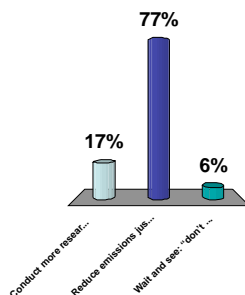
"The heat is on" advocates reducing carbon emissions by...

1. Banning coal.
2. Putting a price on carbon.
3. Funding clean energy projects
4. (1) and (2)
5. (1) and (3)
6. (2) and (3)



"The heat is on" says that uncertainty about GHG emissions means we should...

1. Conduct more research: "facts, not theories"
2. Reduce emissions just in case: "insurance policy"
3. Wait and see: "don't fix what isn't broken"



- Concluding thoughts:
- Go vote, and go volunteer for MLK Day!
- But don't forget Selfishness Week...
- PS. Enjoy the optimism that follows low expectations!



MLK Day of Service

January 19, 2009

what are you doing?

Sign-up to volunteer:
<http://depts.washington.edu/mlkj>