



## Some of the many social theories germane to Peak Oil...

Posted by [Prof. Goose](#) on April 14, 2005 - 1:34am

This post is meant to constitute the beginnings of a primer on some of the social theories that are germane to crisis we are approaching with Peak Oil. A lot of folks have been asking for primers...and while this isn't exactly "easy stuff," this piece is meant to be remedial. I welcome discussion of the ideas herein, as well as suggestions about adding/subtracting/multiplying/dividing the material.

Note: You should read BOTH sides of any argument. The better informed you are, the better off you will be. I will try to expand this to contain counterarguments in the future.

Right now, the concepts herein include just some basics: the tragedy of the commons, governing the commons, free rider theory, the Jevons paradox/Olduvai theory. It should be noted that I am using only a few sources for these, including websites (like wikipedia for example) and a few books that I have some notes on, in an attempt to keep this accessible, simple, and readable. If you're interested in further exploration of these theories or their counterarguments, do a web search or go to the library.

Gradually, over time, I will attempt to source this out as a more extensive literature review/thought piece (and if anyone knows of a good piece like this that's already sourced, please let me know). I would also like to add some other perspectives and other deeper theories to the list.

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Many people, including myself, when they start thinking about the idea of peak oil, inevitably return after pondering a while to ask "how did we get into this mess? What led us here?"

Well, I think we can blame it on the supposed "bounded rationality" of human nature, combined with a lack of government or social institutions to ensure the longevity and access to, and prevent the exploitation of, natural resources over time.

Now, that sounds very "geo-green" of me, but it's not meant to. Instead, I want to convey the notion that it's really a rather simple idea that got us to where we are with regard to natural resources.

The notion of the tragedy of the commons is not a new one, but let me start with it, as some may not be familiar with it. The idea that public goods (available resources initially not owned by anyone, existing prior to the state), when they are used by individuals, those individuals do not bear the entire cost of their actions. Instead, individuals are conditioned to maximize their utility; which means that the best (non-cooperative) short-term strategy for individuals is to try to exploit more than their share of public resources. In political science (and economics), we call those folks "free riders." The more of them there are, the more tragic the problem of the common

The Oil Drum | Some of the <http://social.theoildrum.com/class/2009/04/some-of-many-social-theories-germane.html> resource will become. By pure rationality, everyone should be a free rider unless they are constrained by some of force, whether coercion or social identity, to do otherwise.

For instance, take the person who is 72, but doesn't contribute a dime to AARP. That person still benefits from the lobbying efforts of AARP for prescription drug reform, but they didn't help out the lobbying effort at all. Why? There was no benefit to them for doing so. They didn't deem the cheaper insurance, the calendar for the fridge, or the psychological perk of joining and making a difference, to be enough of a benefit to overcome their ability to skate by without paying. It is completely rational for them to do so. The use of natural resources is not so different.

Often, the only solutions to the tragedy of the commons are either government control or involvement or a sense of shared purpose and identity that overcomes the sheer rationality of exploiting every resource at your fingertips. This is the problem with governance of the commons, one solution restricts freedom by definition, the other comes from a sense of connection and community that has formed over generations, and usually only forms in smaller ecological units, such as tribes and families.

Assuming a majority of individuals follow the free rider strategy, the theory goes, the public resource gets overexploited and the collective bears much of the cost in one way or another, sooner or later. The problem is particularly important and troublesome when considering goods or resources to which access cannot be excluded.

(Yes, one can make the argument that oil is not technically a "pure" public good. The use of natural resources is almost universal, but the ownership of those resources is almost completely private and capitalistic.)

In today's world, those rights are held by the owners of the land, or are conditioned by law to put those resources under the care of government, which ensures access to the resources for the collective. However, the counterargument would be that the exclusion of these resources would dramatically change the quality of life of those excluded from access, something that may begin to happen with the coming peak oil phenomenon.

The funny thing is that, you would think that improved efficiency and technology would allow us to use less and less of a resource. However, what often occurs is what is called the Jevons paradox: as technological improvements increase the efficiency with which a resource is used, more people gain access to the more energy efficient technology of the improvement. Therefore, the total consumption of that resource may increase in the aggregate, rather than decrease.

An example from the wikipedia entry on the Jevons paradox:

"Localized solutions to global problems often confound the solution of the overall problem. Jevons paradox implies that as individuals become increasingly efficient, the overall economy will compensate by supporting additional individuals and increasing overall consumption. For example, consider a green business which attempts to alleviate global environmental concerns by consuming renewable energy resources. If the business saves 10 units of energy from the local power plant which operates at 40% efficiency, they will save 1000 units of currency. This cost savings will allow the business to hire an additional two employees. However, each of these two employees must commute to work in automobiles. These automobiles still consume 10 units of energy because they operate at only 15% energy efficiency. Thus by switching to renewable energy, the business has reduced the overall energy efficiency per unit of consumed resources from 40% to 15%. By saving money, the green business has actually expanded the economy, and the expansions of the economy will most likely result in an overall decrease in energy efficiency."

The Jevons paradox illustrates how difficult it is to solve global economic problems, and taken to its logical extreme leads to Duncan's Olduvai theory, which is, simply put, "Industrial Civilization doesn't evolve. Rather, it rapidly consumes "the necessary physical prerequisites" for its own existence. It's short-term, unsustainable. "This is a one shot affair.... there will be one chance, and one chance only."

Do some reading folks. Even if these theories sound too "liberal" or too "green" or too wacky for you, you have to understand that, if you buy the premise of peak oil, the world around you is going to fundamentally change. You need to understand how we got here AND where we're going.

This is just an attempt to expose folks to some ideas, not to espouse an ideology or bash capitalism, though many of you will inevitably at least initially take this post that way. You can agree or disagree here...that's kind of the point.

Technorati Tags: [peak oil](#), [tragedy of the commons](#), [the Jevons paradox](#), [Olduvai](#)

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