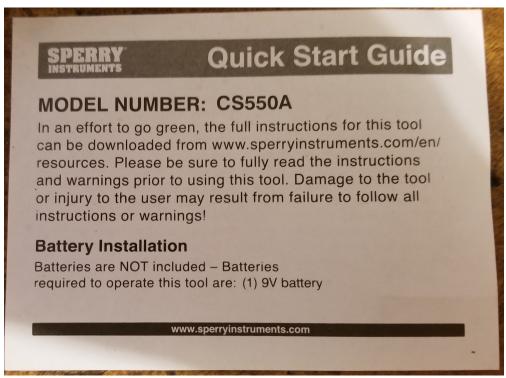
Doing Well by Doing Good

Many motels nowadays inform guests that, in order to serve the environment by reducing the waste of water for washing things, they only change and wash linens when necessary, and telling them how to signal whether they want towels washed or are willing to reuse them. I have no objection to the policy—we don't, after all, change our sheets and towels at home every day. But I find it amusing to see the motel using a "we are good people doing good things" justification for a policy that saves them time and money.

That got me wondering what other examples there are of people doing things in their own interest which others might object to, and justifying them as serving some greater good.

A few days ago I came across another example. I had bought a gadget to tell me which outlets in the house were controlled by which circuit breaker, important information for setting up my solar system to feed power from the battery to some but not all circuits in case of a power outage. When I opened the package, I found the following note:



I again have no objection to the policy — I routinely rely on online manuals instead of trying to keep track of the paper ones that come with things I buy. I was, however, unhappy to discover that the manual for that particular device was not on the web page the note pointed me at. The manuals for CS500A and CS600A were, but CS550S was on a different page of the site. My opinion of the firm went lower when I discovered that the page for sending them comments or queries gave an error message when I tried to use it and the email to the address for technical inquiries bounced. I would not recommend Sperry Instruments for their customer support.

The gadget did, however, work, once I made sure the battery in it was fully charged not fifteen percent down.

Commenters on my blog offered other examples, such as restrooms with hot air dryers instead of paper towels and a sign boasting that they are to save trees.

How Not to Save Trees and Cows

Save trees with paperless payment options! (Guam Solid Waste Authority)

Plan your academics with us. Save papers, save trees, save the world and make it a better place. (EduCloud)

Switch to e-Statements! Save time. Save trees. (The Bank of Jackson)

"Save trees" on Google produces a little over a million results. Many, including all three of these, are based on the idea that if we use less paper there will be fewer trees.

It is a natural intuition, but it is wrong. If forest were a depletable resource like coal or oil, forest area in the U.S. should have been steadily declining — unlike coal or oil, we can't find more forest by looking for it. It has not been declining; forest area at present is about the same as it was in 1920. What is happening world forest area is less clear, with a UN source report a decrease in total forest area of about 3% in twenty-five years, another, research based on satellite imagery finding a slow increase.

Trees are a renewable resource; pulpwood for paper and lumber for building things come mostly from trees planted and grown for the purpose. Using less paper would reduce the demand for pulpwood, lower the price growers can get for it, result in fewer trees, not more. Using less paper also means that there will be more Carbon Dioxide, since a living tree ties up carbon. If it ends up being burned the carbon is eventually released but if it ends up buried or rotting much of it does not.

Along similar lines, if more people become vegetarians the demand for meat, and its price, will decline, and people will raise fewer cows and chickens. A consequentialist vegetarian might reply that his objective is not to have more cattle living but to have fewer dying; if one regards the life of an animal raised for food, possibly in very unattractive circumstances, as a net negative, that makes sense. Few people take a similar view of trees.

Doing Good by Doing Well: The Case of Speculators

Speculation is the mirror image to what the motels I started this chapter with claim they are doing. They claim to be washing fewer towels in order to make the world better — which happens to save them money. Speculators claim that they are trying to make money by buying goods when they are cheap and selling them when they are expensive — which happens to make the world better.

The reason it makes the world better was sketched in chapter XXX [Applications of Economics]. In order for a speculator to make money, he must buy low and sell high. Doing that shifts good from times when they are plentiful, hence cheap, to times when they are scarce, hence expensive.

¹ The United Nations Food and Agriculture Organization <u>reported</u> a net forest loss of 3% between 1990 and 2015.

² Song, XP., Hansen, M.C., Stehman, S.V. et al. Global land change from 1982 to 2016. Nature 560, 639–643 (2018).

A speculator who correctly anticipates a crop failure a year hence buys corn now. That pushes up the current price, giving people who do not anticipate the failure an incentive to act as if they did: consume less, import more, produce substitutes. When the crop failure occurs he sells the corn he bought, reducing the price rise, perhaps preventing a famine.

The same argument applies to the case of a depletable resource such as oil. People often assume that "running out of oil" means simply consuming it until we run out, only noticing the problem then. I once heard an ex-Secretary of Transportation, after giving a graduation talk at the university I taught at, commenting to students that one day they would put the key in their car's ignition and it would not start because there was no more gasoline — a somewhat dramatic picture of a pretty conventional view of the situation.

It won't happen that way. As oil becomes more scarce, it becomes more expensive. Anticipating that, it pays speculators to buy up oil and hold it for later use. Storing oil in tanks is expensive, and total capacity is less than a year's supply, but storing oil underground — by not pumping it — is cheap, and the upper bound of capacity is the total amount of oil known.

As long as it is clear that the price of oil is going to go up fast enough so that holding it is more profitable than selling it, people will hold oil for future production. Doing that raises the present price, lowers the future price. In equilibrium, in a world of perfect information and secure property rights in oil, the result is that the price goes up over time just fast enough to make owners of oil indifferent between producing it today or tomorrow. Any faster than that shifts supply from present to future, reducing the rate of price increase, any slower shifts supply from future to present, increasing it.

We do not, of course, live in a world of perfect information and secure property rights in oil. What actually happens will be affected by changing beliefs about both supply and demand — but the beliefs of people willing to act on them, with gains if they are right and losses if they are wrong, hence people likely to be as well informed as possible. And holders of oil know that there is some risk that if they do not pump it today they will not have it tomorrow, whether by government taxation of "windfall profits," revolution, as in Iran, which changes who controls a government that controls a lot of oil, or, if there are multiple owners pumping from the same pool without coordination, the risk that their oil will flow up through someone else's well. All of those risks will tend to make oil cheaper now, more expensive in the future, increase the rate at which its price rises over time, than in the idealized world.

But the right prediction of future supplies should still be based on a pattern of production due to well informed individuals seeking to maximize their profits, taking account of their best estimates of future as well as current prices. That implies a gradual rise in prices save when new information, such as the discovery of additional sources of oil, unexpected improvements of production technology, or reductions in the cost of substitutes such as solar or nuclear power, temporarily reverses the process. Absent new information the market will ration oil through time, as it rations it through space, in a way that takes account of the tradeoff between present and future uses.