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FINDINGS

Are We Ready to Track Carbon Footprints?

By [JOHN TIERNEY](#)

Before I unveil my plan to combat [global warming](#) using mood rings and glowing lapel pins, let me explain the scientific rationale.

Everyone talks about the future weather, but so far nobody has done much about it, not even the many people and politicians convinced that climate change will be a serious problem. This situation comes as no surprise to the behavioral researchers who have been studying the human brain's penchant for making dumb choices.

We can't even prepare properly for something as straightforward as our own retirement. We'll put in long hours shopping for a cellphone or a television set, but we're too busy to agonize over pension plans: in one study, most people spent less than an hour choosing theirs. We're not good at making immediate sacrifices for an abstract benefit in the future. And this weakness is compounded when, as with climate change, we have a hard time even understanding the problem or the impact of our actions today.

But we also have peculiarities that could be useful in reducing greenhouse gas emissions. With the right prompting, we'll make sacrifices for the common good and perform acts of charity that we'd never do for any amount of pay. We'll reform our behavior strikingly to conform with social norms. We'll even make astute cost-benefit judgments if we get simple, clear feedback — that's why cars come with idiot lights.

We need the right nudge, to borrow the title of the new book applying the lessons of social psychology and behavioral economics to everything from health care to climate maintenance. The authors of "Nudge," Cass Sunstein and Richard Thaler of the [University of Chicago](#), agree with economists who'd like to reduce greenhouse gas emissions by imposing carbon taxes or a cap-and-trade system, but they think people need extra guidance.

"Getting the prices right will not create the right behavior if people do not associate their behavior with the relevant costs," says Dr. Thaler, a professor of behavioral science and economics. "When I turn the thermostat down on my A-C, I only vaguely know how much that costs me. If the thermostat were programmed to tell you immediately how much you are spending, the effect would be much more powerful."

It would be still more powerful, he and Mr. Sunstein suggest, if you knew how your energy consumption compared with the social norm. A study in California showed that when the monthly electric bill listed the average consumption in the neighborhood, the people in above-average households significantly decreased their consumption.

Meanwhile, the people with the below-average bills reacted by significantly increasing their consumption —

not exactly the goal of the project.

That reaction was avoided when the bill featured a little drawing along with the numbers: a smiling face on a below-average bill or a frowning face on an above-average bill. After that simple nudge, the heavy users made even bigger cuts in consumption, while the light users remained frugal.

Mr. Sunstein and Dr. Thaler suggest applying those principles with something more sophisticated than smiley faces. A glowing ball called the Ambient Orb, programmed to change colors as the price of electricity increases at peak periods, has been given to some utility customers in California, who promptly reduced their usage by 40 percent when the ball glowed red in peak periods.

Another gadget, the Wattson, which changes colors depending upon how much electricity a house is using, collects data that can be displayed on a Web site. Clive Thompson, a columnist for Wired, has suggested that people start displaying the Wattson data on their [Facebook](#) pages, an excellent idea that I'd like to take a little further.

I'd like to see a new green fad for electronic jewelry with real-time displays of carbon footprints. These could be mood rings, bracelets, lapel pins or anything else that could change color depending on how much electricity you use, how much [gasoline](#) your car burns, how much you travel.

The displays might change color from red to yellow to green as a carbon footprint diminishes. (There might even be a little glowing footprint on it.) The green might be a dim shade for those who have bought carbon credits to offset their energy use, but a much brighter shade for those who've reduced emissions to below-average without having to buy the credits.

Of course, it would be a chore to set up monitors for energy use, but plenty of greens are willing to give lots of time to the cause. Some are accused of being religious zealots — global warmists. But one of the advantages of religion is that it inspires people to acts of selflessness for the common good. Why not reward devout conservationists by letting them display their virtue?

This would be a strictly voluntary system — climate contrarians could either ignore it or proudly wear their flashing red lapel pins — and it would cost taxpayers nothing.

But by encouraging people to find the most efficient ways to conserve energy, this nudge might do more good than some of the expensive subsidies being handed out in Congress.

Besides putting the enthusiasm of greens to practical use, this fashion statement might also inject some realism into the debate about global warming. Once you start keeping track of all the energy you use, you begin to see the difficulties of making drastic reductions — and the difference between effective actions and ritual displays.

Installing a solar-powered hot-water heater or a windmill at your place in the country is not going to erase the carbon footprint of maintaining and traveling to a second home. Recycling glass bottles and avoiding plastic bags at the grocery store will not offset your car's emissions.

Switching to a Prius will not undo the effects of frequent air travel. A couple of international trips can be worse for your carbon footprint than driving a Hummer for a year. If the delegates to future conferences on climate change are expected to wear illuminated symbols of their energy consumption, they won't be visiting any more spots like Bali.

But I'm getting ahead of myself here. First, with your help (go to tierneylab.blogs.nytimes.com), we have to work out the details of this device, starting with what it should measure and what it would be called.

The Green Lantern is an obvious name, but there may be trademark problems. GreenGlow? Eglow? Enudge? The Nudge? Further research is clearly needed.

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