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## SMALL CHANGE

# The Only Way to Have a Cow

A call for America to divest its heart and stomach from feedlot beef

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MAY I SAY—somewhat defensively—that I haven't cooked red meat in many years? That I haven't visited a McDonald's since college? That if you asked me how I like my steak, I'd say I don't really remember? I'm not a moral abstainer—I'll eat meat when poor people in distant places offer it to me, especially when they're proud to do so and I'd be an ass to say no. But in everyday life, for a series of reasons that began with the dietary scruples of the woman I chose to marry, hamburgers just don't come into play.

I begin this way because I plan to wade into one of the most impassioned fracasés now underway on the planet—to meat or not to meat—and I want to establish that I Do Not Have A Cow In This Fight. In recent years vegetarians and vegans have upped their attack on the consumption of animal flesh, pointing out not only that it's disgusting (read Jonathan Safran Foer's new book) but also a major cause of climate change. The numbers range from 18 percent of the world's greenhouse gas emissions to—in one recent study that was quickly discredited—51 percent. Whatever the exact figure, suffice it to say it's high: there's the carbon that comes from cutting down the forest to start the farm, and from the fertilizer and diesel fuel it takes to grow the corn, there's the truck exhaust from shipping cows hither and yon, and most of all the methane that emanates from the cows themselves (95 percent of it from the front end, not the hind, and these millions of feedlot cows would prefer if you used the word *eructate* in place of *belch*). This news

has led to an almost endless series of statistical calculations: going vegan is 50 percent more effective in reducing greenhouse gas emissions than switching to a hybrid car, according to a University of Chicago study; the UN Food and Agriculture Organization finds that a half pound of ground beef has the same effect on climate change as driving an SUV ten miles. It has led to a lot of political statements: the British health secretary last fall called on Englishmen to cut their beefeating by dropping at least a sausage a week from their diets, and Paul McCartney has declared that “the biggest change anyone could make in their own lifestyle to help the environment would be to become vegetarian.” It has even led to the marketing of a men’s flip-flop called the Stop Global Warming Toepeeka that’s made along entirely vegan lines.

Industrial livestock production is essentially indefensible—ethically, ecologically, and otherwise. We now use an enormous percentage of our arable land to grow corn that we feed to cows who stand in feedlots and eructate until they are slaughtered in a variety of gross ways and lodge in our ever-larger abdomens. And the fact that the product of this exercise “tastes good” sounds pretty lame as an excuse. There are technofixes—engineering the corn feed so it produces less methane, or giving the cows shots so they eructate less violently. But this type of tailpipe fix only works around the edges, and with the planet warming fast that’s not enough. We should simply stop eating factory-farmed meat, and the effects on climate change would be but one of the many benefits.

Still, even once you’ve made that commitment, there’s a nagging ecological question that’s just now being raised. It goes like this: long before humans had figured out the whole cow thing, nature had its own herds of hoofed ungulates. Big herds of big animals—perhaps 60 million bison ranging across North America, and maybe 100 million antelope. That’s considerably more than the number of cows now resident in these United States. These were noble creatures, but uncouth—*eructate* hadn’t been coined yet. They really did just belch. So why weren’t they filling the atmosphere with methane? Why wasn’t their manure giving off great quantities of atmosphere-altering gas?

The answer, so far as we can tell, is both interesting and potentially radical in its implications. These old-school ungulates weren’t all that different in their plumbing—they were methane factories with legs too. But they used those legs for something. They didn’t stand still in feedlots waiting for corn, and they didn’t stand still in big western federal allotments overgrazing the same tender grass. They didn’t stand still at all. Maybe they would have enjoyed stationary life, but like teenagers in a small town, they were continually moved along by their own version of the police: wolves. And big cats. And eventually Indians. By predators.

As they moved, they kept eating grass and dropping manure. Or, as soil scientists would put it, they grazed the same perennials once or twice a year to “convert aboveground biomass to dung and urine.” Then dung beetles buried the results in the soil, nurturing the grass to grow back. These grasslands covered places that don’t get much rain—the Southwest and the Plains, Australia, Africa, much of Asia. And all that grass-land sequestered stupendous amounts of carbon and methane from out of the atmosphere—recent preliminary research indicates that methane-loving bacteria in healthy soils will sequester more of the gas in a day than cows supported by the same area will emit in a year.

We’re flat out of predators in most parts of the world, and it’s hard to imagine, in the short time that we have to deal with climate change, ending the eating of meat and returning the herds of buffalo and packs of wolves to all the necessary spots. It’s marginally easier to imagine mimicking those systems with cows. The key technology here is the single-strand electric fence—you move your herd or your flock once or twice a day from one small pasture to the next, forcing them to eat everything that’s growing there but moving them along before they graze all the good stuff down to bare ground. Now their manure isn’t a problem that fills a cesspool, but a key part of making the system work. Done right, some studies suggest, this method of raising cattle could put much of the atmosphere’s oversupply of greenhouse gases back in the soil inside half a century. That

means shifting from feedlot farming to rotational grazing is one of the few changes we could make that's on the same scale as the problem of global warming. It won't do away with the need for radically cutting emissions, but it could help get the car exhaust you emitted back in high school out of the atmosphere.

Oh, and grass-fed beef is apparently much better for you—full of Omega 3s, like sardines that moo. Better yet, it's going to be more expensive, because you can't automate the process the same way you can feedlot agriculture. You need the guy to move the fence every afternoon. (That's why about a billion of our fellow humans currently make their livings as herders of one kind or another—some of them use slingshots, or dogs, or shepherd's crooks, or horses instead of electric fence, but the principle is the same.) More expensive, in this case, as in many others, is good; we'd end up eating meat the way most of the world does— as a condiment, a flavor, an ingredient, not an entrée.

I doubt McDonald's will be in favor. I doubt Paul McCartney will be in favor. It doesn't get rid of the essential dilemma of killing something and then putting it in your mouth. But it's possible that the atmosphere would be in favor, and that's worth putting down your fork and thinking about.