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THE FIVE HORSEMEN OF THE MODERN WORLD

CLIMATE, FOOD,
WATER, DISEASE,
AND OBESITY

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Climate, Food, Water, Disease, and Obesity

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THE FIVE HORSEMEN OF THE MODERN WORLD



For
Mary Crowley, Susan Gilbert, Ellen Theg, Lynn Traverse,
Friends and colleagues

PREFACE

I need first to identify myself to provide a rationale for taking on a book of this kind, a comparative study of some global crises that I call the five horsemen: global warming, food shortages, water shortages and quality, chronic illness, and obesity. I call them the five horsemen because they can remind us of the biblical four horsemen of the Apocalypse, traditionally described as conquest, war, famine, and death, all ancient evils. My five are not the only threats to our present lives but are high and notable on that list. While each drew some attention in earlier times, they have jumped to public and policy attention in a striking way over the past forty to fifty years, and they have some uniquely contemporary features, only faint or absent earlier.

My professional home for most of my career has been medical ethics and health policy, focused on the latter good. As a philosopher by discipline I early moved away from problems traditional for that field, bearing on theories of ethics and ideas about the nature of the human good. Those are surely important, but I found myself drawn to understanding the impact of culture and politics on how we find that good, working from the ground up, so to speak. I also became something of a wanderer, moving from topic to topic over the years but always looking for themes and threads they shared, often unnoticed, not so common among those who become more specialized in their work.

That's the way it was with this book, leading me from the good of the body to the good of the of planet, noticing how often they overlap. For much of the 1980s and through the early 2000s I was engrossed in the

debates on health care that had broken out most contentiously in the United States, but in many other countries as well. The rising cost of that care was a leading issue, in great part brought on by aging populations but also by how much great medical and technological progress had introduced terrible dilemmas in the care of the dying; progress itself became both a social and individual problem. The debate over the provision of care to the uninsured in the United States was a focal point, bringing out great divisions among the public and the political parties. Eventually the Affordable Care (ACA) legislation was passed, but only narrowly, by Congress; it is now threatened by a Republican majority determined to kill or severely cripple it.

While watching those struggles I was also drawn to the rising anxiety about global warming, well covered by the media. Along the way, I began noting news stories about global water and food challenges and chronic illness and obesity. They shared many traits: similar kinds of political and ideological arguments, like those I had found in health care: the play of personalities and public opinion; scientific disagreements; and the powerful role of vested interests, particularly on the part of industries threatened by the necessary losses that change could bring.

What stuck most tenaciously in my mind was an unusual feature: all five of them are getting worse not better as global problems, despite decades of expensive and concerted efforts to deal with them. Is it really true, and if so, how could that be? I have not been able to find any global crises of similar magnitude in terms of death, morbidity, or projected destruction that have proved so recalcitrant to change, and already with us. As Gregg Easterbrook showed with solid evidence over a decade ago in his book *The Progress Paradox: How Life Gets Better While People Feel Worse*, human life in general has been improving, even if to many of us it seems to be deteriorating.¹ An important baseline for that judgment can be found in the eight global development goals established by the UN Millennium Project in 2005, which aim by 2015 to

- Eradicate extreme poverty and hunger
- Achieve universal primary education
- Reduce childhood mortality
- Promote gender equality and empowerment of women

- Improve maternal health
- Combat HIV/AIDS, malaria, and other diseases
- Ensure environmental sustainability (including global warming)
- Develop a global partnership for development.²

Remarkably, while few of the goals will be fully met by 2015, the United Nations could point to progress in most of them over the ten-year program, some striking—such as a 50% reduction of extreme poverty. There is one exception: “global emissions of carbon dioxide (CO₂) continued their upward trend and those in 2011 were almost 50% above their 1990 level.”³ A dour judgment of the other four horsemen would fit as well, even if less dramatically. While progress has been made in reducing food shortages and malnutrition, I list food shortages among my five horsemen because the future projections for food availability are mixed and borderline.

What is it about the horsemen that makes them so hard to move forward? That is the question this book tries to answer, appraising along the ways the various strategies employed to do so. By the end of this book I propose what I think is the answer to that question, peeling off the many layers that obscure it from sight. That means examining all the strategies used over the years to grapple with the horsemen; and they turn out to some extent, but not all, to be similar. As stressed again and again in much of the global-warming literature, but noticeable in all of the books and articles written about my horsemen, it can be extremely challenging to sharply distinguish between facts and values, particularly in making the move from scientific knowledge to policy and action.

We all bring to that effort values of one kind or another, shaped by our upbringing, our politics, our experience, our social classes or circles, and many subtle factors as well. We are urged to be aware of those values and to take account of them in our judgments. Here are some of mine, some I was aware of well before working on this book, and others I discovered while writing it. I have been a lifelong Democrat, open to a strong government role but more in the middle of the road than far to the left. I have never been a booster of the magic of the market or drawn to getting rid of it either, but I am favorable to strongly controlling and regulating it. It should be our servant, not our master. What I discovered about myself

as the book moved along is that I am not someone much moved by the danger of some tactics valuable for taking up arms against the horsemen, especially when they are statistically rare or speculative. What counts is the greater danger of not acting. I have not been impressed, that is, with the supposed great dangers posed by nuclear power plants, genetically modified food, or fracking, for instance. They can be risky, but not enough to undo the good they can bring. I am thus a soft opponent of fracking, opposed yet aware of the loss of potential jobs in poor areas.

A pervasive problem with each of the horsemen is that they all lack a single, simple, clean, and acceptable path to successfully manage them; no magic bullet, that is, to use a constantly encountered phrase. They all require balancing gains and losses, costs and benefits, one kind of value over another, clashing emotions and temperament, ideological fights, and fickle, fluctuating public opinion (or sometimes persistent public opinion of an unhelpful kind).

It was hard to devise a method for dealing with that combination, requiring that I explore a wide, intimidating range of puzzles that can defy anything that looks like a plausible methodology; and I could not find a suitable one. I had to invent my own, drawing in part what I already knew something about and educating myself about that which was new to me. I had two general aims. I needed to lay out and summarize the nature of the problems posed by each of the horsemen in some reasonably nonpartisan way, assuming many readers would be familiar with (and even expert in) some but probably not all of the horsemen. I also needed to compare them, by taking each apart so I could stand them side by side, bringing out both the similar and different strategies employed to deal with them. That approach required that I avoid undue repetition between points made in part I and taken up again in different ways in part II; and also that the reader would recall enough of what I said in part I to minimize the need to refresh the reader's memory to make sense of my analysis in part II.

The plan for this book reveals what I devised. It has three parts: (1) chapters 1–5, a summary of the state of the question for each horsemen; (2) chapters 6–9, analysis of strategies to manage them; and (3) chapters 10–11, seeking solutions.

PART I: MAPPING AN IRREGULAR TERRAIN

Chapter 1: Our Overheating, Fraying Planet

Chapter 2: Feeding a Growing Population: How, and with What Kind of Food?

Chapter 3: Water: Not Everywhere and Not Always Fit to Drink

Chapter 4: Chronic Illness: Rich or Poor, Few Escape

Chapter 5: Obesity: The Scourge of Bad Diets and Sedentary Habits

Each of my five horsemen has a somewhat different history, a different set of actors, and require a different way of framing their challenges. I use the word “somewhat,” because they all reveal similarities as well; for instance, each displays an accelerating severity beginning in the 1970s, each is bedeviled by the science and policy relationship, each reveals ideological splits, and each reflects different academic and research disciplines, with specialized university programs, meetings and organizations, and journals. Inevitably, they also have infighting among specialists, requiring the outsider to detect and understand those factions. My aim in these opening chapters is to capture in a fair way the state of the question with each of the horsemen in a way that those specialists find tolerable. Whenever possible I found experts in those disciplines to vet my efforts.

PART II: EXAMINING THE PATHWAYS THROUGH THE THICKETS

Chapter 6: Always More People and Ever More Elderly: Caring and Paying

I think of each of those topics as cross-cutting. They cut through and bear on each of the horsemen. World population is now over 7 billion and projected to rise to 11 billion. More people means more demand on everything: energy, food, water, natural resources and space, most notably. Aging populations are now a feature of all nations, with those over sixty years of age globally only recently coming to exceed those under five. The fastest aging increase is now in the developing countries, putting a whole set of new burdens on every such society: health care, the ratio of retirees to workers, and the economic needs of the retired. The growth of gross

domestic product, GDP, has long been sought in developed countries and is a leading reason for their prosperity. There has also been a counter-current, seeking to reduce GDP growth, and coming from advocates in affluent countries, a quest unattractive to poor countries. The developing countries have worked hard to keep their GDPs growing and many have, especially India and China, reducing poverty as a result. A major tension in global warming has been the reluctance of some countries to reduce their carbon emissions, a threat to the industrial progress they have made but a threat to global welfare also.

Chapter 7: The Technology Fix: A Way Out?

Technology might well be called almost everyone's dream solution. It can be used to create energy but also to reduce the global harm done by its generation. It can relieve water and food problems, just as it has been the bedrock of modern medical progress and the main weapon used to combat chronic disease. Only obesity has failed to find significant technologies that answer its needs and can be effectively applied. Most important, technological research and innovation have a history of being used for most of the great discoveries of modern life, improving health, economic growth, and the quality of life. Technology is familiar, cherished, and often idolized, giving it a leg up on other strategies. When well managed, technological innovation can create jobs and wealth, a notable attraction. There is at present with the five horsemen, however, the desperate need to find money for research on and implementation of technology, now in short supply.

Chapter 8: A Volatile Mix: Public Policy, the Media, and Public Opinion

At the core of this chapter is a question: Once a problem has been recognized, how best to get meaningful action? My answer is that it takes (1) a combination of public education and persuasion to get a problem on the public agenda, (2) the collection of public opinion to determine public understanding of an issue and how much people are willing to give up to help out, and then (3) for the media to take an interest and publicize it as a problem—and finally to use all of these together as an incentive for legislators and administrators to take action. I spend a fair amount of space in this chapter trying to understand as sympathetically as possible

both outright denial or minimizing of a problem and the equally great need to understand the ways in which, even with that recognition, there is too weak a response to make progress in bringing about change. I am also interested in how to gain the necessary emotional intensity, and with what language, needed to engender change.

Chapter 9: Law and Governance: Managing Our Public Planet and Our Private Bodies

At some point or other, every one of the horsemen will need the help of a governance mechanism and matching laws and regulations to bring about change. There are three broad levels for doing so—the global, regional or national, and local levels—and often enough at all levels simultaneously. Effective governance at the global level has been hard to come by, stymied by the tenacious grip of national sovereignty. There are lesser strains at the national and regional levels, but also an inviting territory for industry opposition, for effective lobbying to influence legislators, and for the force of public opinion to be felt. Social movements come into play as well, a necessary ingredient.

PART III: TOWARD THE FUTURE: PROGRESS, HOPE, AND FEAR

Chapter 10: Progress and Its Errant Children: More Is Never Enough

While all of the horsemen have some historical roots, they all became most prominent in planting their contemporary roots in the post-World War II era, most intensively during the 1970s. It was then that they rapidly became what I call “life as usual,” simply the way we unwittingly came to live, first in the developed countries, then aspired to by the poorer countries. Economic growth and spreading affluence created and sustained the momentum, easily becoming entwined with the intensification of market values and capitalism. Underneath all of them is the most tenacious root of all, the potent and enduring idea and value of progress, that human life ought always to get better, that it has no natural stopping point and should never cease aspiring to move ahead. Globalization plays a large part in this push for more, and more, and more. Can the culture of unfettered and unlimited progress be eliminated or at least pacified? Possibly.

Chapter 11: The Necessary Coalition: Social Movements, Legislatures, and Business

As happened so often along the way as this book progressed, global warming stole the show, with more colorful actors, media and public opinion attention, and initiatives for change than any of the other horsemen—and indeed more than the other four together. That benefit has not, unfortunately, led to much greater bottom-line success with global warming than the others, the horsemen's quieter siblings. In this chapter I provide a set of criteria to measure success and then apply it to each of the horsemen. Those looking for hope, which is just about everybody, will not find too much of it in that assessment. But I do have my own offering in that direction.

If industry has so often been obstructive in helping things more forward, as is well emphasized in this book, I belatedly discovered a major development in business. It was not coming from the usual suspects, who give no sign of changing, but from a wide range of corporations working under the umbrella term “sustainability,” forging new relationships with environmental efforts. I have come to believe that a coalition is necessary and attainable. It is that of social movements pushing up from the bottom, global governance and pressure moving from the top down, with decisiveness at the middle level, that of the national and the regional levels. All of that needs, however, some powerful shot in the arm, and my candidate is business, which has the money and clout to cut through and invigorate all the levels. It can be done, and I lay out a plausible pathway to do it.

ACKNOWLEDGMENTS

In the nature of the case, I came into this wide-territory book project with a mixed repertoire of knowledge and background. It ranged from knowing a lot about some of the issues, having a smattering of knowledge about others, and a vast desert of knowledge about a few. It was obvious I would need help, especially when I did not personally know the pertinent experts, or what to read, or how to make my way through a thicket of debates that seemed to make little room for amateurs. I solved those problems by writing to total strangers who know what I did not and then asked them to be my Good Samaritans, picking me up on the side of the road, and pointing me in the right direction. I was pleased and relieved that so many responded and gave me help. With a few, I think, I was seen as a kind of menace, but they still helped me. In the end, there were three groups who assisted me: journalists and bloggers (with whom I had no personal contact), experts in various fields with whom I did interact, and some people who are not experts on my topics but astute lay readers who know what makes sense and what does not.

My research associate Ellen Theg, MBA, deserves special praise. She worked with me nearly two years on this book in various ways, but her key contribution—making use of her business degree and experience—was to carefully look at the role of business and industry, the good and the bad. Her work shows especially in the last chapter, where I make a case for the necessity of a partnership with business, using a mass of information she culled indicating that such a partnership is beginning to emerge, even if it has not attracted the public attention it deserves. I could not have written that without her.

I gained an immense amount of insight and timely reports from journalists, bloggers, and some fine websites, most notably on global warming, which saw a steady, often overwhelming, stream of new reports and studies. I made good use of the massive number of illuminating books and reports available, but there is usually a time lag between their publication and what has happened in the meantime.

I needed both. Among the journalists, Justin Gillis and Cora Diamond of the *New York Times* were almost daily fare and as good with the back story as with the front story. Andrew Revkin's website, Dot Earth, is outstanding in its coverage and nuance, and Yale's Environment 360 website was invaluable as well, drawing nicely on scientists and policy experts as well as gifted journalists such as Fred Pearce. Bill McKibben is triple winner, taken seriously for his research, his journalism, and as an organizer and activist. His website, 350.org, with its global reach, displays all those traits. Mark Bittman and Michael Pollan have written incisively on food and obesity, as have Steven Solomon and Charles Fishman on water, and Julian Cribb on food.

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