Environmental Challenges and Solutions 5
Series Editor: Robert J. Cabin

R. S. Deese

Climate Change and the Future of Democracy

Springer

Environmental Challenges and Solutions

Volume 5

Series editor
Robert J. Cabin, Brevard College, Brevard, NC, USA

Aims and Scope

The *Environmental Challenges and Solutions* series aims to improve our understanding of the Earth's most important environmental challenges, and how we might more effectively solve or at least mitigate these challenges. Books in this series focus on environmental challenges and solutions in particular geographic regions ranging from small to large spatial scales. These books provide multidisciplinary (technical, socioeconomic, political, etc.) analyses of their environmental challenges and the effectiveness of past and present efforts to address them. They conclude by offering holistic recommendations for more effectively solving these challenges now and into the future. All books are written in a concise and readable style, making them suitable for both specialists and non-specialists starting at first year graduate level.

Proposals for the book series can be sent to the Series Editor, Robert J. Cabin, at cabinrj@brevard.edu.

More information about this series at http://www.springer.com/series/11763

R. S. Deese

Climate Change and the Future of Democracy

Springer

R. S. Deese
Division of Social Sciences
Boston University
Boston, Massachusetts, USA

ISSN 2214-2827 ISSN 2214-2835 (electronic)
Environmental Challenges and Solutions
ISBN 978-3-319-98306-6 ISBN 978-3-319-98307-3 (eBook)
https://doi.org/10.1007/978-3-319-98307-3

Library of Congress Control Number: 2018952355

This Springer imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Preface

"Many forms of Government have been tried and will be tried in this world of sin and woe. No one pretends that democracy is perfect or all-wise. Indeed, it has been said that democracy is the worst form of government except all those other forms that have been tried from time to time."

Winston Churchill

Any viable and lasting strategy for addressing the challenge of climate change will require the establishment of the rule of law on a global scale in order to be effective. For such a legal framework to be stable and legitimate, it must be democratic in its origins, thus necessitating the construction of new forms of democratic accountability beyond the parameters of the nation state. A historical survey of proposals for supranational democracy indicates that this concept has become increasingly relevant as communication and transport technologies have integrated societies across the globe, and as climate change has created environmental disruptions that no nation can face alone. In this century, it may be possible to create democratically accountable global institutions that could address the challenge of climate change much more effectively than treaty arrangements among sovereign nation states. The most plausible first step in building such institutions would be to foster greater political integration among those states that are already democratic.

In order to survive and prosper in the epoch of climate change, we will have to build a new kind of democracy that reaches far beyond the boundaries of the nation state. Climate change, primarily resulting from human activities such as deforestation and the emission of greenhouse gases, is a problem that will require unprecedented cooperation to address. Democracy is the system of government that has the best record for inspiring and maintaining human cooperation in the face of unanticipated problems and for extended periods of time. Starting from these premises, it is possible to frame a few hypotheses about how democracy and climate change will interact in the twenty-first century and beyond. First, it is likely that the disruptions caused by climate change will threaten the survival of democracy by exacerbating

international and transnational conflicts. Second, it is probable that in order to survive in the age of climate change, democracy will have to grow beyond the boundaries of the nation state. And third, there is reason to expect that transnational democracy will prove to be the most effective form of governance for dealing with the global challenge of climate change.

This book will explore the work of a diverse array of scientists, intellectuals, poets, and political leaders who have advanced the idea of supranational democracy in the past and survey the various ideas that they have presented for reaching that goal. In its final analysis, this book advances the conclusion that the wisest and most principled plan for extending the reach of democracy is to form a political federation of existing democratic governments, a concept championed by Clarence Streit and Jean Monnet in the mid-twentieth century, and later refined by James R. Huntley as the global union of democracies that he called "pax democratica" (2001). Other intellectuals in the field of international relations have put their own spin on this idea in the twenty-first century. In 2006, for example, G. John Ikenberry and Anne-Marie Slaughter called for the creation of a "Concert of Democracies." Such an organization, they argued, would combine the power and creativity of the world's democratic societies to address a variety of global challenges, including "potential security consequences of climate change, from natural disasters to a fierce scramble for territory" (Ikenberry and Slaughter 2006, p. 11).

During the twentieth century, no individual advocated a global union of democracies with greater clarity, force, and persistence than Clarence Streit. A journalist who had been born in Missouri and come of age in Missoula, Montana, Streit served in the World War One and was part of the team assisting the American delegation at Versailles. After completing his education as a Rhodes scholar at Oxford, he covered the League of Nations in Geneva for the *New York Times*, and soon became convinced that a full-fledged union of democracies would be better at keeping the peace than the League could ever be. In 1938, Streit correctly perceived that Hitler would not be placated by the concessions made by Britain and France at Munich, and he raced to complete his manifesto for a union of the world's democracies. His 1939 bestseller *Union Now* advocated the immediate creation of a federal union that would include the United States, Britain and the nations of the British Commonwealth, France, Belgium, the Netherlands, Switzerland, Denmark, Norway, Sweden, and Finland. Streit reasoned that these democracies could coordinate their military assets to deter further aggression by the Axis powers and thus prevent another world war. While this plan did not come close to fruition, Streit's vision inspired enthusiasm among elites on both sides of the Atlantic, and his ideas influenced the evolution of NATO during the first decades of the Cold War (Baratta, vol. 1. 2004, p. 53–56).

In contrast to Streit, Jean Monnet's influence was not the product of grand declarations or blueprints for a new world order. Rather, his achievements emerged from his quiet and indefatigable effort to build bridges that would last between the Western democracies. He began his career as a cognac merchant, and his work in transatlantic trade, particularly with the Hudson Bay Company, gave him an early familiarity with the business and political cultures of both Britain and North America

which proved indispensable to France after the beginning of World War One (Duchene 1994, p. 31–35). Applying his formidable skills in both negotiation and administration, Monnet coordinated economic and political cooperation among the Allies in both world wars. In the closing months of World War One, Monnet wrote to US President Woodrow Wilson and to French Prime Minister Georges Clemenceau to make the case that, "It is urgently necessary that the Allied democracies establish an economic union that will form the nucleus of an Economic Union of Free Peoples" (Monnet 1978, p. 79). Although such a democratic federation did not emerge from the aftermath of Versailles, Monnet remain committed to deepening economic integration and transatlantic cooperation in order to defend and advance democracy. Before the United States entered World War Two at the end of 1941, Monnet helped the Roosevelt administration generate public support for economic and military aid to antifascist forces in Europe, and was widely credited with coining the phrase "arsenal of democracy" employed by President Roosevelt to make the case for American rearmament a year before Pearl Harbor (Duchene 1994, p. 89). During the war, Churchill issued a British passport to Monnet to help him in his essential work, first in Washington, D. C., and later in Algiers. John Maynard Keynes later reflected that Monnet's work in coordinating the war effort was so effective that it "shortened the war by a year" (Duchene 1994, p. 93). In 1963, President Kennedy wrote to Monnet that, "under your inspiration, Europe has moved closer to unity in less than twenty years than it has done before in a thousand." In stunning contrast to the "emperors, kings, and dictators" who had all failed "to impose unity on Europe by force," Kennedy observed that Monnet had succeeded "in transforming Europe by the power of a constructive idea" (Garten 2016, p. 231).

In the aftermath of the World War Two, Monnet fostered the creation of the European Coal and Steel Community in 1952, laying the cornerstone of what would ultimately become the European Union (EU) (Duchene 1994, p. 225). Attending Monnet's funeral in 1979, the American diplomat George Ball took note of the music that Jean's widow, Sylvia Monnet, had selected for the service, which "consisted of songs and instrumental pieces from each member state of the European Community. Then, unexpectedly, sandwiched among the European classics, came a loud and lively rendition of 'The Battle Hymn of the Republic'" which Sylvia identified "as one of Jean's favorites" (Duchene 1994, p. 9). When we consider that Monnet's faith in the power of democratic federalism had been tempered by two world wars and the Cold War, his appreciation for Julia Ward Howe's anthem of the Union should not be surprising.

Throughout their careers, both Streit and Monnet argued that the development of strong federal ties among democratic governments was essential to maintaining peace, promoting prosperity, and protecting human rights. Monnet's efforts to advance democratic federalism laid the foundation for the European Economic Community, and later the EU. Streit's more ambitious vision of creating a full federal union between the democracies of Europe and North America did not come to pass, but it did help to inspire such enduring multilateral achievements as the North Atlantic Treaty Organization (NATO) during the early days of the Cold War

(Rosenboim 2017, p. 11). Together, institutions such as the EU and NATO, for all of their flaws and difficulties, represent the economic, strategic, and political nucleus of a potential federation of democracies that spans an ocean and two continents.

Unfortunately, in the early twentieth-first century, faith in democratic federalism, and in democracy itself, has come under sustained attack across the world. As political scholars Roberto Stefan Foa and Yascha Mounk have documented, numerous opinion polls have revealed that faith in the viability of democracy is on the decline, especially among young people (2017, p. 5). Mounk and Foa report that, by the second decade of this century, "parties and candidates that blame an allegedly corrupt political establishment for most problems, seek to concentrate power in the executive, and challenge key norms of democratic politics have achieved unprecedented successes in a large number of liberal democracies across the globe" leading to electoral victories for such demagogic figures as Donald J. Trump in the United States, Viktor Orbán in Hungary, and Rodrigo Duterte in the Philippines (2017, p. 8). In his book *The People vs. Democracy*, Mounk has charted the rise of "illiberal democracy" a form of "democracy without rights" in which charismatic leaders attack the free press, the independent judiciary, and religious or ethnic minorities in the name of a segment of the population that they define as "the people." Although Mounk sees the rise of "illiberal democracy" as emerging partially in response to the "undemocratic liberalism" of moneyed and technocratic elites, he warns that such regimes, even if they address some legitimate grievances and attain power at first through legitimate elections, will not remain democratic for long. In other words, an "illiberal democracy" will soon become an ironclad autocracy, once it has obliterated the norms and institutions that are necessary for any democratic system to function (Mounk 2018, p. 14–18).

Once a society has lost the ability to hold its leaders accountable through such institutions as a free press, an independent judiciary, and competitive elections, it is liable to be stuck with those leaders for a very long time. For Karl Popper, the chief virtue of democracy was that it afforded the public the opportunity to dismiss corrupt of incompetent leaders without bloodshed. As the political philosopher John Mueller has put it, democracy amounts to a tacit understanding between the government and governed, in the which such practices as the rights to petition, to protest, and to vote elected leaders out of office are essential for keeping the peace. In sum, "the people effectively agree not to use violence to replace the leadership, and the leadership leaves them free to dislodge it by any other means" (Mueller 2001, p. 247). Concurring with John Mueller's analysis, Steven Pinker argues that this instrument for periodic peaceful revolutions is one of the greatest achievements of the Enlightenment and is founded on the ethos that our "freedom to complain rests on an assurance that the government won't punish or silence the complainer" (Pinker 2018, p. 206). By resorting to the atavistic rhetoric of nationalism and stoking violence against both ethnic minorities and political opponents, the current generation of "populist" leaders threaten this "freedom to complain" as they set about dismantling the foundations of democracy.

The current trends of resurgent nationalism and authoritarian leadership have been gathering force since the first years of the twenty-first century, fueled by the

fear of terrorism, mass migrations, and the economic dislocations engendered by globalization. In democracies across the world there is a growing sense that elected leaders have diminished power or desire to address the concerns of voters, having ceded authority to less accountable entities such as "bureaucrats . . . central banks . . . and international treaties and organizations" (Mounk 2018, p. 59). Though such essential democratic institutions as competitive elections, a free press, and an independent judiciary have extended their reach since World War Two to many nations that had never enjoyed their benefits in the past, these same institutions have become more precarious in older democracies, including the United States. The sense that globalization has heightened economic inequality has probably done the most to foment support for authoritarian movements around the world, but in recent decades the disruptive power of climate change has also emerged as a force with serious political consequences. As extreme weather events, droughts, and a scarcity of fresh water impact populations across the world, the appeal of nationalism is likely to grow, and the threats to the norms and institutions that are essential to any viable democracy are likely to multiply.

Like the man who is shocked one morning to discover that his favorite pants no longer fit, we have all experienced how quantitative change, which happens gradually, gives way to qualitative change—which seems to happen all at once. As a citizen of the United States of America for a little over half a century, I have witnessed how the practice of democracy and climate change have become incrementally, and then inextricably entwined. As I look back on the five and a half decades since my own birth, I can see that our impact on the climate has gone from being close to invisible to one of the most potent political issues of our time. A few years before I was born, the poet Robinson Jeffers wrote the following lines about the future of the earth and our cities upon it:

> *The polar ice caps are melting; the mountain glaciers*
> *Drip into rivers; all feed the ocean;*
> *Tides ebb and flow, but every year a little bit higher*
> *They will drown New York, they will drown London*
> (Jeffers [1963] 1991, p. 476)

From his perch on the rocky cliffs of northern California, Jeffers was literally and figuratively a voice crying in the wilderness. A hermitlike and bluntly misanthropic poet, he had ceased to command a popular audience in the decades of general optimism and booming economic growth that followed World War Two (Karman 2015, p. 2–4). The question of what human activity was going to the climate our planet had been raised by a few scientists such as Roger Revelle, but the question of what to do about it was not on the agenda of any politician (Weart 2008, p. 29). In a decade overshadowed by various Cold War crises and a burgeoning youth culture, it seemed for all intents and purposes that democracy and the possibility of climate change had nothing to do with each other. After the events of the past fifty years, however, it has become clear that the future of democracy on earth will be determined by how we respond to the reality of climate change.

Kenneth Pomeranz and Steven Topik have underlined the link between fossil fuels and political instability since petroleum emerged as the dominant fuel in the

global economy in the mid-1960s with the inspired phrase "Running on Oil, Building on Sand" (2006, p. 252). During this period, which has been roughly congruent with my own lifetime to date, the earth has grown hotter, smaller, and more politically volatile. When I was born in 1964, the carbon concentration in the earth's atmosphere was considerably lower than it is now, at about 320 parts per million. In one sense, this was a great year for democracy, as President Lyndon Johnson signed the Civil Rights Act, forbidding discrimination on the basis of race across the United States. In another sense, this was a terrible year for democracy because in early August, Congress passed the Gulf of Tonkin Resolution, which fully authorized the American War in Vietnam. This war would last over a decade, and take the lives of approximately two million Vietnamese and over fifty-eight thousand Americans. As the U.S. Army veteran and historian Andrew Bacevich had observed, the deployment of US combat troops to Vietnam during the sixties and seventies was a "tipping point" that profoundly altered not only American foreign policy but the domestic politics of the United States as well (2008, p. 29). In addition to its considerable human cost and serious economic impact, this conflict would create political and cultural fissures in American society that still endure today, and inflict lasting damage on the credibility of the US government.

When I turned 5 years old in the summer of 1969, the concentration of carbon in the earth's atmosphere had increased to 326 parts per million. The Apollo program landed astronauts on the moon that summer and provided the first color images of the earth from space. Though Apollo had been driven by a nationalistic "space race" between the United States and the Soviet Union, these images transcended nationalism and galvanized a new global environmental consciousness. The image of the earth, which Apollo astronaut Jim Lovell had described on Christmas Eve of 1968 as "a grand oasis in the big vastness of space," was both beautiful and humbling. The first man to walk on the moon, Neil Armstrong, recalled that the earth appeared so small from that vantage point that he could block it out entirely with his thumb. When asked if this made him feel big, Armstrong responded, "No. It made me feel really, really small" (Poole 2008, p. 190).

By the time of my tenth birthday, in the momentous summer of 1974, the concentration of carbon in the atmosphere had risen to about 332 parts per million. Across southern California, air pollution from automobiles was such a severe problem that local school districts adopted a flag system to signal air quality. On the days when a small triangular red flag was hoisted on the flagpole, all physical education classes would be canceled and outdoor play discouraged, while the local San Gabriel Mountains would be obscured by a pinkish brown smog. Since the the 1970s, California has made great strides in addressing its smog problem, although it has made much less progress in addressing the problem of greenhouse gas emissions. In addition to these local concerns about air quality, there was a growing sense among climatologists that the earth was "entering an era in which man's effects on the climate will become dominant" even though some scientists still debated whether aerosol pollutants, which tend to cool the atmosphere, or greenhouse gases, which have the opposite effect, would be the more decisive factor (Weart 2008, p. 87). The population of the earth, which had been a little over three billion on the day of my

birth, was now over four billion. The Hollywood film *Soylent Green*, which had been released in 1973, centered on mounting fears about population growth, but it also depicted a world severely impacted by rising temperatures due to a runaway greenhouse effect (Peterson et al. 2008). The world in the mid-1970s was also better armed. In the year that I was born, only the United States, the Soviet Union, Britain, and France possessed nuclear weapons. By the mid-1970s, China, India, Israel, and South Africa had also joined the "nuclear club," though only China and India had publicly disclosed their nuclear weapons programs. The most notable political event in the United States in 1974 was the Watergate scandal, which culminated in the resignation of Richard Nixon that August, ten years to the month after the United States had begun its war in Vietnam. In one sense, Nixon's scandal and resignation signaled the resilience of democratic institutions in the United States, especially considering it had been the free press and constitutional checks on executive power that had brought him down. In the longer term, however, the Watergate scandal created a habitual cynicism among Americans about their national institutions, and the fact that Nixon never faced criminal prosecution, and even returned to public life with the *gravitas* of an elder statesman, emboldened his successors to emulate his violation of the U.S. Constitution with a diminished fear of the consequences.

In the summer of 1979, when I turned 15, the carbon concentration in the atmosphere had risen to 339 parts per million. The concept of climate change had found its way into popular music with the Peter Gabriel song "Here Comes the Flood" which featured visions of a watery apocalypse: *If again the seas are silent, and any still survive / It'll be those who gave their island to survive* (Bowman 2016, p. 70). Catastrophic themes were gaining traction in popular culture at that time, often casting visions of climate change into the mix with a variety of fears, as in this passage from the 1979 hit "London Calling" by the Clash: *The ice age is coming, the sun's zoomin' in / Engines stop running, the wheat is growin' thin / A nuclear error, but I have no fear /'Cause London is drowning, I, I live by the river*. Critics who deny that climate change poses a serious threat often point to the talk of a returning ice age in the 1970s as evidence that those who sound warnings about rising temperatures have changed their story and are therefore not to be believed. This oversimplifies how the debate on climate unfolded in the 1970s. While calculating the competing influence of aerosol pollutants and greenhouse gases on the earth's atmosphere, climatologists still disagreed about whether the earth would grow cooler or hotter, but there was an emerging consensus that, as one reporter for *Time* magazine put it, "The world's long streak of exceptionally good climate has probably come to an end – meaning that mankind will find it harder to grow food" (Weart 2008, p. 87). Among peer-reviewed articles on climate change in the 1970s, the majority discerned the trend toward rising global temperatures (Peterson et al. 2008).

In spite of such ubiquitous talk about the apocalypse, however, the more significant story in 1979 was probably the resurgence of *laissez-faire* economic policies around the world that has come to be known as neoliberalism. The most momentous shift toward such policies was probably the ascendancy of Deng Xiaoping in China. Among Western nations, the most dramatic shift toward neoliberalism in the 1970s took place in Britain with the rise of Margaret Thatcher to the position of

Prime Minister. Her espousal of the economic and political views of Friedrich Hayek in the United Kingdom would soon pave the way for a wave of tax cuts, deregulation, and privatization that accelerated in the United States under Ronald Reagan in the 1980s. As the historians of science Naomi Oreskes and Erik M. Conway have observed, it has become a central tenet of neoliberalism, that "capitalism and freedom go hand in hand—there can be no capitalism without freedom and no freedom without capitalism" (2011, p. 64–65). The latter part of this premise, that there can be "no freedom without capitalism," has created a political climate, especially in the United States, where any form of environmental regulation is cast as an insidious expansion of state power, and another step on what Hayek called "the road to serfdom." This trend, which began with the Reagan and Thatcher revolutions, has impeded the efforts of many governments to address the challenge of climate change.

By the year 1984, when I turned 20, the concentration of carbon in the atmosphere was now 346 parts per million. Given the high tension between the United States and the Soviet Union that year, the greatest environmental catastrophe on the minds of many was not global warming but rather the possibility of nuclear winter. In politics, the shift toward neoliberalism that had begun in the late 1970s was now an established fact. Reagan won a landslide reelection in 1984, while Thatcher, Nakasone, and Kohl pursued similar policies in Britain, Japan, and West Germany. The 1984 Summer Olympics in Los Angeles became a showcase for neoliberal policies through their overwhelming reliance on corporate sponsorship instead of public investment (Schulman 2001, p. 240). Market reforms continued to accelerate in China and would soon be attempted, though with much less success, in the Soviet Union.

In the summer of 1989, when I turned 25, the carbon concentration in the earth's atmosphere reached 355 parts per million, breaching the limit of 350 parts per million that many climatologists see as necessary for maintaining a stable climate (McKibben 1989, p. 5). This was also a year when public awareness of climate change began to rise, largely due to the efforts of NASA climatologist James Hansen and *New Yorker* writer Bill McKibben. In the realm of politics, 1989 would become a legend in its own time. Before the year was over, it had already been christened "the end of history" by an enterprising academic at the American Enterprise Institute by the name of Francis Fukuyama. From his Hegelian perspective, Fukuyama saw the fall of the Berlin Wall and the erosion of Soviet power across Eastern Europe as stark evidence that, if history is defined as the search for the best form of human government, that search was now at an end. A lasting and happy marriage of free market capitalism and liberal democracy was now the destiny of the human race, even if much of the world had not yet reached it. Fukuyama's erudite optimism and daring presentation sparked an entire cottage industry of responses by journalists and academics, but the debate that ensued tended to ignore another important event that year.

In the summer of 1989, a new and audaciously brutal form of authoritarian capitalism would reveal itself to the world, and its fortunes in the decade since have been steadily on the rise. By electing to crush the pro-democracy movement by deploying

tanks and other battlefield weapons against thousands of unarmed protesters in June of 1989, Deng Xiaoping and his ideological allies in the Chinese Communist Party obliterated the neoliberal assumption that economic liberalization must lead to political liberalization. In contrast to the process of democratization that was beginning to take place in capitals such as Gdansk, Prague, and even Moscow in 1989, the brutal crackdown on the democracy movement in Beijing and throughout China showed that the Chinese government was determined to retain its Leninist one-party autocracy, even as it forged ahead with free market reforms. The *New York Times* columnist Nicholas Kristof would soon dub this hybrid form of government "Market-Leninism." Noting the success of this strategy, he observed in 1993 that, "The plan is to jettison Communism – but not Communist Party rule – and move China's nearly 1.2 billion people into . . . free-market authoritarianism" (Kristof 1993). In the early 2000s, the British historian Timothy Garton Ash described the new ideology explicitly as "authoritarian capitalism" and identified it as the "biggest potential ideological competitor to liberal democratic capitalism since the end of communism" (Ash 2008). The power of authoritarian capitalism has grown steadily in this century, and the stability of the largest authoritarian capitalist regimes has been bolstered by fossil fuel reserves, with oil and gas exports providing leverage to the Russian Federation under Putin, and a steady supply of coal fueling the rise of manufacturing, steel, and military might in China since 1989. Since solidifying the power of his regime in the first decade of this century, Vladimir Putin has refined the playbook of authoritarian capitalism and now exports it as a model for countries such as Poland, Hungary, and (since the surprise election of Donald J. Trump in 2016) the United States. The flow of political and economic refugees from the Middle East and Latin America, exacerbated to a growing degree by climate change, has heightened the appeal of this xenophobic and antidemocratic model of governance in both Europe and North America. Authoritarian capitalism, which first showed its potential for large-scale brutality in June of 1989, has proven its ability to erode democratic institutions all over the world.

By the summer of my 30th birthday in 1994, carbon concentration in the atmosphere exceeded 360 parts per million, and broad consensus was emerging that carbon emissions were altering the earth's climate. In fiction and film, a new genre of speculative fiction known as "Cli-Fi" emerged which explored the darker possibilities of climate change. For example, the movie star Kevin Costner was producing and starring in a big budget motion picture about a future earth in which the polar ice caps had completely melted. Beset by numerous production problems, *Waterworld* would not be released until the following year, to a disappointing commercial and critical reception. In light of higher temperatures, more extreme weather events, and other mounting evidence of climate change, the international community was making its first attempts to deal with this problem, under the auspices of the UN Framework Convention on Climate Change (UNFCCC). Although President George H.W. Bush had eschewed involvement with the UNFCCC, the administration of Bill Clinton promised to be more cooperative. Vice President Al Gore had made his name in the Senate for his outspoken concern on the issue of climate change, and he would have a direct hand in the negotiation of the Kyoto Protocol in

1997. However, US politics took a sharp turn to the right in 1994, when a pugnacious Representative from Georgia named Newt Gingrich led a successful Republican effort to take control of Congress. This power shift in Congress marked another milesone in the rise of neoliberalism. For more than two decades to come, a commitment to laissez-faire economics and passionate hostility to government regulation would dominate congressional politics in the United States and effectively doom federal efforts to address the problem of climate change.

By the summer of 1999, when I marked my 35th birthday, the carbon concentration in the earth's atmosphere reached 370 parts per million, an increase of well over 15%. The concept of climate change had seeped further into the culture at large, as evidenced by the lyrics of such hit songs as "All Star" by the pop rock group Smash Mouth. Reaching number two on the Billboard modern rock charts in 1999, the song reflected lyricist Greg Camp's meditations on climate change: *The ice we skate is getting pretty thin / The water's getting warm so you might as well swim / My world's on fire. How about yours?* (Emerson 2017). Increasing temperatures were becoming impossible to ignore in the 1990s, with 1999 ranking not only as the last year of the millennium, but also its hottest. In spite of this, the world's most powerful democracy was not in a position to deal effectively with climate change, distracted as it was by partisanship, a presidential sex scandal and impeachment trial, and the emerging challenge of terrorism against US embassies and military housing facilities in such places as Saudi Arabia, Tanzania, and Kenya.

By the summer of 2004, when I turned 40, the carbon concentration in the earth's atmosphere had reached 379 parts per million. By this time, I had become a father. Surveying the news about collapsing ice shelves, hurricanes, and heat waves, I had reason to be concerned about the planet that my sons would be living on by the time they were my age. Furthermore, growing signs of dysfunction in the American political system threatened to thwart international cooperation to cope with climate change. Although Al Gore, an experienced leader with a long record of commitment to the issue of climate change, had won the popular vote in 2000, he did not become president. The election of 2000 had featured a disputed vote count and widespread voter suppression in Florida and culminated in an unprecedented Supreme Court decision that placed George W. Bush in the White House. Reflecting its extensive ties to the fossil fuel industry, the second Bush administration had withdrawn the United States from the Kyoto accords, without offering any replacement. In a further blow to the reputation and stability of democratic institutions in America, the terrorist attacks of September 11, 2001, had thrust the country into an open-ended "War on Terror" that had more than a little in common with the nebulous and permanent state of war described in Orwell's *Nineteen Eighty-Four* and considerably weakened the commitment of the American public to longstanding prohibitions against arbitrary arrest, indefinite detainment, and torture (Ricks 2017, p. 257). Democratic values, which had been expanding in many parts of the world since the end of the Cold War, were now under increasing threat in the oldest and most powerful constitutional democracy on earth.

When I turned 45 in 2009, the carbon concentration in the earth's atmosphere had reached 389 parts per million, and extreme weather events had become a

recurrent force to be reckoned with in American politics. The poorly managed response to Hurricane Katrina during the summer of 2005, which had left more than a thousand dead in New Orleans and the surrounding region, inflicted irreparable damage on the political reputation of President George W. Bush, and had cost his party control of Congress in the 2006 midterm elections. In the summer of 2008, Hurricane Gustav forced the delay of the Republican National Convention, not because it was in the path of the storm but because the party wanted to avoid any reminders of the debacle that had followed Hurricane Katrina 3 years before. As *Guardian* reporter Ewen MacAskill observed, this was "the first time in living memory that a Republican or Democratic convention has been disrupted by a natural disaster" (MacAskill 2008). In January of 2009, Barack Obama was inaugurated after handily winning the popular vote in the 2008 election. In addition to being the first African-American president, he was also the first president to have made addressing climate change a major tenet of his campaign. With President Obama's support, the House passed the American Clean Energy and Security Act in the summer of 2009. This act would have established a mechanism for emissions trading in the United States similar to the one that had been established in the European Union. Unfortunately, the bill died in the Senate as opponents used procedural measures to prevent it from ever coming to a vote (Lizza 2010).

When I reached the ripe age of 50 in the summer of 2014, the earth's carbon concentration had reached a stunning 401 parts per million. The chart [Fig. 1] from the Scripps Institution of Oceanography shows the tremendous rise in atmospheric

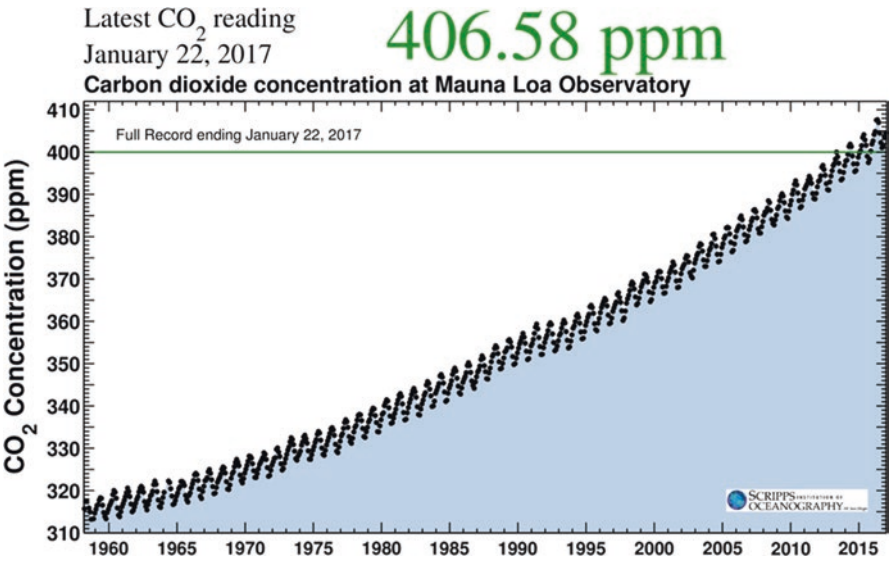

Fig. 1 The "Keeling Curve"
Based on measurements taken at the Mauna Loa Observatory in Hawaii, this chart illustrates the dramatic rise of CO2 in the atmosphere, measured in parts per million, since 1958
Scripps Institution of Oceanography https://scripps.ucsd.edu/programs/keelingcurve/

carbon over the course of the past half-century. The measurements plotted on this chart were begun by Charles David Keeling at the Mauna Loa Observatory in Hawaii in 1958, and the dramatic rise in atmospheric carbon that this chart illustrates has come to be known as the "Keeling Curve." It is a powerful illustration of how radical this change has been. Fifty years ago, when talk of "space age" technology was ubiquitous, television shows such as *Star Trek* featured their characters having adventures on other planets. In the second decade of the twenty-first century, we have all become characters in a drama that takes place on another planet. Bill McKibben has called this altered world "Eaarth" and warns that its climate will not be as hospitable as the world that our ancestors have known for the past ten thousand years (2010).

The last time in the history of our planet that the level of carbon in the atmosphere had been over 400 parts per million was the Pliocene Epoch, when sea levels were about 10 m higher than they are today, and the Arctic was free of ice. Not surprisingly, the return of such atmospheric conditions has led to rapid changes in the Arctic and on Antarctica, and these are yielding extreme weather, flooding, and droughts in other parts of the earth's climate system. In turn, these changes are fueling mass extinctions across the world and play a role in such human events as wars, insurgencies, and mass migrations. The question of whether democracy, a system of government that was born and evolved during the relative stability of the Holocene epoch, can survive the coming disruptions of the Anthropocene remains an open one. If we lose democracy, we will lose a system of government that, because it allows the free exchange of information and ideas, is indispensable to the practice of science. We will also lose a system of government that, because it allows voters the chance to replace corrupt or feckless leaders with regular elections, is uniquely suited to meeting the challenges of a rapidly changing world. In other words, we face the choice between a vicious or a virtuous cycle. If we allow the disruptions caused by climate change to frighten us into embracing authoritarianism and abandoning democracy, we will be less prepared to prevent or mitigate the further disruptions that await us down the road. On the other hand, if we make a systematic effort to strengthen democracy across the world, we will be better prepared to understand and respond intelligently to the future that climate change has in store for us. In order to pursue the latter course, it will be necessary to create new democratic institutions that can operate on a global scale.

Several years ago, when the ecologist Robert Cabin approached me about writing a book for his series Environmental Challenges and Solutions, he noted that the books in this series would be distinguished from most academic writing in this simple but essential way: these books must not only describe environmental problems but also point to a plausible path for solving those problems. For me, this was a surprising proposition. Historians are not in the business of proposing solutions to problems. In fact, we are usually occupied with analyzing how past solutions have fallen short, failed, or produced unexpected consequences. Because I have chosen to discuss the issue of global climate change, I must acknowledge at the outset that envisioning a viable solution to that problem is especially challenging. As a historian, my approach has been to sift through evidence from our past in the hope of

finding clues about what our options might be for the future. Throughout, my thinking has been guided by Voltaire's observation that "The perfect is the enemy of the good." The goal of constructing democratic institutions beyond the nation state should not be viewed as a millennial crusade to establish a global utopia. Rather, it should be seen as a recognition that democratic federalism has served human needs fairly well in the past and, if it is given a chance to work within the wider arena of world affairs, is likely to be a useful tool in coping with the challenge of climate change.

Because this book is concerned with how we might find a lasting solution to the challenge of climate change, the analysis presented here cannot be what Max Weber called *wertfrei*, or free of value judgments. It may be that science, as something that human beings do, can never entirely escape the influence of value judgments. In fact, the pursuit of the truth itself through the cooperative process of science is predicated on two implicit value judgments: first, that the truth itself is worth knowing, and, second, that it is worth sharing. Science, instead of being value free, is a moral quest to *face* the truth, however much that truth might upset or offend our most cherished prejudices, and it is a social quest to *share* the truth, however upsetting it might be to the existing social, political, and economic order. So, although scientists must strain to be *wertfrei* as they assess the data before them, they are engaged in a moral endeavor of truth telling that frequently has profound consequences for the human race. The social and political earthquakes that resulted from the scientific discoveries of Galileo, Darwin, and Einstein illustrate this fact. The discovery of anthropogenic climate change, which has been the work of countless scientists over the course of the past century, is producing a similar tectonic shift that has rattled the social and political order of the industrialized world.

The physicist and historian of science Timothy Ferris has documented the social and political upheavals created by new scientific discoveries in his magisterial work *The Science of Liberty*. Ferris makes the argument that science, far from being politically neutral, has a natural affinity with democracy. Because the scientific pursuit of truth demands intellectual freedom, the sciences will always thrive best in free societies. Because science necessarily bases its conclusions on evidence rather than authority, the practice of science must inevitably oppose dogmatic thinking and authoritarian practices of all kinds. In the last chapter of *The Science of Liberty*, Ferris concludes that the animating values of science and democracy are not only indispensable to each other, but will also be indispensable to addressing the challenge of climate change. When it comes to the nation state, Ferris takes the world as it is and argues that individual national governments should embrace both science and democracy in order to advance their GDP and their position in the world. The history of nation states in the twentieth century provides ample evidence to support a causal link between a vibrant democracy and the sort of scientific and technological innovation that produces wealth and power. On the other hand, science and democracy are both much older than the nation state and there is reason to hope that, if our species survives, they will continue to be human values long after the trappings of militaristic nationalism have been relegated to museums.

To date, much of the discourse on climate change has been more critical of capitalism than nationalism or authoritarianism. Naomi Klein has argued that we cannot address the problem of climate change "without challenging the fundamental logic of deregulated capitalism" (2015, p. 24). James Hansen has argued that applying market-based solutions to climate change, such as the sale of "carbon offsets," is not only ineffective but corrupt, comparing such financial devices to "indulgences that were sold by the church in the Middle Ages" (Hansen 2009, p. 206). There are many reasons to take a dim view of how self-serving economic interests have thwarted our ability to deal with climate change. However, any attempt to change the economic system of a given country must contend with the Westphalian system of state sovereignty in which that country struggles to survive. For example, the history of the most stridently socialist governments in the twentieth century indicates that, as they attempted to survive and function within the framework of sovereign nation states, they had an environmental record that was frequently far worse than that of other industrial countries. The Union of Soviet Socialist Republics, founded in 1917, and the People's Republic of China, founded in 1949, were each seriously committed to creating economic growth without capitalism, but both regimes produced some of the largest environmental catastrophes of the twentieth century. The totalitarian practices of both regimes contributed to these catastrophes, and, in a phenomenon that transcends the divisions of left and right, these practices were justified by the demands of national security.

The most environmentally destructive regimes have tended to be the most authoritarian, and authoritarian practices, whether on the left or on the right, have usually been introduced in the name of protecting that sacred abstraction known as the "national interest." This suggests that the more fundamental problem is not capitalism, but nationalism, and the authoritarianism that it engenders. The question at the heart of this study is a simple one: How can we liberate the cooperative power of democracy from the anti-cooperative institution of the nation state? How can we disentangle one of the best ideas the human race has ever had from one of its worst? In the twentieth century, this was a question that many people asked as they witnessed the tendency of nationalism to erode democracy and lead the world into catastrophic warfare. In the twenty-first century, we must ask this question again as we see nationalism eroding democracy, thwarting global cooperation to protect the environment, and dragging the world into a new epoch of catastrophic climate change.

When Al Gore received the Nobel Peace Prize for his work on climate change, he cited an old African proverb that says, "If you want to go quickly, go alone. If you want to go far, go together" (Gore 2007). Authoritarian regimes, in which the government operates alone and without the consent of the people, have often achieved short-term goals with stunning rapidity. Some dramatic examples of this have been the Qin Emperor's completion of the Great Wall of China over two thousand years ago, or Stalin's brutal industrialization of the Soviet Union in the 1930s. Such regimes can produce a temporary obedience that is based on terror, and thus command the labor of the public to achieve immediate goals, usually of a militaristic nature. However, authoritarian regimes can produce neither genuine allegiance nor