

# Introduction

Increasing numbers of people have become aware of the problem of global warming (referred to in this book as global heating) as extreme weather events and sea levels have continued to increase, private investment in renewable sources of power and in electric vehicles (EVs) and appliances has grown, and institutions and governments around the world have pledged to take action to reduce their greenhouse gas emissions. Yet despite the overwhelming consensus among scientists and intergovernmental bodies about the danger that global heating poses to the environment and to organized life as we know it, more than thirty years of talk about the urgent need for action has led to very few tangible results. Global emissions continue to rise, and few people familiar with the situation feel confident that the world will manage to meet the internationally agreed goal of limiting global heating to 1.5°C, or even to 2°C. Why this is the case – how it is that, despite all that we know about the causes and harms of global heating, so little effective action has yet been taken, and how that can be changed – is the central question of this book.

This book is a result of my own journey to answer that question. I first came to this topic not as a climate scientist or political scientist but as a cognitive neuroscientist whose primary research was concerned with uncovering the mechanisms of human cognition. Although I first became concerned about the problem of global heating in the early 2000s, the demands of my career and of parenting got in the way of my actually doing very much about it for a long time. My first direct involvement with the issue came in 2015 when I chose to join the fossil fuel divestment movement at the University of California, the institution for which I worked. My increasing puzzlement and frustration with the seemingly low level of concern and action that I encountered as part of that work led me in 2018 to ask my department for permission to teach a course that has since come to be called the Psychology of the Climate Crisis. Only as I began to prepare for that course and pored over the actual data published by

the UN-led Intergovernmental Panel on Climate Change (IPCC) did I begin to fully understand the depth of the threat we faced and the breadth of issues relating to my question. Among these new discoveries was that many of the predicted emissions pathways set out by the IPCC are misleading since they assume that huge amounts of carbon will be pulled out of the atmosphere decades in the future, thereby encouraging decision makers to keep on emitting now and hope for somehow capturing that carbon later. Another was that both the historical responsibility for global heating and its effects are unevenly distributed around the world. This reality had particular resonance for me as I realized that the plants, animals, and human population of the fairly rural part of southern Africa in which I had grown up were experiencing roughly double the level of global heating despite having done almost nothing to generate those emissions and having hardly any resources for adapting to these changing conditions. As I shifted more of my research and teaching time to the climate crisis and continued to engage in collective action with others to push my university to switch away from burning large amounts of fossil fuels and using large banks that are financing fossil fuel extraction, I also began to learn and think more about the history and social science of collective action itself. This book therefore represents the sum of my own reading, teaching, research, and experiences as an activist and organizer – and part of my attempt to have a good answer when, sometime in the future, my children ask me what I was doing during this critical time in the history of the human race.

Unlike many of the existing books on the problem of global heating, which typically focus on only one major aspect of the issue, this book is intended to provide readers with a broad view of the topic to help them understand how we have arrived at this point and formulate their own personal and collective course of action in response to it. To generate the kind of major social mobilization that will be required to produce effective action, this book argues that more people must understand the causes and history of the problem of global heating, overcome skepticism about the threat it poses and the effectiveness of possible action, and convert that belief into actions that will hasten technical, political, and social responses that are also just.

Part I of the book addresses the first of these dimensions: understanding the problem of global heating and the obstacles to responding to it. Chapter 1 first offers a historical examination of the causes and discovery of global heating and the development of the scientific consensus that it is human-caused and can be curtailed only by cutting greenhouse gas emissions, and it describes how those developments nonetheless failed to lead to extensive action. Chapter 2 next explains the mechanism by which human activities have produced increasing levels of gases that have accelerated what has come to

be called the greenhouse effect and have led to unprecedented heating in Earth's climate. Chapter 3 then lays out in more detail the grave current impacts of global heating, including such extreme weather events as heat waves, droughts, floods, and hurricanes; the alarming projected scenarios if substantial cuts in emissions do not begin soon; and how the methods and assumptions used by many economists have contributed to the failure to cut emissions. Chapter 4 completes this portion of the book by examining the role played by contemporary capitalism in both massively escalating emissions and creating structural, ideological, and psychological barriers to efforts to cut them.

Part II of the book addresses how to change climate change skepticism into belief so as to engender a higher level of support for curbing emissions than currently exists in most countries. Chapter 5 introduces the major causes of skepticism, including misinformation and worldviews and values, and offers some possible strategies for countering these influences. Chapter 6 next discusses ways in which scientists, activists, journalists, policy makers, and others concerned about global heating can most persuasively communicate climate science findings to the general public. Chapter 7 then explores ways in which people's perceptions of the actual risks posed by climate change can be elevated adequately to motivate them to engage in individual and collective action to counteract it.

Part III of the book then examines how to move believers to take actions that will be effective in combating global heating. Chapter 8 first argues that any such steps or program can be effective only if they adopt a justice lens and reject proposed technical and market fixes that threaten to perpetuate the same inequities, corporate agendas, and extractivist mentality that created the climate and ecological crisis in the first place. Chapter 9 then addresses the kinds of steps that must be taken to make such a renewable energy transition feasible from a technical, political, and social point of view and produce meaningful action and confrontation across many levels of government and realms of society. Chapter 10 lastly turns to the sociology of social movements, the psychology of collective action, and the histories and tactics of prominent grassroots groups, to examine how to grow and empower such a movement and increase broader advocacy.

