Prologue: An Unusual Winter

During the fall and winter of 2000–2001, unusually warm weather occurred in a rural community in western Norway. November brought severe flooding across the entire region. By early December, it was established that the weather was measurably warmer than usual. The local newspaper reported that October, November, and December were respectively 4.0, 5.0, and 1.5 degrees warmer than the 30-year average. As of January 2001, the winter of 2000 for Norway was recorded as the second warmest in the past 130 years. This fact was highly publicized. Regional and national newspapers carried headlines such as "Warmer, Wetter, and Wilder," "Green Winters—Here to Stay?" and "Year 2000 Is One of the Warmest in History." In the town of Bygdaby,[1] (a pseudonym pronounced Big-DAH-bee),where I did my fieldwork, the first snowfall did not come until late January—some two months later than usual.

As a result of these conditions, the local ski area did not open until late December, and only then with the aid of 100 percent artificial snow—a completely unprecedented event with dramatic effects on recreation and measurable economic impacts on the community. The local lake failed to freeze sufficiently to allow for ice fishing. Casual comments about the weather, a long-accepted form of small talk, commonly included references to unusual weather, shaking of heads, and the phrase "climate change." Lene, a businesswoman in her late forties, described the difference in the weather from her childhood:

> In my childhood there was lots of snow all the time, it was cold, all the way down to –40 Celsius, so that diesel cars just stopped working, you know? And we had ice on the lake, the kind we had now for a few days. It was like that the entire winter, it was always like that, and we had such a good time. Down at the lake we had music, and there was both a long skating track and in the middle . . . a shorter track. Those were such different times. But since I've grown up,

it's been different. We have received little snow. Of course it's wonderful in a way. . . . You know, you don't have to shovel snow, you don't have to drive on ice, and all that. But the extreme [warm] weather, it didn't come until the 1980s, the end of the 1980s, it seems.[2]

Although the dramatic change in weather may have been most apparent to people older than thirty, teenagers could also perceive that the weather patterns were quite different. Vigdis, a 17-year-old student involved in antiracism work, described the change: "It is, well, milder. There has been less change between the seasons. There is less snow and more, like, halfway winter, and the summers have been colder. I think that it comes from climate change. Because it didn't used to be this way."

In addition to the marked absence of snow, the lake on the edge of town failed to freeze. In late 2000, a woman who was walking on the lake fell through the ice and drowned when it cracked. Ketil, an administrator at a small cultural institute, described the dramatic change in the lake ice over the previous decade:

Like the lake here—until fifteen years ago people came to Bygdaby from eastern Norway, from Hallingdal, and [from] other places by train. They stayed overnight at the hotel in order to use the ice. It was completely black with people out on the ice every single winter. They went out there and fished. It was very good fishing. But you know it hasn't been like that for the last ten years; now it is completely gone. Nobody comes here anymore. It hasn't been safe ice for nearly ten years now. After a day or two, it will rain.

Perhaps the clearest impact of the weather on the community that winter can be measured in money. Because of lack of snow, the opportunity to ski was greatly reduced, and the resort owner had to invest a considerable amount of money and effort to produce a single run made completely of artificial snow.

Communities around the world are experiencing similar stories of unusual weather that seriously impact local economies and survival. Across New Hampshire, a trend toward warmer winters has resulted in fewer and fewer ski areas. The warmer weather has particularly impacted smaller operations, contributing to an industry shift toward larger ski areas (Hamilton, Rohall, Brown, et al. 2003). In Vermont, the month-long season for maple syrup production has decreased by about three days over the past 40 years, leading to measureable decreases in syrup production and syrup producers' worries that climate change has begun to affect the $200 million industry. Communities in polar regions are particularly at risk (Alaska Regional Assessment Group 1999; Arctic Climate Impact Assessment 2005). In October 2004, *Time* magazine ran

a story about Shishmaref, a 4,000 year old Inupiaq Eskimo village on an Alaskan barrier island where the permafrost is thawing and where rising seas threatened to submerge the island. Huge waves had washed away the school playground and $100,000 worth of boats and fishing equipment. Two years later in 2006 the entire community was evacuated (Roosevelt 2004. A recent U.S. General Accountability Office study found that 4 Alaskan villages are in "imminent danger" and that another 20 are seriously threatened by rising sea levels. In fact, the report documents that 184 of 213 Alaskan native villages are presently at risk from serious flooding (US GAO, 2004, 1). Elsewhere in the state, Inuit have difficulty using snowmobiles because the ice is dangerously thin. In the fall of 2004, Inuit people sought a ruling from the Inter-American Commission on Human Rights against the United States for causing global warming and its devastating impacts.

Changing climate has visible impacts farther south as well. The World Health Organization now estimates that worldwide climate change contributes to 160,000 deaths each year due to the increased prevalence of vector-borne diseases, food insecurity, and heat waves (Campbell-Lendrum, Pruss-Ustun, and Corvalan 2003). By 2030, climate change is expected to lead to a 14 percent increase in the number of people exposed to malaria in Africa, and the rate of people at risk from dengue worldwide is expected to double by 2070 (Hales, de Wet, Maindonald, et al. 2002; World Bank 2010). High-income countries are vulnerable as well. The 2003 summer heat wave led to the deaths of more than 70,000 people across Europe (Robine, Cheung, Le Roy, et al. 2008; World Bank 2010). As urban heat islands produce temperatures significantly higher than surrounding areas, city planners are beginning to map patterns. By the middle of this century, New York, Philadelphia, Detroit, Chicago, and Minneapolis are projected to be among the cities in the United States with the most heat-related deaths due to global warming (Carlson 2007) In the winter of 2000–2001 in Bygdaby, it was not just the weather that was unusual. As a sociologist, I was perplexed by the people's behavior as well. Global climate change is arguably the single most significant environmental issue of our time. Impacts on human society are predicted to be widespread and potentially catastrophic as water shortages, decreased agricultural productivity, extreme weather events, and the spread of diseases take their toll. Potential outcomes for Norway include increased seasonal flooding, decreased winter snows, and the loss of the Gulf Stream that currently maintains moderate winter temperatures, thereby providing both fish and a livable climate in the northern region.

In Norway, there has been relatively high public support for the environmental movement as well as public awareness of and belief in the phenomenon of global warming. Yet despite clear social and economic impacts on the community, no social action was taken at the beginning of this century. Whether the warm weather and lack of snow in Bygdaby were actually a result of global warming or not cannot be determined for certain because weather and climate are not equivalent. Among competing explanations for the unusual weather, however, it *was* widely linked to global warming in both the media and in the minds of local residents. National newspaper coverage of weather events contained information on climate change, and small talk about unusual weather frequently referred to the possibility of climate change. In a focus group in late November with young women who attend the local high school, I asked whether the issue of climate change seemed "real" to them or not:

Siri I have heard about the conference [climate meeting at The Hague]. I became a bit afraid when they didn't reach agreement. . . .
Trudi Our minister of environment! In 2008, we will decrease our emissions by 5 percent. (General laugher.)
That will help!
Kari So all of you have followed this a bit. And is it something that you feel is real, really happening, or . . . ?
(Immediately and several speaking at once.)
Mette Now it is incredible, 5 degrees Celsius is, you know, really strange.
(Mmm, ja.)
Siri (interrupting) There should be snow.
Trudi It comes in much closer for us. You notice it. You know, it's getting worse and worse.
Mette We notice it here in the everyday with climate here, in your surroundings.
Trudi Last year there was snow at this time of year. And actually that is the way it should have been for quite some time now.

This conversation occurred on November 28, 2000. The community did not get snow until mid-January.

What perplexed me was that despite the fact that people were clearly aware of global warming as a phenomenon, everyday life in Bygdaby went on as though it did not exist. Mothers listened to news of unusual flooding as they drove their children to school. Families watched evening

news coverage of the failing climate talks in The Hague, then just tuned into American sit-coms. Global warming did not appear to be a common topic of either political or private conversation unless I brought up the topic. Aside from small talk about the unusual weather, few people ever seemed to spend much time thinking about global warming.

People could have reacted differently to that strange winter. In Bygdaby, the shortened ski season affected everyone in the community. In the words of one taxi driver, "It makes a difference if we move from five months of winter tourism to only three. It affects all of us, you know, not just those up on the mountain. It affects the hotels, the shops in town, us taxi drivers, we notice it too." Why didn't this awareness translate into social action? Throughout modern history, people have used a variety of strategies to draw attention to problems in their communities, such as staging marches and boycotts and writing letters to newspaper editors and political leaders. What might Bygdabyingar have done differently? Community members could have written letters to the local paper, brought up the issue in one of the many public forums that took place that winter, made attempts to plan for the local effects of climate change, put pressure on local and national leaders to develop long-term climate plans or short-term economic relief, decreased their automobile use, or, at the least, engaged their neighbors, children, and political leaders in discussions about what climate change might mean for their community in the next ten to twenty years.

Indeed, in other parts of the world that year reactions to climate change *were* different. The severe flooding in England in November 2000 was linked to climate change by at least some of the impacted residents. People from affected communities in England traveled to the climate talks at The Hague to protest government policies. Since that time, several cities in the United States have taken action against the federal government over global warming. And although one cannot tie weather events per se to climate change, the fact that increased hurricane intensity is one clear outcome of climate change has led residents in Mississippi who are now homeless as a result of Hurricane Katrina to file a lawsuit against oil companies for their role in climate change. The residents of Bygdaby could have taken similar actions, rallying around the problem of the lack of snow and its economic and cultural impacts. But they did not.

How did people in Bygdaby manage to ignore outwardly such significant risks? Did they manage to ignore it inwardly as well? Why did such a seemingly serious problem inspire so little response?

The rather puzzling behavior of people that winter in Bygdaby is related to larger questions about social and environmental action in Norway, in the United States, and around the world: How are the citizens of wealthy industrialized nations responding to global warming? Why are so few people taking any sort of action? Why do some social and environmental problems result in people's rising up when others do not? And given that many people do know the grim facts, how do they manage to produce an everyday reality in which this urgent social and ecological problem is invisible? Citizens of all the wealthier nations of the world today face these critical questions. Climate change is not unique to Norway, nor are its present and future impacts. Nor, unfortunately, is the failure of response unique to this small community in Norway. Despite the extreme seriousness of this global environmental problem, the pattern of meager public response—in terms of social movement activity, behavioral changes, and public pressure on governments—exists worldwide.

I arrived in Norway in the summer of 2000 on a scholarship from the American-Scandinavian Foundation, with a concern about global warming and an intention to conduct research on how the environmentally progressive Norwegians made sense of it. My husband, Sam, accompanied me with plans to work at the local ski resort. I was fluent in Norwegian. We both looked forward to an interesting year. Norway was not only a place I had spent significant time growing up in, but also a nation I admired for its strong environmental and humanitarian values. Plus, the Norwegians have significant wealth, which can be an asset, at least in making technological changes. Since the time I first lived in Norway as a teenager, I had been fascinated by the extent of progressive environmental policy and awareness there. Now I returned with my comparative sociological lens to ask questions that at the time could not be addressed in my own country, the United States. Indeed, at the time the United States was the only country in the world where, thanks to extensive countercampaigns by the oil industry and the George W. Bush administration , one-quarter of the population still questioned whether global warming was actually occurring (Krosnick 2009).

In the past several years, especially since the widespread viewing of Al Gore's *An Inconvenient Truth* and the events of Hurricane Katrina, the United States has "caught up" with Norway, which is to say that Americans have reached the point that Norwegians were at in 2001: widespread knowledge and concern regarding climate change, but still too little action. More important, having reached the same levels of

information and concern that Norwegians exhibited in 2001, many Americans also have also begun to experience the same mental landscape inhabited by so many well-educated, environmentally conscious people I met in Bygdaby—a landscape where the possibility of climate change is both deeply disturbing and almost completely submerged, simultaneously unimaginable and common knowledge. In this sense, Norway and the community of Bygdaby serve as a bellwether for the United States and the rest of the world.

People in the United States, facing the same quandary, can no longer claim not to know about global warming. Although some 68 percent of the population list global warming as a serious environmental problem in recent polls, few people spend time writing or thinking about it, much less taking action. A joint study by the American Geophysical Union and Public Agenda in 1998 emphasized the public's feelings of powerlessness and frustration, rather than lack of information, connected to the issue of climate change:

> They said they care deeply about global warming, but their concern did not translate into any forward motion. As they thought about the problem, they seemed to run into brick walls, characterized by lack of clear knowledge, seemingly irreversible causes, and a problem with no real solution. As a result they were frustrated and eager for a solution but unsure of which way to go. The symptoms of this frustration are clear. The first is that people literally don't like to think or talk about the subject. Our respondents always seemed to want to move the topic from global warming itself to more familiar topics, such as moral deterioration, where at least they felt on firmer ground. (Immerwahr 1999)

Despite increases in awareness and concern in the United States since the time this observation was made, the comment still holds an eerie familiarity to what I observed in Norway.

This book is about how people experience disturbing information regarding global climate change. It tells a story about what goes on behind the scenes to create the public face of apathy. It is a story that uses the voices of members of one small town to speak to questions from sociology and science communication regarding the relationship between information and social action. It is a story that I hope will help us to understand the complexity of the lived experience of people around the world as we struggle collectively to make sense of this significant problem.

from
Norgaard, Kari Marie Living in Denial: Climate Change, Emotions and Everyday Life MIT Press, 2011