

Introduction

Martin H. Geyer

Risk and Security since the 1970s

The contributions to this volume were presented at a workshop held at St. Antony's College, Oxford, in June 2019.¹ They look at specific places of risk that stand at the center of security debates and are generally perceived as sites of modernity: institutions with a long tradition of calculating risks, such as insurances; technical facilities striving to prevent or to maximize control over potential environmental catastrophes; industrial sites producing hazardous goods and posing risks to the community at large; public and domestic security bodies with their monitoring apparatuses, like the police and prisons; and, last but not least, humans and the risks they take with regard to their own physical bodies or to the detriment of others. These are sites of modernity in that they promise to provide security and safety, yet at the same time are often deemed to be responsible for creating new risks.

The history of these places of risk is closely entwined with the ascendancy of academic risk expertise and theory in the fields of actuarial, technical, and social sciences, which have always thrived on the urgency to reflect on the uncertainties regarding the future, to make risks calculable, and thus to provide certain degrees of security and safety. Risks have always denoted not only hazard and a state of insecurity, but also the chance to manage them and thus make a profit. These efforts are inherent to the project of modernity and thus go back in time. This is true with respect to the origins of commercial insurances since the late Middle Ages; the risk-taking of early modern adventurers, capitalists, and entrepreneurs; the attempts of individuals to improve their chances at the gambling table; and the efforts to cope with looming natural risks, such as building dikes to prevent flooding. It is also true for the history of modern interventionist states that have provided institutions promising to make individual and collective risks calculable and manageable, such as accidents, invalidity, old age, and other health and

epidemiological risks. The explicit aim was (and is) to provide individual and societal security by bundling, that is, collectivizing individual risks on the basis of a technical-statistical rationality to calculate probabilities.² Since World War II, modern welfare states have hugely expanded security provisions beyond the more narrow confines of social security and technical safety by introducing new fields such as food security, Keynesian full employment policies, human rights protection, and environmental protection. Ever since 1945, the risks of an atomic war have loomed large, thus prompting the call for expansive concepts of domestic, international, and military security, as one can see most clearly in the US national security state.³ There have always been limits to insurability, especially in cases of catastrophes. After all, “when all else fails,” governments and the state have remained the “ultimate risk manager(s).”⁴

This volume focuses more narrowly on the period since the 1970s, a time of strikingly new and expansive debates on risk. By itself, this is an interesting historical fact, which is dealt with by the contributors. If political and social terms are understood not only as a signature of their times but also as an important factor in creating the reality that they address, then risk is certainly one of the strong competitors in defining the period from the last decades of the twentieth century until today. A search in Google’s Ngram Viewer illustrates that the continuous surge of the term started in the 1970s in English, French, and to a lesser degree German publications. By the turn of the century, it had become quite common to ask whether we live in a “risk society” (be it in the singular or the plural), in which nearly every aspect of our social, economic, and political life is framed in terms of risk and might actually be at risk. Strikingly new was the widespread criticism leveled against techno-scientific, “rationalistic” approaches in engineering, economics, and epidemiology, which for a long time had been engaged in “the identification of risks, mapping causal factors, building predictive models of risk relations and people’s responses to various types of risk and proposing ways of limiting the effects or risk.”⁵ The social sciences jumped on the bandwagon of risk studies and—contested—expertise. Their mantra was “new risks,” such as the environment; they broadened the debate, along with new heuristics and methodologies, to challenge what seemed to be firmly established techno-scientific expertise. In 1986, the German sociologist Ulrich Beck coined the term “risk society”—quite accidentally—in the same year as the Chernobyl nuclear power plant catastrophe in Ukraine, following the chemical and nuclear accidents of Seveso in Italy (1976), Three Mile Island in Pennsylvania (1979), and Bhopal in India (1984). Were such environmental risks something altogether new, man-made, the unforeseen results of economic growth and modernizing agendas of “industrial modernity”? Did nuclear risks have an altogether new quality in so far as, unlike former social and economic risks, they affected rich and poor alike? Were they, in other words, “democratic”? Moreover, was the established risk expertise, which had become firmly anchored in institutions of industry, the state, and science, capable of dealing adequately with these new risks? At a time of intensive debates over the advent of postmodernity, Beck framed his critical obser-

variations in very broad terms of modernity and a new age. In his view, humankind stood at the dawn of a new epoch, in which only a “second” and “reflexive modernity” could deal with these new risks and overcome the “first modernity,” namely the logic of industrial society. It was a plea to critically reflect on the premises, especially the side effects, of industrial society. The English translation of Beck’s book, *Risk Society: Towards a New Modernity*, appeared in 1992, followed by the publication of another work of his, *World Risk Society*, in 1999. These two books and the embrace of his theory by fellow social scientists like Anthony Giddens triggered an outpouring of English-language—and conspicuously British—social science literature on the topic in the twenty years that followed.⁶ These ideas fell on fertile soil and gained a new political urgency.

The new academic preoccupation with risk was driven by the environmental movement, on the one hand, and by neoliberalism, on the other; last but not least, it engaged an increasing number of academics who had become dissatisfied with modernization theory and its underlying premises of industrial progress. In the context of the transformations that the United Kingdom had been undergoing since 1979 under Margaret Thatcher (quite a political risk-taker indeed), especially through her extremely unpopular domestic policies, and during the Labor Party’s search for a “third way” that was “beyond left and right” (Giddens), Beck’s themes of a looming environmental catastrophe were broadly reframed within ongoing debates about the future of the welfare state and its promises to handle social risk effectively, about neoliberal notions of the efficacy of risk and risk-taking, and even about new consumerist lifestyles. Beck provided some of the keywords, prompting most authors to engage productively (yet more often than not quite critically) with his grand social theorizing and far-reaching propositions.⁷

Ulrich Beck may have sparked a wider debate and coined some key terms, but he was never the measure of all things said on risk. Others, like Helga Novotny, had reflected on the issue, also in the context of the nascent ecological movement.⁸ As Nicolai Hannig demonstrates in his contribution to this volume, the insurance industry has always played a pioneering role in thinking about risks, old or new. In fact, big insurers like Allianz and Munich Re, one of the greatest world players in reinsurance, were responsible for putting the term “risk” on the agenda in their own terms. Especially in dealing with disasters, their operationalization of risk corroded the prevailing naturalistic and simplistic image of safety. Insurances experts worked against viewing natural hazards as events that occur suddenly and interrupt the natural order of things. Instead, most modern risks arise through state crisis management, these authors argued, through the exploitation of resources, faulty infrastructure politics, and forgotten forms of self-help by the local populations—all arguments familiar to the readers of James C. Scott’s critique of modernization agendas in his book *Seeing Like a State*.⁹

The ideas of new social movements, innovative insurance expertise, and critical academic debates on security and risk inspired the trailblazing book *Vom Risiko* (1995) by Wolfgang Bonß, who had worked with Ulrich Beck in the 1980s. In

this book (which unfortunately never found its way into the English-language book market), he not only provided the first systematic study of risk, including a historical perspective, but developed all the themes that one would later find in the various handbooks on risk.

Beck was continually challenged by Niklas Luhmann, another German grand master of theory. As the German sociologist had noted early on in his contention with Beck, increased risk awareness and efforts to make risks manageable actually proliferated risk debates in each respective field of politics and society. Yet paradoxically, this did not “solve” looming risks. Just the opposite: it may have even increased the overall feeling of insecurity.¹⁰ Outside Germany, the anthropologist Mary Douglas (also in collaboration with Aaron Wildavsky) had become highly influential in risk debates by the 1990s, also by way of criticizing Beck. As a cultural anthropologist, Douglas challenged many technicians and theorists, including Beck, who conceived risks as something given and “real.” Instead, she was interested in subjective “risk perceptions” in various contexts—social, economic, and environmental—and how they were imbued with shared social and group beliefs. For her, risks had to do with societal and group-specific ideas of self-understanding concerning oneself and “the others.” She was interested in the mainstream of society, with regard to social and economic risks, as much as in what she called sectarian cultures, which included parts of the environmental movement.¹¹ Risk always had a correlate of blame—meaning, in anthropological terms, attributing blame to those who transgressed the boundaries of “purity” in any given society.¹² Together with the ongoing work on risk by psychologists, Douglas’s approach opened the way for research on how societies, groups, and individuals handle risk, fear, and uncertainty, and on their subjectivity. In this vein many studies have examined the way that individuals and groups deal with the daily risks confronting them, be it in making financial investment decisions, using drugs, consuming alcohol, or participating in extreme sports; other studies have looked at the risk advice offered to people concerning how to drive a vehicle, use a razor, or operate a lawnmower, for example.¹³ Thus, in Frank Furedi’s terms, risk debates are about “who you are,” a question that is not easy to answer in view of the fact that “every conceivable experience has been transformed into a risk.”¹⁴

In Germany, Beck’s rather alarmist depiction of new risks has somewhat obscured the simultaneous emergence of a broad literature that optimistically heralded the new age of risk and risk-taking—the “good risks,” as they became known by the 1980s. Did risk not offer opportunities? Were high-risk activities perhaps more socially and economically productive than low-risk ones, not least because “uncertainty generates flexibility”?¹⁵ Couldn’t risks be “managed” by “the market,” including the financial market, instead of by governments? Originally, this vein of literature was more prominent outside of Germany. Sometimes it was formulated as a critique of the interventionist welfare state, like in Yair Aharoni’s *The No-Risk Society* (1981), or as the depiction of somewhat heroic histories of the rise of the modern seafaring and enterprising world, like in *The Taming of Chance* (1990) by Ian Hacking or Peter L. Bernstein’s bestseller *Against the Gods*:

The Remarkable Story of Risk (1998). These books also show how the field of risk studies became firmly established alongside the narrower field of environmental studies.¹⁶ New journals emerged, like *Risk and Uncertainty* (from 1988), the *Journal of Risk* (from 1998), and the *Journal of Risk Research* (from 1998), in addition to other more specialist journals like *Health, Risk & Society* (from 1999). Most of all, the numerous handbooks on the topic indicate how established this field had become.¹⁷

A Contemporary History of Risk

Historians were somewhat late in joining this research field. Although they can claim that few things in today's world are as new as they may appear at first sight, it is quite obvious that the historical studies that address issues and forms of risk in the past are epistemologically embedded in the contemporary public and academic engagement with risk. And historians face the same challenge as their colleagues in the social sciences, specifically, the difficulty of sorting out the closely interwoven language of catastrophe, danger, hazards, (in)security, and risk found in the sources.¹⁸ Language poses other challenges. One example is the German word *Sicherheit*, which encompasses the English terms "security," "safety," and to some degree also "certainty" (or the lack thereof, in terms of *Unsicherheit*, that is, uncertainty). With this broad semantic meaning of the term (*Un*)*Sicherheit*, risks lurk everywhere. In fact, against this backdrop it may seem quite appropriate that the idea of the "risk society" originated in Germany, a country that appears to some riveted by a culture of fear, with a strain of deep-seated, culturally embedded aversion to risk in the name of security.¹⁹

The focus of this volume is on the times since the 1970s when the new risk debates took off. The chapters do not primarily aim at revisiting and probing the grand theories of risk empirically. Instead they look at the ways that risk and security played out in various social, political, economic, and academic contexts, meaning what was being discussed by the 1990s as "risk communication."²⁰ Of particular interest are the ways that individuals, groups, and scientists came to embrace risk as an argument in order to criticize established institutions that provided security, to challenge political and economic assumptions of progress, security, and modernization, and also to legitimize individual risk-taking. In many instances the chapters revolve around forms of risk and the nascent theorizing of risk and security, also in terms of modernity. Thus, this is looked at not just from the angle of scientific theorizing but also from concrete practices that came to challenge and indeed change institutions.

German historiography today has dealt intensively first with the 1970s and by now also with the 1980s. Originally, an important focus was on the post-1968 social movements.²¹ Those involved in these movements radically politicized the threat of what politicians, business, the media, and no doubt the public at large viewed as the requirements and guarantees not only for economic growth but

also for political and social stability. There had always been critical voices, but by the early 1970s the protest against atomic energy came to present it as the source of “new” health and environmental risks, which were discussed in terms of lurking dangers. Much of this danger appeared incalculable, despite claims to the contrary by technical experts in the field. With respect to atomic energy, insurances argued that the risks were of such a dimension that the public and thus the state had to jump in to cover them. Thus, well before Ulrich Beck’s *Risk Society* in 1986, (not just) Germany had become engulfed in intense debates on atomic risk. These debates were entwined with critical assessments of economic and social modernization, technical safety, and even the reform politics of the Social-Liberal coalition government. Technological sites of modernity and ideas of progress and modernization that had epitomized modern West Germany, also in terms of a *Modell Deutschland*, were now being questioned. Such threats became highly political issues, conspicuously unlike in France or on the other side of the well-defended German-German border in East Germany.²²

The atomic risk debate spun off into other forms of pollution, including chemical waste, asbestos, and acid rain, and soon into a myriad of related issues, such as foodstuffs, medical drugs, and car safety (in which the United States was a great inspiration). Already at the time, much of this was framed in terms of different risk perceptions among the “lay public” as opposed to “experts,” with a much-quoted article by Amos Twerksy and Daniel Kahnemann on “Judgement under Uncertainty” in 1974.²³ Yet it was also a debate *among* experts. Soberly, the Canadian organizational sociologist Charles Perrow described nuclear power as a “high-risk system,” whose complexity, he predicted in 1984, could not be controlled. Retrospectively, he pointed out that the “metaphor of an accident residing in the complexity and coupling of the system”—that is, the unforeseeable interaction of components of a system—has seeped into many other areas where he originally never thought to apply it. However, by the late 1990s, the list of areas that Perrow himself deemed necessary to include in his study of “normal accidents” had increased tremendously and included financial markets, terrorism, the internet, wildfire, and the AIDS epidemic.²⁴ In his chapter on major accidents and workplace safety provisions in East Germany’s chemical industry, Thomas Lindenberger looks at such “normal accidents” but with a twist, because the political-economic planning system established in this communist country provides a counterfactual argument to Perrow: What happens when no institutionalized culture of risk communication exists and when there are no powerful actors such as the insurance industry, a concerned public, and particularly a critical press to monitor decisions made by the political leadership keen on maximizing output, even against objections of plant managers? Ironically, at least on paper, East Germany had a very well-developed system of industrial safety provisions in the German tradition of accident insurance. Lindenberger presents a vivid picture of the catastrophic state that the East German chemical industry was in by the end of the 1980s, where everyone played the blame game with respect to accepting responsibility for accidents and undermined any ability to manage risks

effectively. By the time of its demise, communist industrial modernity was no beacon of progress, nor for the ecological movement.

Risk, Futurity, and Gaps

The focus on nuclear energy, large-scale accidents, and social movements is too narrow to explain the broad epistemic embrace of risk in nearly all fields, starting in the 1970s. It was rooted in a more general sense of what appeared to many contemporaries as an “age of uncertainty” at the end of the “boom years,” or what the French called the end of “trente glorieuses.” It was a time of “prosperity lost” and an “age of fracture.”²⁵ In the wake of the two oil crises in 1973/74 and 1979/80, which were followed by severe economic recessions, unemployment, and inflation, many assumptions with respect to the malleability of the future appeared to be shattered. This was true for the zeitgeist, especially for the special academic species of “futurologists,” whose previously booming field drifted into crisis within a few years.²⁶ Grand predictions about the future became a risky business. Futurology, so popular and influential until the early 1970s, underwent a process of professionalization, specialization, and a repackaging of what were formerly often general assumptions about the future into more specific research fields—including risk studies.²⁷ By the late 1970s, critics argued that much of what had once been considered “doable” and “feasible” now proved to be unrealistic, even “utopian,” an argument that was picked up also by historians.²⁸ Quite fitting was the diagnosis in 1980 by Jürgen Habermas that the “political utopia” of the “classical industrial-work society,” which had promised an increase of social rights and liberty, had lost its momentum.²⁹ It was not only the present that had become “insecure,” “uncertain,” and full of real and potential “crises” (another key term that was and is closely related to contemporary risk debates), but also the near and distant future.³⁰ In this atmosphere of uncertainty, the historian Reinhart Koselleck diagnosed at the end of 1979 the drifting apart of the “space of experience” and the “horizon of expectation.” Even though he formulated this in the very general terms of a recurring historical experience of modernity, it fit the prevalent sentiments that societies were then facing a turning point and waving many postmodern farewells to what was being called industrial modernity and its false promises of security.³¹

Quite like the contemporaries of the 1970s, German historiography has debated the implications of various contemporary diagnoses of shifts quite intensively, in terms of a fundamental “structural break” (*Strukturbruch*) but also of multiple hairline fissures (*Haarbrüche*), be they in the economy, science, politics, or culture. Such diagnoses prompt questions concerning the end of “industrial modernity” and what to call this new epoch (provided that this is not a misnomer).³² The contemporary trope of a “loss of the future,” which found its way into historiography, seems to contradict the various diagnoses with respect to the temporality of mainstream risk studies, because risk societies are conspicuously

obsessed with all the possible aspects of what Deborah Lupton has called “futura-³³ risk.” Risks are about the things that may occur in the future and can either be calculated or, if not, remain tantamount to hazard and uncertainty. Either way, provisions with respect to the future can or have to be undertaken.³⁴ This can go hand in hand with the sobering experience mentioned earlier that former expectations with respect to an easy manageability of the future lose their credibility, hence creating a feeling, if not of “crisis,” then of an urgency to address in the present the pending risks of the near and distant future. In the words of a strategic planner at Royal Dutch Shell, “traditional planning was based on forecasts, which worked reasonably well in the relatively stable 1950s and 1960s. Since the 1970s, however, forecasting errors have become more frequent and occasionally of dramatic and unprecedented magnitude.”³⁵

This peculiar temporality explains some of the juxtapositions of “old” and “new” risks, including ideas of (post)modernity on the one hand, and the critique of modernization and what was discussed as industrial modernity on the other. In the early 1970s, the German sociologist Franz-Xaver Kaufmann could argue with respect to the welfare state that the quest for security was tantamount to “annihilating the temporality of the future” by means of planning.³⁶ This was just another way of saying that the modern social state was in fact able to contain the looming risks of the future—first and foremost by learning from past failures and by doing things better than previous generations, thus implying that it was possible to avoid the disastrous consequences of the economic, social, and political instabilities of the interwar period.

The risk debates that started especially in the 1980s turned this logic almost upside down: there might only be a few cracks visible at the present, be they in atomic safety, a public pension system, or environmental issues, but these cracks might herald serious fissures and develop into future disasters. Next to the known unknowns loom the unknown unknowns, which might pose even greater risks in the future. In such risk debates, inaction in the present is often depicted as having threatening, if not catastrophic consequences. The risks of the future, whether real or supposed, colonize the present and assert preventative maxims for action. Thus, future risks, as depicted by experts but also other interested groups, are used as a veto power over actions and policies in the present.³⁷

Ulrich Beck offered us a good example of this new risk-futura-³⁸ risk when he contrasted the incapacity of “first [industrial] modernity” to solve new, pressing issues to the new “reflexive” ability of a “second modernity.” Extrapolating the future on the basis of past experiences with past assumptions of security and risk could not be applied, in Beck’s view, either to what he considered outmoded national circumstances or to the new global ones of environmental risks that had been produced by the “first modernity.”

One of the characteristics of the drifting apart of the realms of experience and expectations in the context of risk was the multiplication of “gaps” in whatever policy field or institutional setup one looked at. These perceived “gaps” were

(and, in fact, are) the breeding ground of political risk awareness: viewed in terms of risk, nearly all sites of modernity showed cracks. This phenomenon was not altogether new. In light of the Russian nuclear buildup during the Cold War, the United States debated the existence of its “missile gap,” which in many respects prefigured later risk debates and spawned many spin-offs, like the technology gap or the educational gap. Closing the missile gap by military buildup was one thing. But nuclear armament was about how to act under conditions of uncertainty, how to calculate risks based on models of rational choice, cybernetics, systems, and game theory, how to prevent falling behind the military strength of the enemy but at the same time to safeguard against Armageddon, and how to control and to prepare societies at risk.³⁸ All of this cost vast sums of money and engaged scientists of various professions. The result was a trickling-down effect into a wide range of areas.³⁹ One such example is the 1972 report of the Club of Rome on the alleged limitation of resources vis-à-vis the growth of the world population. This report, much quoted at the time, focused on the gaps that were to be expected in the future and the possible crises, if not catastrophes, linked to them.⁴⁰ In Germany, the threatening gap in oil supply led to the oversized planning of new nuclear plants, whose “safety gaps” drove the environmental and antinuclear movement. Likewise, there were gaps in the form of deficits, for example, in the hugely extended system of old age pensions and in public budgets, which seemed to be spiraling out of control. This was intensified by the fact that many countries faced gaps with respect to economic growth and employment, which had not lived up to what had been optimistic forecasts. “Stagflation,” a slowdown of economic growth combined with a new inflationary trend, also seemed to challenge the prevalent Keynesianism.

There were many other fields in which the talk was of “gaps.” Were we not suffering from domestic “security gaps” as a result of the terrorist threat? Who was to blame and what was at risk? Terrorists posed a deadly threat to individuals and society, yet the government’s answer, the buildup of the “security state,” also threatened to unhinge the *Rechtsstaat*. The equation of the domestic “security state” with the “atomic state” (*Atomstaat*) and its system of surveillance for the sake of security and safety illustrates how the scope of the risk debates widened into different areas.⁴¹ In turn, the state security apparatus and politicians of the major parties (not only in Germany) lumped together those who protested against security laws and atomic industry as a risk to society at large.⁴² In order to understand some of the conflicts at the time (but also the argument and reception of Beck’s *Risk Society*), it is good to keep in mind these social and political polarizations of security and risk.⁴³

Such obliterations of historical experience with their specific historical assumptions of a new futurity can be found in many risk studies. The implications of a widening of the “demographic gap” offer one such example. The beginnings of the dramatic decline in fertility in most industrial countries could hardly be felt at the time when the baby boomers came of age and joined an overcrowded

labor market. Yet amid the “crisis of the welfare state,” demographic forecasts become an argument, conspicuously a veto, against both past and present social policies. Starting in the mid-1970s, new scenarios and forecasts of the impact of demography in combination with different scales of economic growth became standard fare in social policies. Many people, including the economist Milton Friedman, denounced the public pension system as a “Ponzi scheme.”⁴⁴ To manage future possible risks almost always called for new measures, whether this meant smaller or larger recalibrations of existing provisions in accordance with future risk, or the abolishment or fundamental change of systems. More specifically, the neoliberal aim was to put pension systems on a sound “footing,” that is, to base them on actuarial risk calculations and to privatize them.⁴⁵ When it came to issues of risk, societies became geared toward the future; no doubt this applies all the more to those who believed in (and cashed in on) the new financial instruments of securitization. Such arguments became entangled with the proposition of a new (post)modernity that left the sullen past of statist security behind. The underlying optimism was a reflection of the neoliberal time.⁴⁶

The point is that such diagnoses of gaps launched various risk discourses and, once set in motion, a process of addressing ever-new risks, also in politics. Big political and philosophical issues existed alongside nitty-gritty technical issues. It was Niklas Luhmann who sharply analyzed (within his broader general systems theory) this great variety of “risk communications,” which he identified as a key to understanding the dynamics of the controversies. In modern, functionally differentiated societies, he saw a growing plurality of risk discourses, very specific to each societal subsystem (i.e., the economy, science, and culture) and field (i.e., the atomic industry, public security vs. the concerned public). The risk assessment of specialists in each of these fields would, by necessity, clash with that of others who were not part of this system yet had their own specific assessment of risks. As he argued, this made it quite unlikely that a societal consensus would emerge, be it national or global, with respect to “solving” or “controlling” risks. This argument was aimed against Ulrich Beck and many other risk-technicians making such claims. What would occur, argued Luhmann, would be the opposite of what Beck expected, not least because of an ever-intensified societal “risk communication.”⁴⁷

This cacophony of public risk communication, which also involved highly specialized risk experts, raised questions about *what* was at risk and *who* was not only to blame but might even pose a risk to individuals and society. This was articulated in terms of dangers, hazards, insecurity, safety, and security gaps. Despite the fact that there was a transnational dimension to this risk communication, it was not an identical phenomenon in each country. National differences remained strong. The altogether different ways in which the risks of atomic energy were debated and treated in Germany and France is one such example.⁴⁸ Another is the very different attitude of hailing risk as a way out of economic stagnation and self-inflicted problems that, as it was argued, resulted in the gaps between expectations and harsh reality.

Security and Risks

Ideas of social and individual risks and perceptions of (in)security (in the broad German sense of the word, including safety and certainty) are closely interrelated and often cannot be untangled. The weakness in some of the social science literature on risk is that it often leaves out the security side of the equation. Historians argue closer to their sources in which the talk of risks and security is more often than not easily juxtaposed in terms of old types of security versus new risks. This is another way of saying that history is often a pretty messy affair that tends to ruffle up clear-cut theoretical assumptions. A good example is Christine Krüger's comparative depiction of house-squatting in Germany and Britain in this volume. Whether house-squatting was motivated by sheer economic necessity or expressed a form of alternative lifestyle, it always involved risks. Yet, as Krüger argues, the readiness of the squatters to live with the risk of being evicted and to get into legal trouble should not be interpreted as evidence that seemingly older values of security associated with the welfare state were being abandoned by these activists. At the same time, they were criticizing aspects of the welfare state on a massive scale: in Hamburg squatting was indeed directed against technocratic urban planning and new, large, modern public and private housing. In London, the protest was directed against the inefficiency of the welfare system, against officialdom, and against the paternalism of civil servants—in other words, the workings of the welfare state.

In his chapter, Isaac Stanley-Becker looks at the nexus of security and risk from another, more governmental angle by examining the zone of free movement established by the 1985 Schengen Accord as both a place of risk and of (national) security. While Schengen offered the opportunities and profitability of a larger economic space, a free market, and the prospect of a future European citizenship, it also created what appeared to many critics to be new risks associated with the removal of border controls. Becker casts light on procedures devised to fortify Schengen's external borders in order to block unlawful immigration and surveil the movement of foreign nationals into and across a new space of freedom for European citizens. The creation of the Schengen Information System (SIS) became a focal point of concern about the risks of information gathering and the threats to individual privacy that animated opposition to Schengen among human rights organizations and migrants laying claim to free movement as a human right.

Providing security was and is closely connected with the expansion of redistributive welfare states, which reached their apogee in the 1970s. The agenda underlying them thrived on claims of effectively dealing with—collective—social and economic risks, be they old age, health, housing, unemployment, or crime. At the same time, it was also imbued with a sense of economic and social modernization of societies and aimed to provide social stability. The much-discussed “crisis of the welfare state”—as manifested in high unemployment rates, dwindling economic growth, inflation, social unrest, and so on—resounded in one way or another in most of the industrialized countries starting in the mid-1970s.

It brought to the fore the need to amend and improve the established systems of economic and social security. Reforms often went hand in hand with efforts to cut back benefits or at least to limit the expansion of the welfare state. In the context of the privatization drive starting in the 1980s, a common argument was that the provisions for social security produced negative side effects both on the economic macro- and the individual micro-level: these being, for one, the risk of economic stagnation, inflexibility, and economic “overburdening,” and, for another, the much-discussed “welfare-dodgers” and the risk they supposedly posed to the welfare system.⁴⁹

However, the picture is more contradictory than it seems at first, for at the same time, new types of societal risks were added to the societal agendas of security. This is best illustrated by the United Nations *Human Development Report* of 1994, which addressed both national and global issues. It advocated a “a new concept of human security” and defined security very broadly. It included “economic security, food security, health security, environmental security,” as well as political and “personal security.” The latter addressed “threats from the state (physical torture), threats from other states (war), threats from other groups of people (ethnic tension), threats from individuals or gangs, against other individuals or gangs (crime, street violence), threats directed against women (rape, domestic violence), threats directed at children based on their vulnerability and dependence (child abuse), and threats to self (suicide, drug use).”⁵⁰ These were new national policy issues, which strongly involved nongovernmental organizations and particularly emphasized preventative policies. Most of these new security issues were also being addressed by the growing field of risk studies. In fact, in addition to the abovementioned gaps, the upswing of the term “risk” starting in the 1990s can be traced back to the expansion of public security agendas in the field of civil and human rights.

The situation was somewhat paradoxical, in so far as the arrangements of the welfare state, and its underlying notions of security and modernization, were being heavily criticized at the same time. This critique had a strong anti-statist, often anti-welfare state impetus. The intensity of this criticism grew from the 1970s onward and gave an altogether new thrust to the arguments of those who used the concept of “risk” to attack “old” types of statist security and often to play “old” risks against “new” ones. This paved the way for new institutional arrangements and ideal reconfigurations of the relationship between individuals, non-governmental organizations of civil society, experts, and the state, all of which revolved around ideas of how to deal with risks and who or what was at risk.

This—sometimes more, sometimes less subtle—anti-statist critique was embraced by a very diverse crowd of people with quite different agendas, including economists, environmentalists, and broad segments of health-conscious consumers who were concerned about all sorts of risk to their health. Despite this diversity, one can identify shared principled arguments and assumptions, among them being the emphasis on negative side effects, “complexity,” and new forms of institutional “governance” with which to address and manage risks.⁵¹

The new mantra that spread like wildfire starting in the 1970s was that the sites of modernity, be they the atomic industry or the welfare state, were not “solving” but “producing” new types of risk. In 1980, Niklas Luhmann critically depicted an ever-expansive “system” of the welfare state—one made up of specialists as much as politicians—that thrived on the notions of managing risks and providing security, thus creating new fields of intervention but also new insecurities through its specific risk communication.⁵² Confronted with gaps and the phenomena of a crisis of the welfare state, advocates of the welfare state also saw what they called “steering problems of the welfare state” (*Steuerungsprobleme im Wohlfahrtsstaat*) and argued the necessity for a social state of the “second order” with “reforms of the reforms” to undo the side effects of earlier social reform policies.⁵³ In this context, “complexity” and “incalculable feedback mechanisms” with their “unintended consequences” were catchwords of systems theory and cybernetics that critically asked how to steer “complex systems”—be they a chemical nuclear plant, the economy, or social security. Political and academic modernizing agendas underlying the welfare state were critically questioned across political divides in politics as much as in academia.⁵⁴

The “contradictions” and “crisis” of economic and social modernization and the role of the modern welfare and “tax state” was an older argument of the New Left. Instead of social integration and economic stability, the modern state was said to produce new forms of economic and social contradictions, if not anomie.⁵⁵ In this tradition, Ulrich Beck and Wolfgang Bonß would also point to “the dominance of non-intended side effects of technical-economic and cultural-political innovations in global capitalism, which in this way revolutionizes its own societal basis”; hence, the earlier modernization efforts disenchant the “premises of modernity ... whereby in the end the preconditions and standards of the rule of law, the social state, the national economy, and the corporate system dissolve just like those of parliamentary democracy.”⁵⁶ More specifically, the “unintended side effects” of economic and technological modernization brought about the “new risks” of the risk society, which, according to Beck, could not be solved by the old means. Left unresolved, these new risks threatened all of society—and on a global scale.

By the late 1970s such criticism of the left had become appropriated by the emerging “neoconservative crisis literature.” This new body of literature spoke of the “crisis of the welfare state” and a “crisis of political legitimacy” as a result of the gaps between the public’s expectations with respect to benefits and what was actually feasible. Did the democratic process of modern welfare states cause some of the very risks that it tried to solve, namely unemployment, inflation, and loss of economic growth? Moreover, was it responsible for the dissolutions and transgressions of core societal values, the loss of social control, moral hazard, and a mentality of free-riding that in turn brought about new risks?⁵⁷ Such a diagnosis thrived among neoconservatives, neoliberals, and (in the United States) libertarians who were dissatisfied with traditional conservative and liberal agendas. It found its way into politics, even if only in highly diluted forms (as in the case of Germany).

Ronald Reagan's famous statement in his inaugural speech on 20 January 1981 that the "government is not the solution to our problem; government is the problem" was another way of saying that governments created the very risks they wanted to do away with.⁵⁸ At about the same time, Milton Friedman told his television audience watching the miniseries *Free to Choose* (1980) that Western societies stood at a crucial crossroad on the way to a free, risk-taking capitalism that promised new opportunities. To many, this was the beginning of an era of regenerated capitalism, one to be freed from the shackles of state regulation.⁵⁹

Individuals and Risk

The main proposition was that unfettered markets and self-interested individuals could deal more efficiently with risks. This was often accompanied with a highly optimistic embrace of risk-taking, comparable to that of early modern voyagers who set out for what became the New World and thus a new epoch. In the second half of the 1970s, the idea of "privatizing risks" was still a fairly new concept, one used not only critically but also affirmatively by those who argued that individuals and institutions in the marketplace could handle risks better, more efficiently, and more rationally (in the sense of rational choice models) than the state could.

Necessary were new ways of governing both public and individual risks. To undo the old sites of the welfare state and either replace them with or transform them into free market institutions or free market incentives was an important way to bring about the "great risk shift."⁶⁰ As general as these presuppositions were (and still are), by the 1980s they were part of the foundational concepts for an explosion of new risk discourses that affected nearly all sites of modernity. New forms of institutional "governance" were proposed, be they for social security, housing, education, or, later, CO₂-trading. One area impacted by such new arrangements was that of public security, which is examined here by Marcus Böick. He shows that, starting in the mid-1970s in West Germany, not only did the question arise of who should provide security, but also the awareness emerged that security was needed in newly evolving places of risk, such as airports and industrial sites. In an age of rising concern over political terrorism and urban crime, private security companies entered the stage of public policing, leading many observers to ask how risky or outright dangerous the retreat of the modern state and the loss of the state's monopoly on the use of force were. With respect to the privatization of security provision, Böick identifies a sharp shift from conflicts and controversies involving private security providers, such as those focusing on the "Black Sheriffs" of Munich in the 1970s and 1980s, to a broad range of public-private security cooperation after the fall of the Berlin Wall, starting in the 1990s.

Privatization also included the undoing of the regulations of financial markets, which had been a core aspect of the New Deal policies of the 1930s. Mar-

kets would handle economic and financial risks better, it was argued. The panacea promising to sustain the new system was new financial instruments, such as bundling (mortgage) loans in order to disperse them widely through new financial products. “Securitization” was the technical term for this new magic: in place of the state and public institutions, the new instruments of financial markets could provide means to deal with any sort of risk, whether this pertained to old age pensions or housing.⁶¹ This involved new forms of public–private cooperation, as Nicolai Hannig demonstrates. Big companies like Swiss Re or Munich Re developed into service providers that not only offered insurance-related expertise but also expert knowledge on minimizing natural risks, which benefited the business.

Martin Lengwiler looks at one of the more spectacular forms of such securitization of risk, namely the history of the by-now-growing capital market of so-called catastrophe bonds (CAT bonds) as a novel approach by the insurance industry and investors for dealing with mega-risks that had been considered uninsurable until then, such as windstorms, earthquakes, pandemics, nuclear disasters, or even climate change. Their success mirrored a shift in responsibilities between the public and the private sector. In the market for CAT bonds, the private sector promised to increase its financial stakes to the relief of the state. Moreover, the power of capital markets and the economic rationale of investors partially replaced the traditional idea of the state as the guarantor of last resort.

For the new risk enthusiasts—meaning those who stressed the benefits of risk-taking—notions of liberty, (individual) risk-taking, and individualism became closely entwined. The new icons were the Schumpeterian “risk-taking” entrepreneurs and financiers, whose path was that of a “creative destruction” of the old way of doing things, and who thrived under uncertainty and the chances for profit. This path allowed and, in fact, needed failures—ironically, such as those of the economist Joseph Schumpeter himself, who had miserably miscalculated risks as an academic-turned-brash financier during the Austrian inflation of the early 1920s.⁶²

An equivalent group in popular culture who embraced such arguments were the participants in various forms of extreme sports. They conveyed their own “aesthetics of risk.”⁶³ Among them were the “free climbers,” people who professed ecological sentiments and tried to free themselves from the vast apparatus of mountain-climbing gear, while maintaining that they were able to calculate the risks of what they were doing (unreasonable as this sounds to outsiders). The Hollywood film *Cliffhanger*, a commercial box office hit released in 1993 starring Sylvester Stallone, came to epitomize such aesthetics of risk.⁶⁴ Such hyperreal examples of commercial mass culture should not obscure the wide range of risky lifestyles characteristic of many of the social movements.

This privatization of risk has received much attention, particularly with respect to its effects on former collective risks, known as the “financialization of everyday life,”⁶⁵ and to the formation of “neoliberal subjects” who—supposedly—are able to handle risks efficiently.⁶⁶ As John Tulloch and Deborah Lupton have shown on the basis of interviews they conducted in different countries, indi-

vidual risk assessments do indeed vary greatly, just as a great variety of “risk views” are also communicated by the media.⁶⁷ They found that reflexive risk awareness was widespread, yet not necessarily in the way Beck had predicted it: environmental risk played a rather minor role. Instead, mundane issues of everyday life and the inequalities of class, gender, ethnicity, and not least age continued to matter greatly. To their interviewees, it made a big difference whether one was *at* risk or whether one actively *took* risks. Unsurprisingly, people stressed the subjective side of risk, namely adventure, emotions of excitement, and the opportunities that risk-taking could provide. Crossing borders of socially acceptable risks, be they real or metaphorical, is an important aspect to understanding “active citizens” and their subjectivities.

An extreme and no doubt very peculiar form of such individual risk-taking is the hunger strikes in the 1970s. As Maximilian Buschmann demonstrates, to embark on a hunger strike meant to take enormous individual risks and produce a situation of contingency with uncertainty for all sides involved, not least for the authorities, who were subject to public scrutiny. This involved a debate on security and risk with a dialectical dynamic between the security of the state (which seemed to be threatened by hunger strikes) and the much-discussed threat of an authoritarian state to society and individuals (which hunger strikes seemed to unveil). As Buschmann argues, hunger strikes were another side of a “reflexive modernity,” since the actors involved reflected intensely on who and what was at risk and what this had to do with modern societies. Once again, Buschmann also depicts the fluidity between risk and security debates, at a time in which Michel Foucault was not just an observer but an activist participant. Foucault’s arguments were not about risks but about the “*état de sécurité*,” which appealed to the fear of individuals, that is, the risk that this security state posed to individuals.⁶⁸

Psychologists have a long tradition of researching various forms of individual risk-taking. The risk shift since the 1970s has also greatly impacted the understanding of the way individuals deal with risks. Instead of general societal-environmental factors, what emerged was a new focus on individual factors of risk that were not located so much in society but in genetic and neurophysiological factors. This was quite in tune with the interventionist welfare state and its efforts to provide for security. In his contribution, Peter Becker looks from a historical point of view at how scientists were peering into the brains of subjects and using mouse models to understand the modulation of brain chemistry and gene variations and thus decode psychopathic personalities and the risk factors relevant for careers in violent and deviant risk behavior. This had far-reaching implications for the criminal justice system, but also preventive policies of crime. Furthermore, this biologization has the potential to shift the location from which social problems—careers in violent and deviant behavior—can be assessed in terms of risk: namely from the sociologist’s desk to the neuroscientist’s lab.

In addition to the dissection of individual dispositions in dealing and coping with risks, this biological and psychological research also deals with the possibil-

ities to influence and direct individual behavior. If risks could not be contained effectively by public management and state planning, so goes the argument, individuals and society at large had to learn to cope with insecurity and risks without relying on public institutions, due to their limited capacities to safeguard against all eventualities. Starting in the late 1990s, resilience became the catchword to denote new ways in which individuals, groups, and institutions could cope with insecurity and risks. The roots of resilience thinking are to be found especially in the bio-ecological research of Crawford Stanley Holling, who published work in the 1970s on the adaptability of plants to environmental changes, some of which could not be controlled. This went hand in hand with a critique of static ideas of security and the accompanying assumptions that all the contingencies of complex systems were manageable, also by way of comprehensive measures of prevention. Defined as the capacity of a system not only to absorb disturbances but also to reorganize itself while undergoing change in order to continue to function, resilience turned out to be very adaptable particularly to neoliberal views of the risk society and its institutions. After all, wasn't the "market" also a very chaotic yet self-adaptive system, ever in flux and motion? The foundation of the Stockholm Resilience Centre in 2007 illustrates how Holling and other scientists very successfully expanded the concept of resilience to other fields of social, economic, and political life.⁶⁹

The first decade of the new century was the heyday of the new paradigm of risk that had emerged since the 1970s by various routes. As the chapters in this volume illustrate, this paradigm thrived in conjuncture with spectacular events: major industrial accidents; the British "mad cow disease" of the late 1990s, which not only underscored the risks of infectious disease and the need for food safety but also highlighted economic and social repercussions, such as rioting farmers; the new terrorist threat, prior to and especially after the 9/11 attacks in New York and Washington, DC, and later in other countries; the devastation caused by Hurricane Katrina in 2005 along the American Gulf Coast and in particular in New Orleans; and the dramatic economic crisis of 2007/8. These and a large number of other less spectacular events were fueled by an ever-growing "risk communication," in both the academic and public realms and on both a national and a global scale. At the center of many social and political conflicts were issues of risk: how were they to be evaluated and how were they to be handled? Such multifarious threats caused pervasive feelings of gloom and crisis (perhaps all the more so in Germany than elsewhere, notwithstanding the fact that it did not have to weather any major catastrophes). Yet this should not obfuscate the equally pervasive feeling of optimism that existed, particularly before the financial crisis of 2008/9. This was nurtured by the promises of a society that wrought itself out of the constraints of the prescriptive state, opened the path to new individual risk-taking, and made possible new, more flexible, productive, and "resilient" forms of governance applicable to traditional and new sites of risk. These were promises of a new modernity, indeed.

Martin H. Geyer has been Professor of Modern History at the Ludwig Maximilian University of Munich since 1997. His research interests and publications deal with issues of social policies, political scandals, the history of capitalism, and political and social theories in the 1970s and 1980s. Recently, he published a book entitled *Kapitalismus und politische Moral in der Zwischenkriegszeit Oder: Wer war Julius Barmat?* (Hamburg, 2018). Currently he is working on a research project entitled “The State of Emergency in the 20th Century: What We Can Learn Today from German History of the Interwar Period?”

Notes

1. Many thanks to the Volkswagen Stiftung and to the members of the European Studies Centre at St. Antony’s College, and particularly to Paul Betts, who had made possible my visit to the Centre as a Weizsäcker Research Fellow during the academic year 2018/19. I thank my wife Dona Geyer for her great help in editing this volume.
2. Wolfgang Bonß, *Vom Risiko: Unsicherheit und Ungewißheit in der Moderne* (Hamburg: Hamburger Edition, 1995); François Ewald, *Der Vorsorgestaat*, with an essay by Ulrich Beck, trans. Wolfram Bayer and Hermann Kocyba (Frankfurt a. M.: Suhrkamp, 1993); Peter Borscheid et al., *The Value of Risk: Swiss Re and the History of Reinsurance* (Oxford: Oxford University Press, 2013); David Miers, “Gambling Histories: Writing the Past in the Present,” in *Qualitative Research in Gambling: Exploring the Production and Consumption of Risk*, ed. Rebecca Cassidy, Andrea Pisac, and Claire Loussouarn (London: Routledge, 2013), 42–56; Peter L. Bernstein, *Against the Gods: The Remarkable Story of Risk* (New York: Wiley, 1996); Martin Lengwiler, *Risikopolitik im Sozialstaat: Die schweizerische Unfallversicherung 1870–1970* (Cologne: Böhlau, 2006); Julia Moses, *The First Modern Risk: Workplace Accidents and the Origins of European Social States* (Cambridge: Cambridge University Press, 2018); Nicolai Hannig, *Kalkulierte Gefahren: Naturkatastrophen und Vorsorge seit 1800* (Göttingen: Wallstein, 2019); Ernst Homburg and Elisabeth Vaupe, eds., *Hazardous Chemicals: Agents of Risk and Change, 1800–2000* (New York: Berghahn, 2019); Martin Diebel, *Atomkrieg und andere Katastrophen: Zivil- und Katastrophenschutz in der Bundesrepublik und Großbritannien* (Paderborn: Ferdinand Schöningh, 2017).
3. Michael S. Sherry, *In the Shadow of War: The United States since the 1930s* (New Haven, CT: Yale University Press, 1995); Nikolas K. Gvosdev, Derek S. Reveron, and John A. Cloud, eds., *The Oxford Handbook of U.S. National Security* (Oxford: Oxford University Press, 2018); for a somewhat different periodization with a focus on the 1970s, see Christopher Daase, “National, Societal, and Human Security,” *Historical Social Research* 35 (2010): 22–37.
4. David A. Moss, *When All Else Fails: Government as the Ultimate Risk Manager* (Cambridge, MA: Harvard University Press, 2002); with respect to the (non)insurability of atomic risks, see Christoph Wehner, *Die Versicherung der Atomgefahr: Risikopolitik, Sicherheitsproduktion und Expertise in der Bundesrepublik Deutschland und den USA 1945–1986* (Göttingen: Wallstein, 2017).
5. Debora Lupton, *Risk* (London: Routledge, 1999), 2. See this book for an early overview.
6. Ulrich Beck, *Risk Society: Towards a New Modernity* (London: Sage, 1992); Ulrich Beck, *World Risk Society* (Cambridge: Polity, 1999); Ulrich Beck, “Risk Society Revisited: Theory, Politics and Research Programmes,” in *The Risk Society and Beyond: Critical Issues for*

- Social Theory*, ed. Ulrich Beck, Barbara Adam, and Joost van Loon (London: Sage, 2000), 208–25; for a very good, although not uncritical analysis of Beck, see especially Joost van Loon, *Risk and Technological Culture: Towards a Sociology of Virulence* (London: Routledge, 2002), esp. chap. 2; Anthony Giddens, *Modernity and Self-Identity: Self and Society in the Late Modern Age* (Cambridge: Polity, 1991); Anthony Giddens, “Risk Society: The Context of British Politics,” in *The Politics of Risk Society*, ed. Jane Franklin (Cambridge: Polity, 1998), 23–34; Anthony Giddens, *Beyond Right and Left: The Future of Radical Politics* (Palo Alto, CA: Stanford University Press, 1994).
7. For a concise critique, see Lupton, *Risk*, chap. 4.
 8. Franz-Xavier Kaufmann, *Sicherheit als soziologisches und sozialpolitisches Problem: Untersuchungen zu einer Wertidee hochdifferenzierter Gesellschaften*, 2nd edn. (Stuttgart: Steiner Verlag, 1973); Helga Nowotny, *Kernenergie, Gefahr der Notwendigkeit: Anatomie eines Konflikts* (Frankfurt a. M.: Suhrkamp, 1979); Adalbert Evers and Helga Nowotny, *Über den Umgang mit Unsicherheit: Die Entdeckung der Gestaltbarkeit von Gesellschaft* (Frankfurt a. M.: Suhrkamp, 1987); Bayerische Rück, ed., *Risk is a Construction: Perceptions of Risk Perceptions* (Munich: Knesebeck, 1993).
 9. James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven, CT: Yale University Press, 1998).
 10. Niklas Luhmann, *Risk: A Sociological Theory* (New York: De Gruyter, 1993). For a somewhat narrow overview, see Wolfgang Bonß and Jens O. Zinn, “Risk and Theory in Germany,” in *Routledge Handbook of Risk Studies*, ed. Adam Burgess, Alberto Alemanno, and Jens O. Zinn (London: Routledge, 2016), 94–105; see also Niklas Luhmann, *Politische Theorie im Wohlfahrtsstaat* (Munich: Günter Olzog Verlag, 1981), in which he developed the argument that the proliferation of risk debates creates an ever-increasing expansion of the welfare state.
 11. For an overview, see Iain Wilkinson, “Psychology and Risk,” in *Beyond the Risk Society: Critical Reflections on Risk and Human Security*, ed. Gabe Mythen and Sandra Walklate (Maidenhead: McGraw-Hill Education, 2003), 25–41.
 12. Mary Douglas and Aaron Wildawski, *Risk and Culture: An Essay on the Selection of Technological and Environmental Dangers* (Berkeley: University of California Press, 1982); Mary Douglas, *Risk and Blame: Essays in Cultural Theory* (London: Routledge, 1992).
 13. Andrew Kirby, *Nothing to Fear: Risks and Hazards in American Society* (Tucson: University of Arizona Press, 1990); Arwen Mohun, *Risk: Negotiating Safety in American Society* (Baltimore: Johns Hopkins University Press, 2013).
 14. Frank Furedi, *Culture of Fear Revisited: Risk-Taking and the Morality of Low Expectation*, 4th edn. (London: Continuum, 2006), 5.
 15. Ronald A. Heiner, “The Origin of Predictable Behavior,” *American Economic Review* 73 (1983): 560–95, 564.
 16. Yair Aharoni, *The No-Risk Society* (Chatham, NJ: Chatham House Publishers, 1981); Ian Hacking, *The Taming of Chance* (Cambridge: Cambridge University Press, 1990); Bernstein, *Against the Gods*. For the best introductions to the debates in various fields, see esp. Lupton, *Risk*; Gabe Mythen, ed., *Beyond the Risk Society: Critical Reflections on Risk and Human Security* (Maidenhead: Open University Press, 2006); van Loon, *Risk and Technological Culture*; Kirby, *Nothing to Fear*.
 17. Most useful is Adam Burgess, Alberto Alemanno, and Jens O. Zinn, eds., *Routledge Handbook of Risk Studies* (London: Routledge, 2016); see also Benjamin Wisner, Jean-Christophe Gaillard, and Ilan Kelman, eds., *The Routledge Handbook of Hazards and Disaster Risk Reduction* (London: Routledge, 2012); Sabine Roeser et al., eds., *Handbook of Risk Theory*:

- Epistemology, Decision Theory, Ethics, and Social Implications of Risk*, 2 vols. (Heidelberg: Springer, 2012); Murray Lee and Gabe Mythen, eds., *The Routledge International Handbook on Fear of Crime* (London: Routledge, 2017); Havidán Rodríguez, William Donner, and Joseph E. Trainor, eds., *Handbook of Disaster Research*, 2nd edn. (Cham: Springer, 2018).
18. See note 1; Cornel Zwierlein, "Einleitung: Sicherheitsgeschichte, ein neues Feld der Geschichtswissenschaften," *Geschichte und Gesellschaft* 38 (2012): 365–86; Bas van Bavel et al., eds., *Disasters and History: The Vulnerability and Resilience of Past Societies* (Cambridge: Cambridge University Press, 2020).
 19. Frank Biess, *German Angst: Fear and Democracy in the Federal Republic of Germany* (Oxford: Oxford University Press, 2020); Furedi, *Culture of Fear* can also be read in this context. For a more general argument on insecurity in Germany, see Eckart Conze, *Die Suche nach Sicherheit: Eine Geschichte der Bundesrepublik Deutschland von 1945 bis in die Gegenwart* (Munich: Siedler, 2009).
 20. In the early 1990s, risk communication was still a somewhat new term; see Hyunyi Cho, Torsten Reimer, and Katherine McComas, eds., *The Sage Handbook of Risk Communication* (Los Angeles: Sage, 2015).
 21. Dieter Rucht, *Modernisierung und neue soziale Bewegungen: Deutschland, Frankreich und USA im Vergleich* (Frankfurt a. M.: Campus, 1994); Sven Reichardt, *Authentizität und Gemeinschaft: Linksalternatives Leben in den siebziger und frühen achtziger Jahren* (Berlin: Suhrkamp, 2014).
 22. For the general context, see Martin H. Geyer, "Rahmenbedingungen: Unsicherheit als Normalität," in *Geschichte der Sozialpolitik in Deutschland*, Vol. 6, 1974–1982, *Bundesrepublik Deutschland: Neue Herausforderungen, wachsende Unsicherheiten*, ed. Martin H. Geyer (Baden-Baden: Nomos Verlag, 2008), 1–109, esp. 42–46; Joachim Radkau, *Aufstieg und Krise der deutschen Atomwirtschaft: Verdrängte Alternativen in der Kerntechnik und der Ursprung der nuklearen Kontroverse* (Reinbek b. Hamburg: Rowolt, 1983); Wehner, *Versicherung: Natalie Pohl, Atomprotest am Oberrhein: Die Auseinandersetzung um den Bau von Atomkraftwerken in Baden und im Elsass (1970–1985)* (Stuttgart: Rudolf Steiner Verlag, 2019); Rucht, *Modernisierung und neue soziale Bewegungen*.
 23. Amos Twersky and Daniel Kahnemann, "Judgement under Uncertainty: Heuristic and Biases," *Science* 185 (4157) (1974): 1127–31; see also Amos Tversky and Daniel Kahneman, *Judgement under Uncertainty: Heuristic and Biases* (New York: Cambridge University Press, 1982).
 24. According to the afterword in the new edition: Charles Perrow, *Normal Accidents: Living with High-Risk Technologies* (Princeton: Princeton University Press, 1999), 354.
 25. John Kenneth Galbraith, *The Age of Uncertainty* (London: BBC, 1977); Jean Fourastié, *Les Trente Glorieuses: Ou la Révolution invisible de 1946 à 1975* (Paris: Fayard, 1979); Anselm Doering-Manteuffel and Lutz Raphael, *Nach dem Boom: Perspektiven auf die Zeitgeschichte seit 1970* (Göttingen: Vandenhoeck & Ruprecht, 2008); Daniel T. Rodgers, *Age of Fracture* (Cambridge, MA: Belknap Press, 2011).
 26. Elke Seefried, *Zukunft: Aufstieg und Krise der Zukunftsforschung, 1945–1980* (Munich: De Gruyter Oldenbourg, 2015), 499–507; Jenny Andersson, *The Future of the World: Futurology, Futurists, and the Struggle for the Post-Cold War Imagination* (Oxford: Oxford University Press, 2018), chap. 10.
 27. Andersson, *The Future of the World*, chap. 9; Jakob Arnoldi, "Global Risk," in *Routledge Handbook of Risk Studies*, ed. Adam Burgess, Alberto Alemanno, and Jens O. Zinn (London: Routledge, 2016), 275–81.

28. This trope is very common in German; see, e.g., Michael Ruck, "Ein Kurzer Sommer der konkreten Utopie: Zur Westdeutschen Planungsgeschichte der langen 60er Jahre," in *Dynamische Zeiten: Die 60er Jahre in den beiden deutschen Gesellschaften*, ed. Axel Schildt, Detlef Siegfried, and Karl Christian Lammers (Hamburg: Hans Christians Verlag, 2000), 362–401.
29. Jürgen Habermas, "Die Moderne: Ein unvollendetes Projekt," in *Kleine politische Schriften*, I-IV, (Frankfurt a. M.: Suhrkamp 1981), 444–63.
30. Most influential as a textbook version of history, particularly in Germany, is Eric Hobsbawm, *Age of Extremes: The Short Twentieth Century, 1914–1991* (London: Michael Joseph, 1995), chap. 14.
31. Reinhard Koselleck, "'Space of Experience' and 'Horizon of Expectations': Two Historical Categories," in *Futures Past: On the Semantics of Historical Time* (Cambridge, MA: MIT Press, 1985), 267–88.
32. Doering-Manteuffel and Raphael, *Nach dem Boom*; Philipp Sarasin, *1977: Eine kurze Geschichte der Gegenwart* (Berlin: Suhrkamp, 2021).
33. Lupton, *Risk*, 74.
34. See also Nicolai Hannig and Malte Thießen, eds., *Vorsorgen in der Moderne: Akteure, Räume und Praktiken* (Berlin: De Gruyter Oldenbourg, 2017).
35. Pierre Wack, "Scenarios: Unchartered Waters Ahead," *Harvard Business Review* 63 (1985): 73–89 (here 82).
36. Kaufmann, *Sicherheit*, 243; Sven Opitz and Ute Tellmann, "Katastrophale Szenarien: Gegenwärtige Zukunft in Recht und Ökonomie," in *Sichtbarkeitsregime: Überwachung, Sicherheit und Privatheit im 21. Jahrhundert*, ed. Leon Hempel, Susanne Krasmann, and Ulrich Bröckling (Wiesbaden: VS Verlag für Sozialwissenschaften, 2011), 27–52.
37. Ulrich Bröckling, "Dispositive der Vorbeugung: Gefahrenabwehr, Resilienz, Precaution," in *Sicherheitskultur: Soziale und politische Praktiken der Gefahrenabwehr*, ed. Christopher Daase, Phillip Offermann, and Valentin Rauer (Frankfurt a. M.: Campus, 2012), 93–108.
38. Fred Kaplan, *The Wizards of Armageddon* (Palo Alto, CA: Stanford University Press, 1983), esp. chap. 19 ("The Gap That Never Was"); Andersson, *The Future of the World*, chap. 6.
39. Paul Robinson, *Redefining Science: Scientists, the National Security State, and Nuclear Weapons in Cold War America* (Amherst: University of Massachusetts Press, 2016); Mark Solovey and Hunter Heyck, *Cold War Social Science, Knowledge Production, Liberal Democracy and Human Nature* (London: Palgrave, 2012).
40. Denis Meadows et al., *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind* (New York: Signet Book, 1972); Seefried, *Zukünfte*, 235–92.
41. See the book by the atomic physicist Robert Jungk, *Der Atom-Staat: Vom Fortschritt in die Unmenschlichkeit* (Munich: Kindler, 1977).
42. Sibylle Marti, *Strahlen im Kalten Krieg: Nuklearer Alltag und atomarer Notfall in der Schweiz* (Paderborn: Ferdinand Schöningh, 2020), esp. 275–82; Frank Reichherzer, "Zwischen Atomgewittern und Stadtguerilla: Gedanken zum Kriegsbild westdeutscher Wehrexperthen von den 1950er Jahren bis zum Nato-Doppelbeschluss," in *Den Kalten Krieg denken: Beiträge zur sozialen Ideengeschichte seit 1945*, ed. Holger Nehring and Patrick Bernhard (Essen: Klartext-Verlag, 2014), 131–60; Günter Frankenberg, *Staatstechnik: Perspektiven auf Rechtsstaat und Ausnahmezustand* (Frankfurt a. M.: Suhrkamp, 2010).
43. On the strategic uses of making an issue one about security or risk, see Barry Buzan, Ole Wæver, and Jaap de Wilde, *Security: A New Framework for Analysis* (Boulder, CO: Lynne

- Riener, 1998); they speak of “securitization.” More generally, with respect to the contests over political language in Germany, see Martin H. Geyer, “War over Words: The Search for a Public Language in West Germany,” in *Political Languages in the Age of Extremes*, ed. Willibald Steinmetz (Oxford: Oxford University Press, 2011), 293–330.
44. Milton Friedman, “The Biggest Ponzi Scheme on Earth,” *Hoover Digest* 2 (1999), <https://www.hoover.org/research/biggest-ponzi-scheme-earth> (accessed 15 August 2021); Rainer Famulla and Klaus Spremann, “Generationenverträge und Rentenversicherung als Ponzi GmbH,” *Zeitschrift für öffentliche und gemeinwirtschaftliche Unternehmen* 3 (1980): 379–403.
 45. This is a summary of Martin H. Geyer, “‘Gaps’ and the (Re-)Invention of the Future: Social and Demographic Policy in Germany during the 1970s and 1980s,” *Social Science History* 39 (2015): 39–61.
 46. Perry Anderson, *The Origins of Postmodernity* (London: Verso, 1998); Sarasin, 1977.
 47. Luhmann, *Risk*; For an excellent summary of systems theory and in particular of Luhmann’s theory, see Klaus P. Japp and Isabel Kusche, “Systems Theory and Risk,” in *Social Theories of Risk and Uncertainty: An Introduction*, ed. Jens O. Zinn (Oxford: Blackwell, 2008), 76–105.
 48. See, for example, Karena Kalmbach, *The Meanings of a Disaster: Chernobyl and Its Afterlives in Britain and France* (New York: Berghahn, 2020).
 49. For an early treatment of “welfare dodgers” in terms of “welfare queens,” see Barbara Cruikshank, *The Will to Empower: Democratic Citizens and other Subjects* (Ithaca, NY: Cornell University Press, 1999), chap. 5.
 50. United Nations Development Programme (UNDP), *Human Development Report: 1994* (New York: Oxford University Press, published for the UNDP, 1994), 30–32; S. Neil MacFarlane and Yuen F. Khong, *Human Security and the U.N.: A Critical History* (Bloomington: Indiana University Press, 2006).
 51. Ariane Leendertz, *Der erschöpfte Staat: Eine andere Geschichte des Neoliberalismus* (Hamburg: Hamburger Edition, 2022).
 52. Luhmann, *Politische Theorie im Wohlfahrtsstaat*.
 53. See the collection of essays by Franz-Xaver Kaufmann, *Sozialpolitik und Sozialstaat: Soziologische Analysen* (Opladen: Leske + Budrich, 2002); one big issue of critique was the neglect of demography; see Geyer, “Gaps.”
 54. Todd R. La Porte, ed., *Organized Social Complexity: Challenges to Politics and Policy* (Princeton, NJ: Princeton University Press, 1975); Ariane Leendertz, “Das Komplexitätssyndrom: Gesellschaftliche Komplexität als intellektuelle und politische Herausforderung,” in *Die neue Wirklichkeit: Semantische Neuvermessungen und Politik seit den 1970er Jahren*, ed. Ariane Leendertz and Wencke Meteling (Frankfurt a. M.: Campus, 2016); Nils Gilman, *Mandarins of the Future: Modernization Theory in Cold War America* (Baltimore: Johns Hopkins University Press, 2003).
 55. See, for example, Jürgen Habermas, *Legitimationsprobleme im Spätkapitalismus* (Frankfurt a. M.: Suhrkamp, 1973), 67.
 56. Ulrich Beck and Wolfgang Bonß, “Einleitung,” in *Die Modernisierung der Moderne*, ed. Ulrich Beck and Wolfgang Bonß, Frankfurt a. M. 2001: Suhrkamp, 19.
 57. Claus Offe, “Unregierbarkeit: Zur Renaissance konservativer Krisentheorien,” in *Stichworte zur “Geistigen Situation der Zeit,”* Vol. 1, *Nation und Republik*, ed. Jürgen Habermas (Frankfurt a. M.: Suhrkamp, 1980); of considerable importance is Michael Crozier, Samuel P. Huntington, and Joji Watanuki, *The Crisis of Democracy: Report on the Governability of Democracies to the Trilateral Commission* (New York: New York University Press, 1975);

- Nevel Johnson, *Die Englische Krankheit: Wie kann Großbritannien seine politische Krise überwinden* (Stuttgart: Klett, 1977).
58. Ronald Reagan, Inaugural Address, 20 January 1981, <https://www.reaganfoundation.org/media/128614/inaguration.pdf> (accessed 1 July 2021); Monica Prasad, *The Politics of Free Markets: The Rise of Neoliberal Economic Policies in Britain, France, Germany, and the United States* (Chicago: University of Chicago Press, 2006); John Ehrman, *The Eighties: America in the Age of Reagan* (New Haven, CT: Yale University Press, 2005). Aharoni, *No-Risk Society* develops the arguments against the welfare state most clearly.
 59. Rodgers, *Age of Fracture*, chap. 2; Jones D. Stedman, *Masters of the Universe: Hayek, Friedman, and the Birth of Neoliberal Politics* (Princeton, NJ: Princeton University Press, 2012).
 60. Jacob S. Hacker, *The Great Risk Shift: The Assault on American Jobs, Families, Health Care, and Retirement and How You Can Fight Back* (New York: Oxford University Press, 2006).
 61. Lewis S. Ranierie, "The Origins of Securitization, Sources of Its Growth, and Its Future Potential," in *A Primer on Securitization*, ed. Leon T. Kendall and Michael J. Fishman (Boston: MIT Press, 1996), 31–44.
 62. Michael Peneder and Andreas Resch, *Schumpeter's Venture Money* (Oxford: Oxford University Press, 2021); see, for example, the how-to type of book by David James, *The Entrepreneurial Adventure: Embracing Risk, Change, and Uncertainty* (New York: Business Expert Press, 2020), with a foreword by the entrepreneur Richard Branson.
 63. Michael Thompson, "Aesthetics of Risk: Culture or Context," in *Societal Risk Assessment: How Safe is Safe Enough*, ed. Richard C. Schwing and W. A. Albers (London: Plenum Press, 1980), 273–86.
 64. Mark Stranger, "The Aesthetics of Risk: A Study of Surfing," *International Review for the Sociology of Sport* 34 (3) (1999): 265–76; Jonathan Simon, "Taking Risks: Extreme Sports and the Embrace of Risk in Advanced Liberal Societies," in *Embracing Risk: The Changing Culture of Insurance and Responsibility*, ed. Tom Baker and Jonathan Simon (Chicago: University of Chicago Press, 2002), 177–208.
 65. Randy Martin, *Financialization of Daily Life* (Philadelphia: Temple University Press, 2002); Léna Pellandini-Simányi, "The Financialization of Everyday Life," in *The Routledge Handbook of Critical Finance Studies*, ed. Christian Borch and Robert Wosnitzer (London: Routledge, 2021), 278–99.
 66. Nikolas Rose, *Governing the Soul: The Shaping of the Private Self*, 2nd edn. (London: Routledge, 1999); Ulrich Bröckling, Susanne Krassmann, and Thomas Lemke, eds., *Gouvernementalität der Gegenwart: Studien zur Ökonomisierung des Sozialen* (Frankfurt a. M.: Suhrkamp, 2000); Pat O'Malley, "Governmentality and the Analysis of Risk," in *Routledge Handbook of Risk Studies*, ed. Adam Burgess, Alberto Alemanno, and Jens O. Zinn (London: Routledge, 2016), 109–16.
 67. John Tulloch and Debora Lupton, *Risk and Everyday Life* (London: Sage, 2003), 135; for an overview of earlier research on risk in psychology, see Wilkinson, "Psychology and Risk"; Pellandini-Simányi, "Financialization."
 68. Thomas Lemke, *Eine Kritik der politischen Vernunft: Foucaults Analyse der modernen Gouvernementalität* (Hamburg: Argument Verlag, 1997); David Macey, *The Lives of Michel Foucault* (New York: Pantheon, 1993), 392–96.
 69. For valuable overviews, see Jeremy Walter and Melinda Cooper, "Genealogies of Resilience: From Systems Ecology to the Political Economy of Crisis Adaption," *Security Dialogue* 42 (2011): 143–60; Wolfgang Bonß, "Karriere und sozialwissenschaftliche Potentiale des Resilienzbegriffs," in *Resilienz im Sozialen: Theoretische und empirische Analysen*, ed. Martin Endreß and Andrea Maurer (Wiesbaden: Springer, 2015), 15–31.

Bibliography

- Aharoni, Yair. *The No-Risk Society*. Chatham, NJ: Chatham House Publishers, 1981.
- Anderson, Perry. *The Origins of Postmodernity*. London: Verso, 1998.
- Andersson, Jenny. *The Future of the World: Futurology, Futurists, and the Struggle for the Post-Cold War Imagination*. Oxford: Oxford University Press, 2018.
- Arnoldi, Jakob. "Global Risk." In *Routledge Handbook of Risk Studies*, edited by Adam Burgess, Alberto Alemanno, and Jens O. Zinn, 275–81. London: Routledge, 2016.
- Bavel, Bas van, et al., eds. *Disasters and History: The Vulnerability and Resilience of Past Societies*. Cambridge: Cambridge University Press, 2020.
- Bayerische Rück, ed. *Risk is a Construction: Perceptions of Risk Perceptions*. Munich: Knesebeck, 1993.
- Beck, Ulrich. *Risk Society: Towards a New Modernity*. London: Sage, 1992.
- . *World Risk Society*. Cambridge: Polity, 1999.
- . "World Risk Society as Cosmopolitan Society? Ecological Questions in a Framework of Manufactured Uncertainties." *Theory, Culture & Society* 14 (1996): 1–32.
- . "Risk Society Revisited: Theory, Politics and Research Programmes." In *The Risk Society and Beyond: Critical Issues for Social Theory*, edited by Ulrich Beck, Barbara Adam, and Joost van Loon, 208–25. London: Sage, 2000.
- Beck, Ulrich and Wolfgang Bonß, "Einleitung," in *Die Modernisierung der Moderne*, ed. Ulrich Beck and Wolfgang Bonß, 11–62, Frankfurt a. M.: Suhrkamp, 2001.
- Bernstein, Peter L. *Against the Gods: The Remarkable Story of Risk*. New York: Wiley, 1996.
- Berry, Jeffrey M. *The New Liberalism: The Rising Power of Citizen Groups*. Washington, DC: Brookings Institute Press, 1999.
- Biess, Frank. *German Angst: Fear and Democracy in the Federal Republic of Germany*. Oxford: Oxford University Press, 2020.
- Bonß, Wolfgang. *Vom Risiko: Unsicherheit und Ungewißheit in der Moderne*. Hamburg: Hamburger Edition, 1995.
- . "Karriere und sozialwissenschaftliche Potentiale des Resilienzbegriffs." In *Resilienz im Sozialen: Theoretische und empirische Analysen*, edited by Martin Endreß and Andrea Maurer, 15–31. Wiesbaden: Springer, 2015.
- Bonß, Wolfgang, and Jens O. Zinn. "Risk and Theory in Germany." In *Routledge Handbook of Risk Studies*, edited by Adam Burgess, Alberto Alemanno, and Jens O. Zinn, 94–105. London: Routledge, 2016.
- Borscheid, Peter, David Guggerli, Tobias Straumann, and Harold James. *The Value of Risk: Swiss Re and the History of Reinsurance*. Oxford: Oxford University Press, 2013.
- Bröckling, Ulrich. "Dispositive der Vorbeugung: Gefahrenabwehr, Resilienz, Precaution." In *Sicherheitskultur: Soziale und politische Praktiken der Gefahrenabwehr*, edited by Christopher Daase, Phillip Offermann, and Valentin Rauer, 93–108. Frankfurt a. M.: Campus, 2012.
- , Susanne Krassmann, and Thomas Lemke, eds. *Gouvernementalität der Gegenwart: Studien zur Ökonomisierung des Sozialen*. Frankfurt a. M.: Suhrkamp, 2000.
- Burgess, Adam, Alberto Alemanno, and Jens O. Zinn, eds. *Routledge Handbook of Risk Studies*. London: Routledge, 2016.
- Buzan, Barry, Ole Wæver, and Jaap de Wilde. *Security: A New Framework for Analysis*. Boulder, CO: Lynne Rienner, 1998.
- Cho, Hyunyi, Torsten Reimer, and Katherine McComas, eds. *The Sage Handbook of Risk Communication*. Los Angeles: Sage, 2015.

- Conze, Eckart. *Die Suche nach Sicherheit: Eine Geschichte der Bundesrepublik Deutschland von 1945 bis in die Gegenwart*. Munich: Siedler, 2009.
- Crozier, Michael, Samuel P. Huntington, and Joji Watanuki. *The Crisis of Democracy: Report on the Governability of Democracies to the Trilateral Commission*. New York: New York University Press, 1975.
- Cruikshank, Barbara. *The Will to Empower: Democratic Citizens and Other Subjects*. Ithaca, NY: Cornell University Press, 1999.
- Daase, Christopher. "National, Societal, and Human Security." *Historical Social Research* 35 (2010): 22–37.
- Diebel, Martin. *Atomkrieg und andere Katastrophen: Zivil- und Katastrophenschutz in der Bundesrepublik und Großbritannien*. Paderborn: Ferdinand Schöningh, 2017.
- Doering-Manteuffel, Anselm, and Lutz Raphael. *Nach dem Boom: Perspektiven auf die Zeitgeschichte seit 1970*. Göttingen: Vandenhoeck & Ruprecht, 2008.
- Douglas, Mary. *Risk and Blame: Essays in Cultural Theory*. London: Routledge, 1992.
- Douglas, Mary, and Aaron Wildawski. *Risk and Culture: An Essay on the Selection of Technological and Environmental Dangers*. Berkeley: University of California Press, 1982.
- Ehrman, John. *The Eighties: America in the Age of Reagan*. New Haven, CT: Yale University Press, 2005.
- Evers, Adalbert, and Helga Nowotny. *Über den Umgang mit Unsicherheit: Die Entdeckung der Gestaltbarkeit von Gesellschaft*. Frankfurt a. M.: Suhrkamp, 1987.
- Ewald, François. *Der Vorsorgestaat*. With an essay by Ulrich Beck. Translated by Wolfram Bayer and Hermann Kocyba. Frankfurt a. M.: Suhrkamp, 1993. (Original: *L'état Providence*, Paris: Grasset, 1986).
- Famulla, Rainer, and Klaus Spremann. "Generationenverträge und Rentenversicherung als Ponzi GmbH." *Zeitschrift für öffentliche und gemeinwirtschaftliche Unternehmen* 3 (1980): 379–403.
- Foucault, Michel. *Geschichte der Gouvernementalität*. 2 vols. Frankfurt a. M.: Suhrkamp, 2004.
- Fourastié, Jean. *Les Trente Glorieuses: Ou la Révolution invisible de 1946 à 1975*. Paris: Fayard, 1979.
- Frankenberg, Günter. *Staatstechnik: Perspektiven auf Rechtsstaat und Ausnahmezustand*. Frankfurt a. M.: Suhrkamp, 2010.
- Friedman, Milton. "The Biggest Ponzi Scheme on Earth." *Hoover Digest* 2 (1999). Retrieved 15 August 2022 from <https://www.hoover.org/research/biggest-ponzi-scheme-earth>.
- Furedi, Frank. *Culture of Fear Revisited: Risk-Taking and the Morality of Low Expectation*. 4th edn. London: Continuum, 2006.
- Galbraith, John Kenneth. *The Age of Uncertainty*. London: BBC, 1977.
- Geyer, Martin H. "Rahmenbedingungen: Unsicherheit als Normalität." In *Geschichte der Sozialpolitik in Deutschland*, Vol. 6, 1974–1982, *Bundesrepublik Deutschland: Neue Herausforderungen, wachsende Unsicherheiten*, edited by Martin H. Geyer, 1–109. Baden-Baden: Nomos Verlag, 2008.
- . "War over Words: The Search for a Public Language in West Germany." In *Political Languages in the Age of Extremes*, edited by Willibald Steinmetz, 293–330. Oxford: Oxford University Press, 2011.
- . "'Gaps' and the (Re-)Invention of the Future: Social and Demographic Policy in Germany during the 1970s and 1980s." *Social Science History* 39 (2015): 39–61.
- Giddens, Anthony. *Modernity and Self-Identity: Self and Society in the Late Modern Age*. Cambridge: Polity, 1991.

- . *Beyond Right and Left: The Future of Radical Politics*. Palo Alto, CA: Stanford University Press, 1994.
- . “Risk Society: The Context of British Politics.” In *The Politics of Risk Society*, edited by Jane Franklin, 23–34. Cambridge: Polity, 1998.
- Gilman, Nils. *Mandarins of the Future: Modernization Theory in Cold War America*. Baltimore: Johns Hopkins University Press, 2003.
- Gvosdev, Nikolas K., Derek S. Reveron, and John A. Cloud, eds. *The Oxford Handbook of U.S. National Security*. Oxford: Oxford University Press, 2018.
- Habermas, Jürgen. *Legitimationsprobleme im Spätkapitalismus*. Frankfurt a. M.: Suhrkamp, 1973.
- . “Die Moderne: Ein unvollendetes Projekt.” In *Kleine politische Schriften*, I-IV, 444–63. Frankfurt a. M.: Suhrkamp, 1981.
- Hacker, Jacob S. *The Great Risk Shift: The Assault on American Jobs, Families, Health Care, and Retirement and How You Can Fight Back*. New York: Oxford University Press, 2006.
- Hacking, Ian. *The Taming of Chance*. Cambridge: Cambridge University Press, 1990.
- Hannig, Nicolai. *Kalkulierte Gefahren: Naturkatastrophen und Vorsorge seit 1800*. Göttingen: Wallstein, 2019.
- Hannig, Nicolai, and Malte Thießen, eds. *Vorsorgen in der Moderne: Akteure, Räume und Praktiken*. Berlin: De Gruyter Oldenbourg, 2017.
- Heiner, Ronald A. “The Origin of Predictable Behavior.” *American Economic Review* 73 (1983): 560–95.
- Hobsbawm, Eric. *Age of Extremes: The Short Twentieth Century, 1914–1991*. London: Michael Joseph, 1995.
- Homburg, Ernst, and Elisabeth Vaupé, eds. *Hazardous Chemicals: Agents of Risk and Change, 1800–2000*. New York: Berghahn, 2019.
- James, David. *The Entrepreneurial Adventure: Embracing Risk, Change, and Uncertainty*. New York: Business Expert Press, 2020.
- Japp, Klaus P., and Isabel Kusche. “Systems Theory and Risk.” In *Social Theories of Risk and Uncertainty: An Introduction*, edited by Jens O. Zinn, 76–105. Oxford: Blackwell, 2008.
- Johnson, Nevil. *Die Englische Krankheit: Wie kann Großbritannien seine politische Krise überwinden*. Stuttgart: Klett, 1977. (Original: *In Search of the Constitution: Reflections on State and Society in Britain*, Oxford: Pergamon Press, 1977).
- Jungk, Robert. *Der Atom-Staat: Vom Fortschritt in die Unmenschlichkeit*. Munich: Kindler, 1977.
- Kalmbach, Karena. *The Meanings of a Disaster: Chernobyl and Its Afterlives in Britain and France*. New York: Berghahn, 2020.
- Kaplan, Fred. *The Wizards of Armageddon*. Palo Alto, CA: Stanford University Press, 1983.
- Kaufmann, Franz-Xaver. *Sicherheit als soziologisches und sozialpolitisches Problem: Untersuchungen zu einer Wertidee hochdifferenzierter Gesellschaften*. 2nd edn. Stuttgart: Steiner Verlag, 1973.
- . *Sozialpolitik und Sozialstaat: Soziologische Analysen*. Opladen: Leske + Budrich, 2002.
- Kirby, Andrew. *Nothing to Fear: Risks and Hazards in American Society*. Tucson: University of Arizona Press, 1990.
- Koselleck, Reinhart. “‘Space of Experience’ and ‘Horizon of Expectations’: Two Historical Categories.” In *Futures Past: On the Semantics of Historical Time*, 267–88. Cambridge, MA: MIT Press, 1985.
- La Porte, Todd R., ed. *Organized Social Complexity: Challenges to Politics and Policy*. Princeton, NJ: Princeton University Press, 1975.

- Lee, Murray, and Gabe Mythen, eds. *The Routledge International Handbook on Fear of Crime*. London: Routledge, 2017.
- Leendertz, Ariane. "Das Komplexitätssyndrom: Gesellschaftliche Komplexität als intellektuelle und politische Herausforderung." In *Die neue Wirklichkeit: Semantische Neuvermessungen und Politik seit den 1970er Jahren*, 93-132, edited by Ariane Leendertz and Wencke Meteling. Frankfurt a. M.: Campus, 2016.
- . *Der erschöpfte Staat: Eine andere Geschichte des Neoliberalismus*. Hamburg: Hamburger Edition, 2022.
- Lemke, Thomas. *Eine Kritik der politischen Vernunft: Foucaults Analyse der modernen Gouvernementalität*. Hamburg: Argument Verlag, 1997.
- Lengwiler, Martin. *Risikopolitik im Sozialstaat: Die schweizerische Unfallversicherung 1870–1970*. Cologne: Böhlau, 2006.
- Luhmann, Niklas. *Politische Theorie im Wohlfahrtsstaat*. Munich: Günter Olzog Verlag, 1981.
- . *Risk: A Sociological Theory*. New York: De Gruyter, 1993 (Original: *Soziologie des Risikos*, Berlin: de Gruyter, 1991).
- Lupton, Debora. *Risk*. London: Routledge, 1999.
- Macey, David. *The Lives of Michel Foucault*. New York: Pantheon, 1993.
- MacFarlane, S. Neil, and Yuen F. Khong. *Human Security and the U.N.: A Critical History*. Bloomington: Indiana University Press, 2006.
- Marti, Sibylle. *Strahlen im Kalten Krieg: Nuklearer Alltag und atomarer Notfall in der Schweiz*. Paderborn: Ferdinand Schöningh, 2020.
- Martin, Randy. *Financialization of Daily Life*. Philadelphia: Temple University Press, 2002.
- Meadows, Denis, Donella Meadows, Erich Zahn, and Peter Milling. *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind*. New York: Signet, 1972.
- Miers, David. "Gambling Histories: Writing the Past in the Present." In *Qualitative Research in Gambling: Exploring the Production and Consumption of Risk*, edited by Rebecca Cassidy, Andrea Pisac, and Claire Loussouarn, 42–56. London: Routledge, 2013.
- Mohun, Arwen. *Risk: Negotiating Safety in American Society*. Baltimore: Johns Hopkins University Press, 2013.
- Moses, Julia. *The First Modern Risk: Workplace Accidents and the Origins of European Social States*. Cambridge: Cambridge University Press, 2018.
- Moss, David A. *When All Else Fails: Government as the Ultimate Risk Manager*. Cambridge, MA: Harvard University Press, 2002.
- Mythen, Gabe, ed. *Beyond the Risk Society: Critical Reflections on Risk and Human Security*. Maidenhead: Open University Press, 2006.
- Nowotny, Helga. *Kernenergie, Gefahr der Notwendigkeit: Anatomie eines Konflikts*. Frankfurt a. M.: Suhrkamp, 1979.
- Offe, Claus. "Unregierbarkeit: Zur Renaissance konservativer Krisentheorien." In *Stichworte zur "Geistigen Situation Der Zeit"*, Vol. 1, *Nation und Republik*, edited by Jürgen Habermas, 294–318. Frankfurt a. M.: Suhrkamp, 1980.
- O'Malley, Pat. "Governmentality and the Analysis of Risk." In *Routledge Handbook of Risk Studies*, edited by Adam Burgess, Alberto Alemanno, and Jens O. Zinn, 109–16. London: Routledge, 2016.
- Opitz, Sven, and Ute Tellmann. "Katastrophale Szenarien: Gegenwärtige Zukunft in Recht und Ökonomie." In *Sichtbarkeitsregime: Überwachung, Sicherheit und Privatheit im 21. Jahrhundert*, edited by Leon Hempel, Susanne Krasmann, and Ulrich Bröckling, 27–52. Wiesbaden: VS Verlag für Sozialwissenschaften, 2011.

- Pellandini-Simányi, Léna. "The Financialization of Everyday Life." In *The Routledge Handbook of Critical Finance Studies*, edited by Christian Borch and Robert Wosnitzer, 278–99. London: Routledge, 2021.
- Peneder, Michael, and Andreas Resch. *Schumpeter's Venture Money*. Oxford: Oxford University Press, 2021.
- Perrow, Charles. *Normal Accidents: Living with High-Risk Technologies*. Updated edn. Princeton: Princeton University Press, [1984] 1999.
- Pohl, Natalie. *Atomprotest am Oberrhein: Die Auseinandersetzung um den Bau von Atomkraftwerken in Baden und im Elsass (1970–1985)*. Stuttgart: Rudolf Steiner Verlag, 2019.
- Prasad, Monica. *The Politics of Free Markets: The Rise of Neoliberal Economic Policies in Britain, France, Germany, and the United States*. Chicago: University of Chicago Press, 2006.
- Radkau, Joachim. *Aufstieg und Krise der deutschen Atomwirtschaft: Verdrängte Alternativen in der Kerntechnik und der Ursprung der nuklearen Kontroverse*. Reinbek b. Hamburg: Rowolt, 1983.
- Ranerie, Lewis S. "The Origins of Securitization, Sources of Its Growth, and Its Future Potential." In *A Primer on Securitization*, edited by Leon T. Kendall and Michael J. Fishman, 31–44. Boston: MIT Press, 1996.
- Reagan, Ronald. Inaugural Address, 20 January 1981. Retrieved 1 July 2021 from <https://www.reaganfoundation.org/media/128614/inaguration.pdf>.
- Reichardt, Sven. *Authentizität und Gemeinschaft: Linksalternatives Leben in den siebziger und frühen achtziger Jahren*. Berlin: Suhrkamp, 2014.
- Reichherzer, Frank. "Zwischen Atomgewittern und Stadtguerilla: Gedanken zum Kriegsbild Westdeutscher Wehrexperthen von den 1950er Jahren bis zum Nato-Doppelbeschluss." In *Den Kalten Krieg denken: Beiträge zur sozialen Ideengeschichte seit 1945*, edited by Holger Nehring and Patrick Bernhard, 131–60. Essen: Klartext-Verlag, 2014.
- Robinson, Paul. *Redefining Science: Scientists, the National Security State, and Nuclear Weapons in Cold War America*. Amherst: University of Massachusetts Press, 2016.
- Rodgers, Daniel T. *Age of Fracture*. Cambridge, MA: Belknap Press, 2011.
- Rodríguez, Havidán, William Donner, and Joseph E. Trainor, eds. *Handbook of Disaster Research*. 2nd edn. Cham: Springer, 2018.
- Roeser, Sabine, Rafaela Hillerbrand, Per Sandin, and Martin Peterson, eds. *Handbook of Risk Theory: Epistemology, Decision Theory, Ethics, and Social Implications of Risk*. 2 vols. Heidelberg: Springer, 2012.
- Rose, Nikolas. *Governing the Soul: The Shaping of the Private Self*. 2nd edn. London: Routledge, [1990] 1999.
- Rucht, Dieter. *Modernisierung und neue soziale Bewegungen: Deutschland, Frankreich und USA im Vergleich*. Frankfurt a. M.: Campus, 1994.
- Ruck, Michael. "Ein Kurzer Sommer der konkreten Utopie: Zur Westdeutschen Planungsgeschichte der langen 60er Jahre." In *Dynamische Zeiten: Die 60er Jahre in den beiden deutschen Gesellschaften*, edited by Axel Schildt, Detlef Siegfried, and Karl Christian Lammer, 362–401. Hamburg: Hans Christians Verlag, 2000.
- Sarasin, Philipp. 1977: *Eine kurze Geschichte der Gegenwart*. Berlin: Suhrkamp, 2021.
- Scott, James C. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven, CT: Yale University Press, 1998.
- Seefried, Elke. *Zukünfte: Aufstieg und Krise der Zukunftsforschung, 1945–1980*. Munich: De Gruyter Oldenbourg, 2015.
- Sherry, Michael S. *In the Shadow of War: The United States since the 1930s*. New Haven, CT: Yale University Press, 1995.

- Simon, Jonathan. "Taking Risks: Extreme Sports and the Embrace of Risk in Advanced Liberal Societies." In *Embracing Risk: The Changing Culture of Insurance and Responsibility*, edited by Tom Baker and Jonathan Simon, 177–208. Chicago: University of Chicago Press, 2002.
- Solovey, Mark, and Hunter Heyck. *Cold War Social Science, Knowledge Production, Liberal Democracy and Human Nature*. London: Palgrave, 2012.
- Stedman, Jones D. *Masters of the Universe: Hayek, Friedman, and the Birth of Neoliberal Politics*. Princeton, NJ: Princeton University Press, 2012.
- Stranger, Mark. "The Aesthetics of Risk: A Study of Surfing." *International Review for the Sociology of Sport* 34, no. 3 (1999): 265–76.
- Thompson, Michael. "Aesthetics of Risk: Culture or Context." In *Societal Risk Assessment: How Safe is Safe Enough?* edited by Richard C. Schwing and W. A. Albers, 273–86. London: Plenum Press, 1980.
- Tulloch, John, and Debora Lupton. *Risk and Everyday Life*. London: Sage, 2003.
- Tversky, Amos, and Daniel Kahneman. "Judgement under Uncertainty: Heuristic and Biases." *Science* 185, no. 4157 (1974): 1127–31.
- . *Judgement under Uncertainty: Heuristic and Biases*. New York: Cambridge University Press, 1982.
- United Nations Development Programme (UNDP). *Human Development Report: 1994*. New York: Oxford University Press, published for the UNDP, 1994.
- Van Loon, Joost. *Risk and Technological Culture: Towards a Sociology of Virulence*. London: Routledge, 2002.
- Wack, Pierre. "Scenarios: Uncharted Waters Ahead." *Harvard Business Review* 63 (1985): 73–89.
- Walker, Clive. *The Civil Contingencies Act 2004: Risk, Resilience and the Law of the United Kingdom*. Oxford: Oxford University Press, 2006.
- Walter, Jeremy, and Melinda Cooper. "Genealogies of Resilience: From Systems Ecology to the Political Economy of Crisis Adaption." *Security Dialogue* 42 (2011): 143–60.
- Wehner, Christoph. *Die Versicherung der Atomgefahr: Risikopolitik, Sicherheitsproduktion und Expertise in der Bundesrepublik Deutschland und den USA 1945–1986*. Göttingen: Wallstein, 2017.
- Wilkinson, Iain. "Psychology and Risk." In *Beyond the Risk Society: Critical Reflections on Risk and Human Security*, edited by Gabe Mythen and Sandra Walklate, 25–41. Maidenhead: McGraw-Hill Education, 2003.
- Wisner, Benjamin, Jean-Christophe Gaillard, and Ilan Kelman, eds. *The Routledge Handbook of Hazards and Disaster Risk Reduction*. London: Routledge, 2012.
- Zwierlein, Cornel. "Einleitung: Sicherheitsgeschichte, ein neues Feld der Geschichtswissenschaften." *Geschichte und Gesellschaft* 38 (2012): 365–86.