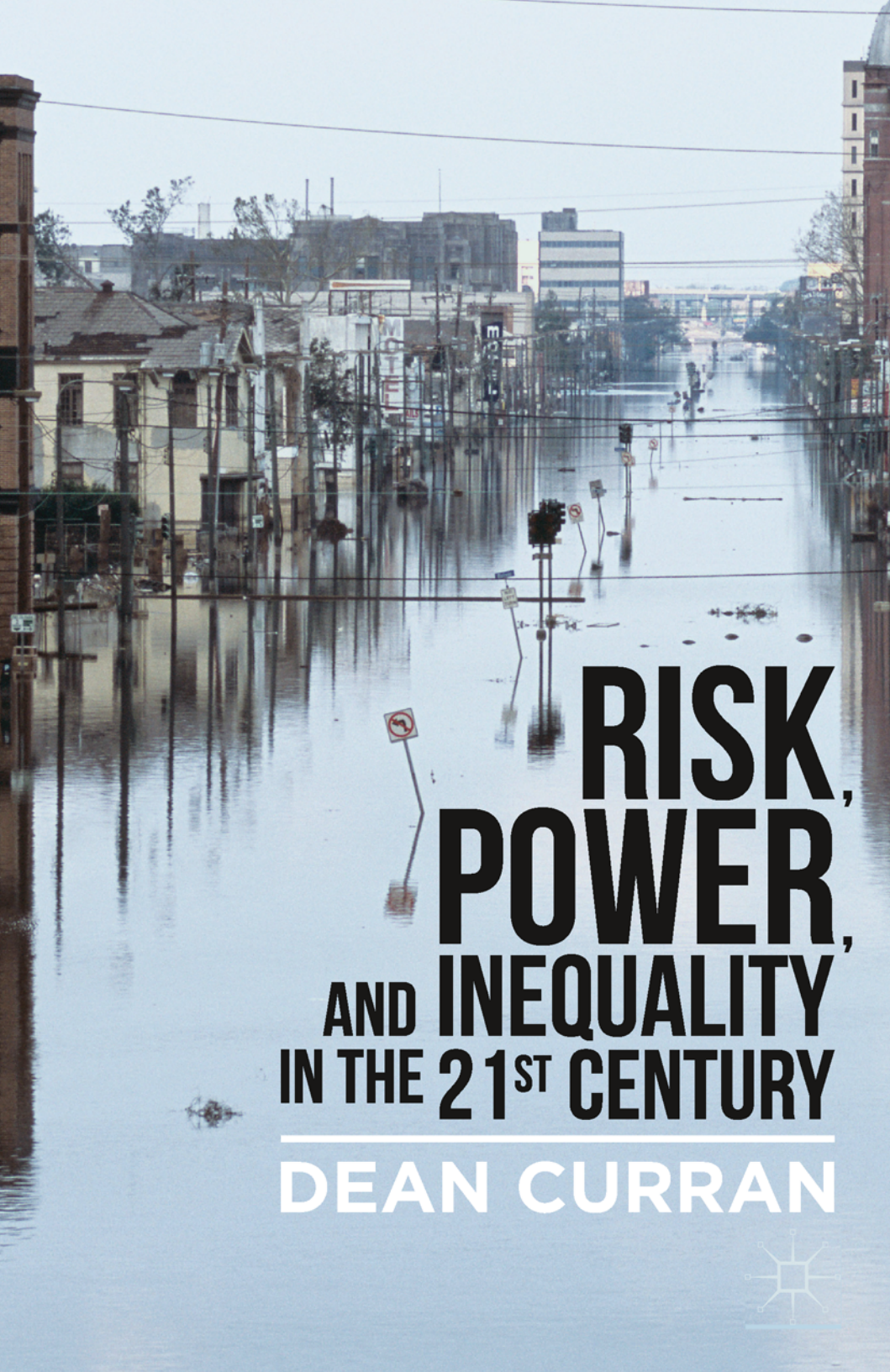

RISK, POWER, AND INEQUALITY IN THE 21ST CENTURY

DEAN CURRAN

Risk, Power, and Inequality in the 21st Century

Risk, Power, and Inequality in the 21st Century

Dean Curran
Assistant Professor, University of Calgary, Canada

palgrave
macmillan

RISK, POWER, AND INEQUALITY IN THE 21ST CENTURY

Softcover reprint of the hardcover 1st edition 2016 978–1–137–49556–3

First published 2016 by
PALGRAVE MACMILLAN

Palgrave Macmillan in the UK is an imprint of Macmillan Publishers Limited, registered in England, company number 785998, of Houndmills, Basingstoke, Hampshire RG21 6XS.

Palgrave Macmillan in the US is a division of Nature America, Inc., One New York Plaza, Suite 4500 New York, NY 10004-1562.

Palgrave Macmillan is the global academic imprint of the above companies and has companies and representatives throughout the world.

ISBN 978–1–349–69759–5
E-PDF ISBN: 978–1–137–49557–0
DOI: 10.1057/9781137495570

Distribution in the UK, Europe and the rest of the world is by Palgrave Macmillan®, a division of Macmillan Publishers Limited, registered in England, company number 785998, of Houndmills, Basingstoke, Hampshire RG21 6XS.

A catalog record for this book is available from the Library of Congress

A catalogue record for the book is available from the British Library

Typeset by MPS Limited, Chennai, India.

For past, present, and future, to Sarah,
Laura, and Dylan

Contents

Preface viii

1 Which Risk Society, and for Whom? 1
2 The Sociology of Risk and the Ineliminability of Realism 20
3 Risk Society and Systematic Social Theory 42
4 Thinking with Bourdieu, Marx, and Weber to Analyse Contemporary Inequalities and Class 63
5 Risk Society and the Distribution of *Bads* 83
6 Risk Illusion and Organized Irresponsibility in Contemporary Finance 113
7 Conclusion: Beyond the Quiet Politics of Risk 140

Notes 149

References 160

Index 176

Preface

This book was written over the course of 2010–2015. Having first seriously engaged with Ulrich Beck's work in 2010, some five years after Hurricane Katrina and in the context of skyrocketing top incomes and a financial crisis that was massively unequal in its impact, I came to *World Risk Society* (1999) and *Risk Society* (1992) with a very different set of concerns than many of its past readers would have done. It was clear that these processes were unequal and certainly not a threat to class inequalities. What was quite striking though was how Beck's theory of risk society provided a powerful framework to trace the systematic and cumulative impacts of these different risks. That is not to say that they had hitherto appeared as completely isolated processes, but it was Beck's work, beginning for me with the startling boldness of the idea of the 'distribution of *bads*' (1999: 8), that provided a theoretical framework to move beyond the different analytical silos that the environment, finance, and rising inequalities occupied. This book pursues this rethinking of the theory of risk society to move beyond these silos to explore how contemporary environmental and financial risks are intensifying contemporary inequalities. There is clearly more work needed in this direction, but this book aims to provide a framework to rethink both risk and inequality and to empirically substantiate the fundamental importance of their relation to contemporary society.

It was with great sadness that I heard that Ulrich Beck had died on the first day of 2015. This book is indebted to him in a variety of ways that go beyond the influence that his writings have had on my work. As a reviewer, through an extended reply to an earlier paper of mine (2013), and in conversation and over email Beck insightfully and generously engaged with my critique of his work. I was fortunate to be able to meet him in 2014. I was particularly struck by his intellectual honesty – how explicit he was about how these were really important problems and the struggle to get to grips with them – and his openness to disagreement about the key aspects of contemporary risk. We discussed both of our books, which we were completing, and I looked forward to continuing the debate with Beck regarding how to understand contemporary risk, power, and inequality. While this is unfortunately no longer possible, I am grateful for his contribution to this book and I look forward to reading his forthcoming book.

This book also has resulted in many other debts. I am particularly grateful to Andrew Sayer. I benefited immensely from my time at Lancaster as a visiting PhD student and, later, as postdoctoral fellow, and am most grateful to him for his feedback on each of my substantive chapters. Thanks go to Grant Amyot, Frank Pearce, Laureen Snider, Marcus Taylor, and William Outhwaite, all of whom provided excellent feedback on earlier versions of the chapters. Thanks also to Roman Frigg, Rahul Kumar, Martin Hand, Vincent Mosco, Abraham Rotstein, and Robert Shenton for their aid and thought-provoking discussions in the lead up to this research programme. Palgrave's reviewers provided helpful feedback, as did Dave Elder-Vass, who carefully read Chapters 1–4. The book benefited considerably from helpful discussions with, amongst others, Andrew Brown, Nick Hardy, Bob Jessop, Linsey McGoey, Mike Savage, Özgün Topak, Eliot Tretter, David Tyfield, and John Urry. I would also like to thank my students in the sociology of risk course for the thought-provoking discussions. Thanks as well to my new colleagues at the University of Calgary who have greatly helped me to settle into my new position. I would also like to thank the Social Sciences and Humanities Research Council of Canada and the Ontario Government for funding part of this research.

Chapters 5 and 6 build upon previously published material: 'Risk Society and the Distribution of Bads: Theorizing Class in the Risk Society', *British Journal of Sociology* 64(1) (2013): 44–62, 'What is a Critical Theory of the Risk Society? A Reply to Beck', *British Journal of Sociology* 64(1) (2013): 75–80, and 'Risk Illusion and Organized Irresponsibility in Contemporary Finance: Rethinking Class and Risk Society' *Economy and Society* 44(3) (2015): 392–397. Thanks to the editors and anonymous reviewers of the *British Journal of Sociology* and *Economy and Society* for their excellent feedback on these papers; particular thanks to the editors of the *British Journal of Sociology* for providing the opportunity for the debate with Ulrich Beck.

Last, but not least, I would like to thank my family for their support and patience with what sometimes seemed like the all-consuming task of completing this book. Over the course of completing this book, and of our moves from Kingston to Lancaster to Calgary, the time that we have spent together has been both a joy in itself and a necessary respite from my work.

I am extremely grateful for all of the help that I have received in the lead-up to this book though the usual disclaimers, as always, apply.

1
Which Risk Society, and for Whom?

The disastrous consequences of contemporary financial and environmental risk

The 2008 global financial crisis and its aftermath have been defining features of economic, political, and social life for the past seven years. Most of the world's advanced economies suffered the worst macroeconomic downturn since the Great Depression of the 1930s (see Jenkins et al. 2013a: 1). The impacts were both immediate and severe; the crisis resulted in a 2.1 per cent decline in the size of the global economy between the first quarter of 2008 and the second quarter of 2009 (Keeley and Love 2010: 12). Elsewhere, it has been estimated that the global economy would have increased by $4 trillion had it not been for the crisis (Haldane 2010: 3). Likewise, there were massive increases in unemployment. The Organization for Economic Cooperation and Development (OECD) countries set a post-World War II record of 8.7 per cent in 2010, with 17 million more people out of work than there were two years earlier (Keeley and Love 2010: 12). Amongst the other damaging effects of the crisis has been a massive increase in public debt. While research on financial crises has already established the significant impact of banking crises on public debt (Reinhart and Rogoff 2009: 172), the effects of the most recent crisis have been particularly extreme, with global public debt growing by an average of 9.3 per cent per year from 2007 to 2014. Advanced economies experienced a massive increase in their debt-to-GDP ratio, from 69 per cent in 2007 to over 100 per cent in 2014, which has resulted in difficult dilemmas for many countries (McKinsey 2015: 15, 21). Simply put, the 2008 financial crisis and its resultant impacts have been a colossal social and economic disaster, the effects of which have dominated political and economic life for several years now.

Despite the huge global turmoil wreaked by the 2008 financial crisis, the future impacts of environmental crises, in particular climate change, are expected to dwarf even those of the recent financial crisis. A global average temperature increase of 2°C above the pre-industrial (c. 1750) average temperature has been widely identified as a key threshold for many of the dangerous impacts of climate change (see Maslin 2009: 78). However, as the *Economist* points out, not only are CO_2 levels (the key contributor to climate change) continuing to rise, but they have been doing so at an increasing rate. CO_2 levels rose from 280ppm in the pre-industrial world to 316ppm by 1958, an increase of 36ppm over approximately two centuries. However, it took only 47 more years for CO_2 levels to increase another 69ppm to 379ppm by 2005, and then over only eight further years they increased another 21ppm to reach 400ppm by 2013 (Economist 2013a). As it has been pointed out, 'The last time such values prevailed on Earth was in the Pliocene epoch, four million years ago, when jungles covered northern Canada' (Economist 2013a). While not in quite as stark terms, the recent IPCC report highlights that if additional mitigation strategies are not adopted, then they estimate with a high confidence level that we will blast through the 2°C above the pre-industrial average temperature threshold by the turn of the century, with global mean temperature increases of between 3.7°C to 4.8°C by 2100 (IPCC 2014c: 8).[1]

Climate change is expected to both intensify existing risks and create new types of risks for human and natural systems (IPCC 2014a). The risks that are associated with proceeding beyond the 2°C threshold include increases in droughts and floods from extreme rainfall, rising sea levels, increases in water scarcity, and declining food productivity (Maslin 2009: 79–80). Cities are expected to experience increased incidences of heat stress, storms, flooding, water scarcity, and storm surges (IPPC 2014a: 15), while rural areas, especially those with rain-fed agriculture, are expected to experience greater stress on food security (IPCC 2007: 50; Collier, Conway, and Venables 2008: 344; IPCC 2014d: 4–5). Water insecurity is also expected to increase, with it estimated that a 2.1°C global temperature increase could lead to up 3 billion people being exposed to water shortages (Urry 2011: 43). Likewise, it has been estimated that by 2050 climate change could cause up to 150 million environmental refugees (Urry 2011: 45). Global climate change is also expected to increase the irreversible loss of species, with some studies suggesting that proceeding beyond the 2°C threshold could lead to between 15 to 40 per cent of species facing extinction (Leemans and Eickhout 2004 in Stern 2007: 94). Extinction rates even on the lower bound of these estimates

would have a massive impact on both human and nonhuman life. In fact, it has been suggested that this wave of extinctions could be the human species' 'most enduring legacy' (Kolbert 2014: 269).

The 2008 financial crisis and the continuing fragility of our global financial system and the threat of global climate change appear akin to external spectres haunting us, manifesting considerable damage and threatening even more. Yet, despite these massive negative effects, they are not external dangers but rather the product of human action; they are in fact the side-effects of contemporary life. They are socially produced as side-effects arising from the generation of the goods of our economic and social life. In fact, in many ways these side-effects are produced in contexts of what has been termed 'organized irresponsibility' (Beck 1995a), in that they are the product of the actions of many different agents that, collectively, create risks for which the originators of these risks are not held responsible. Despite the massive damages that these humanly produced risks are generating, few if any individuals have been held culpable for the harms that they have and will cause.

Early images of environmental risk conceived it primarily in terms of a universal threat to 'our common future' (Brundtland et al. 1987); however, in a post- Hurricane Katrina and 2008 financial crisis world, in which both of these events appeared to wreak havoc in a highly uneven way, the differing impacts of these humanly produced risks have become extremely important areas of concern. Nevertheless, while the massive, and often unequal, nature of the impacts of these contemporary risks is recognized widely in popular discussions, as of yet there has been a distinct neglect of their overall *systemic impacts* on inequalities in contemporary social science. It is this gap that this book seeks to address by both developing a framework that can illuminate the systemic connections between contemporary socially produced risks and inequalities, and by empirically identifying some of these key connections. By moving risks out from the background of the primary focal point, the production of *goods*, and bringing these diverse risks into the foreground it may be possible to investigate how contemporary humanly produced risks are transforming contemporary power and the life conditions of both the most advantaged and the least advantaged in society in highly different ways.

Thinking risk and inequality through risk society

This book argues that contemporary socially produced risks are becoming a key source of contemporary inequality. To grasp the novel

connections between contemporary risk and inequality, however, novel social scientific frameworks of risk and inequality must be developed. This book proceeds to argue that, rather than starting from scratch, existing theoretical resources in class analysis and in the sociology of risk, in particular, Ulrich Beck's theory of risk society, can be critically reworked to develop a series of tools that can illuminate how risks are intensifying existing inequalities in particularly pernicious ways. The result of this theoretical and empirical investigation of contemporary risk, while preliminary and subject to further investigation, shows that contemporary societies are increasingly exhibiting a process of *creative destruction*. This process of creative destruction, unlike Schumpeter's (1962 [1942]) original conception, in which society as a totality was exposed to incessant creation and destruction, is one in which the advantaged experience the *creation* of massive opportunities for enrichment, while the least advantaged are reciprocally exposed to the *destructive* side-effects of these processes, leading to greater impoverishment and harm. Much theoretical and empirical work is necessary before this understanding of the contemporary age can be fully substantiated and detailed; nevertheless, this book is intended as a first step in exploring and outlining these processes.

In pursuing this task, this book redevelops the existing social science understandings of risk to provide a novel theoretical framework that can arrange the multifarious processes in the world today so as to illuminate these relations between risk and inequality. To this end, Ulrich Beck's theory of risk society is particularly utilized for this study. Beck's work on contemporary socially generated risks continues to be one of the most important – and debated – approaches to risk (Beck 1992a, 1995a, 1999, 2009a, 2013a). His theory of risk society views many of the most important risks facing society as global side-effects that are generated in contexts of 'organized irresponsibility', where the originators of the risks are often able to avoid being held responsible for their damage (Beck 1995a). Beck argues that there has been a shift in the nature of modernity, from the 'first modernity' – where social life and conflict is dominated by the production and distribution of *goods* resulting from rational control over social-material life – to a process of 'reflexive modernization' that results from self-confrontation with the latent side-effects of social action, which manifest themselves as risks (Beck 1999: 8, 73). Despite some qualms that will be discussed in the chapters below regarding his disjunctive understanding of the different 'modernities', a powerful advantage of this framework is that, rather than solely focusing upon the specificity of each of the different social,

economic, and physical risks in isolation from each other, Beck's work highlights their common principle as 'manufactured uncertainties' which lead to the increasing domination of social and material life by the 'side-effects' of existing systems of production of goods (Beck 1999: 13, 2009a: 50).

Yet despite the potential importance of Beck's framework for illuminating the social-material conditions underlying contemporary 'manufactured uncertainties', his theory of risk society has suffered from a fundamental flaw, which is his argument that the processes associated with risk society lead to the dissolution of the importance of class relations (Beck 1992a, 1995a, 2011a; Beck and Beck-Gernsheim 2002; Beck and Willms 2004; for critiques see McMylor 1996; Scott 2000; Scott 2002; Elliott 2002: Mythen 2005a, 2005b; Atkinson 2007a, 2010a). For Beck, class differentials are rendered increasingly irrelevant by the growing, universal distribution of risks in the risk society (Beck 1992a: 22). This book critically redevelops Beck's theory of risk society and brings it into critical confrontation with other key social science approaches to risk and to inequality to identify how the heightened social production and distribution of risks as side-effects is intensifying existing inequalities.

The remainder of this introduction pursues the following tasks. Firstly, it briefly outlines how the systemic relations between risk and inequality are understudied in the existing social sciences. Secondly, the critical rethinking of Beck's work on risk society that is used in this study is briefly introduced and how it relates to existing literatures on risk and on inequality is addressed. Finally, the structure of the book is outlined.

The neglect of risk and inequalities in the social sciences

There are already extensive literatures in the different social sciences on the subject matter of risk. As is briefly argued below, and further substantiated throughout the rest of this study, the current social science approaches to risk are ill-suited to explore the systemic relationship between risk and inequality. The section below firstly explores how social sciences, other than sociology, that feature risk as an area of study, specifically economics and psychology, do not address the relationship between risk and inequality. Secondly, it adumbrates how social scientific analyses of inequality neglect the relationship between risk and inequality. Lastly, it briefly discusses how the different approaches within the sociology of risk overlook the connection between risk and inequalities.

Psychological and economic approaches

Both psychology and economics include extensive analyses of risk and decision making in contexts of risk (see Tversky and Kahneman 1974; Kahneman and Tversky 1979; Arrow 1982; Slovic 1987, 2000). Nevertheless, neither psychological nor mainstream economic approaches to risk are well-suited to explore systemic shifts in the relationship between the social production of risk and widening inequalities. Psychological approaches to risk emphasize individual perception and thereby focus on the bases of individual behaviour. While psychological approaches can allow for social influences on *action* and *perception*, they lack a theory of social structures and of how these structures interact with material structures (see Slovic 1987; Slovic and Peters 2006). Approaches to life that focus on intended action and its influences, without corresponding attention to social systems and structures, neglect a key fact of social life, which is unintended consequences (Giddens 1979: 59). In the case of the social production of risks as side-effects this neglect of systemic side-effects renders psychological approaches an inappropriate basis for explaining systemic changes in the relationship between risk and inequality.

Another strong contender for providing the dominant social scientific approach to risk is economics. Discussion of risk is widespread in economics and, unlike some of the other social scientific approaches discussed below, economics does have the virtue of treating risks as real possibilities that may have significant consequences.[2] However, two key core working assumptions of mainstream economics create particular problems for its ability to adequately identify the relationship between contemporary risk and inequality. These two are methodological individualism and the methodological assumption that market actors always tend to restore markets to equilibrium (see Arnsperger and Varoufakis 2006).[3] This individualistic and equilibration paradigm of mainstream economics ultimately leaves out of its primary analytical frame the fact that environmental and financial risks are produced as side-effects that are not captured in market exchanges.[4] The systemic nature of these risks are not captured within the methodological equilibration frame, which is focused on the generation of equilibrium through markets in which all benefits and costs are captured within voluntary, and hence mutually beneficial, market transactions. Moreover, its individualistic frame obscures rather than illuminates the ways in which these processes constantly escape the control of their originators in a way that cannot be captured within voluntary market relations.

Ultimately the mainstream economic understanding of risk is only effective (if it is at all) in cases where the consequences of risks are solely borne by the decision-maker (see Renn 2008: 18). This sole application to cases where there are *not* side-effects outside of voluntary market exchanges makes it particularly unsuitable for exploring climate change and systemic financial risk. This inadequacy of the mainstream economic approach is highlighted by the analysis of financial risk in Chapter 6 that exemplifies the problems caused by side-effects not borne by or traced back to their originators. On the other hand, heterodox and other approaches to economics, including Amartya Sen's ground-breaking work on famines and capabilities that take market failure and the relational economy more seriously (Sen 1981, 1983, 1993), have made important diverse contributions to the understanding of risk. Some of these contributions to subjects such as climate change (Stern 2007) and contemporary finance (Haldane, Brennan, and Madouros 2010) alongside the insights of Sen will be integrated into the framework for understanding risk and inequality elaborated in this book.

The neglect of risk by the social science of inequality

Despite the wealth of social science literature on social inequalities, and some studies on the inequality of specific risks of low income (Ehrenreich 2001) and bankruptcy (Warren and Tyagi 2003), the social scientific approaches to inequality have not yet addressed the systemic relationship between risk and inequality. In particular, those approaches that look at inequalities more generally have primarily focused on inequalities relating to income and wealth (see Atkinson, Piketty, and Saez 2011).

The neglect of the relationship between risk and inequality has been particularly striking in the most systematic and socially inflected approach to inequality, class analysis. While two of the key originators of class analysis, Marx and Weber, were cognizant of how socially instituted processes of production and distribution create risks that are unevenly distributed, they did not theorize risk as an explicit and systematic object of production and distribution. Marx's systematic analysis of class relations ultimately focuses on the process of exploitation, in which those who control the means of production appropriate surplus value from those who do not. Likewise, Weber's class analysis focuses on the distribution of 'market capacities' based upon existing market situations and how these differentials in market capacities shape inequalities in terms of the ability to acquire goods on the market. Ultimately, both Marx and Weber oriented their analytical frameworks to analysing the

production and unequal distribution of *goods* (see Mythen 2004: 26). On these frameworks, risks are the seemingly minor, many side-effects of actions which *prima facie* tend to be neglected when thinking systematically about the effects of existing social and material processes solely through the frame of the distribution of goods. In this regard, Beck's theorization of *risk position* as an object of distribution akin to 'class position' is salutary, as it shines a powerful light on fundamental *systemic* processes structuring contemporary power relations, which are not emphasized in these other dominant frameworks (see Beck 1992a: 26).

Bourdieu similarly was acutely aware of the role played by economic and social risks in life, especially the way in which economic insecurity shapes individuals' classed *habitus* (Bourdieu 1984, 2000). Nevertheless, he did not theorize risk as an object of production and distribution, which can be systemically produced and distributed in ways that fundamentally reshape existing power and life chances. Instead his class framework focuses on multidimensional capitals and how they enable individuals to appropriate the advantages emerging from different fields (Bourdieu 1984, 1998, 2001). Consequently, despite the vast wealth of theoretical resources in contemporary studies of inequality and class, these resources have not been employed to explore the systemic relations between risk and inequality.

Sociological approaches to risk and inequality

In looking at contemporary sociology of risk, its lack of explicit theorizing on inequality and class mirrors class analysis' neglect of the systemic impacts of risk. Mary Douglas' cultural approach, for instance, focuses on how different social structures affect which types of risks are most salient to different individuals (Douglas and Wildavsky 1982; Douglas 1992). While not necessarily incompatible with an analysis of the impact of the production and distribution of these risks, the problem of risk and inequality is outside of the purview of Douglas' approach. The Foucauldian inspired governmentality approach, in turn, focuses on ways in which uncertain events are formatted as calculable events, thus transforming them into risk (Ewald 1991; Dean 1999). This focus on risk as a particular kind of treatment of events (Ewald 1991), and its corresponding focus on the construction of events as risks, leaves completely outside of its analytical frame certain types of risks as real possible harms and how these possible harms affect the social power and life chances of different individual in society. Luhmann's (1993) systems theory of risk, on the other hand, proposes to redefine 'risk' by moving the concept away from its semantic focus on possible damages to understanding

'risk' as a concept to distinguish between possible outcomes that can be ascribed to human decisions and those that cannot (Luhmann 1993). Once again, this sociological approach to risk focuses on a way of treating events. All of these approaches, cultural, governmentality, and systems theory, neglect the systemic changes in the life situations that individuals are facing due to growing socially generated environmental and financial risks; thus they cannot address how changes in the production and distribution of risks are affecting contemporary inequalities.

In contrast to the other sociological approaches to risk, Ulrich Beck's theory of risk society does focus on the social conditions and impacts of the production and distribution of risk on social inequalities, with a particularly extensive discussion of the impact of contemporary risk on class (Beck 1992a, 1995a, 1999, 2006b, 2009a, 2011a, 2013b; Beck and Beck-Gernsheim 2002; Beck and Willms 2004). Beck's theorization of risk society focuses directly on the impacts on social power of environmental and financial risks as side-effects by providing a framework to think through certain key commonalities in the processes of the production and distribution of risks. However, as mentioned above, Beck's discussion of risk and inequality requires major revision. Beck considers 'risk society' an epochal shift *within* modernity, in which risks *replace* previous forms of social inequality such as class (Beck 2006b: 333). He ultimately argues that because of the inescapability, and hence egalitarian distribution, of these risks, old logics of power are being eliminated, summing this up in declaring that 'poverty is hierarchic, smog is democratic' (Beck 1992a: 36). By analysing changes in the 'logic of risks', Beck concludes that '*social risk positions* … contain a boomerang effect, which *breaks up the pattern of class and national society*' (Beck 1992a: 23, emphasis modified). While Beck had partly modified his position recently, he continued to reject the relevance of class to risk and viewed them as two opposed logics (Beck 2013b). Beck's rejection of class as a key category of sociological analysis has been subject to extensive social scientific critique (see Rustin 1994; McMylor 1996; Scott 2000; Elliott 2002; Goldthorpe 2002; Scott 2002; Mythen 2005a, 2005b; Atkinson 2007a, 2007b, 2010a). However, as discussed below, there are significant limitations in this primarily critical literature that needs to be redressed if a more adequate account of the relationship between risk and inequality is to be developed.

Rethinking risk and class analysis

While Beck's critics have effectively pointed out many difficulties in Beck's claims about class by showing how class continues to be

important, they have tended to ignore the possible *creative moment* that Beck's theorizing of risk can contribute to understanding contemporary, widening inequalities. Countering Beck's 'narrative of discontinuity' with their own 'narrative of continuity', they have focused on *contradicting* Beck's thesis of the dissolution of class. Limiting themselves to demonstrating that class will not be irrelevant to life chances even as risks grow, the key emphasis of the literature is that growing risk 'reinforces', rather than 'transforms' the logic of social distribution (Mythen 2005b: 1.3, 2007: 800; see also Scott 2000; Atkinson 2007a). Ultimately, in response to Beck's rejection of class, this debate between Beck and his critics has assumed that there are only two fixed positions: either class is reproduced or dissolved. This false dilemma needs to be overcome to develop novel and insightful sociological approaches to risk – rather than mere criticisms of the existing approaches – which can explore how the processes associated with the social production and distribution of risk are actually *intensifying* class inequalities and the social sources of contemporary suffering.

There are two particular limitations in this literature on risk society and class that this book aims to overcome. Firstly, as mentioned above, while the existing critical literature emphasizes the continuity of class relations in the risk society, this book argues that the processes associated with risk society are contributing to the intensification of class-based inequalities. Secondly, contrary to both Beck and his critics, this book will argue that rather than the theory of risk society being *en bloc* antithetical to class analysis, the redevelopment of key theoretical resources in the theory of risk society can make an important contribution to understanding the relations between class inequalities and the social production and distribution of risk. In particular, this book argues that it is Beck's inclusion of some specific and *ad hoc* assumptions about the paradigmatic cases of socially produced risks, rather than the theory of risk society *en bloc*, that obscures the important contribution that a theorization of risk society can make to understanding class in contemporary society. Beck's conclusions regarding the stratification effects of the processes associated with risk society ignores both the gradation of risks (Scott 2000; Mythen 2005b) and the differing levels of calculability of risk (Mythen 2005b: 4.2). Arguing for a revision of this theorization of socially produced risks using both theoretical arguments and secondary source empirical evidence, a theory of *risk position* that illuminates its diverse connections to class position is generated. By deploying this more differentiated theory of risk position, it is argued that this redevelopment of the theory of risk society can illuminate some of the key ways in which class differentials

shape the uneven distribution of risks and the uneven appropriation of the benefits from the social production of risk.

This book proposes to analyse these connections between contemporary risk and inequality via a toolbox of concepts, many of which are indebted to Beck's work, including: the 'social production of risk', the 'distribution of *bads*', 'private escape routes', 'risk position' (Beck 1992a), 'organized irresponsibility'[5] (Beck 1995a), struggles over 'risk definitions' (Beck 2009a), 'risk-class'[6] (Beck 2013b), 'risk illusion' (Haldane, Brennan, and Madouros 2010), and 'risk arbitrage' (Curran 2015). Using this toolbox, this book both identifies key relationships between contemporary risk and inequality not adequately captured in the sociology of risk or the sociology of inequality, as well as delineating a more general framework with which to further explore these relationships. The analysis in this book demonstrates how processes associated with risk society, the social production and distribution of risks as side-effects in contexts of organized irresponsibility, have the power to transform existing logics of distribution.

In particular, this book analyses how the processes associated with risk society are intensifying key relational inequalities, in which *the advantages of some are the cause of the disadvantages of others*.[7] Contrary to Beck's understanding of a single totalizing 'risk society', this book argues that these processes are generating two risk societies. That is, both the relatively wealthy and the relatively disadvantaged each may be said to occupy a risk society, but they occupy two very different ones. For the advantaged it is one of opportunity for enrichment through risk production and a stacked deck in terms of the monopolization of private escape routes based on their relational position in terms of economic and social power, while for the latter it is one of minimal advantages, while being exposed to the brunt of these risk-creating processes. Consequently, rather than there simply being a divide between two groups, there is a situation in which one fundamentally contributes to the constitution of the other: it is the disadvantages borne by the one that enables the advantages of the other. This book pursues the task of substantiating this framework of risk and inequality and the specific claims made based on this framework through an 'empirically oriented social theory'[8] that aims to develop innovative theoretical insights based on theoretical critique and extensive critical engagement with existing quantitative and qualitative empirical research.

While there are many dimensions of inequality that are touched on in this book, including gender, ethnicity, economic, and spatial inequalities, the primary frame in which this analysis of the relationship

between risk and inequality is pursued is with respect to class inequalities. There are several reasons for focusing primarily on class inequalities. Firstly, the debate regarding the relationship between risk and inequality has primarily taken place specifically with respect to the relationship between risk and class (in particular, amongst Beck and his critics), and hence there is already a developed literature to critically engage with and upon which to build. Secondly, the study of class has developed alongside the development of sociology and hence it embodies a powerfully social perspective on life, which provides theoretical tools that are particularly well-suited to studying the systemic and structural consequences of contemporary risk. Thirdly, as Erik Olin Wright has importantly emphasized, class analysis, particularly, Marxist, Weberian, and Bourdieusian traditions, embody a powerfully *relational* perspective on inequality (Wright 1996, 2005). Its development of theoretical and empirical resources that can illuminate relational inequalities can make an important contribution to central explanatory and normative dimensions of contemporary inequality, by illuminating how certain types of disadvantages are generated by the advantages of others. Following Beck's prescient statement that, 'Risks like wealth are the object of distributions, and both constitute positions – risk positions and class positions respectively' (Beck 1992a: 26), this book argues that the study of the intersection between class position and risk position needs to be investigated if key, currently neglected, bases of contemporary widening inequalities are to be identified. Despite this analytical focus on class, the frameworks developed in this study to rethink risk and inequality will also be used to illuminate other key inequalities such as gender, race, and international inequities at specific points.

The development of this approach to risk and inequality and the knowledge it yields can also complement some other recent studies that have looked at the increasing importance of growing economic risk and growing economic inequality. In terms of such studies that have emphasized the increasing importance of economic risk on people's lives, Jacob Hacker's *Risk Shift* (2006) and Guy Standing's *Precariat* (2011) in particular stand out. Hacker's analysis of the increasing *transfer* of economic risk from corporations and governments to individuals has powerfully highlighted the impact that shifts in economic risks are having on contemporary life chances, though it does suffer from two limitations that this study seeks to overcome. Firstly, Hacker conceives of the frame of risk as superseding that of inequality rather than understanding them as overlapping and mutually supportive (see Hacker 2006: 64–5), and, secondly, his study of risk *shifting* does not focus

upon the underlying processes generating excessive risk. Guy Standing's (2011) delineation of the 'precariat', by focusing on the increasingly precarious nature of employment and the power of corporations to shift risks from themselves to employees, also provides another powerful discussion of how contemporary employment risks are distributed in highly unequal ways. This study, through the development of an overarching analysis of: the impact of the *production* and *distribution* of risks as systemic side-effects; the processes by which responsibility for these risks are avoided; and the systemic connections between these risk processes and growing social inequalities, can complement Hacker and Standing's analyses of the transfer of economic risk. In this way, the study of contemporary power relations and risk and inequality is developed in fruitful new directions.

Likewise, this study is intended to complement research that brings attention to recent vast increases in economic inequalities and the re-emergence of an economic elite.[9] So far, these studies have been primarily descriptive of the emerging elite; however, this description of the emerging elite also generates the need for an analysis of the types of powers that these elites are wielding and the underlying bases of this power. To this end, some recent studies have begun to address this task of exploring the underlying basis of the vast increases in top incomes, analysing such phenomena as the returns to financial intermediation (see Savage and Williams 2008), the ability to financially 'expropriate' the wealth of others (Lapavitsas 2013), and the relationship between returns to capital and rates of economic growth and growing inequality (Piketty 2014a). The argument developed in this book furthers the study of contemporary inequality by exploring how risk as an object of production and distribution can contribute to economic inequalities. Moreover, it extends the purview of systemic intensifications of inequalities analysed by looking at how the *distribution of risks* creates, and often intensifies, inequalities in ways that are not captured solely by looking at the elite through the prism of rising income and resource inequalities.

In this way this book also builds on the existing contributions of the environmental justice literature, which has highlighted the many processes by which toxic sites and other environmental hazards are distributed in a highly unequal manner (see Bullard 1990; Roberts and Parks 2006). Firstly, unlike many of these environmental justice studies which chart empirical inequalities in environmental hazard, this study explicitly develops a relational approach to the distribution of risk, in which not only do the poor have more environmental hazards

than the advantaged, but they have more *because* the others have less. Consequently, this book aims to integrate, but also further develop, the extensive literature on the unevenness of the impacts of climate change (see IPCC 2014b). Secondly, this book builds on these specific studies to develop a larger framework that can show how not just environmental risks, but the processes of the social production and distribution of risks *writ large* in contemporary neoliberal capitalism, is intensifying inequalities in particularly exigent ways.

In articulating this study of risk and inequality through a rethinking of risk society and class analysis, this book has several interrelated aims that it seeks to achieve. Firstly, it outlines a toolbox of concepts through deploying them in various ways that can be used to further refine, amplify and explore the relationship between contemporary risk and inequality. Secondly, this book seeks to highlight a key social problem, the emerging relationship between risk and inequality, which has not received adequate attention due to the existing divisions between different subdisciplines in sociology and within the social sciences as a whole. Thirdly, it seeks to explore the extent to which social theory can be pursued as a highly interdisciplinary, perhaps even transdisciplinary, activity. One feature of this book that I believe is particularly interesting is the diversity of subjects this research is based upon and how it utilizes research that is relevant to these areas of study, including social theory, political economy, philosophy, geography, ecology, political philosophy, the study of distributive justice, and economics to speak to contemporary risk and inequality. Whether pursuing social theory in this highly interdisciplinary way can reinvigorate the sociological imagination, or whether this is simply an attempt to meet the massive challenge of contemporary risks (see Renn 2008: xv), this study aims to explore the boundaries of how the tools of sociology can be used to move beyond existing disciplinary boundaries in new and productive ways.

Lastly, this book seeks to establish some substantive conclusions regarding how risks and inequalities are related in contemporary society. The claims made in this regard are often generalist and certainly at a higher level of abstraction than the vast majority of the empirically informed research in the sociology of risk. Many of these conclusions will be highly controversial; however, detailed studies and general frameworks need each other, the former to substantiate and make relevant the latter, while the latter is needed to provide structure and direction to the former so that it addresses those things that social actors value. The earlier chapters of this book pursue significant theoretical work to provide methodological justifications for

developing systematic social theory and the latter chapters provide further empirical and theoretical support; however, the claims made in this book are still likely to provoke debate and critical concern over the attempt to develop such general frameworks. Unquestionably, the analysis in this book is necessarily incomplete and imperfect. Nevertheless, there are three key reasons for pursuing the research at this general level of analysis. Firstly, and following Garland's (2001) methodological discussion of crime control here, many of these key transformations between risks and inequality can only be properly understood by 'viewing the field' of socially produced risks 'as a whole rather than taking each element individually' (Garland 2001: x). Secondly, in developing these frameworks and analysing the relationship between risk and inequality this study intends to begin a debate that can encourage further research that can critique, supplement, and amplify the research provided here. Lastly, even if the conclusions developed here are critically questioned by those employing different methodological approaches, the delineation of a toolbox of concepts to analyse contemporary risk and inequality, and the exploration of new ways to pursue interdisciplinary research can still advance social research and knowledge in important ways.

As the recent IPCC (2014b: 26) report highlights, 'risk' is at the heart of vulnerability, hazard, and exposure. However, this is not only the case for environmental risks, but also for the risks from systemic financial risk as well. Moreover, in addition to the insight of the IPCC, these risks are not merely hazards, but also important opportunities for certain groups. Ultimately, the attempt to develop new ways of understanding the systemic relationships between environmental and financial risks and contemporary, widening inequalities is not only justified by theoretical considerations, but also by the importance of the subject matter. In attempting to trace these general, though defeasible, connections between risk and inequality, this study seeks to both develop greater knowledge of the shifting bases of the social sources of suffering and the means of working towards changing this emerging reality.

The structure of the book

This book is organized into seven chapters, with five core chapters and then the concluding chapter. The following five chapters may be summarized as each primarily addressing one of the following topics (in the following order): the sociology of risk, risk society, class analysis,

environmental risk, and financial risk. Each of these chapters proposes to rethink existing approaches in these areas of study so as to enable the development of a new approach to risk and inequalities.

Before outlining the specific contents of the various chapters, it is important to make one further general note regarding the structure of this book. Beck never engages in 'pure theory' (Outhwaite 2009: 1033). Likewise, the theoretical and the empirical are locked in a constant interplay that develops over the course of this book. This interplay between theoretical claims and the empirical basis and insights of these claims leads to an unfolding of the theoretical approach to risk throughout the book rather than its full development in the first part. Even in the final chapters, spurred on by substantive analysis of how risks function, the book continues to critically engage with the basic parameters of the theorization of risk society and to explore how we should conceive of risk in contemporary society. While the chapters in the first part of the book do have a greater emphasis on theory and less empirical content, and vice versa in the latter part of the book, there continue to be reflections on the fundamental theoretical parameters of risk and society in the latter parts of this work. In this way, this book seeks to further develop what Baert and da Silva call the 'The Empirical Turn in Social Theory' (2010: 248) and aims to make a contribution to what Beck calls 'empirically oriented social theorizing' (see Beck 1992a).

Chapter 2 is primarily motivated by the question of whether a realist approach to risk is adequate to analyse how contemporary risk both structures and is structured by existing social processes. In pursuing this question, the other main approaches in the sociology of risk, Douglas' cultural approach, the governmentality approach, and Luhmann's systems theory approach are critically reviewed and then situated in relation to Beck's theory of risk society. It is argued that Beck's theory of risk society manifests an 'immanent realism' and that an understanding of risks as real processes that often escape our control and understanding is necessary to make intelligible the role of risk in contemporary society.

Chapter 3 proceeds to articulate a redevelopment of risk society as an approach to analysing contemporary risk that addresses some of the primary criticisms of Beck's theorization of risk society. In addressing the criticism that the theory of risk society tends to 'totalize' risk in contemporary society, a re-theorization of risk society is developed that understands risk society not as a theory of risks *tout court*, but rather as a

framework through which to identify and analyse a set of key social processes, the social production and distribution of risks as non-local side-effects in contexts of organized irresponsibility. Further developing the realist philosophy of science proposed in the previous chapter, Sayer's use of the distinction between abstract and concrete and Cartwright's conception of 'dappled world' are utilized to develop a theorization of risk society that shows how contemporary risks can be conceived of as one set of key processes in society without implying that they are the fundamental set of processes in contemporary society. This approach to social theory is then defended against governmentality approaches that reject systematic social theorizing.

Chapter 4 addresses the important question of how this study should conceptualize 'class'. Critically building upon the Capital, Assets, and Resources (CARs) approach, it is argued that by conceiving of class-based inequalities as advantages and disadvantages generated by inequalities in class resources, it can be shown that Marxist, Weberian, and Bourdieusian class frameworks can provide complementary insights into the relations between social and economic power. The chapter then proceeds to detail how each of these approaches can redress lacunae in each other's frameworks, while also addressing some of the recent criticisms of the Marxist and Weberian relational approaches to class.

Having addressed the groundwork for an analysis of the relationship between a redeveloped theory of risk society and class analysis, two important claims are then made about how contemporary socially produced risks are intensifying class-based inequalities due to the relation between class inequalities and risk positions. Through theoretical critique and a critical survey and reconstruction of the existing literature in two specific subfields, climate change and the 2008 financial crisis, this book shows how through the uneven distribution of benefits and damages from contemporary socially produced risk, these processes are intensifying class-based inequalities. Chapter 5 utilizes this redevelopment of the theory of risk society to show how the core components of risk society can be developed in a way that illuminates how contemporary risk processes are intensifying class-based inequalities. In particular, it is argued that, contrary both to what Beck and his critics have claimed, the theory of risk society is not *en bloc* antithetical to class analysis, but rather that a critique of Beck's use of an idiosyncratic limit case as the paradigmatic case of risk can identify the main lineaments of the relationship between class processes and contemporary risk. Providing a theory of risk position that clarifies the

relations between risk and differentials in class resources, it is argued that the increasing distribution of *bads* actually tends to increase relational inequalities. The relatively wealthier are able to monopolize socially scarce 'private escape routes' from hazards; consequently, it will be relative wealth differentials, as structured by class differentials, that both enable the advantaged to minimize their risk exposure and imposes on others the necessity of facing these intensified environmental risks.

Chapter 6 outlines a second central way in which the processes associated with risk society are exacerbating class-based inequalities by analysing how differential class positions are structuring the benefits and costs associated with the production of systemic financial risk. By critically engaging with Beck's account of the implications of organized irresponsibility, it is argued that contemporary conditions of organized irresponsibility in finance are exacerbating class-based inequalities due to how these conditions enable senior finance employees to appropriate wealth from risk production through 'risk illusion'. In cases of 'risk illusion', due to the complexity of contemporary finance, actions that primarily increase risk are able to be presented as primarily the amplification of wealth for firms, which enables senior finance employees to be richly rewarded for their apparent 'value creation'. It is argued that the mismatch between those who benefit from the creation of risks to financial institutions and those who are damaged the most by these risks reshapes existing inequalities, generating different 'risk-classes' that systemically differ in the way they gain and suffer from contemporary risk. These differences between 'risk-classes' are then shown to systematically increase social inequalities and intensify the advantages of the contemporary elite. As such, these two analyses of environmental and financial risk in combination show how contemporary socially produced and distributed risks are becoming a fundamental source of contemporary inequality, which, in turn, have the potential to even further intensify existing inequalities.

The concluding chapter summarizes the main points of the book regarding the relationship between contemporary risk and inequality and the novel bases of the intensification of the social sources of suffering. Following Beck's call for risk society to not be understood as akin to a 'Titanic society', it will be argued that the production and distribution of risks' exacerbation of relational inequalities is contingent upon existing socially instituted systems of production and distribution of risk. In this vein, it is suggested that a 'Politics of Risk Production and Distribution' is needed to successfully address the

pernicious consequences of contemporary organized irresponsibility. The conclusion also identifies some of the outstanding issues from this study before proceeding to summarize this book's core contribution in rethinking both risk and class and through this task, developing new knowledge of the evolving relationship between risk and our contemporary, widening inequalities.

2
The Sociology of Risk and the Ineliminability of Realism

Before proceeding to a re-theorization of risk society, it is necessary to situate the theory of risk society within contemporary sociology of risk. Beck's work on risk society is one of the leading approaches, if not *the* leading approach, to risk in contemporary sociology (Lupton 1999; Zinn 2008), which has led to him becoming a central figure in sociological theory more generally (Outhwaite 2009). His work on risk society (Beck 1992a, 1995a, 1999, 2009a) has had a significant impact on the discipline (for a selection, see Giddens 1990; Beck, Giddens, and Lash 1994; Wynne 1996; Adam, Beck, and Van Loon 2000; Savage 2000; Bauman 2007; Atkinson 2010a), which has led to his growing 'canonical' status in British and European sociology (see Outhwaite 2009). Consequently, the centrality of the theory of risk society to contemporary sociology in itself suggests the importance of taking it as an object of study. Given its fundamental importance to contemporary sociology, a critical analysis and reconstruction of Beck's theorization of risk society could in itself have a significant impact on the sociology of risk, social theory, and the study of contemporary inequalities.

There is however a more important fundamental reason to pursue a critical analysis of the theory of risk society: Beck's theory of risk society provides theoretical tools and insights that the other approaches to the sociology of risk do not offer. As I elaborate below, the other dominant sociological approaches to risk, such as Douglas' cultural approach, the governmentality approach, and Luhmann's systems theory approach to risk, do not provide tools to analyse the relation between the development of contemporary risks, as causal forces that partly escape the control of their originators, and the structuration of social life. The alternative approaches focus solely upon the perception of risks (Douglas and Wildavsky 1982), how a certain type of governing formats events as 'risks' (governmentality, see Ewald 1991), or how dangers are converted

into risks by the fact that hazards are attributed to human decisions (Luhmann 1993). All three of these other approaches view social reality either from the perspective of the social construction of events as risks, or focus on how society shapes the identification of risks, neglecting how social and material processes that partly escape our control may, in turn, structure our social and material life. Only Beck's approach employs a realist approach to risk in the sense that it provides a framework with which to analyse both the production of risks that may do genuine harm to others, as well as how social processes structure the distribution of these risks. While this redevelopment of the theory of risk society departs from Beck's understanding in several key ways, Beck's work on risk society allows us to provide stronger analytical foundations for understanding the social structuring of contemporary socially produced risks, as well as conversely how these risks tend to structure social and material relations.

This chapter proceeds as follows. Firstly, it outlines the different approaches to the sociology of risk, firstly, Douglas' cultural approach to risk, secondly, the governmentality approach to risk, thirdly, Luhmann's systems analysis of risk and then lastly, Beck's theory of risk society. It is argued that the other approaches to risk lack an analysis of contemporary risks as harms and that the realist orientation of Beck's theorization of risk society provides the basis of an analysis of how risks can structure life chances through the opportunities they provide and the damages they cause. The chapter closes with a clearer explication of what is meant by realism in this book and a defence of the ineliminability of realism in analysing the social dynamics of contemporary risks.

Douglas' cultural theory of risk

Mary Douglas begins her analysis of risk with a paradox: overall the risks of mortality and morbidity rates continue to decrease, but attention to risks and the politicalization of risks have significantly increased (Douglas and Wildavsky 1982: 2; Douglas 1992: 22).[1] How can it be that risk is increasingly becoming an object of social contention at the same time that risks are actually declining? As this problematic suggests, Douglas' particular object of analytical attention is not contemporary risks in themselves or how they structure social life, but rather how certain dangers are 'selected' as risks of particular social and political importance. As Douglas (alongside her co-author, Wildavsky) points out:

> What are Americans afraid of? Nothing much, really, except the food they eat, the water they drink, the air they breathe, the land they live

> on, and the energy they use. In the amazingly short space of fifteen to twenty years, confidence about the physical world has turned into doubt. Once the source of safety, science and technology have become the source of risk. (Douglas and Wildavsky 1982: 10)

For Douglas and Wildavsky, in particular, it is necessary to explain why technological and environmental dangers are increasingly salient as social risks.

Their answer is a cultural theory of perception, which they then specifically apply to risk (Douglas and Wildavsky 1982: 4–9). According to Douglas, different groups in society with different social structures perceive different types of risks associated with public policy. She identifies four types: (1) Foreign affairs, (2) Crime, (3) Pollution, and (4) Economic failure (Douglas and Wildavsky 1982: 2–3). She argues that, while there is a strong undercurrent of belief in society that there is greater risk than there was previously, the risk consciousness of individuals should not be interpreted in terms of a straightforward increase in the attunement of all individuals to all types of risks. Rather, those individuals who are most concerned about risks of foreign attack tend to be less worried about pollution, and those who are worried about crime tend to not be as concerned with generalized economic insecurity (Douglas and Wildavsky 1982: 2–3). As Douglas argues, 'Since no one can attend to everything, some sort of priority must be established among dangers; otherwise, merely counting risky objects would leave us defenceless' (Douglas and Wildavsky 1982: 3). There are simply too many different possible risks in society for 'total knowledge' to be a possibility, so 'social life demands organization of bias' (Douglas and Wildavsky 1982: 9). Following on in this thread, this 'organization of bias' is not subject to psychological explanation, but rather is the result of social rules of what risks to focus on and which to *ignore*: 'In risk perception, humans act less as individuals and more as social beings who have internalized social pressures and delegated their decision-making processes to institutions … following social rules on what to ignore: *institutions are their problem-simplifying devices'* (Douglas and Wildavsky 1982: 80, italics added).

Though the use of descriptions like 'risk is a collective construct' might suggest that Douglas is anti-realist about risk (Douglas and Wildavsky 1982: 186), she is very clear that her thesis is about the selection and priority of existing risks, rather than relativism about the actual existence of these risks (Douglas and Wildavsky 1982: 30; see also Douglas 1992: 29).[2] Her focus is on the epistemology of risk

rather than its ontology. While not denying the materiality of risks, she points out that ideas about pollution are not 'sufficiently explained by the physical dangers' (Douglas and Wildavsky 1982: 38). Building upon her earlier anthropological work on risk and purity, she contends that the concepts of risk and pollution are tied directly to questions of morality and blame. Bridging the divide between contemporary and pre-modern 'pollution', Douglas argues that 'Pollution, defilement, contagion, or impurity implies some harmful interference with natural processes' (Douglas and Wildavsky 1982: 35–6). In both pre-modern and modern types of societies ideas of 'pollution' are based on 'a clear notion of the prepolluted condition' and are the 'product of an ongoing political debate about the ideal society' (Douglas and Wildavsky 1982: 36). In this way, rather than analyses of contemporary pollution being the product of 'neutral' science, she argues that 'Pollution ideas are an instrument of control' in which 'critics of our society are using nature in the old primitive way: impurities in the physical world or chemical carcinogens in the body are directly traced to immoral forms of economic and social power' (Douglas and Wildavsky 1982: 47).

Douglas links highly intensified concern about environmental and technological risks to specific sectarian social groups, which she declares exist at the 'border', rather than the 'centre', of society. In her analysis, this 'border' is defined by its opposition to larger social systems (Douglas and Wildavsky 1982: 122–3). In this way, given the sectarian rejection of the larger world of compromise, 'purity becomes a dominant motif' (Douglas and Wildavsky 1982: 124). In particular, these sectarian groups are characterized by their voluntary nature and according to Douglas the 'sectarian style is to use the whole of nature to solve its problems of voluntary organization: sects attack the centre or separate from its contaminating influences' (Douglas and Wildavsky 1982: 125). As manifested clearly in the previous quote, the exact mechanisms tying social structures to risk selection are often underspecified by Douglas. In the case above, her explanation is clearly functionalist: the explanation for how individuals perceive risks is that the organizations they belong to require them to perceive them in this way.

The problem of linking specific institutional structures to specific types of risk perception has been noted in the literature where it has been argued that there is very limited empirical support for Douglas' understanding of the relation between social structure and risk perception (Wilkinson 2001: 11). However, despite the problems with substantiating the exact relation between social structures and risk perception, Douglas has highlighted how risk is intricately tied to the concepts of

blame and justice. Douglas clearly emphasizes how risk acceptability is both a question of knowledge of the causal world and of morality, providing an important counter-point to possible monopolies of risk analysis by experts. Moreover, her point that there are too many risks for us to possibly attend to all of them and, hence, social institutions and social symbols serve as simplifying devices is important in understanding the social shaping of the politics of risk. The mediated nature of risk knowledge is indisputable; the material facts of risk are not in themselves sufficient to fully explain risk selection and prioritization.

However, despite the virtues of Douglas' theorization of risk, it leaves huge lacunae. By only analysing how social structures shape the perception of risks, Douglas' approach to risk neglects both the actual nature of the risks and how the evolution of these risks in turn structure social and economic life. These lacunae do not necessitate the rejection of the relevance of her approach to risk for the theory of risk society. Douglas herself acknowledges that there are important complementary insights between her approach and the theory of risk society (Douglas 1992: 50).[3] Simply put, there is no need to view the different approaches to the sociology of risk as competitors attempting to provide the sole account of contemporary risks. However, by only focusing upon how social structures shape which risks are selected as salient, Douglas' approach does not provide a framework to analyse how risks are structured by and likewise structure existing social and material relations.

The governmentality approach to risk

The governmentality approach to risk is Foucauldian inspired, though Foucault wrote little on the question of 'risk'. The governmentality approach analyses different ways of governing, fusing the terms 'government' and 'mentality' to denote a specific type of governing that first arose in the sixteenth century (O'Malley 2008: 55). Originally developed in his 1978 essay 'Governmentality' (Foucault 1991), Foucault argues that governmentality identifies the historical origins of an approach to governing in which the governed are themselves understood to be self-governing. Given this, governance must shift away from simply command and obedience toward 'the optimal harnessing of these self-governing capacities – the "conduct of conduct", in Foucault's words' (O'Malley 2008: 55). The governmentality approach, then, attempts to chart the 'rationality' of each different 'art of government' (Foucault 1991: 97).

Foucault describes the history of governmentality as 'the development of a whole complex of *savoirs*' (Foucault 1991: 103), which may imply a certain idealism in his approach to analysing government. However, he provides an alternative picture of the relation between the material and the ideational in his full definition of 'governmentality':

> The ensemble formed by the institutions, procedures, analyses and reflections, the calculations and tactics that allow the exercise of this very specific albeit complex form of power, which has as its target population, as its principal form of knowledge political economy, and as its central technical means apparatuses of security. (Foucault 1991: 104)

Many of the governmentality inspired approaches have followed Foucault in emphasizing both the materiality and mentality aspect of governmentality (O'Malley 2004: 12).

The governmentality approach has argued for a critical revision of liberal accounts of the relation between government, power, and freedom, arguing that the relation between power and subjectivity is not a simple dualism of constraint, or lack of constraint, of the individual by law. Instead, the governmentality approach highlights the importance of processes of power that shape 'the *production* of individuals' who are 'free to choose' (Rose 1990: 4, italics added). According to Nikolas Rose's extension of Foucault's work, power cannot be merely considered as an external force that permits or denies, but rather as governmental 'technologies of subjectivity' that 'enable strategies of power to infiltrate the interstices of the human soul' (Rose 1990: 8). These techniques of subjectivity have in turn had radical consequences for economic life, social existence, and political culture (Rose 1990). Rose and other governmentality theorists have emphasized that these techniques of governing forms of self-regulation have magnified the social power of contemporary forms of expertise (Miller and Rose 1990: 19; Rose 1990: 10).

This analysis of different ways of governing the self-governance of individuals is pursued through a genealogical approach which looks at social developments through a micro-sociological perspective, emphasizing the variability of different ways to solve specific governmental problems. For governmentality theorists, this approach highlights the profusion of ways that history could have actually developed and hence the contingency and inventiveness at the heart of these developments (O'Malley 2004: 7). This genealogy of the art of governing is an analysis

of the 'microphysics' of key power relations in society (Miller and Rose 1990: 8; O'Malley 2008: 55).

Though differing from Weber's overarching narrative of the development of modernity, the governmentality approach has strong analogies with Weber's emphasis on the relation between modernity and *instrumental rationalization* and *control*. In discussing the 'discursive constitution' of the economy as an object of analysis, Miller and Rose argue that a discourse should be understood as 'a technology of thought' and that analytical attention needs to be focused upon the 'technical devices of writing, listing, numbering and computing that render a realm into discourse as *a knowable, calculable and administrable object*' (Miller and Rose 1990: 5, italics added).

This emphasis on governing as a way of rendering things *calculable* has provided the bridge between the study of governmentality and the sociology of risk. According to Mitchell Dean, risk is a way 'of ordering reality, of *rendering it into a calculable form*. It is a way of representing events in a certain form so they might be made governable in particular ways, with particular techniques and for particular goals' (Dean 1999: 177, emphasis added). Ewald's foundational treatment of risk from the governmentality perspective, 'Insurance and Risk', is clear on how much this account of risk diverges from the common sense notion of 'risk': 'In everyday language the term "risk" is understood as a synonym of danger or peril … it designates an objective threat' (Ewald 1991: 199). But in the governmentality approach to risk, 'risk' is '*a specific mode of treatment* of certain events capable of happening to a group of individuals' (Ewald 1991: 199, emphasis added). For Ewald, in so far as risk is treated as a Kantian 'category of understanding', then 'Nothing is a risk in itself … But on the other hand, anything *can* be a risk' depending on how it is treated (Ewald 1991: 199). As Mitchell Dean emphasizes, on the governmentality perspective, 'What is important about risk is not risk itself. Rather it is: the forms of knowledge that make it thinkable such as statistics, sociology, epidemiology, management and accounting; the technologies that seek to govern it …; and the political rationalities and programmes that deploy it' (Dean 1999: 178). In this perspective, rather than risk being an external danger or a possible harm that partly escapes our control, it is a technology of governance, *a technology of control*.

One of the key technologies of governance that have been analysed from the governmentality perspective is social insurance. It is understood as a particular technology of risk, and hence a 'schema of rationality, a way of breaking down, rearranging, ordering certain elements

of reality' (Ewald 1991: 199). Insurance as a technology of risk is not a neutral technology, but a 'moral technology', governing in a manner that shapes individuals' own self-governance:

> To calculate a risk is to master time, to discipline the future .... Above all, it means no longer resigning oneself to the decrees of providence and the blows of fate, but instead transforming one's relationships with nature, the world and God so that, even in misfortune, one retains responsibility for one's affairs by possessing the means to repair its effects. (Ewald 1991: 207)

Insurance uses probability to convert future social and natural outcomes into 'objective, standardised and exact predictions', thus replacing 'subjective expectations based on non-quantitative modes of calculation' (O'Malley 2004: 1; more generally, see Hacking 1990), and, therefore, understanding risk as a way of governing through aggregated futures (see O'Malley 2004: 18–19).

In this way, the governmentality literature on risk as a specific rationality, despite rejecting any notion of a single 'logic of modernity' (O'Malley 2004: 7), powerfully harkens back to Weber's conception of the 'iron cage of modernity'. Risk governance as the attempt to make society calculable has been equated to 'risk colonization' in which strategies of risk rationalization increasingly colonize organizations, where 'more events come to be subject to regulatory control, risk discourses become more prevalent and extend into a wider range of social domains' (Rothstein, Huber, and Gaskell 2006: 107). Building upon existing literature on the development of an 'audit society' where risk management has increased in scope and depth (see Power 1997, 2007; Dean 1999: 196), this theory of risk colonization views risk increasingly as a '*lingua franca*' for decision-making' (Rothstein, Huber and Gaskell 2006: 106).

As this brief critical review suggests, the governmentality approach to risk undoubtedly provides insight into how political technologies rationalize and shape social life by converting incalculable uncertainty into calculable risk and elevating experts to a position of social control. This framework also illuminates how certain populations, such as pregnant women, are governed 'through risk' by being enmeshed in a multiplicity of practices that monitor and regulate their behaviour based on probabilistic hazards to them and their unborn child (Lupton 1999: 87–90; O'Malley 2004: 8). However, the explanatory virtues of the governmentality analysis of risk as a way of governing do little to

undermine the need for the insights of the theory of risk society. As Ewald's use of 'risk' clearly reveals, the primary connection that the governmentality analysis of 'risk' and Beck's analysis of the conditions of the social production and distribution of risk have is that they are each using the same term 'risk' to refer to very different objects and processes. Even if the governmentality analysis of 'risk' as a form of governance is perfectly adequate, this would not in any way lessen the need for a sociological analysis of how contemporary *'danger and peril'* is structured by social relations or how in turn these risks *qua* peril structure existing social and material life. Consequently, while the governmentality theorist Mitchell Dean may frame risk society and governmentality as 'Two approaches to risk' (Dean 1999: 177), they are at best 'two approaches to "risk"'. These two approaches use the same *term* to refer to their objects of study but they are talking about two different objects of study and the insights that the one reveals into contemporary 'risk' does not have any direct implications for the other approach – which it would if they were actually trying to explain the same phenomena in different ways.

There are undoubtedly tensions between Beck's macro-sociological approach and the 'microphysics' of the governmentality approach (Dean 1999: 181; O'Malley 2004: 9); however these differences have nothing to do with differing accounts of the same object, risk. They speak instead to different methodological approaches to different objects which would remain in tension whether their analyses of risk were actually trying to explain the same phenomena or not. Some of the critiques of the theory of risk society by the governmentality theorists are important, though the following chapter outlines how a re-theorization of risk society can address the most important of these; however, irrespective of the adequacy of these criticisms, they cannot show the superiority of the governmentality approach to Beck's theory of risk society because governmentality theorists seek to explain genuinely different social phenomena. Consequently, despite the insights of the analytics of risk as a form of governance, or, alternatively, the insights from Douglas' discussion of the role of culture in risk perception, neither of these sociological approaches speak to actual risks in terms of processes that are the product of contemporary society or, how these potentially damaging processes, in turn, re-shape contemporary society.

The systems approach to risk

The systems theory approach takes its departure from Niklas Luhmann's theorization of modernity. According to Luhmann, modern societies

are characterized by the development of functional differentiation. The early modern world had a stratified social structure, in which religious and moral authority 'provided a general, binding frame for actions, not to be doubted by anybody' (Japp and Kusche 2008: 77). In contrast, according to systems theory, the modern world is characterized by the dissolution of this vertically integrated society and the development of functionally differentiated domains, each of which proceeds on the basis of principles that are differentiated from other domains. Among the functionally differentiated realms that Luhmann identifies are the state, law, economy, and science (Strydom 2002: 64). These functionally differentiated 'subsystems' form closed networks of communication, and since their principles are differentiated from each other, it is not possible for the different subsystems to directly communicate with each other (Mingers 2002: 288). In this way, in the modern world with functionally differentiated realms, each of these different subsystems function by its own logic and structure, and hence is only *self-referential*. The upshot of this process is that significant social conflict arises when decisions that require adjudication across these different subsystems are needed (Japp and Kusche 2008: 92). The difficulty of reconciling the different 'knowledges' of these subsystems provides Luhmann with a powerful critique of attempts to develop an overall social rationality (Zinn 2008: 188). In addition to 'first-order observations', which emerge from viewing social reality from the perspective of a specific subsystem, Luhmann argues that viewing society from a 'second-order' level (observing the different first-order knowledges of differing subsystems of observation) enables one to perceive the contingency of the different perspectives of these subsystems and hence demonstrates the inescapable contextual dependence of social knowledge.

These systems, for Luhmann, are not composed of individuals, or their culture, values, or environment, but by communication. Luhmann's radical anti-humanism and constructivism is manifested in his key thesis that 'Society is an autopoietic system consisting of communication and nothing else' (Stehr and Bechmann 2002: xv). These systems are autopoietic in the sense that they are constituted recursively: rather than external inputs generating society as an output, society's only output, which Luhmann argues is communication, serve as society's inputs, which in a circular fashion generate further outputs (Knodt 1995: xx).

Luhmann's emphasis on communication as constituting society is manifested in his specific conception of 'risk'. According to Luhmann, the conventional, lay conception of risk is 'marked' as the 'counter-concept' to 'security' and, consequently, serves as a variant on the distinction of

desirable/undesirable (Luhmann 1993: 19). However, Luhmann points out that on this conventional conceptualization of risk as possible damage or loss of opportunity everything ends up being risky; hence, its counter-concept 'security' is rendered empty (Luhmann 1993: 20–1). As Luhmann insightfully notes, this framing of risk as opposed to security tends to universalize 'risk awareness' (Luhmann 1993: 20). Luhmann argues for a reconceptualization of 'risk' based on the 'second-order' level of observation, which observes the different first-order knowledges of differing subsystems (Luhmann 1993: 21). He argues for a theoretical reconstruction of the concept of risk, declaring that *risk* should actually be contrasted to *danger* rather than security. According to Luhmann, if a possible loss can be attributed to a *decision* then it is a *risk*, while if the possible loss has been caused externally, then it is a *danger*, not a risk (Luhmann 1993: 21–2).

Exemplifying his constructivism, Luhmann emphasizes that the differentiation between *risks* and *dangers* are 'distinction-dependent constructs of the observer' and hence there will not be any one 'objective' account of whether a possible harm is a risk or a danger (Luhmann 1993: 16). As Luhmann notes, on this conception of risk, the 'interest in security' is 'still presupposed but, being self-evident, is not "marked"' (Luhmann 1993: 24). Consequently, for Luhmann's conception of risk, it is social communication and attribution that comprise the subject matter of risk: 'The problem with which the topic of risk confronts us thus appears not to lie in the material dimension' (Luhmann 1993: 27). Given all of the possible ways in which risks can be attributed, Luhmann argues that as our knowledge grows it is not security and our sense of security that grows, but rather our risk awareness; we live in a world of hazards and it is social decisions that result in these hazards. However, unlike Beck, Luhmann's analysis of these possible harms solely remains at the level of communication, looking at whether hazards are attributed to decisions, rather than how the actual material and social processes affect society.[4]

This conception of the differentiation of society into different autonomous systems has similarities to both the governmentality approach and to Beck's theory of risk society. Though Foucault understands these developments in terms of genealogy rather than in terms of systems, for Foucault, the study of the art of governing focuses upon the emergence of a specific political rationality differentiated from other moral and religious logics. Similarly, a significant element of the governmentality approach focuses upon the art of governing a differentiated, self-governing realm, the economy (see Foucault 2008: 13–16). Likewise, Beck's work is

particularly attuned to how science and technology have evolved internal trajectories of development that ignore political issues, while having huge political effects (Beck 1992a: 214, 222). Beck has also been influenced by Luhmann's work in developing some of his key concepts such as 'organized irresponsibility' (Strydom 2002: 42) and in highlighting the importance of the distinction between decision makers and those who are exposed to risks due to the decisions of others (Beck and Grande 2010: 426). However, ultimately, Luhmann's approach to risk remains solely at the level of social communication about the *attribution* of risks as possible harms. It does not speak to how social relations structure existing social and material 'danger or peril' or how these possible harms in turn shape social and material relations. Having outlined the other dominant approaches to the sociology of risk, we now turn to Beck's theorization of risk society.

The theory of risk society

As the critical review of these approaches to the sociology of risk suggests, none of the alternative sociological approaches, cultural, governmentality, or systems theory, provide a framework through which to analyse how power and social relations structure contemporary risks, such as those emerging from climate change and contemporary financial systems, or how the processes of the production and distribution of these risks structure social relations. Consequently, it is necessary to investigate on what basis the theory of risk society can provide insight into these issues.

Central to Ulrich Beck's theorization of risk society is his attempt to chart shifts within modernity. *Risk Society* (1992a) launched a powerful critique of the tendency to equate changes in society to the ending of modernity. For Beck the moniker 'post' was both vacuous because it only spoke of what the society is not, not what it is, and false because contemporary society was the product of a further stage of *modernization*, not the dissolution of modernity (Beck 1992a: 9–11). For Beck this new emerging society is a risk society, which he contrasts with 'first modernity' which was based on 'nation-state societies' and was characterized by 'collective patterns of life, progress and controllability, full employment and exploitation of nature' (Beck 1999: 2). According to Beck, we are currently in an overlap between the 'first modernity' and risk society: 'We do not *yet* live in a risk society, but we also no longer live *only* within the distribution conflicts' of earlier forms of modernity (Beck 1992a: 20). In this way, Beck employs risk society as an epochal concept to identify large-scale contrasts between past instantiations of modernity and contemporary

society (Strydom 2002: 56). However, true to the need for a *'projective social theory'*, (Beck 1992a: 9), Beck's theorization of risk society seeks to identify existing tendencies in contemporary society to produce and distribute possible harms that will grow in the future in social importance. In pursuing this 'projective social theory' Beck argues that while 'retaining good relations with the treasures of tradition', '[m]ore urgently than ever, we need ideas and theories that will allow us to conceive the new which is rolling over us in a new way, and allow us to live and act within it' (Beck 1992a: 12).

In pursuing risk society as an epochal concept, Beck identifies three fundamental, overlapping characteristics of the first modernity: firstly, Weberian instrumental control over nature for our own ends; secondly, the centrality of industrial society; and lastly, the authority of social frames of reference and identity such as class and gender. In the first modernity the growing control of human beings over nature realizes constant progress. In particular, the greater rational control over one's environment leads to a society which is dominated by the distribution of goods (Beck 1999: 8).

In contrast the risk society is an age of increasing possibilities of disasters resulting from the ever growing intervention of human society upon nature. For Beck, living in a risk society is '[l]iving in an age of side-effects', in which our basic economic, political and social processes incessantly spawn new risks (Beck 1999: 13). However, these side-effects are not the product of our failure to control the external world, but rather a product of the success of this quest to control the world through instrumental reason and industrial processes. The growing technological power of society through the success of rationalization and control over nature comes to undermine the basis of Weberian rationalization because '*Along with the growing capacity of technical options* [*Zweckrationalität*] *grows the incalculability of their consequences*' (Beck 1992a: 22).[5] Consequently, the emergence of this shift within modernity to a risk society occurs when 'the social, political, ecological and individual risks created by the momentum of innovation increasingly elude the control and protective institutions of industrial society' (Beck 1999: 72). In this way, Beck conceives of risk society as the product of 'reflexive modernization' in which 'reflexive' is understood in terms of self-confrontation (Beck 1999: 73). In risk society, society comes to be increasingly in a relation of self-confrontation with the products of its own actions.

The growing predominance of risks and hazards as produced by mega-technologies that yield the benefits of industrial production leads Beck

to make another stark distinction between a first modernity dominated by the logic of the distribution of *goods*, and a risk society that is increasingly dominated by the logic of the distribution of *bads* (Beck 1999: 8). These *bads* are the product of the 'manufactured uncertainties' in which the successful achievement of an industrial society increasingly results in a hybrid relation between society and nature, in which the outcome of 'natural' processes such as 'natural' disasters are fundamentally conditioned and exacerbated by human intervention in the environment (Beck 1999: 6, 146). Beck describes as 'organized irresponsibility' this process of the totality of technological processes creating risks in which neither the outcomes of these processes nor who is responsible for these outcomes is known (Beck 1999: 6). In what Beck calls 'vestigial risk', when 'we don't know, we can't know' (Beck 1999: 129), our lack of knowledge regarding these risks makes them incalculable and hence, uninsurable, as well as making it impossible for us to defuse *any* of these risks without stopping *all* of these technological processes. The types of *bads* that are produced from this hybridization of industrial society and nature include climate change, smog, nuclear radioactivity, toxicity of food, the danger of widespread genetic modification, and even global financial crises which are products of the new global financial systems that have been created (Beck 1992a: 22, 1999: 111).

Risk and the ineliminability of realism

Having now outlined the basic elements of the theory of risk society, it is necessary to proceed to the question of the realism immanent in the theorization of risk society and how it relates to understanding contemporary risks. As mentioned above, in the first page of *Risk Society*, Beck explicitly rejects the then contemporary tendency for everything to be described as 'post' because in the end 'post' 'hints at a "beyond" which it cannot name' (Beck 1992a: 9). For Beck, on the other hand, it is necessary to speak about this possible future that is emerging. In this way, Beck seeks to identify the key elements of the current 'structural transformation' (Beck 1992a). For Beck, it is this goal that is primary and hence the theory of risk society cannot 'proceed along the lines of empirical social research', but rather must be an '*empirically oriented, projective social theory* – without any methodological safeguards' (Beck 1992a: 9). For Beck, risks that are not recognized grow particularly well (Beck 1992a: 45) and hence a general and projective social theory that analyses the trajectory of these risks, and the social institutions of science, business, and government that collectively produce these possible catastrophic futures, is a necessity

(Beck 1992a: 178). In this way, theory is subject to an external criterion: what type of possible futures does it facilitate or enable? For Beck, a 'patchwork approach' that only looks at isolated cases of risks becomes '*false* and a risk producer in practice' (Beck 1992a: 179). Beck explicitly declares that 'the task that faces us is to reform sociology so that it can provide a new framework for the reinvention of society and politics' (Beck 1999: 2). Attempting to motivate the necessity of a projective social theory, even if it leads to the greater possibility of epistemological errors, Beck states that 'So far, all these are just projections, but we must take them seriously. When they have become reality, it will already be too late to take action' (Beck 1992b: 111). In this way, Beck's theorization of risk society is intended to allow members of society to identify different *possible futures* based on the different tendencies and countertendencies emerging from existing social institutions and their social and material consequences.[6]

In pursuing an analysis of the tendencies emerging from existing institutional configurations and an evaluation of the different possible futures emerging from them, Beck seeks to provide an analysis of the social *structuration* of these risks – that is, both how social relations structure the production and distribution of these risks *and* how these risks in turn structure social and material relations. While this description of the concept of 'structuration' is *derived* from Bourdieu's analysis of the *structuration* of *habitus* as structured structures which are at the same time structuring structures (Bourdieu 1977, 1984), it is meant in the generic sense of mutual structuring and is not meant to imply that Beck's work explicitly or implicitly implies the employment of either Bourdieu's or Giddens' specific structuration *theory* (see Bourdieu 1977; Giddens 1984).

Given these explanatory goals and Beck's many different analyses of the specific trajectories of risks, such as environmental catastrophes (Beck 1992a: 36–7), toxins (Beck 1992a: 64–9), climate change (Beck 2010) or the common features of contemporary 'manufactured uncertainties' (Beck 2009a: 50–4), Beck's theorization of risk society clearly relies upon a theorization of risks as real processes that at least partially escape human control and understanding.[7] Contrary to certain neo-Foucauldian approaches that perceive risk through the performative dimension of how existing discourses and practices *format* and construct social life, including risk (see Callon 1998; see also Ewald 1991), for Beck 'risks denied grow especially quickly and well' (Beck 1992a: 45). This implicit realism however does not imply a type of objectivism in which social and material reality is independent of human actions

(see Sayer 2000: 58–62). Beck's implicit realism is centrally focused upon how these risks, which cannot be equated to the perception of them, lead to self-endangerment when they are misapprehended: there is 'the growth of risks in inverse proportion to the successful "derecognition" of them' (Beck 1992a: 62). As such, of the existing sociological approaches to risk, it is only Beck's approach that offers a theoretical framework to take risky processes as an object of analytical study and to integrate them into sociological analysis.

What is realism?

The core of realism, as understood here, is that reality cannot be fully reduced to the humanly constructed sets of intentions, understandings, discourses, or the specific practices and technologies with which we confront it. That is, realism implies that our beliefs and understandings about the world attempt to fit the world, rather than the world fitting our beliefs,[8] and that there is both the *possibility of knowledge* and the *possibility of error* such that these beliefs and understandings can both: (1) possibly adequately represent the world and also (2) possibly fail to adequately represent the world.[9] This account of realism fits closely other articulations of realism that emphasize the contingent nature of knowledge:

> the realist claim is not that any particular science, and its present configuration, has indeed captured objective structures of natural or social reality, but merely that it is meaningful and pragmatically useful to posit the existence of such structures as *possible* objects of scientific description. (Outhwaite 1987: 118)

This conception of realism reverses the burden of proof from realism needing to establish a universal claim that all of reality is independent of human beings to realism's opponents needing to demonstrate that there can be no possible gap between beliefs about the world and the world. This ontological realism implies that there is a reality that is *at least* partly independent of human beings' understanding of reality.[10]

The problematic nature of framing realism in terms of independence from human action is particularly exigent for the study of social phenomena. Devitt's account of realism in *Realism and Truth*, which is similar to Rikagos and Law's (2009: 91), explains realism in terms of 'objective existence', which is defined as the claim that things exist 'independent of the cognitive activities of the mind' (Devitt 1991: 15).[11] However, as Devitt acknowledges, this explication of realism is orthogonal to many

'social entities', such as money, which are clearly part of the human potentiality to engage in 'worldmaking, as they are constituted out of human beliefs and actions' (Devitt 1991: 246–9). Bhaskar, the original formulator of critical realism, likewise specifies the human dependence of social entities: 'social structures exist only in virtue of the activities they govern, they do not exist independently of the conceptions that the agents possess of what they are doing in their activity' (Bhaskar 1998 [1979]: 41).[12] The account of realism defended here, which may be termed, *contingent-dependence realism*, however, understands reality as contingently dependent on human thoughts and actions. Consequently, for *contingent-dependence realism*, the fundamental claim of realism is that beliefs about social phenomena and the practices based on these beliefs are not necessary and sufficient to generate the phenomena.

The ineliminability of realism

The fundamental emphasis of this account of the ineliminability of realism, in terms of the possibility of reality differing from our understandings and the interventions based on these understandings, is powerfully substantiated by an analysis of the neo-Foucauldian approach to risk and performativity in economics. Many descriptions of the performativity approach depict science as formatting reality rather than describing and explaining it (Callon 1998). The performativity of economics is generated in particular by the fact that the 'academic discipline of economics does not always stand outside of the economy, analysing it as an external thing; sometimes it is an intrinsic part of economic processes' (MacKenzie 2006: 16). However, as Donald MacKenzie's magisterial study of the performative dimension of contemporary economic theories, *An Engine, Not a Camera: How Financial Models Shape Markets* (2006), reveals, reality cannot be merely read off the theories and practices based on these theories (MacKenzie 259). There is always the threat of *counter*-performativity where 'practical action based on economic models can *undermine* the empirical validity of those models' (MacKenzie 2006: 259, emphasis added). As Mackenzie suggests from his analysis of the 1987 stock market crash, the 'practical use' of the theory of portfolio insurance to minimize risk either was completely ineffective or actually ended up exacerbating financial risk (MacKenzie 2006: 259; see also MacKenzie 2006: 17). While financial risk in this case could not be understood without reference to the practical use of economic theory, and, consequently, it was *partly constituted* by these beliefs, the realist insight that these processes cannot be reduced to the understandings and 'practical use' of the models by actors is clearly demonstrated by

MacKenzie's analysis of the effects of portfolio insurance outstripping the intentions of its users.

This point can be helpfully framed in terms of a distinction employed by critical realism: the socially constructed beliefs and understandings, the transitive dimension of knowledge, attempt but may fail to adequately represent the intended objects of these understandings, social and material reality (i.e. the 'intransitive' dimension of knowledge) (Sayer 2000: 10–11). In this way a risk is real or not to the extent that the conceptualized risk represents an actual risk which only has a contingent, rather than necessary, connection to the belief about the risk. Even if a risk is partly generated by beliefs about this risk, such as fears of a bank-run (see MacKenzie 2006: 2), the connection between the financial risk to the bank and the beliefs about the risk to the bank are contingent. The belief is neither sufficient to create the risk in a bank (for example, with a reserve ratio near one), nor is it necessary for the bank to actually fail. This account of realism is consistent with the possibility of beliefs about risks producing risks, but the connection between risks and beliefs is causal and contingent, not necessary, while on constructivist governmentality accounts, risks are non-contingently related to their mode of treatment by governmental agents. This understanding of realism buttresses Sayer's claim that, contrary to constructivist approaches to discourse and knowledge that are merely self-referential, it is realism that renders intelligible the *fallible* nature of knowledge (Sayer 2000: 62).

The governmentality approach to risk has pursued an analysis of how certain governmental practices format future events as risk; however, as the following analysis will show, these discussions do not provide any reason to reject a realist approach to risk. Michael Power's analysis in *Organized Uncertainty* (2007), which explicitly derives much from governmentality approaches to risk, though diverging from their emphasis on the multiplicity of risk practices (Power 2007: 4), is instructive in regard to the role that a realist understanding of risks plays in an analysis of the social structuration of risks. Power explicitly declares that he frames his analysis of risk as 'broadly constructivist', focusing on 'management *systems of representation*, and on instruments for framing objects for the purpose of action and intervention', which he equates to Ewald's constructivist understanding of risk (Power 2007: 4).

However, Power not only conceives of the focus on the role of 'systems of representation' of risk as one prism through which to understand risk; he also proceeds to reject Beck's 'objectivist view of risk' (Power 2007: 33). Power's critique of Beck's 'objectivism' is clearly

invalid if it is meant to imply that Beck considers risk as completely independent of social action and social perception of these risks. As mentioned above, Beck considers our 'recognition' or 'derecognition' of certain risks as having a fundamental effect on how we act on social life and hence on these actual risks (Beck 1992a: 62). Consequently, Beck's account of the social production of risks is fundamentally consistent with the fact that social understandings of phenomena cannot be isolated from their actual manifestations (Beck 1992a: 19), and hence is consistent with the types of frameworks, such as the double hermeneutic (Giddens 1984) or 'looping effects' (Hacking 1995), in which beliefs about an object come to re-shape the object due to social action based on these beliefs. Consequently, Power's criticism must be with regard to the fact that Beck considers the risks he theorizes to be real processes which can be differentiated from the social understandings of these risks; that is, these risks must in some sense be *external* to social understanding of them. Other governmentality theorists, such as Mitchell Dean have likewise argued that Beck's realism about risks is 'relatively unhelpful for the analysis of risk' (Dean 1999: 182). This core understanding of objectivism relates to the core idea of realism, which is that the objects of study of social science are at least partly independent of our understanding of them, and, hence, there is the possibility of error about what is actually the case. Despite Beck often being criticized for his 'curious realism' (Szerszynski, Lash, and Wynne 1996: 7), can Power's repudiation of objectivism of risk provide an adequate basis for an analysis of the social structuration of contemporary risks?

In fact, it is Power's own discussion of the relation between social action and risks that suggests the ineliminability of a realist analysis of risks as possibly generating effects outside of our understanding of these processes. In discussing the central theme of *Organized Uncertainty* (2007) Power identifies organizations 'as producers of uncertainty' and as 'producers of risk, sometimes resulting from the very effort to seek reliability' (2007: 9). Power then provides examples to substantiate the claim that risk sometimes may be produced by attempts to minimize risks. Referring to risk management techniques in finance, he argues that 'it is now widely accepted that financial risk models may be a source of risk and may be self-defeating when all market participants use more or less the same one' because in 'a crisis of liquidity they will all tend to react in the same way (selling), which collectively exacerbates the crisis' (Power 2007: 9). Power further argues that safety regulations can sometimes make 'individuals less vigilant leading to lower safety overall' (Power 2007: 9). Summarizing the key point of this discussion

of how seeking to control risk may lead to the greater production of risk, Power declares that 'Inherent failure is a particular kind of uncertainty produced by large scale human organization, and provides a counterweight to technocratic dreams of perfect control' (Power 2007: 9).

The point of this brief summary is not to critique Power's tendency to highlight the social dysfunctions of many of the attempts to manage risk, but rather to point out that Power's discussion of the production of greater risk through attempts to minimize risk clearly implies a realist approach to risk. Only by the financial risks being *real risks* that are not merely socially constructed in our understandings, but rather risks in which there is a possibility of error in our understanding of them, is it possible to make sense of Power's claims that attempts to minimize or control risks can produce greater risks. Power's discussion of the social *production* of risk – rather than the social *construction* of risk – with the attendant implications of an external reality that is partly out of our grasp and which we can be mistaken about is clearly objectivist in the same way that Beck's analysis of the social production of risks is (see especially Beck 1992a: 19–50). Though contrary to Power's declared constructivist perspective (Power 2007: 4) and his rejection of an objectivist perspective (Power 2007: 33), it is fortunate that Power uses a realist perspective to discuss the unintended consequences of risk management because only a realist analysis of risks, which allows for the distinction between a specific phenomenon and our understanding of it, can make intelligible the analysis of these unintended consequences.

The ineliminability of realism is likewise not disproved by Beck's attempt to satisfy many of his subjectivist critics by his more recent development of his hybrid account of 'realist constructivism' (Beck 2009a: 88–90; see also Strydom 2002: 46–52). The fact that Beck's theorization of risk society continues to include a perception of risks as real phenomena that are external to us, and that there continues to be the possibility of error in perceiving and understanding these risks, supports this defence of the ineliminability of realism of risk analysis. This realist element, emphasizing the possible gap between one's conceptual framework and the world, is fundamental to his critique of existing sociology and his call for a renewal of the sociological imagination: 'The data are already battering old concepts; alternative realities are appearing everywhere. The social sciences are being run over by developments that, according to their own categories and concepts really ought not to exist' (Beck 1995b: 114). Beck's critique of the zombie categories of existing sociology (Beck 2003) is likewise premised on his doubt that sociology's 'fundamental concepts … still fit reality' (Beck 1995b: 114).

Summarizing the fundamental ineliminable realism in his epistemology of risks (which he also calls 'reflexive realism'), Beck argues that an analysis of risk must be able to differentiate 'between destruction as *event* and *talk*' (Beck 1999: 26). Unless all analysis of social structuration is to be reduced to discourses and other governmental technologies *à la* the governmentality approach, in which the possibility of error and unintended consequences is precluded, then a realist understanding of risk is a fundamentally indispensable element of the analysis of how contemporary risks structure and are structured by social life.

Conclusion

This chapter has critically reviewed the primary approaches to the sociological analysis of risk and then proceeded to identify the core of realism in Beck's analysis of risk. Having identified the fundamental importance of Beck's attempt to develop a *projective social theory* of possible futures based on an analysis of the social structuration of contemporary risk, it has been argued that a realist understanding of risk is an indispensable element of any analysis of the social structuration of contemporary risks. In particular, it has been shown that even constructivist theorists have to resort to a realist analysis of risks when analysing how social relations and particular techniques structure existing risks.

By emphasizing the importance of an understanding of contemporary risks as real processes that often escape understanding or control, this argument is not however intended to suggest that those who employ constructivist approaches to risk and social life cannot engage with the arguments in the rest of this book. In fact, as shown in this chapter, many explicit constructivists employ a contingent-dependence realist approach in practice. Consequently, the majority of constructivist social scientists do not need to reject the analysis of the relationship between risk and inequality developed over the course of this book based on a contingent-dependence realism, even if it is the case that there are, as this book will illustrate, significant epistemic advantages to a more explicitly realist analysis when investigating the relationships between contemporary risk, power, and inequality.

The next chapter will provide a rethinking of the social theory of risk through a critical engagement with the theory of risk society and some other key threads in contemporary philosophy of social science. This re-theorization of risk society both defends the theory of risk society against some of its primary critiques, while also articulating a novel basis for its understanding that can identify key connections

between contemporary power relations, such as class relations, and contemporary risks. In this way, the following chapter will build upon this critical analysis of the sociology of risk and the defence of the ineliminability of realism to pursue a 'de-monopolization' of Beck's own understanding of risk society, which can rehabilitate and invigorate the potential for the theory of risk society to aid in understanding the basis of contemporary widening inequalities.

3
Risk Society and Systematic Social Theory

Despite the analytical insight that Ulrich Beck's theory of risk society provides into key aspects of contemporary social life, the theory of risk society has been subject to important criticisms. One of the most powerful criticisms of Beck's theorization of risk society is that Beck 'totalizes' risk, treating risk as if it is the 'centre' of contemporary social and material life, thus neglecting other important factors (Dean 1999: 181–2; Rasborg 2012: 10). This criticism creates a particularly important challenge for this study. Conceiving of risk as the sole 'centre' of social relations precludes the exploration of other key structuring factors, such as class relations or the interrelations between risk and class. Another aspect of Beck's theory of risk society that has received extensive critical attention is his understanding of risk society as an epoch fundamentally different than previous epochs based on the qualitatively different roles of risk in the emerging risk society (Scott 2000; see also Lupton 1999; Mythen 2004: 39; Savage 2009b). Given these two fundamental criticisms it is necessary to ask: is the theory of risk society the appropriate basis for developing an understanding of contemporary risk?

This chapter addresses both of these key criticisms through a redevelopment of the basic conceptual architecture of Beck's theory of risk society that is highly indebted to Beck but differs from his analysis in several crucial ways. In response to the first challenge, regarding the totalizing nature of risk society, this chapter develops a re-theorization of risk society that agrees with the critique of Beck's totalization of risk yet, contrary to his critics, shows how the theory of risk society can be developed in a way that retains many of the core elements of the theory, while not treating risk as the centre of society. In response to the second challenge, to the epochal nature of risk society, this chapter argues that risk society should be conceived of as primarily a series of

particularly important social processes in contemporary society rather than as an epoch distinct from all others. While it may or may not be the case that the processes associated with risk society are generating a fundamentally new epoch, by focusing on risk society as a series of processes that are having a fundamental impact on contemporary society it is possible to retain the key epistemic insights of theorizing risk society without adjudicating on the complex and separate question of whether contemporary risks are necessarily functioning in a completely different way now than they ever have before.

A third primary challenge to theorizing risk society that this chapter then proceeds to address is the one posed by governmentality and actor network theory scholars to the theory of risk society due to its attempts to develop a systematic social theory that seeks to understand systemic relationships between risk and social life (see Rose, O'Malley, and Valverde 2006: 100; Law 2007). In response to this challenge, this chapter re-theorizes risk society through a realist approach to risk, informed by critical realism and Nancy Cartwright's 'dappled world' approach, that enables the development of a systematic theoretical approach to risk that can analyse the systemic contribution of contemporary risks to social life without occluding the complexity and multiplicity of contemporary society. In further response to this challenge, some key problems with the critique of systematic social theory and abstraction are then highlighted. In this way, this chapter argues that this re-theorization of risk society can move beyond Beck and his critics' opposing accounts to develop a powerful framework for understanding the systemic impacts of contemporary socially produced risks.

It should be noted that the re-theorization of risk society pursued in this chapter is not intended as a straightforward exegesis or attempt to summarize Beck's intention in writing on risk society, but rather a rearticulation and critical development of the core conceptual tools of Beck's risk society so as to develop a coherent and insightful theorization of contemporary risks.[1] In developing crucial insights of Beck's theorization of risk society, while de-centring risk, it is argued that the framework developed in this chapter will allow for both a better understanding of the role of risk in social life and of the interaction of risk with other key aspects of social life that are not included in Beck's understanding of risk society.

Critiquing Beck's totalization of risk

Totalizing discourses are discourses that attempt to construct a 'centre' around which social life revolves (Sayer 2000: 72; see also Jay 1984). As such, Beck totalizes risk in so far as he derives fundamental changes in

social and material life directly from changes in risks independently of other social phenomena. The following subsection outlines two examples of Beck's treatment of risk as the centre of society, in which changes in risk can, in an unmediated fashion, lead to fundamental changes in the rest of society.

Beck's totalization of risk

One fundamental way that Beck considers risk as the 'centre' of contemporary society is in how he understands the 'logic of distribution' as fundamentally transformed by changes in risks, independently of existing structures of power relations. In *Risk Society*, Beck argues that changes in contemporary risks are leading to a fundamental transformation from the 'logic of wealth distribution' to the 'logic of risk distribution' (Beck 1992a: 23, 36). By analysing changes in the 'logic of risks', Beck concludes that '*social risk positions* … contain a boomerang effect, which *breaks up the pattern of class and national society*' (Beck 1992a: 23, emphasis modified). In this vein, Beck states that the 'concept of risk society asserts the *in*compatibility of distributions of wealth and risk, and the *competition* of their "logics"' (Beck 1992a: 154). It is even suggested by the rendering in English of Beck's basic concept '*risk* society' that Beck conceives of the logic of risks as the fundamental driving force of society.[2] This treatment of contemporary risk as the 'centre' of society is likewise reproduced in Beck's works since *Risk Society*. In *Ecological Politics in an Age of Risk*, Beck states that, due to contemporary risks, 'the structure of industrial conflict melts and is recast in the heat of hazards' (Beck 1995a: 137).

Despite many changes in Beck's more recent work, he continued to manifest this understanding of risk as the centre of social and material life, particularly with regards to the question of the 'logic of distribution'. In a recent paper, Beck indicated that 'risk exposure is *replacing* class as the principal inequality of modern society' (Beck 2006b: 333, emphasis added). Likewise in a very recent extended reply to an earlier paper of mine on class and the distribution of *bads*, Beck treated the 'logic of risks' and the 'logic of class' as two logics competing to 'subsume' each other (Beck 2013b: 68–9; see also Curran 2013a). By portraying the relationship between class and risk as a competition to *subsume* each other, Beck implies that there must necessarily be one central social relation structuring all distribution, thus precluding the possibility of mutually coexisting and interacting logics.

Despite Beck's tendency to treat risk as the 'centre' of contemporary society, it should be noted that in a recent paper Beck rejected attempts

to develop 'a general theory of (modern) society in the singular' (Beck and Grande 2010: 411).[3] Following on this declaration, Beck contends that 'even Beck's "Risk Society"' is guilty of this fallacy (Beck and Grande 2010: 411).[4] Beck's critique of a single general theory of modern society and his willingness to apply this critique to his own work suggests that Beck himself may, at least at a general theoretical level, no longer consider risk as the 'centre' of contemporary societies. However, despite this important self-critique, there are still strong reasons to conclude that Beck's turn to cosmopolitanism continues to manifest this treatment of risk as the centre of society. In delineating his *cosmopolitan realism*, which he often contrasted to earlier, more idealistic versions of cosmopolitanism, he declared that the cosmopolitanization of reality should be conceived of as 'an unforeseen social effect of actions directed to other ends performed by human beings operating *within a network of global interdependence risks*' (Beck 2006a: 48–9, emphasis added). As Beck asserts, '"cosmopolitan society" (Kant) can take shape *in the perceived necessity of world risk society*' (Beck 1999: 20, emphasis added). By viewing increasing global risks as the direct generator of post-national 'global risk communities' (Beck 1999: 41) or 'cosmopolitan risk communities' (Beck et al. 2013), Beck develops an account of 'Cosmopolitanism as Imagined *Communities of Global Risk*' (Beck 2011b, emphasis added), thus, once again, understanding risk as the 'centre' of contemporary social life.

As the examples above suggest, Beck tends to totalize risk in contemporary society.[5] By allowing changes in social life to be read off from changes in risks, Beck treats risk as the 'centre' of society rather than conceiving of contemporary risks as one key set of processes or social relations among many others. However, before proceeding to explore the extent to which a re-theorization of risk society can be developed that does not totalize risk, it should first be established that contemporary risks should not be totalized.

Critiquing risk as the 'centre' of social life

In the cases discussed above, Beck treats risk as the primary social relation in society, deriving changes in social reality directly from changes in risks almost completely unmediated by existing institutions and power relations.[6] Treating risk as the 'centre' of society not only neglects the independent role of other factors, it also fails to adequately grasp the nature and role of risk in contemporary society because it obscures the way in which risks interact with other key aspects of social life.

With regards to Beck's *replacement* of class and the distribution of goods with the distribution of risks, it has been shown in many different

studies that goods still play an important role in social and political life and cannot be neglected within a political economy analysis of the contemporary world (Scott 2000; Goldthorpe 2002; Scott 2002; Mythen 2005a, 2005b). Despite the importance of risk, class differentials continue to be fundamental to differences in, amongst other things, health, education, and the ownership of key consumer goods such as cars, telephones, washing machines and dishwashers (Reid 1998 in Scott 2002: 27–8). Class also continues to be a key factor in shaping the risk of unemployment (Goldthorpe and McKnight 2004: 9). Consequently, contrary to Beck's analysis, contemporary political economy cannot ignore the fundamental effects of structuring factors other than risk.

Likewise, contemporary politics and community are based on many different aspects of social life, not just risks. While Beck may understand the countries bordering the North Sea as an example of a post-national 'risk community' (see Beck 1999: 16),[7] this is extremely problematic. The UK, Norway, and Germany have economies that function very differently, having very different relations between state and market forms of economic coordination (see Esping-Andersen 1990; Coates 2000; Hall and Soskice 2001). Likewise, they have different interests based on their uses of the North Sea and have different political identities and cultures. Given all of these important differences, Beck's inference of a shift from common 'risk situation', to common 'risk community' fails. Risks are one set of processes among many others and cannot be considered as *the* primary factor in political and community life that overrides other processes. Having shown that Beck's tendency to treat risk as the 'centre' of contemporary society is extremely problematic it is necessary to critically rearticulate the core concepts of the theory of risk society into a theoretical framework that avoids these problems and which allows for the intersection of contemporary risks with other aspects of social life, including class inequalities.

Re-theorizing risk society

Beck's treatment of risk as the 'centre' of society has led some to reject the basic contours of the theory of risk society's approach to contemporary risks (Dean 1999: 181–2; Rasborg 2012: 19). Even Beck himself has called into question the status of risk society as a general theory of modern society (Beck and Grande 2010: 411) and has not in any systematic way explored how the theory of risk society needs to be reworked since his recent *mea culpa*. This leaves the current status of the theory particularly unclear. In particular it raises the key question: does

the critique of risk as the 'centre' of society necessitate the rejection of the use of the core concepts of the theory of risk society to analyse contemporary risks?

Before being able to answer this question, it is necessary to first look at what is the core analytical object of the theory of risk society. That is, what are the specific processes that the theory analyses? The use of the term '*risk* society' to describe Beck's theory may imply that it is in fact a theory of all risks; however, the core elements of the theory of risk society do not necessarily constitute a theory of all risks. In particular, it is important to state that there is nothing substantive that all risks have in common that could serve as the basis of a single theory. It is doubtful that there is an important property that the risk of me tripping over my shoe laces, the risk involved in falling in love, and the risk of terrorism share which could serve as the basis of a theory of risks *en bloc*. Rather, on this re-theorization of risk society, as emphasized by Beck on the first page of the first chapter of *Risk Society*, the central analytical object of the theory of risk society is the processes, problems, and conflicts arising from the social '*production*, *definition*, and *distribution*' of risks (Beck 1992a: 19).

The analytical object of the theory of risk society, as articulated in Beck's first three canonical formulations of risk society, *Risk Society* (1992a), *Ecological Politics in an Age of Risk* (1995a), and *World Risk Society* (1999), does not in fact focus upon all socially produced, defined, and distributed risks, but rather specifically on risks that are *systematic side-effects* (Beck 1992a: 11, 27). Admittedly, in Beck's more recent work, he has attempted to integrate the risk of terrorism into the existing risk society approach (see Beck 2002a, 2009a), despite, as Beck notes, terrorist risks fundamentally differing from other risks in the sense that they are intentional (Beck 2009a: 203). In this regard, *World at Risk* (2009a) does appear to provide a general analysis of key types of contemporary risks, thus perhaps suggesting that Beck's more recent uses of the theory of risk society have been to attempt to develop something closer to a general theory of all contemporary risks, which differs from both his earlier formulation of risk society and the account of risk society developed here.[8]

As stated in *Risk Society,* for Beck, in contemporary society it is increasingly the case that 'the social production of *wealth* is systematically accompanied by the social production of *risks*' (Beck 1992a: 19).[9] Consequently, the central characteristic of *reflexive modernization* is not necessarily greater risks *tout court*, but rather a process of *'self-confrontation'* with 'the effects of risk society that cannot be dealt with and assimilated in the system of industrial society' (Beck 1994: 7, emphasis added). It should be noted

that there is some ambiguity in Beck's use of the term 'risk society' in his work. In the example just provided above regarding the 'the effects of risk society', Beck appears to use 'risk society' as the explanation (*explanans*) of a set of outcomes, while, on the other hand, Beck often tends to use 'risk society' as an epochal concept and in particular a current state of society (i.e. 'in the risk society the unknown and unintended consequences come to be a dominant force in history and society' (Beck 1992a: 22)).[10] In developing a rethinking of risk society, this study understands 'risk society' as a series of particularly important social processes in the world, which may or may not, due to their importance and novelty, generate a new epoch. In this way, the core understanding of risk society here is of a series of social processes that, following Beck's discussion of 'cosmopolitanization', may be said to be 'in our midst' (Beck 2011a) rather than as a totalizing and emerging epoch.[11] Likewise, on this account, 'the theory of risk society' is understood as a theoretical framework for identifying and analysing these key social and material processes, rather than as a totalizing description of a given social order, such as contemporary or future society. These socially produced risks that are gaining increasing prominence may be termed 'manufactured side-effects as risks'. The term fits both his fundamental emphasis on the unintended consequences of the humanization of nature (Beck 1992a: 22) and the systematic nature of these processes of risk production (Beck 1992a: 19–21, 27).

In addition to the particular importance of the heightened social production and distribution of risks as side-effects, the theory of risk society identifies another key aspect of these risks. The side-effects that individuals are exposed to are what Beck calls 'global risks' (Beck 1992a: 46, 1999: 2). That is, the side-effects of many of these actions are not distributed in a concentrated, local manner, such as accidentally poisoning one's neighbour's grass would be; they are distributed in a dispersed non-local manner. Using Chernobyl as a paradigmatic case through which to theorize these heightened risks, Beck often notes how the effects of Chernobyl were felt over much of Europe (Beck 1987: 153, 159, 1995a: 79–82, 1997: 1, 1998a: 26, 1999: 61). In shifting his paradigmatic case of risks from Chernobyl (see Mythen 2004: 18) to climate change (Beck 2009a: 28, 2010; Beck and Van Loon 2011), Beck has identified a type of risk that fits even better his theorization of contemporary socially produced risks as global side-effects. Further extending the 'logic of risks' as delineated in *Risk Society*, Beck argues that the production and distribution of manufactured side-effects as risks have powerful consequences across the globe, and, therefore, risk

society must be understood in terms of world risk society: 'Risk society, full[y] thought through, means world risk society' (Beck 1999: 19). Consequently, rather than the theory of risk society speaking generically about an increase in all risks, this rearticulation of the theory of risk society focuses upon the increasing importance of social processes that: (1) produce, (2) define, and (3) distribute risks as (4) side-effects that are (5) global (i.e. non-local).[12]

As mentioned above, this rearticulation of the theory of risk society, though based on many of the conceptual resources Beck has developed, differs from his own account of risk society in important ways. This can be seen by a comparison with a recent restatement by Beck in which he highlights two key aspects of his understanding of 'risk society'. He declares that 'risk society' is 'about an age where in all fields new manufactured uncertainties and insecurities evolve; *manufactured* because they are the products of the processes of civilizing and modernization, and *uncertain* because our means to calculate and make these uncertainties certain again don't work anymore' (Beck 2004: 158, emphasis added). Beck then goes on to declare that 'the distinction between knowledge and unawareness is breaking down: what we know nowadays is that we neither know nor control the consequences of the decisions we take today' (Beck 2004: 158). This differs from the re-theorization of risk society developed here in two key ways. Firstly, Beck's focus of risk society on 'manufactured uncertainties' here, solely highlights the *production* of these processes, neglecting the *distribution* of these risks. Secondly, Beck's emphasis on the dissolution of knowledge or any ability to control these risks is not a core part of this theorization of risk society and will be subject to a critical analysis in chapter five. Consequently, while there are different ways of categorizing the key aspects of Beck's theorization of risk society (see Mythen 2004: 12), the centrality of each of the processes highlighted here to Beck's understanding of risk society has a clear basis in his work.

However, in further delineating this re-theorization of risk society, it might be asked, even if many risks are produced and distributed in a non-local manner, given the importance of some form of the harm principle in contemporary societies, why do these processes have the potential to transform existing social relations? On the basis of a *quid pro quo*, even if some are increasing their production of risks to which others are exposed, it should not transform existing social relations, because those exposed to these risks may be compensated by those who produced these additional risks. The answer to this problem

identifies another key characteristic of the production and distribution of manufactured side-effects as risks.

For Beck, these manufactured side-effects as risks are produced and distributed in contexts of what he calls 'organized irresponsibility'. Beck does not provide an exact definition of what he means by 'organized irresponsibility' (see van Asselt and Renn 2011: 444), but the primary intention of the term is to describe the 'institutional mechanisms in modernity which prevent organizations or individual actors being held responsible for harms' (Zinn 2008: 217). Building upon Beck's linking of 'organized irresponsibility' to 'the system of organized non-liability' in *Ecological Politics in an Age of Risk* (1995a: 132–7), this re-theorization of risk society understands 'organized irresponsibility' as structured social relationships of irresponsibility in which social agents (individuals, bureaucracies, or corporations) can cumulatively contribute towards collectively produced risks that others are exposed to, without being held culpable for the damages they create (see Beck 1995a: 132–7, 1999: 6–7). Beck tends to focus upon institutions and their contradictions rather than individuals (Beck 1998a: 24–6; see also Beck 1992a: chapter 2), but the structure of relations illuminated by *organized irresponsibility* – a number of social agents acting within a larger system who benefit from the pursuit of wealth while plausibly disavowing the cumulative consequences of their 'collective' actions – can apply to individuals within institutions, as well as institutions such as corporations within existing 'subsystems' such as a given industry or the economy as a whole (see Beck 1992b: 102–3). A core part of organized irresponsibility and conflicts over ending organized irresponsibility rests on the social burden of proof and the definition of certain actions as a risk to others; consequently, a core part of conflict over the 'relations of definition' of risks is included *within* this conceptualization of 'organized irresponsibility' and the closely related 'problem of attribution' (see Beck 1995a: 11, 43, 47).

The notion of 'organized irresponsibility' invokes the dual sense of an ability of a social agent to act and intervene in the world and gain benefits from these interventions, alongside a sense of uncontrollability, in which the full consequences of his or her actions are socially 'defined' as outside individual or corporate control or responsibility. In the context of organized irresponsibility, it is often impossible to identify what contribution each agent made to the eventual damage. Strydom, highlighting the important contribution that Luhmann's systems theory makes to Beck's formulation of the concept, summarizes the conditions for 'organized irresponsibility' as follows: 'In the buildup toward the

threshold, however, *no individual decisions can be isolated, but only the accumulation of effects of decision-making*, the long-term consequences of decisions no longer identifiable, over-complex and indistinct causal relations' (Strydom 2002: 68, emphasis added). In cases of systemic risk, such as risk to financial systems, no specific individual's actions nor even any single corporation's actions can create in isolation fundamental side-effects that cause significant harms; rather it is the effects of the interaction of their actions with others' that realizes the full force of these risks. This exacerbates the difficulties in considering agents *individually* responsible because the damage is caused by the interactions between the effects of their actions and the effects of many others' actions. Consequently, the social production and distribution of risks as non-localized side-effects in the context of this structured irresponsibility undermines the possibility of a *quid pro quo* in which the effects of these risks are compensated by those who created these damages.

It is the heightened social production and distribution of risks as non-localized side-effects in contexts of organized irresponsibility that constitutes the key object of study of this re-theorization of risk society; consequently, critiques based on there being fewer risks now (than in previous times) have little purchase against this account, since this theorization of risk society focuses specifically upon socially produced and distributed global risks and does not make a claim about total 'aggregate risks'. Likewise, this theorization of the core elements of risk society defuses the critique that theorizing risk society implies an overly negative account of risk that ignores how risks can benefit life (see Mythen 2007: 801).[13] This theorization is not an account of all risks. It is completely plausible to claim that it is worse for individuals to face risks that emerge as unintended, global side-effects from others' pursuit of wealth, while at the same time seeing the risk involved in love or involvement in sports as an essential element of the good that is realized in these practices.

In having delineated a theoretical framework that can allow us to identify a key set of real processes in the world that are having fundamental impacts on contemporary society, Beck's theory of risk society has made an extremely important contribution to social knowledge. However, having enabled us to identify these processes, Beck does not then have a monopoly on understanding how these real processes work. The second half of this book will proceed to delineate an alternative understanding of the transformative impacts of the social production and distribution of risks as global side-effects in contexts of organized irresponsibility that highlights their increasing importance to contemporary intensifications of inequality.

Now, having outlined the key object of study of this re-theorization of risk society, it is possible to move on to evaluate whether Beck's totalization of risk society is necessary to analyse contemporary risks through the core concepts identified above.

Risk society without totalizing risk

Totalizing discourses tend to ignore fundamental aspects of social life that are outside the purview of their specific analytical frame. However, just because one 'centre' cannot explain all of social reality, this does not in any way entail that the attempt to develop systematic theory must be abandoned. For example, just because capitalism or, more specifically, the social relations of production, do not explain all key social and power relations, this does not mean that they do not make an important contribution to the (partial) explanation of many different social and material relations (see Sayer 1995). The social relations of production can be analysed as *a* key social relation that structures social reality without in any way implying that it is *the* key nexus of social structuration. However, the possibility of many different key points of structuration raises the problem of how can a theory – and the processes and structures that it identifies and explains – be related to other social theories and the processes and structures that they identify and (partially) explain? The fundamental distinction that this study employs to outline how different fundamental social processes can be related to each other is the distinction between abstract and concrete levels of explanation (see Sayer 1981, 1995, 2000).

The abstract level is 'deliberately one-sided, isolating and illuminating particular structures or relationships by holding off contingencies that generally accompany them in concrete situations' (Sayer 1995: 19). On this approach, the analytical framework developed through a critical re-theorization of risk society abstracts social processes of risk production and distribution out of complex social reality and analyses their common causes and, in particular, the consequences they tend to generate. A concrete analysis, on the other hand, looks at social phenomena as many-sided objects, shaped by many factors (Sayer 1995: 19), which includes socially produced risks as one of these factors. On this conception, concrete social and material reality is the product of multiple components and forces, and social science in turn proceeds by abstracting out one-sided components and influences on the concrete world so as to explain the various contributions to complex social reality (Sayer 2000: 19). As such, this re-theorization of risk society abstracts out key

aspects of social processes – the social production and distribution of non-local risks as side-effects in contexts of organized irresponsibility – and analyses how these processes function in contemporary societies.

Consequently, it is possible to analytically attune an analysis to the key elements of social structuration of these contemporary risks processes, while acknowledging that concrete social reality is structured by risks *and* other factors. On this account of social science there is no need to deny the multiplicity and complex structurings of social life to have theories which identify certain general social processes, structures, or forces that tend to make, in many different contexts, an important contribution to social structuration. As Sayer argues, 'practice always take place in the muddy waters of the concrete … However, in order to understand this combination, we normally have to isolate each element in thought first, even though they do not and sometimes could not exist in isolation in reality' (Sayer 1981: 6). Through distinguishing between differing levels of abstraction, it is possible to both identify relatively enduring and widespread causes and structures and to analyse concrete reality in all of its multiplicity. Consequently, on this methodological framework, the study of 'structural transformations' does not require a totalizing theory which locates these structures at the centre of all social life. In attempting to understand these transformations, Beck's theorization of risk society is oriented towards developing ways of changing contemporary socially produced risks and the processes generating them. Following this thread, an essential element of this study is the development of counterfactual knowledge: that is, an analysis of how social life would be different if certain key forces were absent or modified in some way (see Sayer 1995: 26–33; see also Castree 2008b).[14]

The goal of de-totalizing the theory of risk society in this way is to retain the insights that the abstract theory provides into how the processes and structures identified by the theory *shape* social reality, while 'opening up' the links between these structures, processes and effects and other important factors that structure social relations. For the purpose of this chapter – that is, of critically rethinking risk society so as to understand how its processes function and its relation to other social processes, without requiring the assumption that it is the totalized centre of social reality – *the core methodological premise* is that it is possible to distinguish between the abstract level that analytically accentuates certain parts of life and the level of concrete reality which is shaped by many different processes and forces. This method of singling out one aspect of concrete, multi-faceted reality to analyse its features and the effects it tends to generate can be grounded

by a realist methodology informed by Bhaskar's critical realism (2008 [1975]) and Nancy Cartwright's 'dappled world' approach (1999). The following section briefly outlines this realist approach and shows how the distinction between the abstract and concrete levels of explanation can be grounded in these realist ontologies and methodologies, before then proceeding to provide a brief defence of the distinction between abstract and concrete levels.

Concrete and abstract in realist methodology

The previous chapter outlined a defence of a realist interpretation of risk and of the implicit realism in the theory of risk society. The re-theorization of risk society developed in this chapter further develops this realist philosophy by exploring what specific realist ontology and methodology should be used to explore the relation between socially produced and distributed risks and class relations. Both Bhaskar's critical realism and Cartwright's dappled world have developed realist insights in important ways that can help ground this distinction between abstract and concrete levels of analysis, thus allowing for a re-theorization of risk society that can identify a set of processes as *a* key source of social structuration without requiring that they are *the* (only or primary) source of social structuration.

Critical realism

Developed by Roy Bhaskar (1998 [1979], 2008 [1975]), and further articulated by Andrew Sayer (1995, 2000), amongst others,[15] critical realism begins from the fundamental insight of the great complexity of social and natural phenomena. It is this complexity that makes scientific regularities of events in our social and natural worlds a special case rather than the rule (Bhaskar 2008 [1975]: 15, 17).[16] However, according to critical realism, this bewildering complexity and difference does not preclude the possibility of systematic knowledge (Sayer 2000: 30). While regularities between events are very difficult to identify in nature, scientists are able to generate them in certain experimental conditions. It is the ability to reliably identify regularities in experiments that critical realism takes as a fact that in turn needs to be explained (Bhaskar 2008 [1975]: 65).

Employing a transcendental turn, critical realism asks, given that we do gain knowledge from experiments that applies outside of these experimental situations, how can we make this fact intelligible (Bhaskar 1998 [1979]: 8, 2008 [1975]: 23)?[17] According to critical realism, the

only way to do this is through positing that through experiments we are able to isolate *underlying structures* that produce phenomena by preventing, in this artificial experimental situation, the many other influencing and confounding factors from being activated (Bhaskar 2008 [1975]: 46). In this way, general knowledge is possible; however, it will not necessarily be at the level of observed phenomena, but rather at the level of the underlying structures that generate these events (Bhaskar 2008 [1975]: 13–17). Bhaskar's analysis of the generation of knowledge of underlying structures in the natural sciences, as developed in *Realist Theory of Science* (2008 [1975]), has been developed since to also apply to the social sciences in *The Possibility of Naturalism* (Bhaskar 1998 [1979]). For Bhaskar, both social and natural life are open systems in which various mechanisms (which are identified at the abstract level) interact in a variety of different ways to produce the concrete 'flux of phenomena' that we are presented with in everyday life (Bhaskar 2008 [1975]: 47).

Critical realism addresses some of the critiques of systematic, general knowledge by employing the distinction between the intransitive and the transitive dimension of knowledge. The intransitive dimension of knowledge involves the object of knowledge (Bhaskar 2008 [1975]: 21–3; Sayer 2000: 10–11). As mentioned in the previous chapter, a core element of realism is that the object of knowledge is not to be conflated with what a scientist subjectively believes about the object at a specific time (Sayer 2000: 10–11). This is not to deny that understandings of social reality affect the generation of this social reality, but rather to emphasize that the scientist is attempting to describe something that is at least partly independent of his or her description of it.

On the other hand, the transitive dimension of science is the means of gaining knowledge about this object. The transitive dimension, the knowledge of the object of science, is socially constructed and hence is inherently fallible (see Sayer 2000: 60, 91). There is always the possibility that the description of the object of science may be wrong. However, what is fundamental is that the ontological dimension of science, what the science is about, is not conflated with the epistemological dimension, that is, what we can know. To conflate the two is to engage in the epistemic fallacy, falling back into the positivist paradigm of allowing the limits of our knowledge to entail the limits of what there is (Bhaskar 2008 [1975]: 36).

This account of the relation between different structures, forces, and processes that interact to produce concrete social reality is not reductive; it does not imply that a complex social phenomenon can always be reduced to its components. This is because, as critical realists have

emphasized, 'certain combinations of material and social relations produce social structures which have *emergent powers*' (Sayer 1981: 11, emphasis added). While studying the factors that combine to produce complex social reality provides insight into the concrete, the concrete cannot be reduced to its components in cases of emergence because the *relations* between the components are a fundamental part of the generation of concrete phenomena. As Dave Elder-Vass powerfully argues: an 'attempt at a truly eliminative reduction of an emergent property, then, will suffer from a loss of relevant structure. It cannot succeed without invoking a particular *configuration* of lower-level entities – a particular set of parts and the relations between them – as the relevant causal factor' (Elder-Vass 2005: 322).

Likewise, this realist approach to causal powers does not need to deny the important insights of hermeneutical approaches to social life (see Outhwaite 1987; Sayer 1992). While social life is not cause free, meanings and their interpretations are *emergent phenomena* and hence are not reducible to material and individual causal powers (Sayer 1992: 121). However, meanings are also not completely separate from causality because, in so far as individuals and institutions act based on meaning-imbued reasons,[18] these reasons also serve as *causes* in the social and material world (Sayer 1992: 110–12). While it may at first seem counterintuitive to claim that reasons can function as causes, to deny that the reasons for which individuals act can be causes is to deny all agency to individuals, rendering their understandings epiphenomenal, which is actually fundamentally opposed to the central insight of these hermeneutical interpretive analyses of action. Having briefly outlined how critical realist insights aid in developing a powerful realist framework that involves different and emergent causal powers – which tend to produce different outcomes that interact to generate the contemporary 'flux of phenomena' – it is necessary to briefly outline Nancy Cartwright's 'dappled world' approach that creatively extends and modifies some of these key themes.

Tendential realism in a dappled world

Another approach that employs the distinction between the one-sided abstract and the many-sided concrete levels is Nancy Cartwright's 'dappled world', which focuses on the study of 'capacities'. Cartwright declares that 'capacities' are 'abstract facts' about what certain factors 'would produce if unimpeded' (Cartwright 1998: 45). This approach, which focuses on different 'capacities' in social and material reality, studies what certain factors *tend* to produce, even if in concrete reality

'that tendency may be offset by countervailing factors' (Cartwright 1998: 45). According to Cartwright, the concept of 'capacity' has three elements: (1) *potentiality*: 'what a factor can do in the abstract, not what actually happens in full empirical reality'; (2) *causality*: they are 'not claims about coassociation but about what results a factor can *produce*'; and (3) *stability*: 'the ability to produce the effect in question must persist across some envisaged variation of circumstance' (Cartwright 1998: 45).[19] Highlighting the importance of the distinction between the abstract level that accentuates and focuses on specific factors, and the concrete level that focuses on the product of many different factors, Cartwright argues that there is no matter of a fact about what 'a system can do just by virtue of having a given capacity' outside of the specific setting of the capacity and the other relevant capacities that may structure the specific concrete situation in different and conflicting ways (Cartwright 1999: 73).

Based on many different capacities existing in different relations in social and material reality, Cartwright argues that we 'live in a dappled world, a world rich in different things, with different natures, behaving in different ways' (Cartwright 1999: 1).[20] Consequently, rather than revealing a simple structure, our knowledge of reality more closely resembles a dappled world of knowledge of different capacities and their interrelations (Cartwright 1999: 1). Critical realism and the capacities approach have many similarities, including the fact that both of their originators were heavily influenced by Rom Harré's work and, in particular, his defence of causal powers (see Cartwright 1999: 73; Sayer 2000: 7; Bhaskar 2008 [1975]: 9). In a world that is in many ways disordered, Cartwright's ontology of a dappled world of different capacities that are often arranged in a specific way only in spatially and temporally limited circumstances provides a powerful path forward between Beck's conception of totalizing structural transformations based on risk and opposing accounts that conceive of social reality as a 'mess' that should not be tidied at all (Law 2007). For the purposes of de-centring risk, while retaining manufactured side-effects as risks as *a* key set of social processes, Cartwright's conception of a 'dappled world' provides an appropriate metaphor through which to analyse contemporary social and material reality.

This realism – in both critical realism and Cartwright's dappled world – of social and material reality as generated by causal powers that are tendencies to certain outcomes, which interact with other causal powers to generate complex concrete reality, is an ontology that is particularly well-suited to the object of this study. In seeking to explore

the intersection of two key sets of social processes, the production and distribution of contemporary risks and class, and the transformations in inequalities emerging from the intersection of these processes, the method delineated here provides a framework to analyse how looking at society through the prism of relations of risk production and distribution can be related to other complex processes.

Defending abstraction and systemic social theory

The crux of the realist method used in this study is the distinction between the abstract level and multi-sided complex reality, which is shaped by different factors that can be identified by abstraction. Consequently, it is critiques that serve as a significant challenge to the distinction between one-sided abstraction and the concrete, such as the neo-Foucauldian inspired schools of governmentality and Actor-Network Theory, that pose the greatest challenge to this approach. Though these two neo-Foucauldian approaches have their differences, they are united by their common emphasis on the heterogeneity of the constituents of social and material life and the rejection of systematic social theory (Rose, O'Malley, and Valverde 2006: 100; Law 2007). These methodological debates are complex and these critiques of this realist approach cannot be exhaustively addressed in this chapter; however, a couple of key problems with the rejection of abstraction as the basis of systematic theory will be addressed here.

Firstly, on a theoretical level it is difficult to see how neo-Foucauldians can launch a critique of abstraction without putting themselves into explicit conflict with Foucault's basic approach and the powerful insights that he offers. As Agamben has noted, a key element in Foucault's method is the use of paradigms to describe how different social forces and relations function in contemporary society (Agamben 2002, 2009).[21] For example, Foucault identifies the panopticon as a paradigmatic case for developing a 'diagram of power' in contemporary society (Cadman 2009: 151). For Foucault, 'the panopticon is a "*generalizable model of functioning*", namely "panopticism", that is to say, the principle of an "ensemble", and the basis of identifying a "panoptic modality of power"' (Agamben 2009: 16–17, quotes from Foucault 1995, emphasis added). In particular, for Foucault, the panopticon serves as 'the diagram of a mechanism of power reduced to its *ideal form*' (Foucault 1995 in Agamben 2009: 17, emphasis added). In pursuing this method, Foucault uses the panopticon as 'a singularity which in some way stands for all the others' as linked together by analogy (Agamben 2002; see also Agamben 2009: 18).[22]

Thus, as the example of the panopticon illustrates, while there are important differences between the theory of risk society and those approaches grounded in Foucault's work, these differences cannot be based on the rejection of abstraction.[23] As Schirmacher notes, this use of abstraction employs the 'violence of the example' in which concrete phenomena are removed from their context and utilized to understand different situations (Schirmacher in Agamben 2002). Foucault's basic method of finding paradigms such as 'the great confinement, the confession, the investigation, the examination, the care of self' (Agamben 2009: 17) suggests not a rejection of abstraction but rather that there are important commonalities across space and time which can be identified with a single 'model of functioning'. Emphasizing heterogeneity at the core of a critique of abstraction, which neo-Foucauldians tend to do, merely begs the question against the realism delineated here because, firstly this realist approach is actually premised on the existence of this complexity, and, secondly, Foucault also employs epistemic vehicles (paradigms) to identify commonalities in very different situations.

There is however one significant difference between the type of abstraction employed by Foucault and the one employed in the distinction between one-sided aspects and multidimensional wholes. The type of abstraction involved in reasoning through analogy by Foucault does not analyse the objects as separate components that interact to produce complex concrete reality, but rather reasons from one indivisible 'singularity', the panopticon, to others, such as contemporary society. However, this distinction in types of abstraction is an even more precipitous place to ground a fundamental rejection of the type of abstraction defended in the previous section. In identifying different factors that contribute to the concrete whole, this study's approach to abstraction is counterfactual – that is, it aims at providing knowledge of how changing or removing certain contributing factors would change these processes and their outcomes (see Sayer 1995: 6–7). The type of abstraction employed in Foucault's paradigms or Latour's descriptive 'assemblage' focuses on description rather than causality and explanation (Savage 2009a), and hence cannot generate counterfactuals.

This clearly reveals a second problem with these approaches that are critical of systematic social theory, which is on the practical rather than theoretical level. Beck's entire analysis of risk is premised on the fact that we are socially producing possibly disastrous risks and we need to develop a projective social theory that can help us to *live within* this reality and modify some of these trends (see Beck 1992a: 9, 1992b: 111). Only a counterfactual analysis, which aims at identifying how we need

to act to change social institutions and actions to modify the processes of risk production can provide the knowledge basis for addressing these risks. That is, on the level of 'practical adequacy' (Sayer 2000: 43–5), without counterfactual analysis, social science does not provide any knowledge of how we can possibly *change* existing society, which is a particularly exigent problem when studying the *social generation* and *distribution* of risks. Even some, such as Noel Castree, who claim to have 'no particular brief for critical realism', have argued for counterfactual analysis as a fundamental element of social research (Castree 2008b: 157, 171). In pursuing this goal, consistent with the arguments provided here, Castree defends the claim that theory 'give[s] us a grasp of one kind of complexity by abstracting from another' and that it 'illuminate[s] … particular structures or relationships by holding-off contingencies that generally accompany them in concrete situations' (Sayer 1995 in Castree 2008a: 137–8).

This defence of the distinction between the abstract and the concrete and the importance of counterfactual analysis to the social study of risk is intended to develop a re-theorization of the theory of risk society as a theoretical framework that identifies a fundamental set of social and material processes, without necessarily implying that they are *the* fundamental social and material processes. This rethinking of the analytical construct 'risk society' shows how it highlights the importance of a key set of processes, the production and distribution of global risks as side-effects in contexts of organized irresponsibility, that mutually shape, alongside many other factors, existing social and material reality. Systematic social theory can identify some of the key effects of these risks processes without implying that these are the centre of society and that all other processes are merely a function of these processes. As such, this reconstruction of the theory of risk society can make an important contribution to social knowledge even if it is acknowledged that risk production and distribution are not the contemporary 'motor of history'.

Conclusion

This chapter has developed a re-theorization of risk society that understands contemporary risk as *a* fundamental set of structuring processes, without implying that it is *the* fundamental structuring factor in society. This task has been pursued in six different, but related steps. The first task was to briefly identify how Beck tends to interpret risk society as a totalizing theory with risk as the 'centre' of social and material life.

Secondly, a critique of treating risk as the 'centre' of social life was briefly outlined. Thirdly, a rearticulation of the theory of risk society was developed, which identifies the key processes that are the object of analysis of this theorization of risk society – the fundamental importance of the social production and distribution of non-local risks as side-effects in contexts of organized irresponsibility. Fourthly, it was argued that by distinguishing between abstract and concrete levels of analysis it is possible to shift from understanding the processes identified by the theory of risk society as *the* fundamental source of social structuration to understanding them as *a* fundamental source of social structuration. Fifthly, it was shown how a realist ontology and methodology indebted to critical realism, and inflected by Cartwright's dappled world approach, can adequately ground this understanding of risk society as a theory of a series of social processes, rather than a totalizing epoch. Lastly, a defence of systematic social theory based on this understanding of risk society and of the role of abstraction was developed against governmentality risk scholars and other key neo-Foucauldian critics.

As delineated in this chapter, this study proposes a methodology in which it is not possible to read off concrete social and political relations from the identification of a couple of key processes that affect the development of concrete reality. The presence of other key processes, structures, and forces and the differing ways in which these different causal factors are related in different circumstances entails that social and material life is too multidimensional to derive the concrete from one force or process, such as risks. However, the importance of identifying how counterfactually changing social action can change these risk processes and their possible outcomes, is fundamental to the study of contemporary socially produced and distributed risks. Consequently, on this re-theorization of risk society, once the distinction between the abstract and the concrete is allowed for, the fact that the processes that the theory of risk society identifies are not always fully manifested in empirical reality cannot function as an effective critique. This re-theorization of risk society identifies a key set of social and material processes, but social and material reality cannot be reduced to these processes and hence there will be no simple one-to-one relationship between the theory of risk society and complex reality.

In re-theorizing risk society in a way that is heavily indebted to Beck, but differs from his work in key ways, it will be shown that Beck's framework of risk society contains theoretical resources that neither Beck nor his critics have adequately recognized. This framework allows us to identify and analyse a certain subset of risks that have particularly

important characteristics – they are socially produced and distributed, and they are generated as non-local systematic side-effects in the context of organized irresponsibility. They can have socially formative effects because they fall outside of the traditional scope of methods of harm prevention and compensation, and they have the potentiality to radically restructure the bases of social power and of life chances.

Having developed this re-theorization of risk society, this study will show that these core elements of this theory are not as antithetical to class analysis as either Beck or his critics have claimed. By arguing for a re-thinking of the relationship between contemporary manufactured side-effects as risks and other fundamental social processes, such as class inequalities, this study aims to make a fundamental contribution to the sociology of risk and to a critical study of contemporary inequalities. The following chapter will proceed to develop an appropriate understanding of class to explore the diverse impacts of contemporary risks, before then proceeding in the following chapters to identify some of the key novel relationships between the social production and distribution of risk in contexts of organized irresponsibility and contemporary class inequalities.

4

Thinking with Bourdieu, Marx, and Weber to Analyse Contemporary Inequalities and Class

While many different types of inequalities will be referenced in this book, inequality primarily will be addressed through the conceptual framework of 'class'. Class analysis' extensive theoretical development over the last century and a half, touching on core aspects of the explanatory and normative dimensions of inequality (see *inter alia* Sayer 2005), provides a powerful set of theoretical resources with which to analyse some of the key relations between socially produced risks and inequalities.

However, despite these significant theoretical resources of class analysis, and the various important debates it taps into, its role in analysing the rise in inequality over the last two decades has been muted until very recently. Rather this research has been driven by the work of economists studying economic inequality, including, A.B. Atkinson, Thomas Piketty, and Emmanuel Saez, who have powerfully charted the massive rise in economic inequality since the 1980s in many of the core advanced economies, in particular, in the US and the UK (Saez and Piketty 2003; Atkinson, Piketty, and Saez 2011; Saez 2013; Piketty 2014a). Until very recently, class research has proceeded independently of these increases in inequality, with little awareness or orientation towards these developments (Savage 2000; Myles 2003; Kenworthy 2007). While this may partly be due to a more general dysfunctional relationship between economics and sociology, this is still a fundamental challenge to class analysis, which very recent research has begun to try address more directly (Standing 2011; Savage et al. 2013; Savage et al. 2014).[1] This development of class frameworks that address the shifting nature of contemporary inequality is still in its infancy, but it is a particularly important development towards which this study seeks to contribute. Consequently, in aiming to identify a class framework

that is suitable for the goals of this study, this theorization of class aims to speak to both the normative and explanatory dimensions of contemporary increasing inequalities as well as to expand the scope of these class and inequality literatures by providing a framework to identify key systemic inequalities emerging from the social production and distribution of risk.

In attempting these tasks, it is necessary to clarify how the concept 'class' will be used in this study. One possible way to identify a conception of class to use in the analysis of risk and inequality is to stipulate – without justification – one of the main critical theories of class, in particular, Marxist, Weberian, or Bourdieusian. There are, however, several disadvantages to this strategy. Firstly, Beck himself has opted for this strategy, stipulating a conception of class relying heavily on the necessity of the consciousness of class position, which has been highly convenient to his rejection of the role of class relations in the risk society (see Atkinson 2007b; Crompton 2010). To critique Beck's claims about class by likewise stipulating without justification a conception of class that is most favourable to the conclusions of this study may lead to its conclusions lacking evidentiary force against those who, like Beck, stipulate another conception of class.

Another possible option would be to provide an argument as to why one of these three main critical theories of class, Marxist, Weberian, or Bourdieusian, is the correct one to employ and the other two must be rejected. While this strategy is a very common one, it suffers from several disadvantages for the purposes of this study. Firstly, the necessity of providing an argument as to why the other two approaches are inadequate adds a significant amount of evidentiary burden. The acceptability of the conclusions of this study regarding how class inequalities are affected by the processes associated with risk society would then require that the arguments for rejecting the other two accounts of class be sound. Secondly, this approach of solely using one of these conceptions of class to explore the relation between classed inequalities and the social production and distribution of risk leaves how class relations will be affected on the other conceptions of class opaque. Thirdly, and most importantly, by employing only one of these three conceptions of class, this study would be forced to relinquish all of the possible insights that the other two frameworks of class analysis provide into changes in the social and material powers associated with contemporary risk. Consequently, this chapter explores how these different approaches to class may provide complementary insights into contemporary class inequalities.

A fundamental impetus for exploring ways in which Marxist and Weberian approaches to class complement existing Bourdieusian studies is that contemporary widening inequalities need to be analysed through both inequalities in cultural capital *and* through the increasing distribution of wealth away from labour to capital. Both of these developments are too important for class analysis to neglect; as such, it is necessary to explore, if only in a provisional and defeasible manner, how to bring the explanatory strengths of these different class approaches together so as to be able to analyse key dynamics of the relationship between class inequalities and socially produced risks. In this 'dappled world' (Cartwright 1999) of different structures and forms of power shaping economic and social relations, renouncing the insights of two of these three approaches is a massive sacrifice for class analysis that this chapter aims to show is an unnecessary explanatory sacrifice.

The departure point in this study for exploring an alternative possible relationship between these three approaches is Erik Olin Wright's recent proposal to explore different class theories through the question of 'If "class" is the answer, what is the question?' (Wright 2005). Picking up on this point, it is possible to argue that Marxist, Weberian, and Bourdieusian approaches to class are not necessarily opposed approaches to the same subject matter; rather they each focus on explaining different questions regarding how contemporary inequalities function. Consequently, their explanations of different aspects of contemporary class inequalities are not necessarily opposed to each other due to the fact that they are, in many cases, addressing different connections between economic and social relationships (see Wright 2005).

Despite providing an important entry point to class analysis that highlights the potential lack of incompatibility of these class approaches, Wright, however, has not moved forward from this initial insight to actually specify how these approaches to class can be related to each other.[2] In addition to Wright suggesting these different approaches may not be as opposed as commonly assumed, Thomas Piketty, the author of *Capital in the 21st Century* (2014a), has also recently indicated that there may be important points of convergence between Marx and Bourdieu (Piketty 2014b: 743). Specifically, Piketty suggests that there are key aspects of contemporary economic inequality that can only be understood by bringing together Bourdieu's and Marx's approaches to class (Piketty 2014b: 743). Following up on these initial insights and the growing awareness that contemporary shifting inequalities do not fit into the tramlines carved by any one theory of class, the key task of this chapter is to develop a working conception

of class that can aid in critically exploring the key intersections of contemporary risk and inequality.[3]

Given these considerations, this chapter argues that a critical theorization of class and risk society needs to integrate insights into class analysis from each of the three main critical theories of class: Marxist, Weberian, and Bourdieusian. In pursuing this task, this chapter will build upon Savage, Warde, and Devine's (2005) discussion of contemporary class analysis in terms of Capitals, Assets and Resources (CARs) to explore how each of these three class frameworks can identify different ways in which inequalities in 'class resources' generate relational advantages for some and corresponding disadvantages for others. It will be argued that the importance of the specific 'class resource' identified by each of the three accounts of class relations, whether it be relations of production for Marx, market capacities for Weber, or multidimensional 'capitals' for Bourdieu, do not necessitate the rejection of the importance of the 'class resources' identified by the other two accounts. Moreover, it will be argued that not only are these respective inequality generating processes from differentials in class resources not incompatible, but that in fact each of them can illuminate different aspects of contemporary inequality. Lastly, the chapter will further buttress the potential for complementary relations between these approaches to class by providing a critical response to some of the recent critiques that consider Marxist and Weberian class theory fundamentally flawed.

Different class processes and CARs

Savage, Warde, and Devine's (2005) articulation of the CARs class framework provides a powerful basis for thinking through the relation between Marxist, Weberian, and Bourdieusian approaches to class. Savage, Warde and Devine (2005: 31–2) argue that recent Bourdieusian, Marxist, and Weberian class theory has developed frameworks in which inequalities are explained by differentials in CARs. While these authors' work has been a key contributor to the Bourdieusian turn in contemporary class analysis and subsequent rejection of Marxist and Weberian class analysis (see Savage 2000; Savage, Warde, and Devine 2005; Bennett et al. 2009; Savage et al. 2013), the framework that the authors outline can be used to a highly important alternative purpose: to illuminate important *complementary* aspects of these different approaches to class. Before proceeding to fully substantiate this claim, a necessary first step is to briefly outline how each of these approaches to class fit into the CARs framework.

For Marx, the concept of class is not intended to explain stratification or life chances as a whole, but rather to identify a specific social relation that has central importance for the evolution of capitalism (Savage 2000: 9) and for the route to emancipation (Wright 2005: 191–2). For Marx, the social relations of production, based on the monopoly of the means of production by one group and the separation of the other from the means of production, generates the fundamental social relation in which socially created forces of production and wealth are neither socially appropriated nor socially controlled, but rather privately appropriated to the detriment of the majority who produce this wealth (see Marx 1975 [1844]). For Marx, the 'social relations of production' fundamentally shape the economic structure of society, and through this, social, political, and intellectual life (Marx 1983 [1859]; Marx and Engels 1996 [1848]). Consistent with the CARs framework, it can be said that the Marxist approach analyses how inequalities in ownership and control of the means of production structures economic inequalities and, in turn, inequalities in social power and social practices.

Weber's analysis of class, on the other hand, is situated within a broader analysis of the different bases of power within a society that also includes two others: status [*Stand*], and party. Class is based on one's economic interest, while 'status' is intended to capture the social power that is based on the social esteem accorded to oneself and the group to which one belongs, and party relates to the political power of the group to which one belongs (Weber 1978 [1922]: 926–40). For Weber, individuals' 'class-situations' are 'power situations' generated by differential possession of economic resources that 'comprise opportunities for the exercise of power in the market' (Scott 1996: 25). Conceived in this way, class is 'an "objective" characteristic influencing the life chances of men' (Giddens 1973: 43). In particular, the Weberian framework of class analysis highlights how possession of market capacities, such as property and skills, structures one's relative power in the market *vis-à-vis* others and constitutes a fundamental form of structuration of social power and life chances. Re-stated through the CARs framework, the Weberian approach identifies how inequalities in the various bases of market resources structure economic inequalities and inequalities in social power and social practices.

For Bourdieu, classes are generated by commonalities of positions in social space, which, in turn, are determined by one's distribution of 'powers' (Bourdieu 1987: 6). These powers, which Bourdieu usually describes as 'capitals', are defined by being effective 'powers' in different *fields*, which in turn shape the generation of the *habitus*, which is

both a *structuring structure* and a *structured structure* based on one's power and associated social practices within existing social space (Bourdieu 1984: 171, 1987: 3–4; see also Bourdieu 2001 [1983]). A key emphasis of Bourdieu's theory of class is that these 'capitals' are multidimensional; there are several different forms of effective power that structure class relations, with economic, cultural, and social the primary 'capitals' (Bourdieu 2001 [1983]: 97–8). Individuals come to occupy these pre-existing class positions in social space based on their quantity, composition, and trajectory of capital (Weininger 2005: 89). Re-stated through the CARs framework, the Bourdieusian approach identifies how inequalities in multidimensional 'capitals' enable the appropriation of various advantages in different fields within social life as manifested in the differentiation of tastes and social practices.

In short, the Marxist approach analyses how inequalities in control of the means of production structure economic inequalities and, in turn, inequalities in social power and practices (Marx and Engels 1996 [1848]; see also Wright 2005). Likewise, the Weberian approach identifies how inequalities in different market resources structure economic inequalities and inequalities in social practices (see Weber 1978 [1922]; Scott 1996). Placing these approaches within the CARs framework it becomes clear that, while the Weberian approach identifies different class processes than the Marxist approach, these processes are neither reducible to the social relations of production nor are they incompatible with analytical focus upon them. This is likewise the case with how the Bourdieusian approach to class identifies how inequalities in different 'resources' – multidimensional 'effective powers', including economic capital, cultural capital, social capital, and symbolic capital – enable the appropriation of the various advantages within different fields (Bourdieu 1984, 1987, 2001 [1983]). The impacts of these diverse capitals are neither incompatible nor reducible to the impacts of inequalities in the social relations of production or to the bases of existing inequalities in market capacities.

Following Khan (2012), in this chapter the different CARs that each of these approaches identifies as generating structured inequalities will be termed as 'resources'. While Marxist, Weberian, and Bourdieusian approaches may hold different conceptions of how these resources function, these differences are not precluded by describing these accounts with the terminology 'resources', rather than 'capitals' *à la* Bourdieu (1987, 1990) or 'assets' *à la* Wright (1985). On this understanding, then, each of these class approaches provides frameworks to identify how inequalities in class resources generate inequalities in social power,

practices, and life chances.[4] Terming these class 'goods' as resources is only a terminological choice to highlight this theory's lack of sole affinity with Bourdieu's (2001 [1983]) or Wright's approach (1985) and is not meant to prejudge either the types of social powers that are considered class resources or the types of goods these class resources generate.

To support the argument that class analysis can respond to the diversity of contemporary structured inequality by employing all of these different approaches, rather than using only one of them, this chapter now assesses some of the primary objections against bringing these approaches together. The following section provides a reply to key recent arguments that Bourdieu provides a 'superior synthesis' that supersedes Marxist and Weberian approaches, by showing how Bourdieu, Marx and Weber can redress mutual lacunae in their class approaches, thus establishing the case that there are, in fact, important complementary relationships between their concepts.

Complementary relations versus Bourdieu's 'superior synthesis'

The 'superior synthesis' criticism of Marxist and Weberian approaches to class claims that Bourdieu includes the main factors central to the others, as well as including other important class resources, such as cultural and social capital, thus rendering Marxist and Weberian approaches unnecessary (see Savage, Warde, and Devine 2005; Wacquant 2013). Wacquant specifically argues in this vein that Bourdieu's theory of class 'retains Marx's insistence on grounding class in material relations of force but weds it with Durkheim's teachings on collective representations and with Weber's concern for the autonomy of cultural forms and the potency of status as perceived social distinctions' (Wacquant 2013: 277). Consequently, according to the 'superior synthesis' thesis there is little reason to pursue a mutual accommodation of these different approaches because Bourdieu's theory of class includes what is of value in the others.

However, in contrast to the 'superior synthesis' thesis, Marx and Weber's analysis of the relational structuring of life-conditions due to inequalities in economically relevant assets corresponds to a particular lacuna in Bourdieu's account – the economic dimension of class. While Bourdieu does include 'economic capital' as one of his primary 'effective powers', he treats it as if it is self-explanatory (Weininger 2005: 87; see also Sayer 2005: 81), indicating that he 'shall not dwell on the notion of economic capital' (Bourdieu and Wacquant 1992: 119).

Treating economic resources as a single explanatory variable (i.e. 'economic capital'), which he treats as a black box, takes as given what the Marxist account of class seeks to explain – how certain types of economic inequalities, in terms of control over the means of production, generate other types of economic inequalities, such as income and control over work processes. In other words, when Bourdieu addresses economic capital, he takes it as a generic *explanans* while Marx shows that it also needs to be an *explanandum* in terms of the social relations of production, and Weber shows that it needs to be an *explanandum* in terms of the different bases of market power.

This does not create an antithetical relationship between the Bourdieusian and Marxist and Weberian class frameworks, but rather, as this chapter argues, in fact creates important relations of possible mutual insight between these different approaches. In looking at the different bases of inequality that these approaches analyse in a mutually complementary, rather than antagonistic light, it becomes clear that the impact of inequalities in cultural capital on contemporary inequalities and domination is too important for class analysis to ignore (see Devine 2004; Ho 2009: 256) *and* likewise inequalities in control of the means of production and corresponding recent re-distributions between capital and labour are also too important for class analysis to neglect (see Kristal 2010, 2013; Economist 2013b). Consequently, only by bringing the explanatory virtues of these different class approaches together can an adequate account of contemporary class inequalities and their relation to socially produced risks be developed.

That Bourdieu's approach to class analysis can be interpreted as providing a corrective to some important lacunae of Marxist and Weberian class analysis – in terms of their neglect of cultural and social capital, and vice versa – rather than a full-out denial of the importance of inequalities in the social relations of production is in fact suggested by Bourdieu's own remarks on the relationship between these dimensions of class:

> the representation which individuals and groups inevitably project through their practices and properties is an integral part of social reality. A class is defined as much by its being-perceived as by its being, by its consumption – which needs not be conspicuous in order to be symbolic – as much as by its position in the relations of production (even if it is true that the latter governs the former). (Bourdieu 1984: 479)

Despite the possibility of interpreting Bourdieusian class theory as antithetical to the insights of these other class frameworks, Bourdieu's own

discussion of his approach to class analysis explicitly acknowledges, though never adequately addresses, the important contribution that the key analytical object of Marxist class analysis, the social relations of production, may make to understanding contemporary class relations.

Consequently, as the quote above suggests, one of the clearest points of difference between Bourdieu and Marx, between the focus on consumption and on the relations of production, is a difference in emphasis, rather than a fundamental irreconcilable theoretical difference. In this vein, whereas Marx differentiates between *different types* of economic resources, placing a certain type of productive capital as a structurally important type of economic resource, which secures other types of economic and social powers, Bourdieu employs economic capital as a single unitary *explanans* in analysing inequality. While Bourdieu did differentiate between types of his other core capital, *cultural capital* – and hence does not appear to be opposed to the differentiation of types of capital *in principle* – he never differentiated between types of economic capital. Viewing these different class approaches not necessarily as conflicting explanations of the exact same subject matter, but rather as explanations of different phenomena, specifically, different types of relations between economic and social relationships,[5] the fact that Bourdieu did not differentiate between different types of capital does not entail that an approach that complements Bourdieu's could not differentiate between types of economic capital.[6] As Bourdieu himself declared, 'As regards economic capital, I leave it to others; it's not my area' (Bourdieu 1993: 32); consequently, exploring the possibility of treating Marx and Weber's theories of class as a means of further elaborating Bourdieu's underexplored differentiations in economic capital, can serve as an important way of complementing Bourdieusian class theory, while also further articulating the contemporary importance of Marxist and Weberian class theory.

This is not, however, to deny that there are important points of disagreement between these three accounts of class relations. There are key points of conflict in the overarching theoretical frameworks in which these approaches to class have been articulated by Marx, Weber, and Bourdieu. There are clear differences between Marx's materialist and fundamentally realist and dialectical approach to social life (Marx and Engels 1983 [1846]), Weber's methodological individualism, ideal types, and focus on the fundamental importance of ideas and 'ideal interests' in historical change (Weber 1948: 280, *passim*, 1978 [1922]: 3–26) and Bourdieu's rejection of both objectivism and subjectivism and his attempt to develop a theory of practice based on material and cultural life (Bourdieu 1977, 1990, 1998).

In this regard, this book does not propose to pursue its own overarching theoretical synthesis of Marxist sociology, Weberian sociology, and Bourdieusian social theory. Their work is clearly too diverse, their originality too great, and their work too foundational to move from identifying possible similarities and complementarities to develop an overarching synthesis. Rather the task of this chapter is to extract from each of these overarching theories a framework with which to identify different, but not incompatible, processes in which the respective class resources they identify generate relational inequalities. Consequently, the richness and diversity of these respective theories, and their differing interpretations of what are the stakes in class struggle, should be not be touted as impediments to a grand theoretical synthesis because no such venture is being attempted here; rather, these rich theories provide resources with which to better analyse the *multidimensional* nature of contemporary inequality.

In trying to explore the diverse manifestations of these inequalities, and how these intersect with risk processes, this study employs a realist, dappled world approach. Exploring how certain class resources tend to generate certain types of inequalities – which combine with other processes that can either further intensify or serve as countervailing forces to these inequalities – this study aims to address the reality of existing risks and inequalities in a normatively and explanatorily oriented manner. The embedding of one of the classical class approaches within a broadly critical realist approach has been previously pursued by Erik Olin Wright in his significant revisions to Marxist class theory. Wright has moved away from Marxist class theory's connection with a larger totalizing theory of history and the state, instead proposing to understand the social relations of production as an enduring and 'pervasive social cause' (Wright 1997: 1; see also Wright 1996: 701). Construed as a 'pervasive social cause', the social relations of production are considered by Wright to be an important structuring factor in social relations, but the extent to which class relations *qua* social relations of production are the dominant factor in determining other social phenomena such as consciousness, identity, action, and lifestyle is considered socially contingent (Wright 1996: 701, 1997: 1). While this chapter aims to provide a framework in which these different approaches to class can speak to each other, in a way that Wright did not, this understanding of class is still highly indebted to Wright's work. In thinking through the implications of class as the product of diverse bases of structured inequality, this study relinquishes the totalizing ambitions of Marxist and Bourdieusian social theory to analyse

all of the fundamentally important inequalities with their few selected categories,[7] and rather uses these different class frameworks to identify key bases of class inequalities.

Savage, Warde, and Devine (2005) understand the CARs approach as both highlighting similarities between Marxist, Weberian, and Bourdieusian approaches to class, but also as better enabling them to identify the superiority of Bourdieu's to the others. However, the possible contribution to knowledge of this framework does not need to be limited to its originators' intentions. In addition to sketching the outline of the CARs framework, Savage (2009a, 2014), himself, has proposed a significant revision to existing Bourdieusian class analysis. In particular, he argues for a Latourian 'descriptive turn', which would admittedly take Bourdieusian class theory farther away from the explanatory approaches of Marxist and Weberian class theory. However, it should be noted that this shift from explanation to description is a significant move away from Bourdieu's focus on the explanatory nature of his understanding of class and in particular his understanding of economic, cultural, social, and symbolic capitals as 'fundamental social powers' (Bourdieu 1987: 4). In particular, the goal of explanation is fundamental to a central tenet of Bourdieu's theory of class, his justification of the introduction of diverse forms of capital: 'It is in fact impossible to account for the structure and functioning of the social world unless one reintroduces capital in all its forms and not solely in the form recognized by economic theory' (Bourdieu 2001 [1983]: 97). In addition to differing from Bourdieu's aim in developing a multidimensional *explanatory* approach to class inequality, this Latourian methodological framework, as the last chapter emphasized, is unsuitable for the goal of exploring the relation between contemporary risks and inequality. The purpose of this study is to develop knowledge of these connections with a view to changing the intersections of these socially created risks and widening inequalities. A descriptive turn, which rejects the possibility of counterfactual knowledge, that is, of exploring how things could be different, is unsuited to this task.

Nevertheless, many contemporary Bourdieusians are critical of integrating the insights of other social theoretical approaches into Bourdieu's work, with some leading Bourdieusians going so far as to state that 'We should be wary of attempts to either reject or pick and choose from Bourdieu's framework' since it creates the risk of 'needlessly watering down Bourdieu's legacy' (Atkinson 2012a: 172–3). However, before it is concluded that any attempt to develop neo-Bourdieusian approaches that include other key social factors neglected by Bourdieu's

corpus should be rejected out of hand, it is important to recognize that, as mentioned above, leading contemporary Bourdieusians have themselves suggested significant revisions to his work, including a Latourian and descriptive turn in Bourdieusian theorizing (Bennett et al. 2009), while others propose a novel synthesis of his work with phenomenological approaches (Atkinson 2010b). The point here, of course, is not to reject all sympathetic critiques of Bourdieu's work that supplement, extend, and critique his existing powerful corpus. Rather it is to suggest that the complementary nature of analysing the social relations of production, while diverging from contemporary Bourdieusians' emphasis on the antipathy of Bourdieu and Marx's theory of class (Savage 2000; Savage, Warde, and Devine 2005; Atkinson 2010a), in fact diverges from Bourdieu's own theories and emphasis less so than many of these other current innovations.[8]

Having now argued that Marx, Weber, and Bourdieu each provide frameworks to analyse the impacts of inequalities in different class resources that can redress mutual lacunae in each other's work, the next section addresses another possible critique of this proposed framework, which is that Marx's and Weber's approaches to class are irredeemably flawed and hence must be rejected in their own right.

Responding to the critiques of Marx's and Weber's class theory

Despite being heavily indebted to the insights of Savage, Warde, and Devine (2005) in developing this class framework through the CARs approach, this approach to enabling Marxist and Weberian theories of class to redress the undertheorization of economic capital in Bourdieu's theory of class differs from other contemporary Bourdieusians, who have launched several critiques of Marx's and Weber's class theory (see, selectively, Savage 2000; Savage, Warde, and Devine 2005; Atkinson 2010a).[9] If these claims of the fundamentally or irredeemably flawed nature of Marxist and Weberian class theory are correct this would create a major impediment to the use of Marxist and Weberian frameworks to identify key class resources that generate inequalities in contemporary society. Consequently, this challenge must be addressed. The first of these critical challenges argues that Marxist class theory suffers from the problem of the massive proliferation of resources and, therefore, of axes of exploitation (Savage, Warde, and Devine 2005: 35–6). The second is that Marxist and Weberian relational approaches to class face the problem of specifying in a non-spurious manner the

scope of which relational processes should be included in class analysis and which should not. In developing this critique, Savage, Warde and Devine (2005: 35) highlight that the left-handed encounter important relational disadvantages, including having a higher mortality rate, that are similar to the relational inequalities generated from class resources; consequently, relational class analysis faces difficulties in delimiting the scope of what are relational *class* processes as opposed to what are relational *non-class* processes. The third critique states that Marxist and Weberian approaches have inadequate understandings of culture and that they do not have the theoretical resources to adequately address the 'cultural turn' in sociology (Savage 2000; Savage, Warde, and Devine 2005; Atkinson 2010a).

Massive proliferation of axes of exploitation

The following may be said in response to the critique that Marxist approaches to exploitation proliferate axes of power (see Savage, Warde, and Devine 2005): if it is the case that the proliferation of axes of exploitation (or advantages) is a genuinely significant problem for a theory of class – which it is not necessarily clear that it is – then this is a much greater problem for the Bourdieusian approach to class than it is for a Marxist one. It is Bourdieu that has continued to proliferate axes of relational advantage, from cultural and economic capital (Bourdieu 1984), to social capital (Bourdieu 2001 [1983]) to symbolic capital (Bourdieu 1991a) to religious capital (Bourdieu 1991b) to informational capital (Bourdieu and Wacquant 1992) and so on.

While it is not necessarily simple to provide the criteria to delimit what are the means of production and what types of value are appropriated due to inequalities in this domain, Bourdieu's proliferation of capitals suggests that the proliferation of axes is a problem that any approach to class will face. Moreover, the generic nature of Bourdieu's capitals raises the corresponding problem of their infinite divisibility. There are different types of cultural and informational capital, which may be further divided into natural scientific, social scientific, literary, legal, business, financial, fine arts knowledge, and knowledge of what fork to use or when to order coffee or cheese. Each of these involves bases of knowledge that may be further differentiated *ad infinitum*. Likewise there are very different types of social capital that may be differentially effective depending on the situation, and hence could be continually further divided.

This is not to straightforwardly reject these abstractions of Bourdieu's. Rather, it is to further support the claim that the proliferation of 'axes

of advantage' is a problem that each of these approaches face. In fact, by importing the 'capital' metaphor from a sphere, the relations of production, where there are processes that work to make the power of capitals commensurable by their monetization, and then projecting it to other areas of social life where these conditions do not hold, Bourdieu actually faces the problem of the proliferation and division of capitals in quite an exigent manner. In this way, it may be suggested that in attempting, unlike Weber, to provide a comprehensive theory of inequality through class, without in turn being reductionist about class powers (which classical Marxism is commonly accused of), the pragmatic solution Bourdieu has utilized is the constant proliferation of different dimensions of class power and inequality. Even if this proliferation of different dimensions of class power was a problem – which it is not clear that it is – the Bourdieusian faces this problem in an equal or even more exigent manner than the Marxist approach.

The Bourdieusian critique of relational approaches to class

A second key critique that Savage, Warde, and Devine (2005) deploy is specifically directed against relational approaches to class, which include Marxist and Weberian.[10] Dismissing debates about 'relationality' as 'unproductive', Savage, Warde, and Devine (2005: 42) argue that Bourdieu sidesteps these debates and 'instead focuses more on the accumulation and convertibility of CARs'. This shift in neo-Bourdieusian class theory away from relational processes to the processes of accumulation and convertibility due to the problem of the 'scope of relational resources' is quite an important re-orientation, so three mutually supporting critiques will be provided.[11]

Firstly, it needs to be stated that Bourdieu's approach to class *is* relational. For Bourdieu, positions within social space are defined by their *relative distance* from other positions in terms of inequalities of capitals (Bourdieu 1987: 3). Likewise, Bourdieu defines the main types of capitals – economic, cultural, social, and symbolic – in purely relational terms (Bourdieu 2001 [1983]: 100; see also Sayer 2005: 81). As exemplified in his visual depiction of the correspondence between 'the space of constructed classes and the space of practices' (originally in *Distinction* and restated in *Practical* Reason), class positions (which are taken as careers) are identified based on *relatively* high or low levels of both economic and cultural capital (Bourdieu 1984: 128–9, 1998: 4–5). Moreover, the *habitus* of individuals is defined both by its intrinsic elements of the life-conditions that individuals occupy and *relationally*, in terms of 'its position in the system of class conditions, which is also a

system of differences, differential positions' (Bourdieu 1984: 171–2). In this way, 'inscribed within the dispositions of the habitus is the whole structure of the system of conditions, as it presents itself in the experience of a life-condition occupying a particular position within that structure', based on relations of inequalities in capitals (Bourdieu 1984: 172). Taking the relational element (and hence the structuralist moment) out of Bourdieu's theory of class is a massive shift in neo-Bourdieusianism away from the core explanatory frameworks and tasks of Bourdieu's work. Consequently, given that Bourdieu's theory of class is relational, this critique cannot be about Bourdieusian versus non-Bourdieusian class theories, but rather is about relational versus non-relational approaches to class.

Secondly, it is not clear how the shift from a relational approach to an approach based on accumulation and convertibility of resources solves the problem of scope. Almost any type of resource can be accumulated and converted, at least in certain contexts and at certain 'discounts', into other social resources. Simply put, the shift from relational resources to accumulated resources does not solve the problem of finding a non-spurious basis for identifying which processes should and should not be within the scope of class analysis.

Lastly, while maintaining that the problem of the scope of class resources is one that all of the approaches to class face equally, and hence it cannot be considered a critique of Marxist and Weberian class analysis *per se*, it may also be stated that there is a creative moment to be grasped in responding to this critique. In thinking about solutions to this problem of how to distinguish the scope of relational class resources from relational non-class resources, Bourdieu's concept of 'misrecognition' provides a suggestive possible solution. With regards to misrecognition, Bourdieu argues:

> it has to be posited simultaneously that economic capital is at the root of all the other types of capital and that these transformed, disguised forms of economic capital, never entirely reducible to that definition, produce their most specific effects only to the extent that they conceal (not least from their possessors) the fact that economic capital is at their root. (Bourdieu 2001 [1983]: 106; see also Bourdieu 1977: 195–7)

Following on Bourdieu's suggestion here that cultural, social, and symbolic capital are 'disguised forms of economic capital', a heuristic for establishing whether a resource should or should not be considered a

class resource is whether it *could* have its basis in the misrecognition of the power of economic capital.[12] While superior knowledge of art or an extensive social network could be subject to misrecognition, in that at least part of its basis could derive from a misrecognized power from economic capital, Savage et al.'s (2005) problematic example for relational class analysis, being left-handed, clearly cannot be ascribed to misrecognition and hence can be legitimately excluded from an analysis of the relational impacts of inequalities in class resources. Consequently, a non-spurious heuristic for distinguishing relational class resources versus relational non-class resources may be established, thus resolving this second critique.

The inadequacy of Marxist and Weberian approaches to culture

Lastly, the claim that Marxist and Weberian approaches to class are unable to capture the role of culture in contemporary class relations needs to be addressed (see Savage 2000; Savage, Warde, and Devine 2005; Atkinson 2010a). Firstly, with regards to the problem of Marx's overly reductive account of class, in which class structure generates class consciousness, which in turn generates class action,[13] even Marx himself articulated a much more nuanced and socially contingent account of class action in other writings than the *Manifesto,* as particularly outlined in the *18th Brumaire* (Marx 1996 [1851]). Furthermore, in regards to Marx's discussion of class in the *Communist Manifesto*, Bourdieu's powerful interpretation of this text suggests an alternative interpretation other than Marx was simply wrong, which is that Marx was attempting to realize a *theory effect* in which theory can help bring about reality – in this case, a collective movement. In attempting to realize an effect of theory it may be said that Marx's attempt was consistent with Bourdieu's claim that 'Social classes do not exist …. What exists is a social space, a space of differences, in which classes exist in some sense in a state of virtuality, not as something given, but as *something to be done*' (Bourdieu 1998: 12).

Likewise, a fundamental insight of Weber's work on class is that the relation between economic class and status distinctions based on cultural forms is highly contingent and not susceptible to generalization (Weber 1978 [1922]: 928–33), so the shifting terms of the culture of classes is not necessarily a problem for Weberian class analysis. For Weber, it is not possible to read culture off from inequalities in class resources and, consequently, it is little surprise that the Bourdieusian account of class cultures, which has been delineated over the last few decades, is better placed to address the contemporary role of culture in class than an account that was delineated almost a century ago.

However, whether Marxist and Weberian approaches to class culture do or do not have significant problems (of which these critiques suggest that they do), this can only be a reason to reject these approaches *en bloc* if 'class' is conceptualized as a kind of competition to 'capture the flag', where each of these approaches compete to provide the one comprehensive account of the relation between class positions and inequalities. The framework outlined in this chapter explicitly acknowledges that each of these approaches to class have limitations. They each only capture certain aspects of contemporary inequalities in social power and practices, with each doing different heavy lifting, whether it being the Marxist and Weberian analytical attention upon the relations of production and market capacities redressing the neglect of the different aspects of the economic dimension by the Bourdieusian approach, or the Bourdieusian approach redressing the limitations of key cultural dimensions for the Marxist and Weberian approaches. The supplementing of Weberian and Marxist class analysis by more specific analyses into the contemporary role of culture in class by the Bourdieusian approach is only illegitimate if it is not possible to combine the different virtues of these approaches together – a point which this chapter has provided significant reasons to dispute.

Class boundaries and class making

So far this chapter has argued that using Marxist, Weberian, and Bourdieusian class approaches to identify different class processes in which inequalities in class resources generate social inequalities can redress mutual lacunae in each other. The next step is to address a final substantive problem with bringing these different approaches together to identify different class processes. This problem is that each of these approaches emphasizes different processes and hence generates incompatible class groupings based on the processes they highlight. While Marxist approaches to class divide individuals into classes based on their relations of exploitation, in particular, whether they are exploited, exploit others, or neither exploit nor are exploited (Wright 1985), neo-Weberian approaches divide people into different groupings based on different market capacities,[14] while recent neo-Bourdieusian class theory has attempted to divide individuals into groupings based on differences in economic, cultural, and social capital (Savage et al. 2013). Consequently, bringing these different approaches together creates conflict between the different class classifications, with each manifesting both different numbers of classes and different accounts of which class

individuals should be placed in. Given that much of contemporary class analysis has aimed at developing a theory of class primarily to produce a mapping of different classes as distinct groups, then this is an important possible objection that needs to be addressed.

Can combining these three approaches to illuminating the different bases of class inequalities provide a satisfactory basis for generating social classes as groups that have a real existence? All of the evidence suggests that it cannot. Classes as lived realities, rather than classes-on-paper, cannot be generated from bringing together these different approaches to class. However, looking at Marx's emphasis on classes-for-themselves and the real struggles of these groups (Marx 1996 [1851]), Bourdieu's emphasis on the process of construction of these groups (Bourdieu 1984; see also Swartz 1997), or Skeggs' (2004, 2005) recent work on the making of class (and hence moral boundaries), it is clear that the source of this problem is not due to the combining of these differing class resources together. Rather it is a problem that any account of class faces because it is simply not clear how classes as lived social groups can be generated by any mapping of class resources, whether it be Bourdieusian, Weberian, or Marxist (see also Weininger 2005: 115). How the possession of different objective resources of individuals coalesces into definite class groupings cannot be determined *a priori* by even the most adequate account of the distribution of CARs (cf. Savage et al. 2013).

Rather, as Bourdieu has powerfully emphasized, social class exists as '*something to be done*' (Bourdieu 1998: 12). How different resource distributions coalesce into group divisions depends on more than the quantities, compositions, and trajectories of capitals. These differences in resources do not generate categorical, rather than gradational, distinctions in themselves; rather, constant collective acts of group construction, acts of 'class-making', are required for diverse and infinitesimal differentials in class resources to coalesce into definite social classes. So, while bringing together these different approaches into complementary relationships highlights how it is more difficult to find a solution to the problem of generating class classifications based on distributions of class resources, it is not this class framework that needs to be dismissed, but rather the idea that lived, social classes can be read off from distributions of objective resources that needs to be rejected.

If, however, on the other hand, the aim is to develop objective groupings of individuals who have common interests based on common positions of class resources,[15] then bringing these different approaches together will have significant advantages over accounts that generate

groupings of similar interests based on only one of these approaches and hence, neglect other key aspects of class structuration and class interests. Admittedly, retaining the importance of each of these three approaches might generate greater 'contradictory locations within class relations' (see Wright 1985: 87, 2005: 16). For example, workers with other substantial investment assets would be in a dominated position in the class relations highlighted by a Marxist framework, while simultaneously dominant in terms of the Weberian framework, or individuals with little wealth but high cultural capital would be dominated in the relations highlighted by the Weberian framework, but dominant[16] in terms of the class relations highlighted by Bourdieu. This chapter suggests, however, that allowing for these insights into different, and often contradictory, bases of structured social power – and thus making the generation of specific homogeneous classes more complicated – is not in itself a flaw. In so far as these varying relations generate different living conditions and social power, and corresponding interests, then our account of class relations should represent this complexity rather than deny it, as both Bourdieu and Wright have powerfully argued (Wright 1996: 714; Bourdieu 2001 [1983]: 97–8). Either way, addressing, rather than black-boxing, the complexity of manifestations of class in economic and everyday social relationships can make an important contribution to class analysis and to its development as a critical social science, which this book seeks to further develop (see Sayer 2005, 2011).

Conclusion

This chapter has argued that rather than Marxist, Weberian, or Bourdieusian approaches to class necessarily being opposed to each other such that the explanatory virtues of one are *ipso facto* reasons to reject the others, they, in fact, can each identify different, but important, bases of class inequalities in different class resources. Through critically exploring creative potentialities in the CARs framework not originally recognized by Savage, Warde, and Devine (2005) it has been shown how these approaches to class redress important mutual lacunae in the respective class resources that they each analyse. Lastly, it has been argued that retaining a single approach to class so as to be able to generate univocal class groupings based on distributions of class resources does not adequately capture the diversity of contemporary class inequalities.

One question that may be asked of this analysis is: what relevance will the conclusions regarding the relationship between risk and class inequality developed in the second half of this book hold for those who

continue to employ only one of these three approaches while rejecting the others? The dilemma may be posed in the following more general terms. While developing innovative tools to address contemporary problems may be encouraged, if the empirical conclusions of a study rely on premises that are not acceptable to most social scientists, then how can these novel results speak to the broader discipline? While this is a genuinely important dilemma, it does not bedevil this approach to class. In so far as this book uses the framework of class delineated in this chapter to establish that the social production and distribution of risk is intensifying class inequalities on all of these three class approaches, then it logically entails that this holds true for *each* of these approaches. While there may be additional claims made about the implications for class *qua* Marxist, Weberian, or Bourdieusian class resources that may be rejected by the other approaches, this particular class framework provides knowledge that speaks to each of these three approaches.

Very recently, the neglect of rising contemporary inequalities by class analysis has begun to be addressed, with the re-emergence of the study of elites (Savage and Williams 2008; Sayer 2012, 2015; Savage et al. 2013). By re-thinking the relationship between these different approaches to class to explore different key areas of complementary insights, class analysis will be better suited to both analyse the diverse contemporary social sources of suffering and to provide critical knowledge that can aid in redressing these inequalities. This book seeks to complement these innovative studies of contemporary elites by highlighting how socially produced risks are intensifying inequalities in particularly exigent ways, with particular emphasis on how many of the advantages that contemporary elites enjoy are being generated through the increased risk exposure of the least advantaged in society. The following chapters will proceed to explore some of these intersections between risk and inequality related to environmental bads and financial risks. As always with the question of class, it is not solely a theoretical question. The fruitfulness of this approach, and even the actual scope of the complementarity of these different class frameworks, cannot be fully established *a priori*, but rather, as Marx and Bourdieu would agree, must be substantiated through both the theoretical and empirical. The following chapters of this book pursue this task.

5
Risk Society and the Distribution of *Bads*

A series of important sociological works characterize the contemporary age in terms of a fundamental break from earlier forms of modernity. These various descriptions of the current age, such as 'liquid modernity' (Bauman 2000), the 'network society' (Castells 2000), an age of 'mobile hybrids' (Urry 2000) and 'risk society' (Beck 1992a), despite their differences, are unified by their emphasis on a heightened sense of discontinuity with the past. For several of these theorists this fundamental shift in the social conditions of contemporary society likewise requires a shift in the basic methods of sociology (Urry 2007) and of the concepts used in social analysis (Beck 1992a). One of the most important and contentious of these claims regarding the need to jettison prior sociological concepts, which forms a key departure point of this study, is Ulrich Beck's declaration that in the risk society the concept 'class' will no longer be adequate to understand this new emerging social reality (Beck 1992a).

Several incisive responses have critiqued Beck's rejection of class by demonstrating the continued relevance of class to structuring life chances (Goldthorpe 2002) and by showing how contemporary risk follows the contours of class rather than displacing the importance of class (Mythen 2005a, 2005b). There have also been conceptual critiques questioning the cogency of Beck's own arguments for the rejection of class (Atkinson 2007a). These critiques have responded to Beck's 'narrative of discontinuity' (Scott 2000: 38) by emphasizing the level of continuity in the contemporary age; rather than class distribution being displaced by risk distribution, as Beck claims (Beck 1992a: 23; Beck and Willms 2004: 131), class would continue to be important in the risk society because risks 'invariably track the tramlines of poverty and disadvantage' (Mythen 2005a: 141).

Despite the importance of these critiques of Beck's rejection of class, there are limitations in this literature that this study addresses. These accounts have primarily focused on contradicting Beck's thesis of the dissolution of class, limiting themselves to demonstrating that class will not be irrelevant to life chances even as risks grow. The key emphasis of the literature is that growing risk 'reinforces' rather than 'transforms' the logic of social distribution (Mythen 2005b: 1.3, 2007: 800; see also Scott 2000; Atkinson 2007a). However, existing in the conceptual terrain between the claim of a transformation of the logic of social distribution that dissolves the relevance of class, and the opposing claim that class continues to function as it has, there lies the important, but as yet unasked, question: if class inequalities are not dissolved by risk society, will it actually be the case that class-based inequalities are being intensified by the processes associated with risk society? That is, are the heightened production and distribution of non-local side-effects in contexts of organized irresponsibility increasing the impact of existing class inequalities in ways that are not captured by the existing literatures? This chapter will address this question by arguing that not only does class continue to be relevant to individuals' life chances, but that the growing distribution of *bads*, as identified by the theory of risk society, is contributing to the intensification of contemporary class-based inequalities. The following chapter will further develop this analysis of the relation between risk society and class analysis by showing how the mismatch between those who benefit and those who suffer from the production and distribution of systemic financial risk is exacerbating class-based inequalities.

As Beck points out, according to classical class theory of the 'first modernity', class relations are central to one's well-being because absolute levels of wealth are the primary determinant of one's acquisition of *goods* and corresponding life chances (Beck 1995a: 151). Contemporary social relations exhibit continuity with the 'first modernity' in this regard; there continues to be a strong link between class positions and income and wealth differentials (Reid 1998 in Scott 2002: 27–8; Goldthorpe and McKnight 2004: 18–22; Hills et al. 2010: 143, 151). Whether differential class positions are considered to *generate* income and wealth differentials, such as on Marxist (Wright 2005) and Weberian (Scott 1996; Goldthorpe and McKnight 2004) accounts, or whether classes are partly *constituted* out of differential levels of wealth, as is the case with the Bourdieusian framework (Bourdieu 1984), the continued strong connection between class position and wealth differentials ensures that, in so far as these wealth differentials gain greater

causal relevance to life chances, differentials in class inequalities will likewise be intensified.

In light of the continued structuring of income and wealth by class relations, this chapter will outline how the growing distribution of environmental risks is intensifying relational class-based inequalities. In addition to class positions continuing to structure the distribution of *goods,* they gain heightened importance because individuals' *relative levels of wealth vis-à-vis others* are the central factor in one's level of distribution of *bads*. Given this increasing distribution of *bads* (Beck 1999: 8), inequalities in life chances generated from inequalities in class resources will actually become greater because differentials in economic resources, rather than absolute levels of wealth, will be a primary means by which some avoid these humanly-produced risks, while others are consigned to suffer the brunt of the contemporary social-material order.

This chapter will illustrate the intensification of class-based inequalities not by rejecting the possible insights that the theory of risk society can shed on contemporary inequalities *en bloc*, as is the common strategy (Elliott 2002; Mythen 2005a, 2005b, 2007; Atkinson 2007a), but by arguing that Beck's theory of risk society contains the basis of a critical theory of class inequalities and contemporary socially produced risks.[1] Following upon the theoretical critique and reconstruction of the theory of risk society developed in chapter three, this chapter will further develop this critical and creative dialogue with Beck's theorization of risk society. By redressing three anomalous and unjustified elements in his analysis of the paradigmatic types of environmental risk that are socially produced and distributed in contexts of organized irresponsibility, this chapter provides a reconstructed theory of risk position that illuminates the main lineaments of its relationship to class. Then, having outlined the way in which class-based inequalities continue to structure risk exposure, this chapter will use this theory of risk position to show how not only is the theory of risk society not antithetical to class analysis, but that in fact it can be used to reveal how class antagonisms and inequalities will increase with the growing social production and distribution of risks.

Risk society and class analysis

Beck argues that the central role which the distribution of wealth plays in life chances dissolves in the risk society because the centrality of the production of *goods* is overwhelmed by the growing production of risks and *bads* (Beck 1992a: 41). On the basis of the universal distribution

of these risks, Beck concludes that class differentials will no longer be relevant to life chances in the risk society (Beck 1992a: 36–41). However, despite this strong association of the theory of risk society with this rejection of the relevance of class, it is not necessarily the case that the core elements of the theory of risk society are as antithetical to class analysis as Beck or his critics have suggested.

For Beck, in the 'first modernity' intervention on society and nature via instrumental reason is effective at increasing wealth and goods. The risk society, or 'second modernity', is a product of 'reflexive modernization' in which interaction with nature increasingly presents itself as a self-confrontation with the latent side-effects of our production of greater *goods* (Beck 1992a: 35, 1999: 13, 73). The systematic side-effects of modernization result in the 'social production of risks' accompanying the 'social production of wealth' (Beck 1992a: 19, 27). These 'manufactured uncertainties' resulting from our self-confrontation with the effects of industrial society include climate change, air pollution, smog, nuclear radioactivity, toxicity of food, the danger of widespread genetic modification, and even global financial crises from newly created global financial systems (Beck 1992a: 22, 1999: 111).

Despite the apparent and growing irrationality of the outcomes of these rational expert systems, such as science, government, and corporations and their means of intervening in nature, it is not easy for these modern institutions to cease to produce these risks. The growing risks from the side-effects of interventions on nature follow invariably from the growth in our power to control and intervene on nature: '*Along with the growing capacity of technical options grows the incalculability of their consequences*' (Beck 1992a: 22). Preventing the production of these risks is rendered extremely problematic because of the social conditions of their production. Rather than an atomistic logic of specific outputs of risks from specific actions, the social production of risks in the second modernity takes place in generalized conditions of 'organized irresponsibility' (Beck 1999: 6). Not only is the production of these risks tied up with the processes by which these goods are produced, but these risks are the cumulative outcome of the interaction of a variety of different factors and inputs collectively producing these risks. Given the uncertainty revolving around the production of these risks, in which 'we don't know, we can't know', 'organized irresponsibility' entails the impossibility of identifying the specific factors responsible for the social production of risk, which could serve as a basis for ensuring those who caused the damage compensate the victims (Beck 1999: 6, 129, 2009a: 29). Consequently, in addition to the continued importance of the distribution of goods, the growth of the

systemic side-effects of modernization of risk society leads to the increasing centrality of the social distribution of *bads* (Beck 1999: 8).

While the theory of risk society has become associated with Beck's declared rejection of the importance of class (Beck 1992a; McMylor 1996; Scott 2000; Elliott 2002; Beck and Willms 2004; Mythen 2005a, 2005b; Atkinson 2007a), as suggested by the description above, the core elements of the theory of risk society, which include 'reflexive modernization', 'manufactured uncertainties', 'organized irresponsibility', 'private escape routes' from risk and the growing 'distribution of *bads*', do not in themselves suggest a diminished role for class conflict and antagonism. Rather, the following section will develop the key aim of this book of bringing together the re-theorization of risk society, as developed in chapter three, and of class analysis, as developed in chapter four, by arguing that it is Beck's inclusion of some specific and *ad hoc* assumptions about the paradigmatic cases of manufactured side-effects as risks that obscures the important contribution that the theory of risk society can make to understanding class in contemporary society, as well as its future dynamics.

Rethinking risk and risk positions

This section proceeds with a critique of Beck's theorization of risks and, in particular, the paradigmatic cases of risk that he uses in his theory of risk society. The paradigmatic forms of risk on which Beck bases his conclusions regarding the stratification effects of the risk society ignore both the gradations of risks (Scott 2000; Mythen 2005b) and the differing levels of calculability of risk (Mythen 2005b: 4.2), as well as equating the unevenness of impacts of risk solely with *regional* unevenness (Beck 2009a: 58, 87, 161–2, 168, 171, 181). By critiquing this insufficiently differentiated account of risk and allowing for the multi-dimensional aspect of risk, a theory of risk position that illuminates its diverse connections to class position may be generated.

Critiquing Beck's catastrophic and radically uncertain concept of risk

Beck's theory of risk society evinces a clear de-emphasis on the importance of gradations of risk. Beck tends to equate the risk society with a disaster society in which maximal catastrophes serve as the paradigm for understanding contemporary manufactured side-effects as risks (Scott 2000: 36). Using the 'maximum credible accident' (Beck 2009a: 27–8) as the prism through which to think about risk, Beck subsumes all gradations of risk

under 'catastrophic risk'. With this catastrophic account of risk, Beck seeks to justify his vision of the processes associated with risk society as resulting in a boomerang effect in which even the wealthiest, who have benefitted most from the production of risks, are unable to escape these risks (Beck 1992a: 37–8, 2009a: 184; Beck and Willms 2004: 131). The uniform intensification of risk manifesting in catastrophe precludes the possibility of stratified forms of risk and allows Beck to conclude that 'private escape routes' will close, rendering us all equally subject to the risks of catastrophe from 'reflexive modernization' (Beck 1992a: 22).

Having set out the role that Beck's de-emphasis on the gradations of risk plays in his rejection of the role of wealth in stratifying risk in the risk society, it is necessary to critically evaluate this aspect of his account of risk position. To argue that 'reflexive modernization' involves greater complexity and feedback effects between social action and natural outcomes is a plausible and important claim. Moreover, it also seems plausible to claim that many of our current interventions on society and nature will have greater spatio-temporal effects than previous forms of intervention did, thus leading to *global*, rather than primarily local, 'manufactured risks'. However, it is not clear that these two claims provide the necessary support for his substantive assumptions regarding the catastrophic nature of manufactured side-effects as risks associated with risk society. The increasing spatio-temporal dispersion of the human *causes* of risks provides no reason to believe that the *effects* of these causes will be realized in a uniformly catastrophic manner. Beck has provided neither a single specific case that shows that the effects of reflexive modernization would be catastrophic in a unitary and global way, nor any substantive evidence to show that these risks will unfold in an even way within a given region. The current existing evidence with regard to the risks from natural disasters instead shows these risks to be highly stratified within a given region based on income and wealth; those with less income and wealth tend to occupy the areas and types of housing that are most vulnerable to natural risks, with their vulnerability further exacerbated by their greater dependence on work that depends on the weather (World Bank 2003 in Ibarrán and Ruth 2009: 52–3; Freeman et al. 2003, IMF 2003, and World Bank 2003 in Rasmussen 2004: 5). Moreover, having less economic resources to devote to both prevention and adaptation, those occupying lower socio-economic positions within societies experience higher mortality rates after natural disasters (Ibbarán and Ruth 2009: 54), and tend to also have much greater difficulties in recovering from natural disasters (Blaikie et al. 1994: 48).[2] Given the empirical evidence that existing risks

are distributed in an uneven manner and Beck's inability to provide a justification for why the risks of reflexive modernization are fundamentally different in this regard, his rejection of gradations of risks associated with risk society must be redressed in a renewed account of risk position.

Before proceeding to another key problematic aspect of Beck's account of 'manufactured side-effects as risks', it is necessary to address his critique of this argument in a recent reply. Beck has responded to my critique of his overly catastrophic account of risk (see Curran 2013a) by claiming that the argument that 'Beck tends to equate the risk society with a disaster society in which maximal catastrophes serve as a paradigm for understanding risk in the risk society' neglects his key distinction between risk and catastrophe (Beck 2013b: 69). In response, it may be conceded that in so far as Beck is claiming that his definition of 'risk' in his most recent writings is different than catastrophic damage, his point is valid; he clearly distinguishes between the two: 'Risk is not the same as catastrophe, but the anticipation of the future catastrophe' in the present (Beck 2009b: 3). In his most recent work, Beck has relinquished his core insight of the realism of environmental risks by declaring that 'Risk means the *anticipation* of the catastrophe' (Beck 2009a: 9). As he indicates, by 'risk' he means not catastrophe but how 'a possible catastrophe, which could occur in the future, is to be prevented by its anticipation in the present' (Beck 2013b: 69).

However, there are two problems with Beck's recent shift in the meaning of risk away from a realist account. Firstly, as was shown in the second chapter, an account that defines risk in terms of our perception or reaction to risk undermines the fundamental possibility of risks emerging as unintended and unrecognized consequences. Secondly, in this specific case, by defining 'risk' not as 'possible and expected future damages', but rather as 'the response to the expectation of catastrophes', Beck has performed a *semantic shift* in which he shifts the common meaning of risk, 'possible and expected future damages', to the term 'a possible catastrophe' and hence he shifts the meaning of 'risk' to 'possible responses to risk'. As his own discussion indicates, replicating the discussion in *Risk Society* (1992a: 19–50), he still envisions catastrophic damages as the paradigm through which to analyse these future damages. This is because the collective response – that is, the 'enlightenment function of risk' that he envisions (Beck 2006b) – is still premised on universal and maximal self-endangerment. This semantic shift of defining 'risk' as 'the response to possible *catastrophes*' retains the catastrophic understanding of contemporary risk but leaves this

opaque by bundling two things together, expected damages and our response to these damages, into the single concept of 'risk'. Conflating these two things ultimately elides the question of who responds based on what likely damages and presupposes a universal response to universal self-endangerment, which thus nullifies conceptually the fundamental question of the 'logic of the distribution of risk' in a way that his earlier work did not (Beck 1992a: 19). Only by retaining the core of realism in understanding risk can a re-theorization of risk society adequately explore the mutual structuration of contemporary risks and social and material life.

The second aspect of Beck's paradigmatic case of risk which militates against exploring how class resources shape one's level of risk is his equivalence of risks emerging from reflexive modernization with radical uncertainty. According to Beck, one of the characteristic features of the intensification of risks due to the humanization of nature is that 'the calculation of risk as it has been established so far by science and legal institutions *collapses*' (Beck 1992a: 22). Totalizing the epistemological status of the risk society on the basis of special cases, Beck declares that the world risk society is 'a *non*-knowledge society' (Beck 2009a: 115). That is, Beck is not making a substantive, empirical claim that 'organized irresponsibility' and the humanization of nature creates greater complexity and uncertainty, but rather as a conceptual matter he is advancing an epistemology in which, even for more immediate and specific types of events, there is no possibility of differentiating between more likely and less likely outcomes. This rejection of 'calculable risk' is central to generating an account of risk unmediated by class because, with radical uncertainty regarding the nature of future risks, even if there are differential risk positions they would not be distributed on the basis of class as there would be no cognitive basis for the wealthy differentiating between these different risk positions. With radical uncertainty, it could be genuinely claimed that risk exposure is 'fate' (Beck 1992a: 40–1).

As with Beck's rejection of gradations of risk, his rejection of gradations of knowledge of risk renders opaque the social processes that structure the distribution of risks. While Beck's emphasis on the epistemological opacity of the nature of manufactured side-effects as risks may be suitable for approaching the long-term uncertainties of the overall condition of society, this epistemological frame is not appropriate for grasping the epistemic basis of particular individuals who attempt to make specific and short-run decisions to render themselves less vulnerable to risks. Though each individual may not be able to fully

isolate him or herself from all possible negative effects of these risks, Beck has given no reason to believe that there will not be a sufficient basis of knowledge to differentiate between less risky and more risky social-material positions to occupy in society, especially as individuals attempt to avoid risk positions of immediate hazard. As Keynes illuminates in his discussion of financial risk, individuals may easily modify their risk position while society as a whole may not (Keynes 1964 [1936]: 151), so overall uncertainty should not be equated to radical uncertainty for each individual, especially for the wealthy who always have the power to modify their situation so as to occupy social-material positions that minimize hazards as these unfold. By refusing to allow for varying levels of one's epistemic basis for making rational judgements about future outcomes in his theorization of risk society, Beck has surreptitiously used 'hypothetical risks' to dismiss the possibility of any risks being 'calculable risks' (Mythen 2005b: 4.2).

Rethinking the epistemology of risk

Having critiqued Beck's analysis of the epistemology of risk, it is necessary to briefly provide a more definite way of thinking about the epistemology of risk that exists between exact measurable knowledge of risks and radical uncertainty. In thinking through the epistemology of risk, Frank Knight's *Risk, Uncertainty, and Profit* (1921) continues to be a key departure point. According to Knight, future unexpected outcomes can be divided into two different categories depending on our epistemic basis for judging the likelihood of the events occurring. The first category, 'risk' characterizes those future possible events in which there is sufficient basis to identify the quantitative probabilities of the different outcomes (Knight 1921: 19–20). While what will happen is still unknown, the likelihood of the different events is known. The second category, 'uncertainty', applies to those future possible events in which there is not a sufficient basis of knowledge to judge the likelihood of the events occurring or not. That is, the probability distribution of these events is genuinely unknown (Knight 1921). Consequently, for Knight, 'risk "proper"' is 'a *measurable* uncertainty', while Knight restricted the term 'uncertainty' to cases of non-quantitative, 'unmeasurable uncertainty' (Knight 1921: 20). As an upshot of this, according to Knight, 'risk, in the ordinary sense, does not preclude perfect planning' for future events, while uncertainty does (Knight 1921: 21).

Beck's seminal discussion of risk in *Risk Society* (1992a) and *World Risk Society* (1999) does not employ Knight's use of the terms 'risk' and 'uncertainty'; however, Beck's declaration that the ability to calculate

'risks' collapses in the risk society (Beck 1992a: 22) may be interpreted, in terms of Knight's distinction, as the claim that in contemporary society risks have shifted from 'risks' to 'uncertainties'. In his most recent full length treatise on risk, *World at Risk* (2009a), Beck does, however, explicitly address Knight's distinction between 'risk' and 'uncertainty'. After initially referring to the distinction, Beck then, in his interpretation of Keynes on risk, proceeds to confuse Knight's rigid analytical distinction between the two possible types of future events: '*Risk*, by its inner logic, *means uncertainty*, and accentuates uncertainty, and not only negatively in the shape of *catastrophes*' (Beck 2009a: 18). To employ Knight's terminology and then to say that that 'risk' is 'uncertainty', is, in Knightian terms, a confusion of an analytical category, between measurable uncertainty and unmeasurable uncertainty, which in itself makes no claims about the actual state of the world. Put simply, the distinction does not state what is risk or uncertainty, but merely provides a way of categorizing future events. To imply, as Beck's use of the terms here does, that 'risk' is both *measurable* uncertainty in direct contrast to *unmeasurable certainty* and then to proceed to assert that it is *unmeasurable* uncertainty is to not have made any claims at all.

However, Beck's further gloss on the epistemology of risk brings greater clarity that his purpose is not to simply confuse an analytical distinction, but rather to make a substantive claim about contemporary society: 'The controlling rationality of risk *cannot* be applied to the uncertainty of the effects, the side effects and the side effects of the side effects. Rather, the converse holds: all attempts at rational control give rise to new "irrational", incalculable, unpredictable consequences' (Beck 2009a: 18–19). As the quote suggests, Beck's underlying intention in confusing the distinction between 'risk' and 'uncertainty' is to argue that contemporary manufactured side-effects as risks have an irreducible aspect that cannot be rationally measured or controlled and hence none of these manufactured side-effects as risks are 'risks' in the Knightian sense.

Beck's emphasis on the importance of the particular epistemic status of contemporary manufactured side-effects as risks does have an important contribution to make in the development of a critical theorization of class analysis and risk society. However, as shown above, employing an epistemology that conflates risk with radical uncertainty ultimately implies that power inequalities are inefficacious, because there is no basis of knowledge to enable individuals to use their diverse social powers to improve their ability to benefit from contemporary risks, or to avoid their negative consequences. Knight's distinction between quantitatively

measurable risk, which creates no problems for future 'planning', and unmeasurable uncertainty manifests the false dilemma that Beck ultimately accepts: either there is nothing different about the epistemology of 'risk' at all, *or* there is complete uncertainty leaving agents with no idea how to proceed. The plausibility of Beck's inference that contemporary risks are not straightforwardly measurable, *therefore* they are radically uncertain, relies on the rigid dualism of Knight's distinction. There is clearly a need for an epistemology of risk that can allow for gradations in the calculability of risks and prise open the world of variations between risk *qua* quantitative measurability and risk *qua* radical uncertainty.

John Maynard Keynes in his *A Treatise on Probability* (1921) proposes an approach to understanding risks that can provide a much more fine-grained understanding of the diverse epistemic bases of contemporary risks. In this text, Keynes argues that there are cases in which it may not be possible to assign numerical probabilities to different outcomes, yet it is still possible to have knowledge of which outcomes are more or less likely, thus providing a powerful counterexample to the assumption that all risks must either be quantitatively measurable or radically uncertain:[3]

> I maintain, then, in what follows, that there are some pairs of probabilities between the members of which *no* comparison of magnitude is possible; that we can say, nevertheless, of some pairs of relations of probability that the one is greater and the other less, although it is not possible to measure the difference between them. (Keynes 1921: 36)

In attempting to substantiate the validity of this third category distinct from both unmeasurable uncertainty and quantitatively measurable uncertainty,[4] Keynes suggests that we can have knowledge that certain changes increase or decrease the likelihood of an event occurring, even if it is not possible to quantitatively measure how much the likelihood of an event has changed. One example he provides to suggest the validity of this third category is as follows:

> We are out for a walk – what is the probability that we shall reach home alive? Has this always a numerical measure? If a thunderstorm bursts upon us, the probability is less than it was before; but is it changed by some definite numerical amount? (Keynes 1921: 30)

As this quote suggests, it is not necessary to be able to provide a definite numerical amount of the probability to know that the thunderstorm has increased the risk of not reaching home. Consequently, Keynes's model

suggests a tripartite account of the epistemology of risk, distinguishing between: (1) risks in which their likelihood are quantitatively measurable; (2) risks in which we have some knowledge of whether they are more or less likely to occur than other events, but this knowledge cannot be quantitatively measured; and (3) risks that are genuinely radical uncertainties, in which we have no rational basis for discerning if they will occur or not.

In delineating this distinctive epistemological ground that exists between measurable risk and complete uncertainty, it is possible to accommodate the fact that many contemporary manufactured side-effects as risks are complex and exhibit effects that are not easily foreseen without implying that individuals are completely unable to differentiate between different risk positions because of the radical opacity of these risks. In particular, the idea that knowledge of future risks may be comparable, without necessarily being reducible to a standardized, quantitative measure, allows for the integration of another important element of how contemporary power relations affect risk position: that of the unevenness of knowledge of risks between individuals. Rather than all rational agents converging on the same quantitative measure of the risks, or there being no rational basis for evaluating the risks, this framework, emphasizing the many subtle gradations in understanding of the different risks, highlights the fact that there may be asymmetries between the knowledge that different agents have of certain risks. As an analysis of the previous example suggests, if some agents do know that there is a storm outside when the individuals are attempting to reach home, and others do not, then the former are in a better epistemic position to judge the various risks involved and the likelihood of one of them arising.

A second benefit of this understanding of risk is that it fits closer to the lay notion of risk, which by risk usually implies: (1) *future* (2) *possible* (3) *harms* (4) where the outcome is *uncertain*.[5] Knight's disjunction between risk *and* uncertainty confuses this understanding of risk, because, firstly it sets risk in opposition to uncertainty, when in fact uncertainty is a component of risk. Secondly, it confuses the 'everyday language' of risk.[6] While on Knight's distinction 'risk' is intended to be distinguished from uncertainty purely based on one's epistemological basis, in lay terms, the primary contrast between 'risk' and 'uncertainty' is at the level of the normative evaluation of these future outcomes, with 'risk' having a negative implication, while uncertainty is neutral in its implications about future outcomes.[7] Utilizing 'risk' to identify future possible uncertain harms, while distinguishing between quantitatively

measurable risk, risk that can be ranked but not exactly measured, and risk that is subject to radical uncertainty, provides better insight into the diverse epistemic bases of actors and minimizes the possibility of confusion between treatments of risk by social science and understandings of risk as a lived and normatively evaluated phenomenon.[8]

A third benefit of this account of the epistemology of risk is that it allows us to see that many of the arguments against a realist understanding of risks are based on a false characterization of what the term 'risk' implies about our knowledge of future events. Ekberg argues that a realist understanding of risk presupposes that '[r]isks can be identified, measured, classified and predicted by following the rigorous, reliable and reproducible methods and calibrated techniques of the quantitative sciences' (Ekberg 2007: 349). However, utilizing the Keynesian tripartite distinction, it is clear this critique relies on the premise that a realist treatment of risk equates all risks to quantitatively measurable uncertainties, when in fact this is merely one of the three possible epistemological bases of risk. As such, this account of the different epistemic bases for identifying future events – highlighting how it is possible to have knowledge of future risks without implying that this knowledge needs to be quantitative – has several explanatory benefits over Knight's distinction and Beck's corresponding acceptance of the rigid dualism of measurable risk or radical uncertainty.

Beck's one-sided acknowledgement of risk inequality

With regards to the distribution of *bads*, Beck's position has evolved from his initial claim that risks would be egalitarian in the risk society and hence dissolve the inequalities of first modernity (Beck 1992a: 23) to acknowledging, in his most recent full-length treatment of risk, *World at Risk* (2009a), that there are important inequalities of risks in world risk society (see also Beck 2010). However, despite this important revision, Beck's assumption regarding the catastrophic and radically uncertain nature of risk leads him to primarily conceptualize these inequalities of risks in terms of differences between regions thus ignoring power bases that shape intraregional inequalities in risks (Beck 2009a: 58, 87, 161–2, 168, 171, 181).

According to Beck, the 'dynamics of inequality in world risk society' are captured by how '*regions* are unequally affected not only by the impacts of failed modernization but also by the "side effects" of *successful* modernization' (Beck 2009a: 87, emphasis added). His discussion of inequality and vulnerability in world risk society is framed not in terms of disaggregating social groups and illustrating different levels

of power and vulnerability, but rather in terms of the '*decoupling of the social location and the social decision-making responsibility from the places and times at which other, "foreign" populations become (or are made) the object of possible physical and social injuries*' (Beck 2009a: 161, original emphasis). Likewise, for Beck, in world risk society, injustice is a product of the fact that the 'production of risk and being subject to risk are spatially and temporally uncoupled' (Beck 2010: 173). For Beck, these inequalities and injustices ultimately coalesce around differentiation between regions.

However, without the problematic support from his underlying assumptions of the catastrophic and radically uncertain nature of risk, Beck's neglect of intra-regional differentiation in risk vulnerability is wholly unjustified. Without these two supporting props, his rigid bifurcation between risks of the first modernity and the manufactured side-effects as risks of risk society fails. Instead, given gradations of exposure to risk and sufficient knowledge to differentiate between more and less risky situations, risk positions will be heavily structured by class relations. In contemporary society, knowledge of the main contours of existing risks enables the wealthier to choose to better insulate themselves from many key social-material risks. For example, by, amongst other things, living in safer areas with less crime (Warren and Tyagi 2003: 26; Wacquant 2008: 111–14), living in higher areas that are less vulnerable to storm surges, in both developing and developed countries (Pelling 1997: 217–18; Ruth, Kirshen, and Coelho 2009: 129), and building types of housing that can better withstand storms (Winchester 1986 in Blaikie et al. 1994: 150), the wealthy use their knowledge and economic power to reduce their current risk exposure.

Socially produced risks such as climate change will work through an intensification of already existing natural processes (Mythen 2007: 799), exacerbating natural risks such as flooding, drought, hunger, and disease (Stern 2006: 56–8). The intra-regional unevenness of vulnerability (and ability to recover from exposure to hazards), leads to the relatively less advantaged being exposed disproportionately to the intensification of these risks (Stern 2006: 28; Ruth and Ibarrán 2009: 5). Beck's sole focus on regions and international imbalances implies a merely physical geography of vulnerability, rather than a social geography of vulnerability, thus obfuscating how human vulnerability is mediated by social and economic relations (see O'Brien et al. 2007: 76). Consequently, an approach that merely focuses upon how hazards will impact regions or *territories*, rather than disaggregating the unevenness of these effects and how wealth and power relations may affect their

distribution, may be justifiably criticized for espousing a 'container theory of risk' (cf. Beck 2000a: 81).[9]

Beck's attempts to make an overall distinction between the class-based distribution of goods in the first modernity and the egalitarian distribution of risks of reflexive modernization, ultimately rests on his claim that even the wealthy will not be able to escape 'manufactured uncertainties'. It is this point that he uses to justify his claim that risk society has a tendency towards equalization (Beck and Willms 2004: 131); however, this is a genuinely extraordinary claim. Beck's assertion that even the wealthy will be exposed to some of the growing environmental and financial risks is plausible, but it ultimately does not support his claims regarding the rejection of the importance of class. To say that the wealthy are also exposed to some risk is equivalent to saying that even when the deck is stacked in your favour there is a possibility you might lose. Even if it is the case that the wealthy are likely to be exposed to some harms, the power of relative wealth differentials to structure significant *differentials* in exposure to risk entails that class will be a fundamental form of structuration of life chances with the growth of the social production and distribution of risks. It is only by relying on his underlying and unsupported vision of risk society as catastrophic and radically uncertain that Beck can continue to believe that the relevance of wealth differentials will dissipate and that the wealthy will be, as Mythen says, 'hoist by their own petards' (2005a: 141) – a point which Beck himself appears to acknowledge when he indicates that the boomerang effect occurs only as a *limit case* (Beck 2009a: 184).

As shown in this section, using an idiosyncratic limit case as the paradigmatic case of risk prevents the theory of risk society from illuminating the social structuring of the underlying differentiated forms of risk. By delineating an account of *risk position* that includes gradations of risk and knowledge of these risks, the social processes that structure the production and distribution of risk may be identified.

Risk position and the institutions of capitalist production and distribution

On the understanding of the theory of risk society delineated in this book risk society refers to a set of processes that function within a larger social order that also manifests many other fundamental social processes, structures, and institutions. Despite being critical of Beck's understanding of many of the implications of the processes associated with risk society, this study supports Beck's foundational claim that his

theorization of risk society enables us to identify a set of fundamental social processes that have the potentiality to radically transform social, economic, and political life. Akin to how Marx identified the structural importance of class relations as a fundamental relation in capitalist society, the theory of risk society identifies a set of power relations that are key to contemporary society.[10]

In analysing the production and distribution of risk, these processes should not be looked at *sub specie aeternitatis*. Rather it is necessary to analyse how these processes function given specific institutions of production and distribution. In particular, for this study, this means looking at capitalism as an existing system of production and distribution, one which has dominated Western Europe since the eighteenth century and has proceeded to become the dominant system across the contemporary world, and which is manifesting itself in a particularly intensive form in contemporary neoliberalism.[11] Though it is not possible to provide an exhaustive definition here, core elements of capitalism include: private ownership, production for profit, wage-labour employment relations, and the distribution of goods primarily through market exchange.[12] In order to avoid the reification of market institutions and their outcomes it must be emphasized that capitalism is a socially and politically instituted system and that social and political movements in response to the dysfunctions of its outcomes can change these institutional frameworks and hence their outcomes (see, most notably, Polanyi 1957).[13]

It is important to note that this study focuses on developing a body of research that problematizes contemporary socially produced risks based on how they exacerbate a specific type of inequality (relational class-based inequalities) which renders advantage to some at the cost of disadvantage and suffering to others. Exploring the differential impacts of the production and distribution of risks in contexts of organized irresponsibility can: (1) justify interventions to regulate the way existing institutions refract, enable, and amplify differences in the benefits and damages from the production and distribution of risk, and (2) provide a departure point for exploring whose interests are tied up with these processes and hence how existing and potential inequalities in turn shape the production of contemporary risks.

The intersection of class and the production and distribution of risk explored in this book does not negate other long-standing processes that structure class inequalities, such as the rate of exploitation and the distribution of income between labour and capital (see Marx 1976 [1867]). Rather, the production and distribution of risk in the context of

organized irresponsibility is considered *an additional site of structuration of class relations*, which is neither reducible to other class processes, nor does it subsume other class-based processes within it. In making the claim that the processes identified by the theory of risk society are intensifying class-based inequalities this does not entail that the social production and distribution of risk necessarily leads to an *all-things-considered* increase in class-based inequalities in concrete reality. It is simply not possible to read off changes in inequality based on risk processes alone. The account in this chapter of the relation between class-based inequalities, wealth, and risk distribution treats class as *a complex causal force* that is, amongst other things, having increased impacts due to its relation to inequalities in wealth and other resources. Linking income differentials to how they (partially) result from class inequalities explores one of the key impacts of class inequalities, but neither *conflates* class with wealth inequalities nor implies that these are the sole impacts of class inequalities. At the same time as these processes are in operation, there will always be many other factors contributing to the 'flux of phenomena', many of which may be countervailing processes that tend to diminish class-based inequalities. That contemporary neoliberalism has actually intensified class-based inequalities directly related to the processes of the production and distribution of risk, as well as many of those not directly related, does not negate the fact that overall class relations are a product of many different factors, many of which may counteract the power of contemporary manufactured side-effects as risks to exacerbate class-based inequalities.[14]

That the tendency for the contemporary production and distribution of risk to increase class-based inequalities has been manifested in contemporary society, for example in systemic financial risk,[15] must not be understood as an automatic or natural process emerging simply from how risks function *tout court*. As Beck rightly argues, the theory of risk society does not imply a 'Titanic society', but rather is a demand for social action to re-appropriate control over the systems of production that continually restructure social life in ways that escape democratic legitimation (Beck 2013a: 26; see also Beck 1992a: 183–236, *passim*).

Having provided a brief discussion highlighting how existing social institutions mediate the production and distribution of risks and that the differential effects of these processes should not be reified, but rather their relationship to socially instituted systems be recognized, the analysis now turns to the issue of how the distribution of environmental *bads* affects class inequalities. The following section utilizes the reconstructed theory of risk position developed in this chapter to

show how manufactured side-effects as risks are intensifying class-based inequalities due to the distribution of environmental *bads*.

Class and the distribution of *bads*

In contrast to those critiques of Beck that have reasserted continuity over change regarding the role of class (Goldthorpe 2002; Atkinson 2007a), this redevelopment of the account of class and risk society – while reversing Beck's rejection of the relevance of class – serves to redeem his basic claim that the role of class is transformed in a society with a growing distribution of *bads*. As this critical reconstruction of the theory of risk society illuminates, the growth of the scope and depth of risks leads to the intensification of class-based inequalities. Whether differential class relations are considered to *generate* income and wealth differentials, such as on Marxist (Wright 2005) and Weberian (Scott 1996) accounts, or classes are partly *constituted* out of differential levels of wealth *à la* Bourdieu (Bourdieu 1984), there continues to be a strong connection between class position and wealth differentials. Given the growing distribution of *bads*, as identified by Beck (1999: 8), and, in so far as the distribution of these risks tends to be highly conditioned by wealth differentials, the income and wealth differentials structured by class differentials will in themselves be a primary means by which the relatively less wealthy are subject to the distribution of *bads* and risks. Consequently, contrary to class relations in the first modernity, in which there was the possibility that class conflict due to inequalities of wealth could be assuaged by processes that generated more *goods* for all (Beck 1995a: 151), it can be said that with growing manufactured side-effects as risks, inequalities *in themselves* become the means of exacerbating exposure to hazard and risk.

This logic of the antagonistic distribution of risks, in which their distribution is contingent not only upon one's absolute level of economic resources but also one's relative level of economic resources *vis-à-vis* others, is manifested in a series of socially produced risks, such as climate change, that continue to grow. In particular, as the discussion of the cases below will illustrate, in situations in which not everyone can acquire a 'private escape route' from the intensification of hazards, it will be individuals' relative level of income and wealth *vis-à-vis* others' resources that determines whether they will be allocated these risks or not. In so far as it is individuals' wealth *position relative* to others that is the key causal factor in determining their level of exposure to risk, an antagonism of interests between those in different class positions with

different wealth levels arises, in which groups having greater wealth than others are able to monopolize the socially scarce 'private escape routes'. However, to substantiate the importance for class analysis of this relation between the distribution of economic resources and the distribution of *bads*, it is necessary to examine the empirical scope of its application.

The first type of cases in which relative inequalities in economic resources exacerbate exposure to risk is with respect to the phenomenon of *spatial* vulnerability. It is almost invariably the relatively less advantaged that live in the most vulnerable and insecure areas of a city (Adger 2006: 271; World Bank 2003 in Ibarrán and Ruth 2009; UN Habitat 2009: 141). The climate change intensified risks that the spatially vulnerable will suffer disproportionately include risks related to landslides (Hardoy and Satterthwaite 1989 in Blaikie et al. 1994: 150), damages from hurricanes (Winchester 2000), from flooding (De Sherbinin, Schiller, and Pulsipher 2007: 56; Ruth, Kirshen, and Coelho 2009: 129), and increased exposure to other pollutants due to damages to existing infrastructure (UN Habitat 2009: 152). The growing distribution of *bads* will greatly intensify these effects of spatial vulnerability on individuals' life chances.

The cyclone in Andhra Pradesh in 1977, as an illustrative case of the impact of these relational processes, exemplifies the ability of the relatively wealthier to monopolize the least vulnerable spatial locations. Even in the relatively flat delta, where it might be thought there would be an egalitarian distribution of the risks of flooding, there were sites that were slightly higher (3m to 7m) than others that were more secure from the storm surge. The wealthy who lived in these areas, occupying these private escape routes, had higher survival rates even in areas where the intensity of the storm was very high (Winchester 1986 in Blaikie et al. 1994: 154–5). Twenty years after the cyclone in Andhra Pradesh, it was the poor agricultural workers who had migrated back to the areas which were both least expensive and most vulnerable, primarily because they 'had no choice' (Winchester 2000: 28). In these types of cases, the relatively wealthier have sufficient economic resources to obtain a monopoly upon those areas in which vulnerability is significantly lower because their *relatively* higher level of wealth enables them to outbid others for these areas. This process of competition over 'private escape routes' from exposure to risk relegates the relatively less advantaged to the most vulnerable areas of a city or a region.

With environmental risks continuing to grow, the regions impacted upon by the effects of climate change will grow in scope alongside the

increasing intensification of these impacts. As human-induced climate change leads to rising sea levels (Stern 2006: 56) and increased flooding due to greater variability in rainfall levels (Jamet and Corfee-Morlot 2009: 6), there will be a growing threat of displacement of people from their homes. The risk of displacement is likely to lead to an intensification of competition over private escape routes that minimize individuals' exposure to these risks. In these cases it will be individuals' relative levels of wealth and income that will regulate who will be able to occupy areas less exposed to risk and who will have little choice but to occupy areas that are exposed to the brunt of the effects of the production and distribution of environmental risks. It is important to note that this social structuring of the distribution of *bads* will be affected not only by class, but also by other forms of social structuration of disadvantage, such as gender and race (Cutter, Boruff, and Shirley 2003: 246, 252; Adger 2006: 271). Given that in many cases minority races, such as African–Americans in the USA, occupy a higher proportion of vulnerable positions also due to their lower socioeconomic status (Redefining Progress 2004: 17, 20), the interaction of these different logics of stratification of *bads* will tend to further magnify the effects of both race and class for these vulnerable populations. Consequently, analytical attention upon the role of class in affecting the distribution of *bads* can complement, rather than displace, those studies that have highlighted the role that gender and racial inequalities play in exacerbating vulnerability, thus further underlining the contribution that a re-theorization of the relation between class and risk society can make to 'the global politics of environmental inequalities' (Newell 2005).

Another case in which relative inequalities in wealth exacerbate exposure to risk is with respect to the possible effects of climate change upon the food supply. There is significant uncertainty as to the overall effect on food production from moderate increases in global temperatures because of the difficulty of weighting the various factors (especially given the uncertainty regarding how beneficial increased carbon fertilization will be). While some recent research has suggested that *the negative impact of climate change is already beginning to be felt on global food production* (Lobell, Schlenker, and Costa-Roberts 2011: 617–18), there is significantly greater agreement regarding the claim that if temperatures rise beyond 3°C, relative to pre-industrial levels (1750–1850), declines in food production will be general and severe (Stern 2006: 56). Maize, whose output can fall by as much as 60 per cent due to drought, has been identified as a crop whose output may be particularly threatened by the effects of climate change (Ibarrán and Ruth 2009: 54).

Significant declines in food supply, emerging from the increased social production and distribution of climate risks, will lead to what Drèze and Sen call 'food battles', in which relative differentials in income and wealth determine whether individuals are able to outbid others to continue to command their previous level of food, thus enabling the relatively wealthy to occupy socially scarce private escape routes from food deprivation (Drèze and Sen 1989: 12). The impact of 'entitlement' to food based on relational inequalities in resources is particularly well exemplified by the events of the Bangladesh famine of 1974, in which a famine occurred even prior to the actual drop in food supply. In this case, significant flooding led to price explosions due to the expectation of future food scarcity. These price explosions, along with the damage to the purchasing power of those who lost their employment due to the flood, led to those with relatively low purchasing power being outbid for the existing supply of food, and hence experiencing extreme food deprivation (Drèze and Sen 1989: 29).

As the example above illustrates, as the variability of the food supply grows and its actual level comes to decline, a fundamental disadvantage will be imposed on those individuals who are no longer able to acquire the food they need, and on those whose food supply is rendered insecure, even if they never suffer from actual food deprivation.[16] Even fluctuations in food supply which are short-run and periodic can cause fundamental damage to the well-being of those who are not able to ensure for themselves and their families a sufficient level of food. As is the case with the spatial determinants of vulnerability, in these cases of limited supply of food, it will be individuals' relative level of wealth that determines whether they may have the security of knowing that their level of wealth is sufficient to always outbid others for the limited supply of any scarce commodity, or whether it will be the case that they are constantly vulnerable to not being able to acquire a basic level of food because of their inability to outbid others to acquire this basic good.

Though climate change increasingly became Beck's favoured example, replacing his previous one, Chernobyl (Mythen 2004: 18), to exemplify the environmental risks of reflexive modernization (Beck 2009a: 28, 2010), other risks will also arise. Amongst the others that Beck emphasized is the toxicity of certain areas or the possibility of toxicity of certain types of goods (Beck 1992a: 36, 1999: 48, 61).[17] The initial distribution of risks from damages to food, water, land or air may fit Beck's model of egalitarian distribution because of the radical uncertainty and unpredictability of the nature of the hazard. However, as noted above, the existence of some risks that are not structured by

class does not undermine the thesis of the relevance, or in this case increasing relevance, of class differentials to life chances. As long as wealth differentials function to generate significant *differentials* in *overall* risk exposure, then as the distribution of *bads* increases, this role of wealth differentials in distributing *bads* will take on greater relevance to individuals' life chances, thus amplifying the impact of class differentials on inequalities in life chances. However, it should be added that risks relating to toxicity would have problems serving as paradigmatic cases of egalitarian risk. This is because, though the initial distribution of risk may be egalitarian, as individuals become increasingly cognizant of the effects of these different risks and their relative distribution, the ability to escape the sources of toxicity and risk will likewise be highly differentiated between those who can easily achieve a monopoly over uncontaminated food sources or land, and those who will be outbid for the acquisition of these 'private escape routes' and must make do with whatever is left, no matter the risks embodied in them.

Consequently, Beck is right to declare hunger hierarchical, but his claim that the risks of 'reflexive modernization' are 'egalitarian' (Beck 1999: 61) completely ignores the 'reflexive' nature of human beings who, when they perceive the scope and intensity of these risks, will modify their actions to avoid them. Admittedly, this shift by individuals to safer sources of these goods will not necessarily be an immediate process. Individuals' perceptions of risks are neither automatic nor always perfectly calibrated; rather, the processes that generate individuals' interpretations of risks are socially shaped by existing discourses and other social-economic variables, such as occupation or gender (Wilkinson 2001: 9). However, allowing that risk perception and action to avoid personal risks is socially conditioned is not to concede that individuals' risk perception and avoidance is more a function of existing culture than it is of existing risks and hazards (cf. Douglas and Wildavsky 1982). Approaches to risk perception that emphasize the social nature of this understanding have an important contribution to make in enabling a better understanding of the processes that make certain risks salient to individuals; however, the empirical evidence referred to above regarding how risks are structured by class suggests that, while not automatic, significant and increasing risks from occupying certain social-material positions tend to lead individuals to engage in strategies to avoid these hazardous positions.

Consequently, given that Beck himself illuminated how these risks are becoming increasingly imbricated in the reproduction of everyday life, it is his own framework that lends itself to illustrating the full

extent to which risk vulnerability is also 'hierarchical'. Reinserting back into the theory of risk society the 'reflexivity' of individuals' actions in response to future risks once these risks cease to be radically uncertain and some knowledge of their main impacts are known, suggests that these distributional conflicts over risk will not be isolated solely to the cases of risks identified above. As Beck so presciently shows, the growth of the humanization of nature increases the uncertainty of the future hazards that may be faced. Consequently, it is not possible to specify all of the potential ways in which wealth will be used in times of crisis. Yet, what this framework suggests is that, as these risks grow in scope and gain greater temporal proximity and our knowledge of their main contours grows, it will be the case that whenever the means of life is mediated through the market, a superior relative level of wealth will exist as a social power that enables its possessor to better adapt to disasters and to always have first claim on scarce social goods. In any case in which the supply of a needed good is made scarce by risk or actual damage, even if it is in the short-run, those with a relatively higher level of economic resources will be able to acquire the good *because*, in large part, they have a greater level of economic resources than others.[18]

Returning to the framework for class analysis delineated in the previous chapter, it can be asked: how do these processes relate to each of the central critical theories of class? Firstly, given that the key class resource that Marxist class theory focuses upon, namely, the ownership and control of the means of production, powerfully (though partially) structures income and wealth inequalities, then differentials in the key resource of control over the means of production will lead to even greater class-based inequalities because differentials in wealth in themselves enable some to occupy 'private escape routes' while relegating others to the most dangerous 'risk positions'.[19] Likewise, the growing distribution of *bads* will intensify inequalities based on differentials in class resources, whether it is market capacities on the Weberian framework, or economic capital on the Bourdieusian framework, because these differentials *in themselves* enable the dominant in those class resources to minimize their risk exposure, while those in dominated class positions have little choice but to be exposed to the brunt of the processes associated with risk society.

Risk, life chances, and capabilities

There is a significant objection made by Beck to this analysis of the relation between risk society and class relations that needs to be addressed. Beck has attacked an analysis of class in terms of life chances.

Responding to this analysis of class and the distribution of *bads*, he asserts that '[t]hose who reduce the problematic of risk to that of the *life chances of individuals* are unable to grasp the conflicting social and political logics of risk and class conflicts' (Beck 2013b: 71). In response, firstly, it can be said that showing how the processes associated with risk society are exacerbating class-based inequalities of life chances neither reduces class analysis to the study of life chances, nor reduces the 'problematic of risk' to individual class positions.[20]

However, in addition to negatively defusing Beck's criticism, it is possible to also grasp the creative moment enabled by Beck's critique to more clearly articulate the understanding of life chances and power in this book. Life chances in this study are intended to be understood as what Amartya Sen calls 'capabilities' (see Sen 1985a, 1993, 1999). The fundamental insight of the capabilities approach is that individuals do not derive benefit from the mere possession of commodities, but rather from what they are able do with commodities in conjunction with various publicly provided goods and existing social structures (Sen 1982: 368, 1985a: 6). For Sen, consumption is an active process in which individuals use the diverse characteristics of commodities to perform valuable 'beings and doings', which he calls 'functionings'. These functionings range from simple ones, like nutrition and adequate shelter, to complex functionings, such as taking part in the life of the community and appearing in public without shame (Sen 1985a: 6, 1993: 36). A person's 'capability set' or 'capabilities' consist of the different sets of 'beings and doings' (i.e. functionings) that individuals may be able to achieve given their economic resources and the existing social and material context (Sen 1985a: 6–9).

Consequently, life chances and risks are not interpreted in a narrowly economistic way, or simply as statistical measures of individuals' standard of living. Fundamentally, capabilities are a kind of *power* to be able to achieve valuable activities and 'forms of life' based on one's economic resources, in conjunction with existing social and political contexts.[21] This understanding of risk and life chances defuses some of the relativistic objections to risks based on the fact that different individuals and societies may focus on different values.[22] In so far as socially generated processes undermine the capabilities of individuals to achieve important activities, they are risks, even if the actual evaluations of these damages and related functionings differ between individuals or societies.

The impacts of socially produced environmental and financial risks do threaten important capabilities of individuals. From the immediate

damages of natural disasters, the diseases that often follow these disasters, and the threat of hunger that can follow widespread variations in climate to the impacts of financial crises, such as unemployment, poverty, and the risk of losing key state support, these processes pose risks to the key capabilities of the less advantaged. This redevelopment of the theory of risk society and of class analysis provides a framework to link together into an explanatory relation the advantageous risk positions of those who disproportionately benefit from contemporary risk production *and* the disadvantageous risk positions of those who experience growing insecurity. These gains of the one and the losses of the other are not independent, isolated facts; rather they are fundamentally structured by class differentials, which these risk processes in turn exacerbate. Utilizing a conception of life chances grounded in the *power* of individuals to pursue life activities can grasp the impacts of class on life chances in a non-narrowly economic manner, which can then integrate larger social and political concerns regarding the production and distribution of these risks and their impacts on existing 'forms of life' and social dignity.[23]

Understanding life chances as capabilities also defuses another common objection to this theory of the emerging relationship between risk and inequality due to situations in which wealthy groups are voluntarily exposed to heightened environmental risks, such as the forest fires to which wealthy homeowners in California are often exposed.[24] Analysing the impacts of the distribution of these risks on life chances as capabilities highlights the fundamental inequality between those who can avoid these heightened environmental risk positions, but voluntarily pursue them, and those who have no choice but to bear the brunt of these environmental risks. As Amartya Sen has importantly emphasized in his previous work, there is a fundamental difference in capabilities and power to reproduce one's life activities between not eating because one is unable to afford any food and not eating because one is fasting, even if it is the case that both individuals are exposed to the same risk, starvation (Sen 1985b: 201–2).

The relational distribution of *bads* and the 'cosmopolitan turn'

Before concluding this discussion of how to understand the dynamics of inequality in the context of contemporary manufactured side-effects as risks, it is necessary to briefly address one other line of attack that Beck recently launched against the concept of 'class',

which is that it must be rejected because it is intrinsically dependent on the 'ontology of the nation state' and that it is too bound up with 'methodological nationalism' (Beck 2002a: 32–3, 2002b: 51–4; Beck and Willms 2004: 104).[25] Beck, in particular, suggests that a significant problem for class analysis is the tension between the growing *global* production of risks and the continued tendency of many contemporary accounts of class, such as Bourdieu (1984) and Goldthorpe (2002), to use the nation-state as their primary unit of reference (Beck 2011a: 26). In contrast to these nation-centric conceptions of class, Beck argues that there are three 'axes of conflict in world risk society' – ecological interdependency crises, economic interdependency crises, and terrorist interdependency crises – which can only be understood through 'methodological cosmopolitanism' (Beck 2006a: 22).

However, it is not clear the extent to which this critique of the implicit use of the nation state as its frame of reference by certain conceptions of class can support a critique of the *concept* of 'class' as invariably mired in 'methodological nationalism', rather than merely some specific contemporary *conceptions* of class.[26] To give only one example, utilizing the concept of 'class' to analyse how wealth differentials associated with different class situations structure the differential distribution of *bads* neither presupposes the 'ontology of the nation state' nor 'methodological nationalism'. Simply put, there is no reason that the study of the class structuration of the monopolization of 'private escape routes' must use the nation state as its ultimate frame of reference. The processes through which the wealthier are able to monopolize 'private escape routes' and displace others into more vulnerable positions will often occur at a local, regional, and global level rather than on a purely national scale.[27] In fact, exploring the relational distribution of *bads* can make an important contribution to analysing the local, regional, national, and global relational distribution of these risks and hence to Beck's stated aim of developing an approach to inequality grounded in the 'side-effect principle' (Beck 2007: 692).

Following this thread of complementariness between Beck's work on cosmopolitanization and class analysis (see also Atkinson 2007b: 713), it can be argued that Beck's cosmopolitan critique of 'class' can make its best contribution to understanding the dynamics of inequality in the context of endemic global risk not by rejecting the concept of class, but rather by demanding an alternative 'conception' of 'class', in which '*class* … must be released from the fetters of methodological nationalism, re-conceptualized, and empirically established within the framework of a new cosmopolitan social and political science'

(Beck and Sznaider 2006: 6). Exploring the way in which relative differentials in economic resources in themselves structure the distribution of *bads*, exacerbating the disadvantages of lower classes, is not only compatible with this task of re-conceptualizing 'class', but can in fact make an important contribution to its realization.

However, while this brief discussion suggests that Beck's 'cosmopolitan turn' does not pose problems for the analysis of how the increasing distribution of *bads* is intensifying class-based inequalities, it is necessary to ask: what implications does this study of class and the distribution of *bads* have for Beck's specific understanding of methodological cosmopolitanism and its relation to risk? The rest of this section addresses this question.

Beck's specific assumptions about how risks functions are central to his claims about growing cosmopolitanization:

> The everyday experience of cosmopolitan interdependence is not a love affair of everyone with everyone. It arises *in a climate of heightened global threats, which create unavoidable pressure to cooperate*. With the conceptualization and recognition of threats on a cosmopolitan scale, a shared space of responsibility and agency bridging all national frontiers and divides is created that can (though it need not) found political action among strangers in ways analogous to national politics. This is the case when recognition of *the scale of common threats leads to cosmopolitan norms and agreements*, and hence to an institutionalized cosmopolitanism. (Beck 2006a: 23, emphasis added)

As the last sentence in the quote above clearly indicates, it is the assumption of the 'scale of common threats' that generates cosmopolitan norms and agreements and the possibility of a real lived and recognized cosmopolitan reality. While Beck does allow for the fact that there may be some 'enemies' of cosmopolitanization and some conflicts (Beck 2006a: 72–96), he still conceives of cooperation as the key dynamic of cosmopolitanization in world risk society (see Beck 2006a: 23). However, the necessity of cooperation can only be generated by interpreting the type of interdependence that members of different nations and classes face as one of *common* threat.

The analysis of the stratification of risks presented in this chapter calls into question the viability of the analysis of manufactured side-effects as risks as primarily *common* threats, suggesting instead that many of these key risks are distributed on a relational and antagonistic basis. Consequently, rather than interdependence in world risk society being

interpreted as the basis of cosmopolitan cooperation, it is the basis of increased immiseration of some, while others are able to asymmetrically benefit from the systemic production of goods, while also monopolizing 'private escape routes' from these risks. This analysis suggests in turn that greater attention and analysis needs to be devoted to the one-sided, or even 'distorted' (Beck 2006a: 43–4) nature of the interrelations between different groups across national boundaries. Greater allowance for the heightened importance of the transnational relational distribution of environmental *bads* might possibly push the concept 'cosmopolitanism' past its limits, suggesting that a return to the less sanguine concepts such as 'globalization' and 'transnationalization' may be more appropriate for this analysis. Likewise, it calls into question some of the more sanguine analyses of Beck's understanding of political action based on common interests in his theorization of the politics of risk society (see also Martell 2008).

Beck's emphasis on going beyond nation-centric analyses does highlight the issue of how to conceive of the relation between members of given nation-states and larger transnational forces, an important question to which this study cannot provide definitive answers; however, it is hoped that that the theorization of class relations and socially produced risks delineated in this chapter can make a contribution to understanding some of the ways in which nation-states and transnational forces are intersecting in the contemporary world.[28] Nevertheless, as indicated above, acknowledging the increasing importance of transnational processes does not pose a fundamental challenge to the thesis of the exacerbation of existing class-based inequalities.

Conclusion

This chapter has provided evidence for the two key claims of this study through an analysis of the relation between class differentials and the distribution of environmental *bads*. Through analysing how class differentials affect the distribution of *bads* it is shown that the dynamics of the social production and distribution of environmental risk are powerfully *increasing* class-based inequalities. Secondly, in analysing how a re-theorization of risk society can actually illuminate key aspects of these class dynamics it has been shown that, contrary to both Beck and his critics, an approach employing core conceptual resources of the theory of risk society can actually be integrated with class analysis. In providing evidence for these two claims a significant re-theorization of risk society's relation to contemporary power and

sharply widening inequalities is developed. Rather than conceiving of increasing 'manufactured side-effects as risks' as a *replacement* for class relations (see Beck 2006b: 333), the analysis in this chapter provides evidence for concluding that the key processes associated with risk society should be conceived of as *additional sites* of class structuration. Contrary to Beck's claims that showing the importance of class relations to the social distribution of risks 'subsume[s] risk inequality under the category of class' (Beck 2013b: 68), de-totalizing risk society enables a theorization that illuminates how class relations shape the distribution of risk, without implying that either of them need to be the 'centre' of contemporary social and material relations.

One possible response to the analysis of this chapter is to refer to the significant levels of risks to which members of previous societies were exposed, such as the medieval era (Lupton 1999: 1–2), thus suggesting that the contrast between 'first modernity' and risk society is overdrawn. However, even if it is conceded that it is difficult to establish that contemporary manufactured side-effects as risks are characterized by exhibiting qualitatively different levels of risk, this would not justify the rejection of this analysis of the class structuration of the distribution of *bads*; rather it would extend this analysis to contemporary and past societies as well. Admittedly, this extension of the theory of risk society framework into the heart of industrial society may possibly lessen the transformative nature of contemporary risks, but it does not lessen the insight provided by Beck's framework into the power relations revolving around the distribution of *bads*, 'organized irresponsibility', and inequality. In so far as Beck's framework can enable the perception of how *bads* are distributed so that relational inequalities in resources generate increased exposure to risk for the relatively less advantaged, it can make a significant contribution to the growing systematic critique of the justifiability of significant income inequalities *even* when it is the case that the inequalities are associated with higher absolute levels of wealth for all (Wilkinson and Pickett 2010).

There is, however, one major thrust of Beck's work that is not redeemed in this chapter, which is his argument that sociology needs to dispense with antiquated 'zombie' categories like 'class' which have guided sociological research since its inception (Beck and Willms 2004: 51–2). In response to Beck's claim, it is necessary to reply that, in so far as Beck's social theory is committed, as any social theory should be, to evaluating the legitimacy of inequalities in contemporary society (Beck 2010: 166–70), dismissing the concept of class can only make this task more difficult. Retaining the concept of 'class' ensures that an analysis is

attuned to the different dimensions of inequalities of economic power, how these dimensions shape life chances, and the normative legitimacy of these relations. It is difficult to see how the necessity of addressing these issues is an unbearable burden on sociology; rather, as the analysis in this chapter suggests, dispensing with this concept and thus making these explanatory and normative issues optional would lead to the impoverishment of both sociological analysis and of the most vulnerable in society. Further developing these themes, the next chapter will further articulate this re-theorization of class analysis and risk society by analysing the impact of the social production and distribution of financial risk on contemporary inequalities.

6

Risk Illusion and Organized Irresponsibility in Contemporary Finance

A core objective of this book is to identify the larger contribution of socially produced risks to transforming inequalities that are not being grasped in the existing risk or inequality literatures. This book aims to achieve this task by developing a framework that can integrate different risk processes so as to highlight the *systematic* contribution of socially produced risks to inequality. The previous chapter identified a key set of processes related to the relational distribution of environmental risks that are already contributing to the intensification of class-based inequalities, and which will increasingly do so as the effects of climate change grow. Given the significance of the impacts of these inequalities, exploring the effects of environmental risks is clearly a crucial research objective in itself; nevertheless, to identify the larger-scale, systematic social impacts of contemporary socially produced risks, it is imperative to explore how different risk processes beyond environmental risk can be integrated into this framework of the intersections of risk, power, and inequality. To pursue this goal, this chapter further redevelops the theoretical resources of the theory of risk society so as to move beyond the backgrounding of distinct risks as the separate side-effects of distinct silos of social life and works to identify certain key similarities between the distributional logics of contemporary environmental and financial risk.

However, despite the potential of the theory of risk society to move beyond the fragmentation of existing risk analyses, it has been little employed to understand the massive increase in financial risk and crises over the last three decades that recently culminated in the financial crisis of 2008.[1] This blockage in part reflects Beck's specific interpretation of the processes associated with risk society. As discussed in the last chapter, delineating a 'narrative of discontinuity', Beck has rejected the relevance of existing power differentials, such as class inequalities,

to the processes associated with risk society (Scott 2000: 36), instead viewing risk as replacing previous forms of inequality (Beck 2006b: 333; see also Beck 1992a). Moreover, Beck has specifically argued that the analysis of the relation between environmental risk and the intensification of class inequalities, as articulated in the previous chapter, does not apply to systemic financial risks (Beck 2013b), thus suggesting a powerful difference between environmental and financial risk. Beck's various critics have also not provided a way to move forward on the issue of risk and inequality, in so far as they have countered Beck's 'narrative of discontinuity' with their own 'narrative of continuity', denying the power of risk to transform existing logics of distribution (Mythen 2005a, 2005b; see Beck 2013a: 65–6).

This chapter intervenes in this and wider debates regarding the role of risk in contemporary life and the different bases of contemporary inequalities (Therborn 2013). It shows, through an analysis of the role of risk illusion in contemporary finance, how the social production and distribution of systemic financial risk in contexts of organized irresponsibility has powerfully contributed to the intensification of class-based inequalities. As the overarching argument of this books suggests, the significance of this debate regarding the relationship between class inequalities and systemic financial risk extends beyond the discussion over risk society and the sociological analysis of systemic risk. In so far as Beck is correct that contemporary class analysis has tended to neglect the impact of transformations in the production and distribution of risk on class relations (Beck 2013b), then theorizing novel interconnections between risk and class may make an important contribution to contemporary class analysis and the study of the social sources of contemporary inequality and suffering. Building on the previous chapter, this chapter further exemplifies how the sociology of risk can benefit from integrating the tools of class analysis, and that likewise class analysis can benefit from better integrating the impacts of contemporary socially produced and distributed risks.

This chapter shows the transformative power of the production and distribution of financial risk through an analysis of the lead-up to and aftermath of the 2008 financial crisis. It shows how particular economic actors who occupy a strategic role within the economy, senior finance employees, are able through the process of *risk illusion* – in which risk amplification can be registered as increasing long-term value – to produce risk and appropriate value on this basis, while, in turn, avoiding the brunt of the consequences of these risks.[2] The *mismatch* between the distribution of the *benefits* from the production of financial risk to this

group and the distribution of the *damages* from these risks contributes to systemic differentials in risk positions. This mismatch between the benefits and costs of systemic financial risk for senior finance employees *vis-à-vis* others leads to what might be called a type of *risk arbitrage* in which their private benefits of ratcheting up risk are greater than the private costs of these risks, whether these risks manifest themselves in actual losses or not. The risk positions of senior finance employees, based on their ability to benefit from risk arbitrage through the generation of financial risk through risk illusion and to avoid the brunt of the damages from these risks, leads to this group emerging as an advantaged *risk-class* that has significantly contributed to overall increases in contemporary inequalities – in particular, the massive advantages of the elite (see Savage and Williams 2008; Savage et al. 2013). This chapter, then, argues that those who systematically benefit from the production of financial risk and those who disproportionately suffer the damages from these risks can be said to occupy different *risk-classes*, which, in turn, significantly contribute to further differentiations of social power and life chances.

This chapter then proceeds to show that the class resources that Marxist, Weberian, and Bourdieusian frameworks identify as central to class differentials significantly structure the ability to occupy differential 'risk-classes'. In this sense, the study of financial risk can serve as a case study through which to understand how the possession of key class resources, which enable certain actors to occupy advantaged risk positions, leads to the further entrenching and *systemic* widening of contemporary inequalities. In this way it provides a powerful critique of the power of the production and distribution of financial risk to massively increase contemporary inequalities. Moreover, in integrating the impacts of the differential *damages* and *benefits* from contemporary risk, this chapter has two further key aims beyond the articulation of a basis for a more appropriate relationship between risk studies and class analysis. Firstly, it seeks to further develop social knowledge of the relationship between the power to produce and then avoid risk and contemporary, widening inequalities. Secondly, it aims to further enrich the conceptual framework used in the previous chapter to analyse how *private escape routes* and the *distribution of bads* affect inequality, by demonstrating the importance of other key risk processes such as *organized irresponsibility* and *risk arbitrage*.[3]

This chapter proceeds in four steps. Firstly, building on the rethinking of the ontology and epistemology of risk position in the previous chapters, it briefly outlines and then critically reconstructs Beck's

theorization of organized irresponsibility and its relation to class inequalities. Secondly, three key mechanisms through which senior finance employees are able to benefit from the amplification of risk in financial institutions are identified and how they function is explained. Thirdly, the distribution of damages from these risks is evaluated and it is then shown how organized irresponsibility and overall macroeconomic trends have led to risks being distributed in a way that not only preserves, but also exacerbates, the massive differentials in risk positions between senior finance employees and the less advantaged, thus contributing towards the intensification of existing class inequalities. Lastly, differentials in risk positions that make up risk-classes are directly tied to differentials in class resources, such as the control of capital, market capacities, and multidimensional 'capitals'.

Organized irresponsibility and the production of risk

In articulating his specific conception of risk society, Beck has repeatedly argued that the logic of systemic risks cannot be captured by class analysis, and hence financial risk should not be analysed through class categories. In his earlier discussion of global finance in *World Risk Society*, Beck declared that contemporary financial systems are outside of the control of anyone: 'no one component is large enough to shift the overall flow; nobody controls the global market risk' (Beck 1999: 6–7). For Beck, it is this lack of controllability of contemporary risks that defeats the class logic: 'global market (risk) is a new form of "organized irresponsibility" because it is an institutional form so impersonal as to have no responsibilities, even to itself' (Beck 1999: 6). In 2013, Beck reiterated his claim that the financial crisis is one of the major 'cosmopolitan events' that are 'not envisaged in the paradigm of the reproduction of the social and political (class) system' and that the financial crisis and these other events 'fall outside of this frame of reference in principle and as a result place it in question' (Beck 2013b: 64). He furthermore declared that systemic financial risk produces a 'risk logic' that is fundamentally different than a 'class logic' (Beck 2013b: 70).

It is clear that, for Beck, organized irresponsibility and systemic risk overwhelm existing class relations; however, the theoretical opportunities implied by the core elements of Beck's theory cannot be limited to the actual claims and conclusions that Beck makes with these conceptual resources. As such, it can be shown that the diffusion of control and responsibility implied by conditions of organized irresponsibility do not dissolve existing class relations, but rather provide conditions in which

those occupying privileged class positions can occupy favourable risk positions, benefitting from the production of risk in financial institutions. This focus on the 'creative' aspect of risk for some groups and how this can affect how they are impacted by risk, differs significantly from Beck's original formulation of the differential impact of risk in his concept, 'risk-class': 'One could say that Dean Curran introduces the concept of "risk-class" to radicalize the class distribution of risk' by charting who will be 'able to occupy areas less exposed to risk and who will have little choice but to occupy areas that are exposed to the brunt of the fact of the risk society' (Beck 2013b: 63; in reply to Curran (2013a)). While Beck has provided a significant advance in formulating the concept 'risk-class', there are also important limitations in Beck's original construal of this concept. For Beck, 'risk-class' is constituted by differential ability to avoid the *destructive* side of risk; his formulation of the concept does not consider the other side of 'risk-class' – the differential *benefits* from the creation of risk. The existing critical literature, primarily focused on denying the potential of existing risk processes to transform existing class relations (see Mythen 2005b), has likewise not explored the critical potential of the concept 'organized irresponsibility', especially when it is understood as a complementary concept to Beck's conception of 'organized non-liability' (see Beck 1995a: 2–6).

Since additional risk is something that investors generally refuse to take on without financial compensation,[4] it might seem as if the production of excessive risk by senior financial employees would at best be unintentional, an extra cost to be avoided. In the institutional and ideological context that has evolved in conjunction with the market system of the 'harm principle' and liability for harm, the greater damages caused, the greater costs that will eventually be incurred in compensating for the damage done. However, in the context of *organized irresponsibility*, in which agents through the interactions of their actions with others' actions create risks for which they are able to avoid being held individually responsible, the connection between the inputs that generate risks and the actual hazards produced is complex and opaque (see Beck 1992b: 102–3). The outcomes are produced in a collective context that makes it difficult if not impossible to trace any specific social damages to any specific individuals. In this situation, then, the production of risk does not always entail the costly burden of paying for these risks; therefore, certain actors may actually stand to gain from excessive risk production. Beck's insight that 'In the age of risk, society becomes a laboratory with nobody responsible for the outcomes of the experiments' (Beck 1998b: 10), was originally intended as an analysis

of the production of environmental risk, but can equally be said of contemporary finance.

When the amplification of risk can appear as the increase in the apparent value of financial firms – thus providing the basis of vast increases in pay – then *risk illusion* is possible (Haldane, Brennan, and Madouros 2010). As this chapter will show, risk illusion in conditions of organized irresponsibility in contemporary finance is a key causal factor that is contributing to the intensification of, rather than undermining or simply reproducing, class-based inequalities. The previous chapter showed that the basic elements of Beck's theorization can be redeveloped to illuminate key class inequalities related to contemporary environmental risk. The rest of this chapter will show that this is likewise true of finance, suggesting that the power to benefit from the production of risk and then avoid the brunt of the damages from these risks is becoming a key contributor to contemporary inequality.

Risk illusion in contemporary finance

The lead-up to the 2008 financial crisis was occasioned by a massive increase in three key processes: the profitability of financial institutions, the remuneration of the senior employees in these firms, and the risks to these financial institutions. The quantity of assets on firms' balance sheets ballooned, financial institutions invested assets and took on liabilities based on increasingly complex financial instruments, and banks increasingly shifted from their traditional tasks of credit intermediation to trading on their own investment books.[5] This massive amplification of risk was in turn associated with a vast increase in profitability, an increase in profits of almost 150 per cent from 2000 to 2007 (Haldane, Brennan, and Madouros 2010: 90). Pay in the financial industry likewise shot up, with the bonus pool for the securities industry in Wall Street increasing from $9.1 billion in 1998 to $33 billion in 2007 (NY Comptroller 2014a). This massive increase in risk and in pay to senior bankers and executives in other capital market intermediaries are not two unrelated facts; senior finance employees were able to benefit from the production of risk due to *risk illusion*, in which the massive amplification of risk is registered as an increase in the long-term value of an investment, and hence legitimating corresponding increases in pay (Haldane, Brennan, and Madouros 2010).

Haldane and his co-authors argue that for certain types of investments there is an important *ex ante* difficulty of distinguishing between objects of investment with high returns and low risk, which increase

long-term value for its owner, and investments with high returns and high risk, which have a significant likelihood of leading to significant losses that overwhelm previous gains (Haldane, Brennan, and Madouros 2010: 94, 97–101). In so far as actions that increase risk and short-term profits can be represented as increasing economic value for the firm, the production of high returns through risky, unsustainable strategies can be represented as finance workers generating stable value for their investors and employers (Haldane, Brennan, and Madouros 2010: 88–9, 94). As discussed further below, increases in profitability led directly to vast increases in pay to senior finance employees because of the business model in banking, where employee remuneration constituted a relatively fixed proportion of net revenue, approximately between 45 and 50 per cent (CRESC 2009: 47; Cooley, Marimon and Quadrini 2013: 3).

Risk illusion in itself is not necessarily a novel process in banking and finance; however, the scale and complexity of financial transactions associated with the emergence of financialized capitalism over the last three decades and the emergence of the profit share arrangement of senior finance employees (Engelen et al. 2011) has led to a massive increase in the impact of risk illusion in finance and on economic life as a whole. The concept 'risk illusion', when developed in conjunction with the reconstructed theory of risk society, highlights *risk as an object of production* that can create the appearance of vast productions of value, the basis of which can be used to appropriate wealth from the revenue streams of financial institutions, even when these investments create massive risks and ultimately losses for their firms.[6] However, this is not a deterministic or automatic process; that the processes associated with risk society *pro tanto* contribute to the intensification of class inequalities does not entail that other countervailing processes could not overwhelm this increase. Nevertheless, despite this always necessary qualification of scope in a 'dappled world' of many different causal capacities (Cartwright 1999), the focus on these processes and the intersection of risk-class with class inequalities can yield important insight into contemporary inequalities. Senior finance employees occupy a fundamentally important *structural risk position* based on their position as 'value skimmers', but not 'value surfers',[7] which enables them to benefit from upturns in the market, while also rendering them less vulnerable to financial downturns than other groups. This structural risk position fundamentally contributed to the increase in the advantages of the top 1 per cent in the lead-up to the crisis and beyond. In fact, in the UK, increases in top bankers' pay led to between two-thirds to three-quarters *of the overall increase in the income share of the top 1 per cent* between 1999

and 2008 (Bell and Van Reenen 2014: F2). In explicating the importance of risk illusion in contexts of organized irresponsibility, this chapter will briefly outline three key strategies based on risk illusion that contributed to the advantageous risk position of senior finance employees: increasing leverage of financial institutions; the selling of tail risk insurance; and increasing trading books and marking-to-market as profits increases in asset values. This section will discuss each of these three ways in which risk illusion increases profits of financial institutions and, correspondingly, the pay of senior finance employees.

Increasing leverage

One of the key investment strategies that generate increases in risk and short-term profits is increasing the financial institution's ratio of assets to underlying equity, i.e. increasing its leverage ratio (Haldane, Brennan, and Madouros 2010: 98–9). Excessive levels of leverage, while multiplying returns on assets in good times, were a central reason for the vulnerability of the entire financial system in the recent crisis (Solow 2009). From 2001 to 2007, leverage at major global banks, with the exception of American commercial banks,[8] increased rapidly. Over this period of time, the average leverage ratio of European Large Complex Financial Institutions rose from under 30 to over 45, major UK banks rose from approximately 20 to over 30 and the leverage ratios of US securities houses rose from under 25 to over 30 (Haldane, Brennan, and Madouros 2010: 109, 115). Moreover, the vast growth in assets on banks' balance sheets, which outstripped the growth in equity, was most likely understated by bank reports because: 'Accounting and regulatory policies permitted banks to place certain exposures off-balance sheet, including special purpose vehicles and contingent credit commitments' (Haldane, Brennan, and Madouros 2010: 99).

A bank's balance sheet leverage is approximately equivalent to the ratio of its assets to its tier 1 capital, which consists of common equity and capital instruments close to common equity (Haldane, Brennan, and Madouros 2010: 100). For investors, it is the return on existing equity by which the stock is valued against other investments. Through increasing leverage it is possible for banks to significantly increase their measured productivity, their return on equity (i.e. their return to shareholders), without any increase in the productivity of the assets in which they invest (i.e. their return on asset ratio) (Haldane, Brennan, and Madouros 2010: 99–100).[9] Simply by employing a higher ratio of assets to equity it is possible to increase returns to equity and hence the profit rate of the firm (see Table 6.1). For example, with a leverage ratio of 1, in which a financial institution does not borrow at all, investing

Table 6.1 Leverage can increase profits, but also risk of insolvency

Initial Equity	Leverage	Return on Assets	Return	Return on Equity
$100m	1:1	1%	$1m	1%
$100m	10:1	1%	$10m	10%
$100m	30:1	1%	$30m	30%
$100m	1:1	−3.33%	−$3.33m	−3.3%
$100m	10:1	−3.33%	−$33.3m	−33.3%
$100m	30:1	−3.33%	−$99.9m	−99.9%

only their own equity, then the return on equity is the same as the return on the assets that they own. If their equity is $100 million and they gain a return of 1 per cent ($1 million) on these assets, then their return on equity is also 1 per cent. If leverage is increased to 10 to 1, then, given the same equity base ($100 million), the assets employed by the financial institution will be $1 billion. If the financial institution continues to receive the same return on their assets (1 per cent), then it will receive $10 million in profit. Increasing leverage increases mechanically any positive returns on the investments for shareholders; despite having the same return on assets, the firm has increased its return on underlying equity by a factor of 10 to 10 per cent.

The reason that increasing leverage is not a 'free lunch' for everyone is that it likewise magnifies the effects of losses on the underlying equity, thus reducing the losses on assets (such as defaults on loans or write-downs on investments) necessary for a bank to become insolvent, such as occurred to Lehman Brothers (FCIC 2011: xix, 32–3). With a leverage ratio of 20 to 1, a negative return on assets of 1 per cent translates into a return on equity of –20 per cent. With a leverage ratio of 30 to 1, a loss of little more than 3 per cent on assets employed would completely wipe out existing equity (see Stiglitz 2009: 331).

By the end of 2007, the leverage ratio of Lehman Brothers was 31 to 1, Merrill Lynch was 32 to 1 and Bear Stearns was 34 to 1 (Lowenstein 2011: 116). Ultimately, the high profit rates that all three of these gained from heightened leverage were temporary.[10] As Haldane, Brennan, and Madouros note, 'Those banks with highest leverage, however, are also the ones which have subsequently reported the largest write-downs' (Haldane, Brennan, and Madouros 2010: 100). In May 2008 Bear Stearns was purchased for a fraction of its earlier value ($10 per share), a vast drop from its all-time high of $169.91 per share in 2007 (FCIC 2011: 282). Moreover, this price was paid only after the Federal Reserve agreed

to absorb losses on up to $28.82 billion of their riskiest investments (FCIC 2011: 290). Lehman Brothers ended up bankrupt and Merrill Lynch, which lost $27.6 billion in 2008, had to be absorbed by Bank of America at the beginning of 2009 (*Fortune* 2009).

With a leverage ratio of 30 to 1, for every $1 billion loss of value in assets, $30 billion in assets had to be sold to prevent leverage levels from further increasing.[11] With Lehman Brothers having $691 billion in assets at the end of 2007 (Lehman Brothers 2008: i),[12] leverage levels of 30 to 1 not only generated significant risks for the firm, but having to sell off such a significant amount of assets created significant risks for other market actors because of the possibility that this would trigger rapid drops in prices of the assets; hence highly leveraged financial institutions tend to increase systemic risk to the entire financial system (BIS 2009; Jarsulic 2013: 30).[13] Moreover, it is important to note that high leverage was not simply an incidental element of under-cautious and overly greedy managers, but a basic element in the possibility of profitability of many contemporary trading strategies: 'Arbitrage trading therefore inherently involves leverage: the use of borrowed capital to increase rates of return to the point at which they become attractive' (MacKenzie 2006: 217).[14]

Assuming tail risks

A second mechanism that has the potential to significantly contribute to the favourable risk positions of senior finance employees is the writing of deep out-of-the-money options that assume tail risks (Haldane, Brennan, and Madouros 2010: 98, 101–2). Tail risks 'are risks that generate severe adverse consequences with small probability but, in return, offer generous compensation the rest of the time' (Rajan 2005: 3). Fitting well the conditions for risk illusion, Rajan states that these tail risks are typically 'the kinds of risks that can most easily be concealed' (Rajan 2005: 3). By taking on these tail risks banks and investors are paid premiums for compensating others in case these risks manifest themselves in large losses (Rajan 2005). In the lead-up to the financial crisis, investment bankers were able to generate higher-yielding returns by receiving premiums due to providing tail risk insurance. Taking on hidden tail risks includes such strategies as investing in high-default loan portfolios or writing credit default swaps.[15] While credit default swaps were a very small part of the market in the late 1990s, they 'increased 100 fold between 2000 and 2008' (Summers in FCIC 2011: 48–9). The increased premiums from credit default swaps and other forms of insuring tail risks increased profits for their firms, allowing senior finance employees to appropriate

higher pay and bonuses, despite the corresponding significant increase in risk (Haldane, Brennan, and Madouros 2010: 100).

A notable example that fits Rajan's description of the benefits of insuring tail risks is the initial profitability of AIG's Financial Products division. Its capital market business generated $2.3 billion from 2003 to 2006 (Haldane, Brennan, and Madouros 2010: 102), and the head of Financial Products, Joseph Cassano, made tens of millions of dollars a year by pushing the apparently lucrative business of credit default swaps. In 2008, when the 'material risk' that these swaps constituted became clear to AIG, Cassano was dismissed. In 2008 alone, AIG lost around $40 billion due to what *ex ante* presented itself as an extremely profitable strategy (Haldane, Brennan, and Madouros 2010: 102). In a paradigmatic case of *risk arbitrage* generated from the mismatch between the benefits and costs of excessive risk generation when risk illusion is possible, Cassano walked away with the $280 million that he had made over the last 8 years from the financial gains from investments, despite the enormous losses that these risks wreaked on the company (Lowenstein 2011: 122).

As Rajan notes 'These strategies have the appearance of producing very high alphas (high returns for low risk), so managers have an incentive to load up on them' and that while they eventually 'blow up', the damage done generally far exceeds 'the horizon set by the average manager's incentives' (Rajan 2005: 20).[16] In this case, under the guise of risk transfer and the shifting of risk to the most 'efficient' holder of this risk, the constant transfer of risk and payment for the taking on of this risk was justified (*J.P. Morgan Guide to Credit Derivatives* in Tett 2009: 81; see also FCIC 2011: 71). Given that the probability of the tail risks actually emerging is unclear, the writing of these options can, at the time of the transaction, appear as a highly profitable and legitimate strategy (see Armstrong and Kiff 2005: 59). Consequently, prior to the financial crisis, the connection between the higher returns from selling tail risk insurance and the higher risk was opaque and was not represented in financial balance-sheets or remuneration levels as primarily increasing the riskiness of financial institutions (see Rajan 2005: 20).

Increasing trading book size

A third mechanism that generates increased bonuses by increasing risk and short-term profits for financial institutions through risk illusion is increasing the size of one's trading books, in which increases in asset prices are marked-to-market as profits (Haldane, Brennan, and Madouros 2010: 100–1). As Haldane et al. note, among the major global banks the

proportion of assets that were on their trading books (rather than in loans, for example) doubled between 2000 and 2007, increasing from 20 per cent to 40 per cent (Haldane, Brennan, and Madouros 2010: 100).[17] With mark-to-market accounting, changes in the value of assets, even if they are not sold or redeemed, are counted as profits or losses depending on whether the value of the assets increases or decreases. With rising asset prices and mark-to-market accounting, having more assets on their trading books allowed financial institutions to book these rising asset prices as profits, and distribute bonuses on the basis of this apparent profit, even if these 'profits' were not eventually realized because the assets could not actually be sold at the values that they had been 'marked' as being valued (Turner 2009: 25; Haldane, Brennan, and Madouros 2010: 101).

The profitability of risk illusion

Risk illusion thus enabled the vast amplification of risk to be registered in contemporary finance as heightened profitability and hence generated vast increases in pay to senior finance employees. To provide one example, Lehman Brothers set a record for profits in 2007, more than tripling their net revenue between 2002 and 2007 (from $6.2 billion to $19.3 billion) (Lehman Brothers 2005: i, 2008: i);[18] despite this massive increase in net revenue, their ratio between compensation and net revenue remained very similar (falling slightly from 51.0 per cent to 49.5 per cent between 2002 and 2004, before then remaining at 49.3 per cent between 2005 and 2007). Consequently, employee compensation tripled between 2002 and 2007, from $3.1 billion to $9.5 billion (Lehman Brothers 2005: 43, 2008: 41, 43).

These massive increases in risk and pay at Lehman Brothers were not idiosyncratic. Across the financial industry, large temporary increases in the profitability of financial institutions based on increasing risk contributed to significant increases in pay to senior finance employees. Average pay in the securities industry in New York City increased from $194,500 in 1998 to $401,500 in 2007 (NY Comptroller 2013). Within the specific time frame of 2002 to 2007, these pay increases resulted in a 41 per cent increase in the ratio of average pay in the securities industry to other private sector work in New York, rising from 4.39 to 1 to 6.2 to 1. This sharp divergence between pay in securities and other industries in New York was driven in large part by a *tripling of the bonus pool* for the securities industry, from $9.8 billion to $33.0 billion (NY Comptroller 2013, 2014a, personal calculations).

In the UK, driven by City bonus payments increasing from £1.7 billion to £8.5 billion between 1997 and 2007 (Augar 2010: 32), workers in

finance were responsible for between two-thirds to three-quarters of the sizeable increase in the top 1 per cent's share of total income between 1999 and 2008 (Bell and Van Reenen 2014: F2). This massive contribution of finance suggests that the advantages of senior finance employees as a risk-class were a key contributor to the acceleration of the advantages as a whole of what Savage et al. (2013) have called 'the elite class' based on high levels of quantities of Bourdieusian capitals. These facts provide further support for claims that changes in remuneration in the financial industry have been a major force behind recent rapid increases in income inequality (Crotty 2010: 34).

As this analysis suggests, risky strategies of increasing leverage, writing insurance on tail-end risks, and increasing trading books played a large part in both increasing the short-term profitability of financial institutions and the long-term risks to these institutions. With senior finance employees securing a relatively fixed share of this increase in net revenue, the result was vast increases in pay in the financial industry. In analysing these changes, it should be noted that these gains have not necessarily emerged purely from senior finance employees as an active risk-class; these changes are fundamentally shaped by senior finance employees' *structural risk position*, in which the opportunities to benefit from risk arbitrage have been conditioned by a variety of key changes in technology, global capitalism, and state regulation that have massively amplified the impacts of risk illusion and organized irresponsibility. Additionally, the strategies that activate these mechanisms that increase profits and bonuses from risk illusion do not necessarily have to have been produced by a clear sighted manipulation of existing structures of advantage and vulnerability from risks in financial institutions (see MacKenzie 2011: 1830). As the *Turner Review* shows, irrational exuberance would have also led to a very similar shift to increasing assets on trading books to gain greater profits (Turner 2009: 53).[19]

By 2007 the major global banks had over 25 per cent more assets on their trading books than in lending (Haldane, Brennan, and Madouros 2010: 100). Highly illiquid structured products and 'over-the-counter' (OTC) (direct institution to institution agreements rather than traded over an exchange) derivatives, while generating enormous apparent mark-to-market profits during the financial boom, became a source of huge losses leading up to the crisis (Haldane, Brennan, and Madouros 2010: 101). Rather than pursuing their traditional and fundamental task of being a credit intermediary, banks had increasingly become chasers of short-term financial yield and developed increasingly risky strategies in this pursuit to squeeze out as much short-term gain as possible.

The entire model of finance that has developed over the last three decades has led to a vast increase in risk levels in financial institutions. Describing the benefits underlying the manufacturing of these risks Haldane et al. declare:

> [B]ecause banks are in the risk business it should be no surprise that the runup to crisis was hallmarked *by imaginative ways of manufacturing this commodity*, with a view to boosting returns to labour and capital. *Risk illusion is no accident; it is there by design*. It is in bank managers' interest to make mirages seem like miracles. (Haldane, Brennan, and Madouros 2010: 106, emphasis added)

The upshot of this pursuit was apparent profits and real bonuses and a vast increase in the vulnerability of the entire financial system, the effects of which we are all still facing. Having outlined how senior finance employees massively benefitted from the production of risks to financial institutions, the following section details the mismatch between the distribution of gains to senior finance employees and the distribution of these risks.

The distribution of systemic financial risks: organized irresponsibility *or* the boomerang?

Even if senior finance employees benefitted from the production of these risks, there is still the possibility that the 'boomerang effect' of systemic financial risks, the self-confrontation with the side-effects of social-economic systems, may overwhelm the benefits they have realized from these risks (Beck 1992a: 37–8).[20] Consequently this section will explore the 'distribution of *bads*' (see Beck 1999: 8) from heightened risk in contemporary finance to evaluate whether the heightened production of risk through risk illusion and the distribution of these risks transformed the existing distribution of goods and *bads*.

In so far as senior finance employees have been able to play a key role in risk creation, appropriate the benefits, and avoid the damaging consequences of these risks, then the social relation of power in contemporary finance may be described as one of *organized irresponsibility*. Risk illusion is essential to this process; however, without a social condition of organized irresponsibility in which the damages caused by these risks are not traced back to their originators, the truly radical potential of risk illusion to transform existing life chances would not be realized because excessive gains would be reversed by excessive losses when the damages

from these risks manifested themselves. While high-risk banking was not the sole cause of the 2008 crisis, risky financial institutions played a fundamental role in each of the key stages of the generation of systemic financial risk, and the fallout of the crisis, including the credit crunch, widespread insolvency of major banks, the dilemmas faced by governments of bailouts or systemic failure of the existing banking system, and the ensuing Great Recession. In analysing the crisis and moving towards a broader political economy of risk, the concept of *organized irresponsibility* highlights how being a part of a complex chain of causes can actually be beneficial because the indeterminacy of the exact contribution of each cause to an outcome often provides powerful cover from being ascribed culpability for the resultant damages. It is organized irresponsibility, in which those who benefit from the risks do not bear the primary burden of the damages, that enables the massive *mismatch* between those who gained from financial system risks and those who suffered damages from them.

As such, this chapter aims to demonstrate the powerful importance of organized irresponsibility in a key domain of social risk production in contemporary social life: finance. Beck's original discussion of organized irresponsibility, in which the greater number of polluters that contribute to an environmental problem, the more possible it is for each of them to avoid responsibility for the resultant damages (Beck 1992b, 1995a) shows that the power relation of organized irresponsibility applies importantly to environmental as well as financial risk. However, the exact scope of organized irresponsibility in contemporary social life cannot be specified here. While this study aims to show that organized irresponsibility is an important, and highly problematic, power resource in contemporary society by showing its impact, it cannot, at this point, explore in sufficient detail the conditions of the development of this widespread condition. Developments in technology, globalization, the evolution of capitalism, the state, the growth of neoliberalism, and the particular development of organizational power, have all clearly played a role in facilitating both the conditions for massive risk production and the conditions for evading responsibility for the resulting damages. Disentangling these different causes is not possible at this point; however, through problematizing organized irresponsibility, this study highlights the fundamental importance of exploring the conditions of this social relation and of critically re-examining the larger institutional developments that have enabled it to develop. While this book aims to substantiate its key claim – that the social production of risk is intensifying, and if not redressed, has the potential to even further intensify,

contemporary inequality – given the vast scope of contemporary risks, this book serves both as a substantive analysis of key aspects of contemporary risk and inequality, as well as a statement of intent of the necessity for further investigation in this area.

In this vein, the analysis in this chapter cannot capture all of the possible *bads* created by heightened risks through risk illusion, nor all of the benefits from the production of financial risks for that matter. As with the previous analysis of environmental risks, while fallible and often provisional, theorizing the primary effects of key social structures and processes is of fundamental importance in developing an understanding of the causes and consequences of existing social action and institutions. Based on certain stylized facts and specific examples from the recent financial crisis, the next sections will explore two dimensions of the distribution of *bads* from the 2008 financial crisis. First, the distribution of *bads* to individuals within existing institutions that suffered significant losses from systemic financial risk will be explored; following this, this chapter will examine how the macroeconomic *bads* from the financial crisis have been distributed. Given that the processes of heightened production of risk to financial institutions discussed in the previous section were most fully developed in Anglo-American capitalism (see Boyer 2000; Glyn 2006: 55–7), this section will focus primarily on the effects of the crisis in the US and the UK.

Executive returns without risk and the uneven shareholder revolution

The 'shareholder value' system was supposed to partially redress the misalignment of interests between management and owners by forcing CEOs and other executives to hold significant equity in the company they work for (i.e. to turn them into major shareholders as well). Despite company executives using the implementation of the 'shareholder value' system to justify pursuing profit above all other ends, the shareholder value revolution has not been implemented in the manner in which it was originally conceived – that is, to make management more accountable and better align its interests with shareholders.

As has been convincingly shown by Dobbin and Jung, only those aspects of the 'shareholder value' system that were in the interests of company executives and fund managers were assiduously implemented – in particular, despite CEOs gaining significantly greater incomes since 1992, their share of ownership of companies did not increase; in fact it even declined between 1999 and 2005 (Dobbin and Jung 2010: 38). Consequently, this uneven shareholder revolution has institutionalized

a framework in which front-office employees in financial institutions, corporate managers with stock options, and financial fund managers benefit from the pursuit of riskier investment strategies which offer greater opportunity of short-term upward fluctuations, even when there is significant long-term downward risk for the assets that they manage (Dobbin and Jung 2010: 57). This is because high short-term gains pursued by finance and corporate executives are shared between shareholders and employees, while losses are borne by the company and shareholders alone.

This shift to senior employees having an interest in maximizing short-term gains has manifested itself in a key organizational shift in investment banks, from partnerships to publicly traded companies. Previously, in partnerships, the members of the investment bank held a large part of their remuneration in their partnership in the firm: 'The capital in a partnership and the ownership shares are typically relatively illiquid so it was difficult for partners to liquidate their ownership positions and move to other firms' (Cooley, Marimon, and Quadrini 2013: 2–3; see also FCIC 2011: 61–3). From 1970, when the New York Stock Exchange changed its regulations regarding public ownership, all of the major investment banks shifted from partnerships to publicly traded companies, including Merrill Lynch, Bear Stearns, Morgan Stanley, Lehman Brothers, and Goldman Sachs (Cooley, Marimon, and Quadrini 2013: 3; see also Campbell 2010: 83–4).[21] The business model that developed around investment banking enabled bankers to receive nearly half of net revenues as wages and bonuses (Folkman et al. 2007: 564; see also CRESC 2009: 47; Cooley, Marimon, and Quadrini 2013: 3), without having the majority of remuneration as illiquid ownership in their investment bank as a partner – which is effectively 'clawed back' when there are large drops in the value of the firm due to losses from risky strategies (see Dobbin and Jung 2010: 57). This situation then 'makes the investment bank a kind of profit share arrangement between shareholders and senior investment bankers' (Engelen et al. 2011: 122–3), without also making it a loss sharing arrangement. Consequently, this shift led to senior bankers continuing to control the bank and occupying an almost proprietary or entrepreneurial position in terms of appropriating a large portion of net revenue *without* occupying an illiquid ownership stake that ensures that they bear the majority of the downside of losses. Rather than a boomerang effect, investment banks' shift from partnerships to publicly traded companies socially instituted a particularly extreme relation of organized irresponsibility, in which senior bankers could benefit from the risks they created without bearing the consequences of these risks.

The financial crisis and its impact on income and wealth

The mismatch between the potential for gain and the potential for loss for senior finance employees in financial institutions suggests that the potential of a 'boomerang effect' has been negated. However, there is still the possibility that systemic financial risk leads to a general boomerang effect that envelops investment bankers in major macroeconomic shifts that threaten their incomes and wealth. The 2008 crisis and the ensuing slump caused by the financial crisis was, for most countries in the OECD, the worst macroeconomic downturn since the Great Depression (Jenkins et al. 2013a: 1). It was estimated that the total world economy contracted by 2.1 per cent in 2009 and that the OECD area experienced a 4.7 per cent contraction from the first quarter of 2008 to the second quarter of 2009 (Keeley and Love 2010: 12). In terms of past growth trends, it has been estimated that on a counterfactual basis world output was 6.5 per cent less than it would have been without the crisis, a loss of $4 trillion in output (Haldane 2010: 3). Likewise, unemployment increased significantly, with the OECD in particular reaching its highest post-war rate of 8.7 per cent with 17 million more people unemployed in 2010 compared to two years earlier (Keeley and Love 2010: 12). Was there a mismatch between the disproportionate distribution of the gains from the production of risk through risk illusion to senior finance employees and the distribution of damages from the crisis? The evidence indicates that this was clearly the case.

The richest groups in the US did, in fact, experience significant drops in their earnings due to the crisis. Capital gains, a significant source of income for the top 1 per cent, fell by 17.4 per cent between 2007 and 2009 (Mishel et al. 2012: 73), which led some economic sociologists to initially believe that it would be the top 1 per cent who would bear the brunt of the crisis (Fligstein 2010: 234). Likewise, while the bottom quintile saw their earnings drop 30 per cent relative to the median (Perri and Steinberg 2012: 1–2), the state provided significant support to lower-income households in the immediate aftermath of the crisis to address increasing inequality, leading to a small decline in the P90/10 ratio after tax and transfers between 2007 and 2009 (Thompson and Smeeding 2013: 213).[22]

However, while capital gains do tend to fall quickly in a recession, they also recover more quickly than other forms of income (Mishel et al. 2012: 73). In fact, as Saez has shown, economic recovery in the United States has occurred most dramatically in the highest earning groups, with the top 1 per cent capturing 95 per cent of all increases in real income between 2009 and 2012 (Saez 2013: 125). Based on the

distribution of the recovery from the financial crisis between 2009 and 2012, Saez argues that 'the Great Recession has only depressed top income shares temporarily and will not undo any of the dramatic increase in top income shares that has taken place since the 1970s. Indeed, *the top decile income share in 2012 is equal to 50.4 per cent, the highest ever since 1917*' (Saez 2013: 120–1, emphasis added). Conversely, the lowest quintile ended up with a massive 40 per cent decline in wealth, greatly increasing their vulnerability to future shocks, particularly the risks of declining government support (Perri and Steinberg 2012: 11).

In the UK, the effects of the financial crisis and the ensuing recession have also caused widespread damage to people's livelihoods. The economy was 3.9 per cent smaller in 2013 than it was five years earlier in 2008 (Inman 2013), and real median incomes fell between 8 to 10 per cent between 2008 and 2014 (Machin 2015: 2). In the early parts of the financial crisis and the ensuing economic slowdown (2007–10), due to state redistribution there was no generalized increase in inequality of disposable incomes (OECD 2013: 2; see also Jenkins et al. 2013b: 35). However, as has been widely noted, the large costs of bailing out the banks and of mitigating the macroeconomic consequences of the financial crisis have left the UK, amongst others, with a ballooning debt, which has begun to be addressed by fiscal consolidation (Jenkins et al. 2013b: 20; OECD 2013: 8). While there is significant scope for how and when this consolidation is pursued and who primarily bears the burden of reductions in deficits (Jenkins et al. 2013b: 18), in the case of the UK the austerity measures put in by the coalition government have tended to be regressive in effect, further putting the burden of the crisis onto the least advantaged and those who least benefitted from the lead-up to the crisis (Alcock et al. 2013).[23]

The impact of the crisis on incomes in finance

Having provided some evidence of the macroeconomic distribution of the *bads* from the financial crisis, it is necessary to explore whether senior employees in the financial industry have been particularly hard hit by the crisis in a way that aggregated numbers do not specifically address. This, however, does not appear to be the case. There were declines in pay to those in the securities industry in New York following the crisis, with average pay dropping from $391,800 in 2008 to $311,800 in 2009 (NY Comptroller 2013) but, despite this 21 per cent drop, the average pay was still higher than any year before 2005; moreover, average pay recovered the next year (2010), increasing to $361,180, which is higher than all years other than the peak of the risk-inflated earnings

period, 2006–8 (NY Comptroller 2013). Furthermore, while the ratio of average pay between the securities industry and other private sector industries was only 2 to 1 in 1981, post crisis pay levels have seen a significant consolidation of advantage by senior finance employees, such that the ratio of pay in 2010–13 remained at higher levels (ranging from 5.46–5.1 to 1) than at any other time than the tail end of the financial exuberance, 2006–8 (NY Comptroller 2013; DiNapoli and Bleiwas 2014: 6, personal calculations). Moreover, it should be noted that despite this high pay ratio following the crisis, it is now common social knowledge – which it was not in 1981 – that complex, high finance is not an efficient risk manager, but rather a risk production machine with massive negative social externalities. Additionally, despite continued political pressure to rein in bonuses, from 2011 to 2013 the bonus pool increased by 44 per cent, with the average bonus of $164,530 in 2013 *more than quadruple* its level two decades earlier ($39,660) (see NY Comptroller 2014a, 2014b, personal calculations).

In the UK, the top 1 per cent did experience a 0.5 per cent decline in their overall share of income between 2008 and 2011; however, this decline in the share of income of the top 1 per cent was not caused by a drop in the incomes of high-earners in finance. Finance workers actually saw their share of the total wage bill increase by 0.2 per cent (Bell and Van Reenen 2014: F10–F11). This contrast in fates is shown by the fact that while nominal mean gross annual wages for all full-time employees in the UK increased by 3.7 per cent between 2008 and 2011, finance workers in London saw their nominal wages increase by 14.2 per cent. Factoring in 9.6 per cent inflation, average real gross wages fell over this period, alongside an *increase in real wages* to those in finance (Bell and Van Reenen 2014: F10–F11). Nor did top bankers suffer a disproportionate amount of unemployment – the financial sector in London lost a smaller proportion of jobs (1.4 per cent) than the economy as a whole (1.9 per cent) (Bell and Van Reenen 2014: F11–F12). Consequently, those working in finance avoided the brunt of the consequences of the risks that they created and from which they richly benefitted.

In fact, many of those employees who were at the heart of those financial institutions that failed due to excessive risk-taking were immediately hired at other firms after their firms collapsed. In one notable example, Nomura not only hired 2,500 of Lehman's front-office investment bankers right after Lehman Brothers failed; it created a guaranteed bonus pool of over $1 billion dollars to retain them (Saigol 2008: 29). With stock markets around the world (including the Dow Jones and the S&P 500) returning to historical highs despite the continued effects

of the global financial crisis, the division between those who occupy key positions in contemporary financial institutions and the rest of the population continues to grow.

Another group that significantly benefitted from the asset inflation associated with the build-up in risk prior to the crisis were large owners of assets, which have been also described as the 'fortunate 40 per cent' (see Froud et al. 2001: 73). However, for the 'fortunate 40 per cent', given their status as primarily 'value surfers', increased risk contributes towards *both* asset inflation *and* losses from excessive risk, which causes them to endure significant falls in the value of their assets during a crisis. Consequently, their benefit from systemic financial risk, though deserving of further research, is much more indeterminate in contrast to senior finance employees who can benefit from risk illusion by engaging in 'value skimming' (see Erturk et al. 2007). Likewise, while there may have been some highly touted benefits to public finances from the large profits generated by finance in the lead-up to the financial crisis, the massive damage caused by the crisis more than overwhelmed these benefits (see CRESC 2009: 31–9).[24]

This analysis of the distribution of risks from the 2008 crisis in which risky financial institutions played a fundamental role cannot enumerate all of the crises' possible effects, especially as these effects have not all been manifested yet and much of the research on the effects of the financial crisis is still ongoing. However, even if, for the sake of argument, the reductions in post-tax incomes due to the crisis were equal, there would still be a huge *mismatch* between the distribution of gains from these risks, which went primarily to senior employees in financial institutions, and the distribution of damages from these risks, which would be distributed evenly throughout the population. This mismatch based on differential risk positions has contributed towards a fundamental transformation in the distribution of wealth and income in contemporary capitalism; while some occupying key positions in contemporary finance were able to profit from the heightened production of risk in the financial sector, others have been exposed to the risk of having their livelihoods radically undermined in the aftermath of the crisis.

Finance, 'risk-class', and class-based inequalities

This chapter has provided strong evidence to support the claim there are definite 'risk-classes' with respect to systemic financial risk. As discussed above, 'risk-classes' are groups that occupy similar risk positions, systematically differing in the benefit and damages they derive from

contemporary risk (see also Beck 2013b: 68). While the full extent to which the advantageous environmental and financial 'elite risk-classes' overlap is still an empirical question, which requires further empirical exploration, in the cases of both environmental and financial risk, it is the most advantaged who have been able to systematically benefit most, while the least advantaged in terms of class resources have tended to bear the brunt of these risks.

This chapter has looked specifically at groups that systematically differ in the benefits and damages from contemporary financial risk, specifically focusing on risks in the financial system. It should be noted that risk-class position is not reducible to class position (i.e. it is structured by other factors), so it does not imply the 'subsumption' of the logic of risks to that of class. If it was in fact possible to simply directly read 'risk-classes' off class position, then the relatively 'quiet' manner[25] with which contemporary risk is revolutionizing existing inequalities would probably be much less possible. Nevertheless, who is able to occupy the key structural positions of being able to appropriate benefit from the production of financial risk while avoiding much of the damages caused by these risks is powerfully shaped by differentials in class resources. The previous chapter showed how private escape routes from environmental risk were relationally distributed based on class inequalities. The already advantaged who were able to secure these private escape routes from risk occupied an advantaged risk-class position based in large part on class inequalities (though, as mentioned, other logics of stratification, such as race and gender also structure one's risk-class).

This section shows that relations of inequality in each of the types of the class resources identified as particularly efficacious by Marxist, Weberian, and Bourdieusian class frameworks, also shaped the ability of individuals to occupy favourable risk positions with respect to the financial risk processes associated with the financial crisis. In so far as differences in these class resources powerfully shaped individuals' ability to occupy different risk positions, then the processes of the production and distribution of financial risk served to entrench and further sharpen already existing class-based inequalities. This unevenness of the distributional impacts from the lead-up and aftermath of the crisis has, in fact, played a key role in contributing to the emergence of a new elite in the US and the UK (see also Curran 2015). This section first identifies how the class resource that Marx identified as holding central explanatory importance to social and material power, differentials in control of capital, shapes differential risk positions, before proceeding

to explore the importance of the class resources identified by Weberian and Bourdieusian class analysis.

As the evidence provided above shows, differentials in the control of capital contributed towards the ability to benefit from the production of financial risk while avoiding the brunt of the damages; consequently, the class resource highlighted by Marxist class theory contributed to existing differentials in risk position, which, in turn, further intensified inequalities. As mentioned above, in the shift from investment banks as partnerships to shareholding companies, investment bankers retained both control of their companies and the ability to appropriate profit. The complexity of investment banks and the strategies they employ prevented shareholders from fully understanding the business: 'Although Goldman Sachs is a public company, nobody outside the firm knows what mix of trading activities and strategies have driven recent record profits' (Folkman et al. 2007: 564).[26] Consequently, the shift to being a publicly traded company has not removed the control that investment bankers exercise over their firm. Nor has the shift from partnership to publicly traded company removed senior bankers' ability to appropriate profit from the firm's activities. As Folkman and his co-authors point out, '[i]nvestment banks are different from other public companies because they are, as Augar describes them, "in effect joint ventures between shareholders and staff"' (Augar 2005 in Folkman et al. 2007: 564). In so far as investment banks are 'a kind of profit share arrangement between shareholders and senior investment bankers' (Engelen et al. 2011: 122–3), in which senior investment bankers get a relatively fixed portion of net revenue (around 45–50 per cent), then senior bankers have retained two of the core aspects of control of the enterprise: the ability to direct its business and to appropriate profits.

However, while illuminated by the Marxist focus on control of surplus-appropriating enterprises, these transformations associated with risk cannot be read off from a Marxist account of class. One of the key sources of power for senior finance employees is based on the unbundling of a core aspect of control of a corporation, ownership, from other aspects of control, in particular the ability to direct the enterprise and to appropriate a large share of profits. In fact, as mentioned above, it is their *lack of ownership* of financial institutions, as exemplified in their shift from partnerships to publicly traded companies, that is core to senior finance *employees*' ability to benefit from organized irresponsibility.[27] That these processes transformed existing inequalities in ways that cannot be inferred solely by looking at the distribution of existing Marxist class resources and, therefore, that class analysis needs to address these

risk processes is further exemplified by the fact that while the top earners in finance saw massive gains, top earners in manufacturing actually saw a decline in their wage share over the course of the huge boom in the pay of the top 1 per cent in the UK, from 1999 to 2008 (Bell and Van Reenen 2014: F8). In this way, risk society can in fact serve as an important prism through which to rethink how class inequalities relating to the different power and liberties associated with ownership and control are being rearticulated in the twenty-first century. In the financial industry, ultimately, the control of financial institutions by senior finance employees powerfully shaped the ability of the elite to appropriate wealth from the production of financial risk, while also insulating themselves from the primary damages of these risks.

With respect to the Weberian frame for identifying class relations based on differences in market capacities, the above analysis clearly details how the ability of senior finance employees to produce risk, appropriate wealth on this basis, and effectively avoid the brunt of the consequences of these risks contributed to the intensification of class-based inequalities. Increasing pay in finance, enabled by heightened risk production and, correspondingly, higher temporary profits, was responsible for between two-thirds to three-quarters of the increase in the top 1 per cent's share of total income in the UK from 12.1 per cent to 15.4 per cent between 1999 and 2008 (Bell and Van Reenen 2014: F3–F5). Similarly, the damage to the incomes of the less advantaged and the risks that fiscal consolidation pose to those who are most dependent on state support have served to further exacerbate inequalities in market power between those for whom the drop in incomes and wealth is just a temporary phenomenon and those for whom it poses fundamental threats to their ability to reproduce their basic form of life.

The processes identified in this chapter relating to the production of risk by financial institutions and the distribution of these risks also exacerbates differentials in the class resources identified by Bourdieu. A key characteristic of senior investment bankers is their high level of human capital, both in the generic sense in terms of high education levels at top universities (Ho 2009; Philippon and Reshef 2009: 3) and in the specific sense in terms of their understanding of contemporary financial instruments, trading strategies, and ways to benefit from information asymmetries (see Augar 2005). It is those with high cultural capital (noting that Bourdieu has stated that 'cultural capital, we should in fact call *informational capital* to give the notion its full generality' (Bourdieu and Wacquant 1992: 119)), that are able to occupy positions as senior finance employees.[28] Consequently, high cultural capital is

essential to being able to occupy the structural risk positions of being able to produce risk and appropriate wealth from risk illusion, while avoiding the brunt of its consequences.

Still, risk-class is not reducible to Bourdieusian class resources because those with high cultural capital in different parts of the 'economic field' have in many cases suffered rather than benefitted from these processes. The lecturer who works in London but who cannot afford to purchase a home because of house price inflation partly driven by skyrocketing incomes in the City of London exemplifies how high levels of a class resource, cultural capital, may make different contributions to one's 'risk-class' depending on the interaction of the specific composition of the capital and contemporary risks. Some types of informational capital based on financial innovation generate economic resources in a way that the same quantity of 'informational capital' based on different knowledge does not.[29] Moreover, with respect to economic capital, the ability of an already advantaged group, senior employees in finance, to appropriate vast sums of wealth based on risk production prior to the crisis, while avoiding the brunt of the effects of the crisis, further exacerbated differences in economic capital and their corresponding life-conditions (Bell and Van Reenen 2014).[30]

Conclusion

Through bringing together a set of concepts, such as *risk illusion*, *organized irresponsibility*, *risk position*, *risk-class*, *risk arbitrage,* and the *mismatch* between the benefits and costs from the production of risks, this chapter proposes a toolbox to get to grips with key intersections between finance, risk, and inequality. Specifically looking at the results of the analysis in this chapter with this toolbox, senior finance employees systemically differed in the benefits and costs of financial risk production through risk illusion, thereby occupying a key *risk position* that contributed to the intensification of existing class-based inequalities. Senior finance employees were able to vastly increase the short-term profits of their firms by increasing the risk levels of their investments, appropriate approximately half of this increase in net revenue, and then avoid the vast majority of the consequences of the damages from these risks. This process of the production of risk and appropriation of wealth based on three key strategies of risk illusion – higher leverage, selling tail risks, and increased mark-to-market profits – thereby enabled senior finance employees to permanently 'bank' profits that later turned into massive losses for their firms.

The mismatch between the benefits senior finance employees derived from increasing risk and the damages they received from these risks, generating massive risk arbitrage from ratcheting up risk, significantly contributed to both their enrichment and the immiseration of the least advantaged in society. Increasing pay in finance, enabled by heightened risk production and, correspondingly, higher temporary profits, was responsible for between two-thirds to three-quarters of the increase in the top 1 per cent's share of total income in the UK from 12.1 per cent to 15.4 per cent between 1999 and 2008 (Bell and Van Reenen 2014: F3–F5). Likewise, the damage to the incomes of the less advantaged have posed exigent risks to those who are most dependent on state support, as manifested in amongst other things, record levels of food insecurity in the United States (Sherman 2013: 410) and a growing 'hunger crisis' in the UK, with rising numbers visiting food banks (Bintliff 2013). These damages have served to further exacerbate inequalities between those for whom the recession's drop in incomes and wealth is just a temporary phenomenon and those for whom it poses fundamental threats to their ability to reproduce their basic life-form.

Despite the importance of these three identified routes of risk illusion, in which increased risk was concealed and registered as increases in the long-term value of the firm, it is especially important to avoid the error of overspecificity in regards to the analysis of the production of risk in finance. It must not be assumed that if the possibility of these three specific strategies of risk illusion were eliminated, then the problem of risky contemporary finance would be solved. The tendency to be overly specific in trying to redress past failures leads to what may be termed the 'Maginot Line' fallacy (Taleb 2010: xxvi). As Taleb points out, 'The French, after the Great War, built a wall along the previous German invasion route to prevent reinvasion – Hitler just (almost) effortlessly went around it. The French had been excellent students of history; they just learned with too much precision' (Taleb 2010: xxvi). Since 1990, Japan has experienced a major financial crisis, three Nordic countries – Norway, Sweden, and Finland – experienced major financial crises, Mexico experienced a sovereign debt crisis, South East Asia including Thailand, South Korea, Malaysia, and Indonesia experienced a major financial and currency crisis, Russia experienced a major financial and currency crisis, one of the world's largest hedge fund at the time, Long-Term Capital Management, failed, and the largest global economic downturn since the Great Depression was caused by a financial crisis (see United States General Accounting Office 1999; Reinhart and Rogoff 2009: 160; Kindleberger and Aliber 2011: 5–6). The analysis in this

chapter, demonstrating the capacity of these routes of risk illusion to transform existing class relations, is not meant to entail that redressing the specific mechanisms of risk illusion discussed in this chapter – higher leverage, selling tail risks, and increased trading books – will render finance secure and mute transformations in distributions. While the attempt to develop better regulation is important, technocratic changes that attempt to prevent the previous crisis, without addressing the underlying power relations in risk illusion and organized irresponsibility, will not resolve the problem of incessant and highly uneven crises. In terms of the current context, the continued size and importance of the 'shadow banking' sector, the continued historically idiosyncratically high pay in the sector[31] – despite its massive failures and large fines for fraudulent practices before, during, and after the crisis[32] – and the continued dominance of the ideology of a large and complex financial system as key to economic prosperity, suggests that the power and impact of risk illusion and organized irresponsibility have not been addressed by the rather muted political response to the crisis.

As mentioned above, this study seeks to identify some of the key similarities in the distributional logics of contemporary environmental and financial risk. By bringing these analyses together, what is revealed is that contemporary conditions of the social production and distribution of risks in widespread contexts of organized irresponsibility is leading to a new and uneven 'Creative Destruction'. This creative destruction however, unlike Schumpeter's (1962 [1942]) is not experienced by society as a whole; rather it manifests itself in *creation* of great wealth and advantage for an elite few and *destruction* and harm through exposure to socially and economically destructive forces for the already disadvantaged. Rather than risk society spelling the end of class, the processes that are the object of study of the theory of risk society have actually increased class-based inequalities. Risk society and class analysis have been kept apart too long. As suggested by the analysis in this study, bringing them together can aid in developing a critical theorization of risk, power, and inequality appropriate to social and material conditions at the beginning of the twenty-first century.

7
Conclusion: Beyond the Quiet Politics of Risk

Having proceeded through two chapters on social theory and risk, a chapter on class, and two chapters concerning the relation between risk and contemporary widening inequalities, it is now necessary to address three key questions in this concluding chapter. Firstly, what has been established? Secondly, what is novel about these conclusions? Lastly, it is necessary to answer the 'so what' question; that is, what contribution to social knowledge can be made by advancing the debate regarding risk and class inequalities? The conclusion will provide an answer to each of these questions, with its structure following the order of these questions closely.

Overview of conclusions regarding risk society and class

Beck's theorization of risk society, most notably in his classic text *Risk Society* (1992a), has been hugely influential. Since its publication in English in 1992, there has been significant attention devoted to Beck's understanding of the relation between the heightened processes of socially produced risk and class relations (Rustin 1994; McMylor 1996; Scott 2000; Goldthorpe 2002; Scott 2002; Mythen 2005a, 2005b; Atkinson 2007a, 2007b, 2010a). Almost all of the discussions of Beck's specific analysis of how risk society affects class have been critical. With respect to the critique of Beck's rejection of class due to the risk society, this study is in agreement with his critics: the processes associated with risk society do not dissolve class relations.

Despite the weakness of Beck's specific claims about the relation between risk society and class, Beck has extensively theorized the importance of the 'logic of the production of risk' and the 'logic of the distribution of risk' (see Beck 1992a: 19–50) and has explicitly made a

call for the importance of the 'political economy of risk' (Beck 1999: 12). It is in this latter vein – of developing a novel analysis of the power relations relating to the contemporary production and distribution of risk – that the creative potential in Beck's work on class and risk has not yet been grasped. Beck's huge influence in social theory and the sociology of risk – and the bombastic nature of his declarations against class, as epitomized in his declaration that 'poverty is hierarchic, smog is democratic' (Beck 1992a: 36) – has enabled Beck to set the terms of the debate over risk society and class inequalities for the two decades following the publication of *Risk Society* (1992a) in English. His many critics have identified the importance of contradicting Beck's denial of the continued importance of class and have proceeded to do so in many insightful and important articles and texts (see esp. Rustin 1994; Scott 2000; Mythen 2005b; Atkinson 2010a). Nevertheless, in having the literature on risk society and class dominated by the attempt to *contradict* Beck's key claim, his critics have accepted Beck's framing of the problem – that class solely needs to be shown to continue to be important. However, living in a post- Katrina and global financial crisis world, it is no longer adequate to accept the inference, which this literature makes, that since the contemporary production and distribution of risk does not dissolve class relations, *therefore* it does not transform existing inequalities (Mythen 2005a: 144; see also McMylor 1996; Scott 2000; Goldthorpe 2002; Atkinson 2007a, 2010a).

This book has sought to make a breakthrough in this debate by showing how contemporary socially produced and distributed risks as side-effects are intensifying class-based inequalities. These processes have the potential to radically restructure the wealth and living conditions of those in privileged class positions, while radically undermining the basic living conditions of the less advantaged. In this way, rather than simply allowing Beck to set the terms of the debate for risk society and inequality, the tendency for the production of financial and environmental risk in contexts of organized irresponsibility to intensify existing inequalities has been explicitly addressed. In showing how contemporary processes of social production and distribution of risk have systematically contributed to the growth of class-based inequalities, a key social source of suffering of the least advantaged has been identified. Rather than merely contradicting Beck, this study has sought to open up this nexus of inequalities and risk in a way that cannot be addressed by simply answering in the affirmative or the negative whether class is still relevant.

The second creative moment in this book, enabled by a critical engagement with Beck's work and a refusal to defer to the terms that he has set for understanding the theory of risk society, is the demonstration that the theory of risk society is not as antithetical to class analysis as either Beck or his critics have claimed.[1] The re-theorization of risk society developed in this book has shown how, when suitably modified, the core theoretical concepts of the theory of risk society can serve as the basis for an understanding of the relation between contemporary inequalities and risk. The theory of risk society provides a framework to grasp the importance of a certain sub-set of risks that are exacerbating existing class-based inequalities by analysing them as: (1) socially produced, and (2) socially distributed risks as (3) non-local, (4) side-effects, (5) in contexts of organized irresponsibility. Analysing environmental and systemic financial risks through this framework has illuminated how differentials in class resources powerfully structure the ability to: benefit from the production of risk; to avoid many of the primary consequences of risks as side-effects; and to occupy privileged positions within institutionalized frameworks of organized irresponsibility.

There are also limitations to this study that are important to highlight as these present important avenues for further research. Most importantly, this book does not provide a definitive analysis of the possible impacts of all contemporary risks on inequality. Whether other types of risk, such as health risks, or various economic risks emerging from deregulation and neoliberal governance, also satisfy this relationship between contemporary socially produced risks as systemic side-effects and widening inequalities is left unaddressed by this study.

Chapters 2 and 3 make an intervention in contemporary social theory of risk, by arguing for the ineliminability of realism and showing how the theory of risk society can be understood as a de-totalized theoretical framework that abstracts out certain key social and material processes that interact with other key processes in social life. Further developing this re-theorization of contemporary inequalities and risk society, Chapters 5 and 6 each provide an analysis of how the processes identified by the theory of risk society are intensifying class-based inequalities. The analysis in Chapter 5 develops a theoretical framework for exploring how the differential distribution of environmental *bads* between the advantaged and disadvantaged increases class-based inequalities. It then proceeds to substantiate this framework with reference to factors that affect current distributions of environmental risks and their dynamics. The analysis in Chapter 6 develops a theoretical framework for exploring

how the *mismatch* between those who benefit from the production of financial risks in financial institutions and those who are distributed the damages from these risks is further exacerbating class-based inequalities. It then substantiates this framework through analysing the distributive impact of the increase in financial institutions' risks in the build-up to the financial crisis and the distribution of damages emerging from the financial crisis. This approach delineates a framework that identifies the mismatch in benefits and costs, and how the *mismatch* has the ability to transform the logic of distribution by sharpening class-based inequalities, but it does not provide an all-things-considered account of the exact scope of the impacts caused by contemporary socially produced risks (especially as the impacts of the financial crisis are still in progress). Rather this book aims to illuminate some of the fundamental relations between risk and inequality by identifying similarities in the logics of distribution of environmental and systemic financial risks, and to articulate a framework and a toolbox for understanding these changes, which also can be used in further research.

In sum, Beck's theory of risk society is the only one of the major sociological approaches to risk that evaluates the role of class as a key explanatory concept in contemporary society, with neither Douglas' cultural approach, nor the governmentality approach to risk, nor Luhmann's systems theory exploring whether class is key to contemporary risk or not. Consequently, the blockage in the debate over risk society and class has not only led to a specific debate over Beck's work suffering from an impoverished exploration of risk and class, but also contributed to the failure of the sociology of risk and contemporary social theory to address these problems. In theorizing systematically about the relation between socially produced risks and class, both the sociology of risk and social theory can advance the cause of a core explanatory aim of both Marxist and Bourdieusian critical social theory, namely the identification and explanation of the social sources of contemporary suffering.

The quiet politics of risk and risk colonization

Beyond the contribution to these specific risk literatures, however, this book aims to make a larger contribution. Theorizing risk position as a systemic *social* position structured by the production and distribution of risk can make an important contribution to the study of contemporary power relations. Though both Marx and Weber were cognizant of how socially instituted processes of production and distribution create risks

that are unevenly distributed, they did not theorize risk as an explicit and systematic object of production and distribution. Both Marx, with his analysis of exploitation and the appropriation of surplus value, and Weber, with his focus on the distribution of 'market capacities', focused their analytical frameworks on the production and unequal distribution of *goods* (see Mythen 2004: 26). In contrast, risks are the seemingly minor, many side-effects of actions which *prima facie* tend to be neglected. Beck's theorization of 'risk position' as an object of distribution akin to 'class position' shines a powerful light on fundamental processes that are structuring contemporary power relations, which are not emphasized on these other dominant frameworks.

As argued in this book, Beck's theorization of the social production and distribution of risk as side-effects in contexts of organized irresponsibility provides the basis of developing a theorization of differential risk positions and their fundamental impacts. Without a framework to highlight the powerful *systematic* impacts of these socially produced risks, it is much easier for those who seek to benefit from existing risks to continue to keep these processes from being opened up to democratic evaluation. As Pepper Culpepper powerfully argues in *Quiet Politics and Business Power* (2011), the power of business is often most effective when it is able to remove issues of public relevance from the public agenda. The expertise of business over isolated questions of business procedure can often be a powerful basis for the advancement of business interests. As Culpepper notes, business leaders 'know more about the effect of legal changes on their companies than do politicians, and politicians know this' and consequently the 'high complexity of this field makes it difficult for politicians to challenge the expertise of business leaders' (Culpepper 2011: 9). As Culpepper notes, laws that explicitly favour business leaders do not always need to be pursued; often it is merely sufficient for lawmakers to not intervene in order for business leaders to secure their advantage (Culpepper 2011: 11–12).[2] This echoes Beck's point that much of business power consists of the ability to make a social and material *fait accompli* that has relevance for public life, but is not explicitly democratically assented to (see Beck 1992a: 212–14). One example that shows the importance of the 'Quiet Politics of Risk' was the power of the financial services to use its expertise over its own business to avoid the regulation of over-the-counter derivative markets by the Commodity Future Trading Commission in the late 1990s, despite the fact that the market had undergone vast increases in importance and that there had been a series of major losses on these markets since 1993 (Financial Crisis Inquiry Commission Report 2011: 46–9; see also Tett 2009).[3]

However, in moving from isolated, individual cases of risks that are treated as independent of major systemic changes in economic and social relations, to a theorization of risk position based on the production and distribution of risk as non-local side-effects in contexts of organized irresponsibility, the 'Quiet Politics of Risk' becomes increasingly untenable. Rather than being merely a technical question, where the expertise of business leaders is at least a *de facto* authority, the cumulative consequences of these individual processes of risk production and distribution are revealed in theorizing risk position and risk-classes. The uneven impacts of these processes highlight how the processes that produce and distribute risks are not private, technical matters, but rather matters of the utmost, public importance.

Rather than allowing overly complex and seemingly isolated technical issues to avoid the need to be justified with regards to the interests of the democratic citizenry, the problematization of the impacts of contemporary production and distribution of risk in this study can serve as the basis for motivating a 'Politics of Risk Production and Distribution'. Beck's theory of risk society moves beyond conceiving of the production and distribution of financial and environmental risks as a series of independent, complex and idiosyncratic processes. The reconstruction of the theory of risk society in this book delineates an overarching framework that integrates these specific issues within larger questions of the uneven impacts of the social production and distribution of risk. Consequently, the pursuit of a 'Politics of Risk Production and Distribution' can then enable political agents to link technical issues of corporate governance to the cumulative, systemic processes that are the result of these individual decisions in which some may enjoy revolutionary improvements in income and wealth, while others are faced with greatly intensified levels of risks and damages.

In pursuing this task, a 'Politics of Risk Production and Distribution' can shed light on contemporary conditions of organized irresponsibility with the intention of restraining its scope and impact. The framework delineated in this study suggests that how agents are able to interact to collectively create risks for which they are able to avoid being held individually responsible should not be understood as an isolated set of cases, but rather as a social relation of fundamental importance for contemporary power relations. The 'Politics of Risk Production and Distribution' can aid in highlighting the questionable legitimacy of the systems of production and distribution of risk that enable creation of wealth for some at the cost of destruction and destitution for others. Consequently, though the framework in this book does not explicitly

address in-depth the politics of risk production and distribution, it is oriented towards developing a critical theorization of contemporary risk and class that can contribute towards the creation of more explicitly emancipatory movements.

The potential for the development of a 'Politics of Risk Production and Distribution' highlights the fact that the highly uneven impacts of the contemporary production and distribution of risk is not an automatic or necessary process. The tendency for the processes associated with risk society to exacerbate class-based inequalities is fundamentally shaped by socially instituted systems of production and distribution. While contemporary risk processes that exacerbate existing inequalities are powerful social and material processes, their ultimate outcomes are mediated by existing social-economic systems of production and distribution. The analysis delineated in this book focuses on the powerful ability of contemporary risk to exacerbate class-based inequalities. This extended focus is not undergirded by the assumption that risk and class-based inequalities must interact as they do; rather it is motivated by a desire to aid in identifying the palpable unfairness of existing systems of production and distribution of risk. Ultimately, the analysis in this book is intended to contribute to the development of powerful countervailing forces to existing configurations of socially produced risk and class.

In discussing the emancipatory potential of the 'Politics of Risk Production and Distribution', it is important to address one worry that has been raised by some proponents of alternative sociological approaches to risk. As noted in Chapter 2, there has been significant concern that increasing areas of social life are being 'colonized' by risk, rationalizing life based on risk awareness and avoidance (Rothstein, Huber, and Gaskell 2006; see also Furedi 1997). One worry that might be articulated about a possible 'Politics of Risk Production and Distribution' is that this might cause even more of social life to revolve around risk management and further increase the rationalization of life that comes with the dominance of these strategies. However, this book has resolutely theorized the contours of the production and distribution of risk, but not as the basis of developing an entire form of life devoted to risk mitigation and adequate distribution of these risks. On the contrary, it is by not addressing these risks that their damaging consequences come to dominate social and economic life, with their exigent and necessary quality displacing many of the most valuable aspects of life. Consequently, ignoring these risks makes even more of life focused on the need to merely live and survive the damages from uncontrolled risks rather than actually living well. Ultimately, this

study focuses upon risk, not in order to make risk the fundamental orientation of social life, but to move beyond the way in which socially produced financial and environmental processes are creating systems that continually require our full and undivided attention because of the dangers associated with them.

As Martha Nussbaum has noted, the effects of unacknowledged and unaddressed risk in the global financial crisis has displaced attention away from so many other valuable aspects of life, such as education, citizenship, and the future of democracy:

> Given that economic growth is so eagerly sought by all nations, especially at this time of crisis, too few questions have been posed about the direction of education, and, with it, of the world's democratic societies. With the rush to profitability in the global market, values precious to the future of democracy, especially in an era of religious and economic anxiety, are in danger of getting lost. (Nussbaum 2010: 6)

Consequently, the way in which the recent financial crisis and its after-effects have dominated political, social, and economic life over the past eight years shows that genuine risk colonization may occur not only from the setting up of technocratic systems that attempt to control the social production and distribution of risk, but also by ignoring existing systems that produce these risks. When the massive damages of these systems occur, our lives come to be dominated by their effects, undermining our ability to pursue many of the most valuable aspects of life.

This debate between Beck and his critics regarding the relation between class inequalities and risk society is not an obscure debate over a specialist concept, class, and a specialist approach, risk society; rather it is concerned with defining the basic parameters of how we produce and distribute both the basic prerequisites of social and material life, and the massive and highly uneven potential harms emerging from the generation of these prerequisites. Given the fundamental importance of the relation between risk and class inequalities, there is a clear need for frameworks that can enable us to understand the systemic nature of these processes and their connection and continuity with long-standing processes, without simply reducing them to these other processes. Through a critical engagement with Beck's theory of risk society, this study has sought not only to revise the intellectual debate regarding risk and contemporary inequalities, but also to develop a framework for

bringing to light the fundamental ways that the social production and distribution of risk is restructuring social life and intensifying the contemporary social sources of suffering. By pursuing this goal of renewing the theory of risk society and class analysis, this book has sought to make a contribution both to contemporary social theory and to the social and material reality that social theory aspires to understand.

Notes

1 Which Risk Society, and for Whom?

1. As suggested by the term 'high confidence', the IPCC cannot definitively declare what will happen. As the discussion of uncertainty and organized irresponsibility below highlights uncertainty about 'possible futures' and the causes of these is not only ineliminable, but can also be an important resource for certain powerful groups.
2. For a classic treatment, see Knight (1921). For one out of many possible contemporary treatments, see Stiglitz (2006: 784, 872, 876, 881, *passim*).
3. Arnsperger and Varoufakis (2006), argue for the importance of continuing to call the mainstream economics approach 'neo-classical economics'. With regards to the increasing tendency for mainstream economics to deny its status as a definite school of thought, Arnsperger and Varoufakis (2006: 2) argue that, 'There is nothing more frustrating for critics of neoclassical economics than the argument that neoclassical economics is a figment of their imagination; that, simply, there is scientific economics and there is speculative hand-waiving (by those who have never really grasped the finer points of mainstream economic theory)'.
4. The vast majority of people negatively affected by environmental and financial risks are not compensated by those who created these risks and hence these side-effects are externalities to market exchanges.
5. It should be noted that Beck is not the originator of the concept 'organized irresponsibility'. For example, C. Wright Mills uses the term several times in *The Power Elite* (Mills 1956: 338, 342, 357–361), though Beck has used the term in a novel way in linking it directly to the production and distribution of risk.
6. According to Beck, this concept was the outcome of my critical engagement with Beck's work on risk society (Beck 2013b: 63; see Curran 2013a, 2013b).
7. Amartya Sen's work is fundamental here for developing the relational inequality perspective through his own work on famines (Sen 1981) and his critical engagement with John Rawls' theory of justice (Sen 1982; see also his debate with Townshend, (Sen 1983)).
8. For this understanding of social theory, see Beck (1992a: 9).
9. See Piketty and Saez (2003), Atkinson, Piketty, and Saez (2011), Savage and Williams (2008), Savage et al. (2013), Therborn (2013), and Piketty (2014a).

2 The Sociology of Risk and the Ineliminability of Realism

1. Douglas' frame of reference here is developed countries and changes in mortality rates over the course of the twentieth century, with the increasing salience of risk since the 1960s.
2. In this regard, my interpretation of Douglas's work as accepting realism, but not analysing the actual structuration of risks, differs from the otherwise

extremely judicious work of Strydom (2002). Strydom asserts that Douglas 'at crucial junctures in fact holds an extreme constructivist position' (Strydom 2002: 50). While Strydom is correct she does often make claims that imply constructivism, this is partly due to her attempt to make bold and accessible claims. In the end, her central claim, that there are too many risks for all of them to be focused upon and hence social structures shape individuals' *selection of which real risks* to focus upon, does not imply nor necessitate an anti-realist account of risk (see 'Risk and Reality', Douglas 1992: 29–30).

3. In discussing the centrality of the moral and political dimensions of risk, Douglas declares that 'Beck's analysis of power, wealth and differential vulnerability to risk gives rise to profound reflections on social justice' (Douglas 1992: 45).
4. As a radical anti-humanist, even the perception of these risks by different individuals is outside the purview of his approach.
5. Beck's work displays extensive use of emphases. Unless indicated, any quoted emphases are original.
6. For a sample of this type of analysis of different possible futures, see Beck (1992a: 79, 83, 88, 101, 157, 1999: 15). Beck's main approach in this regard is a type of functional analysis, in which society needs to change to address the rise of catastrophic risks, and Beck infers that there is a set of possible ways that society could change to meet this need based on existing tendencies. This functional analysis does not necessarily fall prey to the common criticisms of functional analysis because the functional need is used as an epistemic basis for inferences about how society is likely to change given that possible catastrophic effects cannot be permanently ignored (especially *ex post*), not as a *causal explanation* for how society will change (for a critique of functionalism as causal explanation of phenomena see Elster (1994 [1983])).
7. For the argument that Beck's work immanently calls for a 'weak realist epistemology' see Strydom (2002: 52).
8. For a discussion of 'directions of fit', see Smith (1994: 111–12).
9. This understanding is consistent with Sayer's interesting suggestion of understanding the truth of beliefs based on their 'practical adequacy' (Sayer 2000: 43).
10. The more substantive 'independence thesis' also logically implies this more minimal claim and hence is consistent with this ontology, though it is not necessitated by this account of realism.
11. '[T]he first tenet of realism is that reality exists independently of human beings' intentions' (Rikagos and Law 2009: 91).
12. Some realists, described as 'ordinary realists', dispute the critical realist claim that social structures are mind-dependent (Pearce and Woodiwiss 2001: 51). This exposition of realism as contingent dependence of social reality is consistent with both 'critical realist' and 'ordinary realist' views in the sense that both entail that social reality cannot be conflated with our understanding of it. The debate between ordinary realists and critical realists should be understood more as a debate over the substantive ontology of what are the properties of social things in the world, rather than a conceptual debate over whether something counts as real or not. That is, for the purposes of defending the claim of the ineliminability of realism of risk, the substance of Pearce and Woodiwiss' critique of critical realism can be understood as the claim

that a class of real things (social structures) are not mind-dependent, rather than the claim that anything that is (partly) mind-dependent is not real.

3 Risk Society and Systematic Social Theory

1. For an interesting and instructive example of a re-theorization of a different theorist, Durkheim, see Pearce (1989).
2. In the original version of *Risk Society*, published in German in 1986, 'risk society' is only a single word, 'Risikogesellschaft'.
3. Beck declared that 'This is no longer sufficient, if it ever was' (Beck and Grande 2010: 411), hence he does not indicate whether he considers previous attempts to develop a general theory of society also incorrect.
4. Beck argues that most of the dominant theories in contemporary sociology pursue the flawed attempt of developing a general theory of modern society, including 'Bourdieu, Coleman, Foucault, Giddens, Goffman, Habermas, Luhmann, Meyer, Parsons' (Beck and Grande 2010: 411).
5. This is not to say that he always treats risk as the primary factor in society. For example, in *World Risk Society*, Beck acknowledges the limits of the importance of risks declaring that '[r]isks only suggest what should *not* be done, not what *should* be done' (1999: 141). However, only two pages later, Beck emphasizes the all-encompassing power of contemporary risks stating that 'Almost everyone is defenceless against the threats of nature as re-created by industry' (Beck 1999: 143).
6. In one of his most recent works on risk, Beck sometimes even considers merely the 'relations of definition' of risk, rather than risks *en bloc*, as the central relation in society. He goes so far as to declare that '*What "relations of production" in capitalist society represented for Karl Marx, "relations of definition" represent for risk society'* (Beck 2009a: 31–2).
7. Beck expands on this claim in a later article: 'If, for example, *the states around the North Sea regard themselves as a risk community* in the face of the continuing threat to water, humans, animals, tourism, business, capital, political confidence and so on, then this means that an established and accepted definition of threat *creates a shared space for values, responsibilities and actions that transcends all national boundaries and divisions'* (Beck 2000a: 95, emphasis added).
8. Arnoldi's (2009) recent treatment of risk also attempts to provide an analysis that is in many ways an attempt at a general theorization of risk.
9. Beck is somewhat ambiguous here. Sometimes he declares that the risks are a side-effect of the production of wealth (Beck 1992a: 19). At other times he declares that they are a side-effect of modernization (Beck 1992a: 27). Interestingly enough, later in the same text, Beck declares the incompatibility and competition of the 'logics' of distribution of wealth and risk (Beck 1992a: 154).
10. As an emerging epoch it would then be an outcome to be explained (i.e. an *explanandum*).
11. Though his recent statements on risk society differ from the framework articulated here, Beck's recent emphasis on the shift from 'cosmopolitanism' to the process of 'cosmopolitanization' has certain affinities to the rethinking of risk society developed here (see Beck 2011a).

12. Countries without advanced economies may be much less likely to produce heightened environmental risks, but are highly exposed to these risks and hence are not out of the purview of this re-theorization of risk society (see Roberts and Parks 2006; Beck 2010).
13. On the enjoyment of risk-taking see Lyng (1990; see also Lash 2000: 59).
14. Counterfactual knowledge bridges an important gap between explanation and prediction in contemporary social science. While relating to explanation, counterfactual knowledge is not necessarily fully explanatory because it does not necessarily rest on knowledge of how specific existing processes are generated. Likewise, while it does provide some knowledge of what may be expected to happen, it cannot necessarily serve as the basis of adequate prediction because difficulties in specifying the actual initial conditions may make it difficult to link counterfactual knowledge to exact future events. Nevertheless, for an emancipatory, practical social science, it seems essential. For a discussion of counterfactuals, see Sayer (1995: 26–33). For the debate over whether social science should focus on explanation or prediction, see *inter alia* Sayer (1992, 2000), Kemp and Holmwood (2003), and Reiss (2007).
15. For an excellent introduction to critical realism, see Collier (1994).
16. This is with the partial exception of astronomical events (see Bhaskar 2008 [1975]: 17, 68–9).
17. What 'transcendental' signifies in this context is not special epistemic access into a transcendent order, but simply an inferential strategy that, rather than arguing directly from known evidence to a conclusion as deductive and inductive arguments do, begins with a known fact and then asks how do things have to be for what we know to be the case. Using transcendental inferences ('given x, what has to be the case for there to be x?') do not necessarily carry any greater of an epistemic burden than deductive and inductive inferential methods do ('given x, then y is the case').
18. It has been suggested that the key distinction between mere behaviour or *movement*, such as a reflex, and *action* is based on the fact that in the latter case, the actor is acting for a *reason*, which is the favourable light in which the action is seen, which in turn makes the action intelligible to the actor (see McDowell 1978: 8; Raz 1999; Anscombe 2000 [1957]).
19. Cartwright acknowledges that her early work, specifically, *How the Laws of Physics Lie*, has been interpreted as a critique of realism. However, in her later work she explicitly declares that 'it is not *realism* but *fundamentalism* that we need to combat' (Cartwright 1999: 23).
20. The metaphor of a dappled world was previously developed by the poet Gerard Manley Hopkins (see Cartwright 1999: 19).
21. It should be noted that Agamben's use of paradigms differs importantly from Kuhn's wider notion of paradigm. Agamben focuses primarily on just the 'epistemology of the example' (Agamben 2002), while Kuhn employs 'paradigm' in a wider and more multipurpose way. In particular, for Kuhn, 'paradigm' 'stands for the entire constellation of beliefs, values, techniques, and so on shared by the members of a given constellation' as well as denoting 'one sort of element in that constellation, the concrete puzzle-solutions which, employed as models or examples, can replace explicit rules as a basis for the solution of the remaining puzzles of normal science' (Kuhn 1996 [1962]: 175). Thanks to Frank Pearce for bringing this distinction to my attention.

22. For the foundational work on models as enabling analogical reasoning, see Mary Hesse (1966; see also Hesse 2001).
23. Agamben states that Foucault's use of paradigms, which delineate 'models of functioning' is not 'an isolated case in Foucault's work. On the contrary, one could say that in this sense paradigms define the most characteristic gesture of Foucault's method' (Agamben 2009: 17).

4 Thinking with Bourdieu, Marx, and Weber to Analyse Contemporary Inequalities and Class

1. Andrew Sayer, a noted class theorist, has also begun to address these recent inequalities (see Sayer 2015), though he did not necessarily have an antagonistic previous relation to these other fields of knowledge (see Sayer 1995).
2. Despite suggesting more recently that there may be some way of 'integrating' these different approaches, Wright still has not explained *how* these different approaches should be related together to develop an integrated framework (see Wright 2009).
3. Crompton and Scott (2005) and Sayer (2005) have also highlighted the neglect of the economic dimension by Bourdieu (with Flemmen (2013) providing some further nuancing of this view); however, the existing literature has not yet provided a framework to bring together the complementary insights of Marxist, Weberian, and Bourdieusian approaches.
4. As discussed in the following chapter, 'life chances' are not interpreted in a narrow way, but also includes the types of goods associated with social recognition as theorized by Bourdieu.
5. Giddens (1973: 72) importantly emphasizes this as a core explanatory purpose of class analysis.
6. I am grateful to a brief but fruitful discussion with Mike Savage on this issue.
7. For a discussion of Bourdieu's use of class as a '*universal explanatory principle*', see Brubaker (1985: 761–2).
8. In this vein, see esp. Bourdieu et al. (1999).
9. Though the terms of Savage's (2014) recent appreciation for Piketty's work suggests that a more sympathetic relationship between his work and Marx's may now be developing.
10. For a discussion of both Marxist and Weberian approaches as relational, see Wright (2002: 839).
11. In a recent reply to their critics, Savage and his co-authors re-state the proliferation of axes of exploitation critique but then suggest that their focus on *accumulation* of capitals is also '*relational*' (Savage et al. 2014: 6), thus suggesting that relational and accumulation approaches are not opposed. However, given the importance the authors ascribe to focusing on the accumulation of capitals versus relational approaches in Savage, Warde, and Devine (2005), their continued defence of their (2005) approach to class (Savage et al. 2014: 6–7), and their continued primary emphasis on the accumulation of capitals, rather than their relational impacts (Savage et al. 2013), it is important to defend the relevance of relational approaches to Bourdieu's work and to the CARs framework.
12. This is not to support the reduction of all non-economic powers to economic capital, but rather to identify a class resource as a resource that *could*

be supported in some way by misrecognized economic capital (and hence this understanding of the role of misrecognition does not *a priori* prejudge the level of autonomy of social forms of distinction).
13. This is often described as the S-C-A model (see Savage, Bagnall, and Longhurst 2001: 877).
14. Goldthorpe has developed a classification that approximates a neo-Weberian emphasis on market capacities based on employment relations (for an example, see Goldthorpe and McKnight 2004).
15. This is, admittedly, a completely legitimate aim.
16. More specifically, a dominated fraction of the dominant class (Bourdieu 1984: 291).

5 Risk Society and the Distribution of *Bads*

1. One critic has insightfully noted how Beck's perspective is more 'compatible' with class analysis than Beck's rhetoric suggests (Atkinson 2007b: 707), though the task of reconciling Beck's work with class analysis has not yet been pursued in the existing literature.
2. For a general discussion of differentiated vulnerability, see Bohle, Downing and Watts (1994).
3. See Gillies (2000: 33–5) for a discussion of measurable and immeasurable probabilities.
4. Keynes' text on probability was published the same year as Knight's (1921) so neither text directly engaged with the contribution of the other to theorizing risk.
5. Raymond Murphy refers to the 'standard definition', as provided by Renn, as 'the possibility that an undesirable state of reality (adverse effects) may occur as a result of natural events or human activities' (Renn 2008 in Murphy 2012: 17). Another possible definition is Rosa's (1998, 2003, paraphrased by Aven and Renn): 'Risk is a situation or event where something of human value (including humans themselves) is at stake and where the outcome is uncertain' (Aven and Renn 2009: 1).
6. See Ewald (1991: 199).
7. For example, it can be said that there is 'uncertainty' regarding whether a mother will have breakfast in bed on Mother's Day, and there is 'uncertainty' regarding whether one will lose money in an investment, only the latter can be called a 'risk' in a straightforward, non-paradoxical fashion.
8. For the importance of the relation between social science and its awareness and orientation to normative evaluation, see Sayer (2011).
9. The necessity of recognizing the structuring of risk exposure by class is not meant to obscure the extremely important point that climate change creates injustices around imbalances between certain regions or countries (such as sub-Saharan Africa and many small island countries) who must suffer the brunt of the effects of climate change though it is those from other countries who are responsible for its causes (Roberts and Parks 2006).
10. As discussed in chapter 3, the fundamental importance of one of these processes is completely consistent with the fundamental importance of other processes as well, such that both risk society and capitalism can be key

social and material processes that interact in diverse ways, but that are not ultimately reducible to each other.

11. There is of course significant diversity within the larger rubric of capitalism, extending from liberal market economies to economies that rely on more state redistribution and coordination of economic activity (Albert 1993; Hall and Soskice 2001).
12. Some state redistribution of income, especially aimed at the poor, which is then used to acquire goods on the market is still consistent with a capitalist social formation (see Esping-Andersen 1990; Albert 1993).
13. The ability to change the institutions and hence their outcomes does not entail that institutions and institutional change do not generate unintended consequences that are at least partly out of the control of their originators.
14. For one analysis of neoliberalism, see Harvey (2005).
15. See chapter 6 for a further discussion of this matter.
16. See Wolff and De-Shalit (2007: 72) for the argument that having one's basic needs or functionings rendered insecure is in itself a major source of disadvantage. In this way the argument of this chapter is that both the distribution of *bads* (actual damages) and the distribution of *risks* (likely damages, which may not necessarily be manifested) are relational and will intensify class inequalities due to the risks associated with risk society.
17. In fact the original expected English title of *Ecological Politics in an Age of Risk* (1995a), which was originally published in German in 1988, was *Counter-Poisons* (Beck 1992a: 238).
18. There are also other key environmental risks in the contemporary age that will impact on life opportunities and chances. Foster, Clark, and York (2010: 14) list nine important planetary boundaries identified by James Hansen, which are climate change, 'ocean acidification, stratospheric ozone depletion, the nitrogen and phosphorus cycles, global freshwater use, change in land use, biodiversity loss, atmospheric aerosol loading, and chemical pollution'. It is not possible to substantiate this logic of positional occupation of private escape routes based on differences in class resources at this time for each of these different processes in this study, but two further statements of support may be made. Firstly, of these planetary boundaries, the one that is most ostensibly 'democratic' in that it is naturally distributed rather than distributed in highly uneven ways, ozone depletion, has actually seen the most amount of progress over the last two and a half decades. Secondly, as mentioned above, in so far as differential positions of exposure are created, such that there are differential private escape routes *and* the ability to occupy these positions is mediated through the acquisition of products on the market, then their distribution will be relational, and those with relatively greater resources will be able to occupy them at the exclusion of the less advantaged.
19. As mentioned earlier, Beck declares 'Risks like wealth are the object of distributions, and both constitute positions – risk positions and class positions, respectively' (Beck 1992a: 26).
20. The subtitle of the paper that Beck critiques was changed over the course of its submission from 'A Theory of Class for the Risk Society' to 'Theorizing Class in the Risk Society' to explicitly acknowledge the incompleteness of the analysis (Curran 2013a; see also Curran 2013b).

21. For the claim that capability is a type of power, see Sen (2009: 270). For the social contingency of capabilities see Sen (1985a: 6–9; see also Urry 2011: 61).
22. Dave Elder-Vass's helpful comments have suggested to me the importance of addressing the subjective ontology of risk and its relation to the ethical ontology of risk.
23. In *German Europe*, Beck discusses the importance of the threats to dignity due to changes brought about by the financial and eurozone crisis (Beck 2013a: 7). On this account of life chances as capabilities, living with dignity is included within life chances, rather than being excluded from an overly materialistic and operationalizable conception of life chances.
24. This objection to my analysis has been suggested to me at academic meetings by different people.
25. For Beck's discussion of globalization, see also Beck (2000b, 2000c).
26. For H.L.A. Hart's distinction between a concept and its various conceptions see Rawls (1999: 5).
27. In this regard, this analysis is in agreement with Beck's point that the increasing importance of other relevant political and environmental scales, does not exclude the importance of the national scale (Beck 2006a: 31).
28. Beck's claims that all actors 'have to resituate themselves within this transnational force field' (Beck 2006a: 36) suggests that there may be fruitful intersections between Bourdieu's framework of capital, habitus, and field and Beck's focus on heightened transnational risk processes.

6 Risk Illusion and Organized Irresponsibility in Contemporary Finance

1. For the recent rise in banking crises, see Reinhart and Rogoff (2009: 205).
2. For risk illusion, see Haldane, Brennan, and Madouros (2010).
3. Applying these concepts to inequalities relating to environmental risk is clearly an important future task of this larger research program, which would build on existing important studies, such as *A Climate of Injustice* by Roberts and Parks (2006).
4. Investors tend to refuse to take on extra risk without being paid extra for these risks, i.e. being paid a 'risk premium' (see Stiglitz and Boadway 1997: 353, A10).
5. For different overviews see (Stiglitz 2009; Tett 2009; Haldane, Brennan, and Madouros 2010; Lowenstein 2011).
6. The result of which tends to be a '*negative-sum game*' for society (see also Stiglitz 2012).
7. 'Value surfers', are passive holders of assets, who depend 'on general shifts in the market value of equity', while 'value skimmers', can 'capture value' from large revenue streams irrespective of the ultimate fortune of their firms' investments (see Erturk et al. 2007: 59).
8. They were subject to leverage ratio limits that constrained the growth of leverage (Haldane, Brennan, and Madouros 2010: 99).
9. Equity is the value of the company to its owners, that is, what is left over when liabilities are subtracted from assets. The return on equity is the level of annual profit as a percentage of the equity.

10. In 2006, Bear Stearns' profits increased 40 per cent from 2005 to a record of $2.1 billion, Lehman Brothers' increased 22.9 per cent from 2005 to $4 billion, and Merrill Lynch's profit increased 46.6 per cent to $7.5 billion (*Fortune* 2007).
11. See Lowenstein (2011: 150).
12. This was more than double than the level of assets they had in 2003, and an increase of 37 per cent from the previous year, 2006 (Lehman Brothers 2008: i).
13. For an important recent discussion of the continuing problem of high leverage in banks post-crisis, see MacKenzie (2013).
14. Another strategy that increases the margins on borrowing, and hence profits, while also significantly increasing banking risk is borrowing short. Borrowing short usually has lower borrowing costs, but the funds can be withdrawn at the least possibility of worry about the firm, which significantly increases the possibility of a financial institution facing a liquidity crisis. For a discussion of the effect of investment banks (such as Lehman) having to roll-over much of their debt every day, see Gorton and Metrick (2012: 431–3). An extensive discussion of the benefits and risks of this strategy have not been developed in this chapter; rather, the focus of the chapter has been on explaining how a few strategies work in significant depth, rather than enumerating all of the possible cases in which increased risk illusion benefits senior finance employees.
15. The credit default swap is 'a bilateral contract in which one party, the "protection buyer," pays regular premiums to the other party for "protection" against default by a third party (Ford Motor Company, for instance) on bonds issued by it and/or loans made to it. Should Ford default, the protection buyer has the right to deliver Ford's bonds or loans to the protection seller and receive their full face value' (MacKenzie 2011: 1806). It was considered a way of 'synthetically' transferring credit risk, that is, transferring credit risk without transferring ownership of any of the actual assets (MacKenzie 2011: 1806). 'Naked' credit defaults swaps are transactions where protection buyers purchase protection against defaults on investments that they do not own, which is the equivalent of speculating on the default of the investments of others (i.e. shorting others' mortgages, etc.) (see Greenberger 2013: 475).
16. Michael Lewis describes how Goldman Sachs created a 'security so opaque and complex that it would remain forever misunderstood by investors and rating agencies: the synthetic subprime mortgage bond-backed CDO, or collateralized debt obligation' (Lewis 2011: 72). In providing insurance to Goldman Sachs for $20 billion of these CDOs made up of triple-B rated mortgage bonds, Lewis asserts that 'In exchange for a few million bucks a year, this insurance company [AIG] was taking the very real risk that $20 billion would simply go *poof*' (Lewis 2011: 72).
17. Lehman increased their assets under management from $8.6 billion in 2002 to $282 billion in 2007 (Lehman Brothers 2005: i, 2008: i).
18. Net revenue is calculated as revenue minus interest expenses (Lehman Brothers 2005: 41). Net revenue minus employee 'compensation and benefits' and other 'non-personnel expenses' is equal to net income before taxes (Lehman Brothers 2005: 45).
19. This point is similar to Cooper's argument about the benefits to some of financial 'turbulence': 'It is not necessary to look for some conspiracy of

interests to recognize that the recurrence of chaotic instabilities in the liberalized markets of the developing world has in fact become highly profitable to a certain kind of internationally mobile financial institution' (Cooper 2010: 2). Though, as discussed below, it ultimately ended up being much more profitable for their senior employees than the actual financial institutions.

20. For further discussion of the impacts and limits of the 'boomerang effect', see Beck (2009a: 109, 183–4, 202–3).
21. Merrill Lynch went public in 1971, Bear Stearns and Morgan Stanley in 1985, Lehman Brothers in 1994, and Goldman Sachs was the last go public in 1999 (Cooley, Marimon, and Quadrini 2013: 3).
22. It should be noted, however, that a proportional decline in income for the less advantaged can create much greater misery and damage to their key capabilities than it tends to for those with greater resources (see Sen 1981).
23. These regressive effects will be even further intensified under the recently elected majority Conservative government.
24. In a wide-ranging study of financial crises, it was found that on average central government *debt* rises by 86 per cent (in real terms) in the three years after a banking crisis (Reinhart and Rogoff 2009: 172).
25. For further discussion of the 'Quiet Politics of Risk', see the following chapter.
26. As Lex noted in the FT, 'Goldman Sachs is a "black box … albeit one that continues to deliver pleasant surprises"' (Lex 2006 in Engelen et al. 2011: 120–1).
27. For a further discussion of some of these issues, see Curran (2015).
28. In *Practical Reason* Bourdieu describes cultural capital as one dimension of informational capital (Bourdieu 1998a: 45); despite implying a different relation than in *An Invitation to Reflexive Sociology* (Bourdieu and Wacquant 1992: 119) this description reasserts the importance of the relation between informational capital and cultural capital, and hence the importance of dominance in levels of socially important information for class relations.
29. The fact that Nomura was willing to hire and provide large guaranteed bonuses to Lehman's senior investment bankers despite the firm's failures exemplifies how the type of 'informational capital' that senior investment bankers have is highly sought after.
30. For a powerful description of how the financial crisis is having very different impacts on the life-conditions of individuals with different class positions, see Atkinson (2012b).
31. See in contrast to even as recent as the early 1980s (DiNapoli and Bleiwas 2014).
32. These include, amongst many others, foreign exchange fraud (Chon, Binham, and Noonan 2015) and LIBOR fraud (Fortado 2015).

7 Conclusion: Beyond the Quiet Politics of Risk

1. Beck generously suggested in personal correspondence near the completion of this book that in this regard I am working to 'go with Beck beyond Beck.'

2. This is also similar to the power of 'drift' in contemporary politics, as identified by Hacker and Pierson: 'Drift describes the politically driven failure of public policies to adapt to the shifting realities of a dynamic economy and society. Drift is not the same as simple inaction. Rather, it occurs when the effects of public policies change substantially due to shifts in the surrounding economic or social context and then, *despite the recognition of alternatives*, policy makers fail to update policies' (Hacker and Pierson 2010: 170).
3. The CRESC group provides an important discussion of the structural power that contemporary bankers gain from having a 'near monopoly on expertise on contemporary finance' (see Engelen et al. 2011: 178).

References

Adam, B., Beck, U. and van Loon, J. (eds) 2000 *The Risk Society and Beyond*, London: Sage.

Adger, W.N. 2006 'Vulnerability', *Global Environmental Change* 16(3): 268–81.

Agamben G. 2002 'What Is a Paradigm?' Public Lecture Presented at the European Graduate School, Saas-Fee, Switzerland, August.

Agamben, G. 2009 *The Signature of All Things: On Method*, Brooklyn, NY: Zone Books.

Albert, M. 1993 *Capitalism Against Capitalism*, London: Whurr Publishers.

Alcock, P. et al. 2013 'Letters: Benefit Cuts and Rhetoric Undermine a Bastion of Civilised Society', *Guardian* 27 March 2013. http://www.guardian.co.uk/politics/2013/mar/27/benefit-cuts-undermine-civilised-society (Accessed 04.12.2013).

Anscombe, G.E.M. 2000 *Intention*, Cambridge, MA: Harvard University Press [first published in 1957].

Armstrong, J. and Kiff, J. 2005 'Understanding the Benefits and Risks of Synthetic Collateralized Debt Obligations', *Financial System Review*, Bank of Canada (June): 53–61.

Arnoldi, J. 2009 *Risk*, Cambridge: Polity.

Arnsperger, C. and Varoufakis, Y. 2006 'What Is Neoclassical Economics?', *Post-Autistic Economics Review* 38(July): 2–12.

Arrow, K. 1982 'Risk Perception in Psychology and Economics', *Economic Inquiry* 20(1): 1–9.

Atkinson, A.B., Piketty, T. and Saez. E. 2011 'Top Incomes in the Long Run of History', *Journal of Economic Literature* 49(1): 3–71.

Atkinson, W. 2007a 'Beck, Individualization and the Death of Class: A Critique', *British Journal of Sociology* 58(3): 349–66.

Atkinson, W. 2007b 'Beyond False Oppositions: A Reply to Beck', *British Journal of Sociology* 58(4): 707–15.

Atkinson, W. 2010a *Class, Individualization and Late Modernity: In Search of the Reflexive Worker*, Basingstoke: Palgrave Macmillan.

Atkinson, W. 2010b 'Phenomenological Additions to the Bourdieusian Toolbox: Two Problems for Bourdieu, Two Solutions from Schutz', *Sociological Theory* 28(1): 1–19.

Atkinson, W. 2012a 'Where Now for Bourdieu-inspired Sociology?', *Sociology* 46(1): 167–73.

Atkinson, W. 2012b 'Economic Crisis and Classed Everyday Life: Hysteresis, Positional Suffering and Symbolic Violence', in W. Atkinson, S. Roberts, and M. Savage (eds) *Class Inequality in Austerity Britain: Power, Difference and Suffering*, Basingstoke: Palgrave Macmillan.

Augar, P. 2005 *The Greed Merchants: How the Investment Banks Played the Free Market Game*, London: Allen Lane.

Augar, P. 2010 *Reckless: The Rise and Fall of the City, 1997–2008*, London: Vintage.

Aven, T. and Renn, O. 2009 'On Risk Defined as an Event Where the Outcome Is Uncertain', *Journal of Risk Research* 12(1): 1–11.

Baert, P. and da Silva, F.C. 2010 *Social Theory in the Twentieth Century and Beyond*, 2nd edition, Cambridge: Polity.
[BIS] Bank for International Settlements 2009 *79th Annual Report*, 1 April 2008–31 March 2009, Basel: Bank for International Settlements.
Bauman, Z. 2000 *Liquid Modernity*, Cambridge: Polity.
Bauman, Z. 2007 *Liquid Times: Living in an Age of Uncertainty*, Cambridge: Polity.
Beck, U. 1987 'The Anthropological Shock: Chernobyl and the Contours of the Risk Society', *Berkeley Journal of Sociology* 32: 153–65.
Beck, U. 1992a *Risk Society: Towards a New Modernity*, London: Sage.
Beck, U. 1992b 'From Industrial Society to the Risk Society: Questions of Survival, Social Structure and Ecological Enlightenment', *Theory, Culture & Society* 9(1): 97–123.
Beck, U. 1994 'The Reinvention of Politics: Towards a Theory of Reflexive Modernization', in U. Beck, A. Giddens, and S. Lash (eds) *Reflexive Modernization: Politics, Tradition and Aesthetics in the Modern Social Order*, Cambridge: Polity.
Beck, U. 1995a *Ecological Politics in an Age of Risk*, Cambridge: Polity Press.
Beck, U. 1995b *Ecological Enlightenment: Essays on the Politics of the Risk Society*, New Jersey: Humanities Press.
Beck, U. 1997 *The Reinvention of Politics: Rethinking Modernity in the Global Social Order*, Cambridge: Polity.
Beck, U. 1998a *Democracy without Enemies*, Cambridge: Polity.
Beck, U. 1998b 'Politics of Risk Society', in J. Franklin (ed.) *The Politics of Risk Society*, Cambridge: Polity.
Beck, U. 1999 *World Risk* Society, Malden, MA: Polity.
Beck, U. 2000a 'The Cosmopolitan Perspective: Sociology of the Second Age of Modernity', *British Journal of Sociology* 51(1): 79–105.
Beck, U. 2000b *What Is Globalization?* Cambridge: Polity Press.
Beck, U. 2000c *The Brave New World of Work*, Cambridge: Polity Press.
Beck, U. 2002a 'The Cosmopolitan Society and Its Enemies', *Theory, Culture & Society* 19(1–2): 17–44.
Beck, U. 2002b 'The Terrorist Threat: World Risk Society Revisited', *Theory, Culture & Society* 19(4): 39–55.
Beck, U. 2003 'Toward a New Critical Theory with a Cosmopolitan Intent', *Constellations* 10(4): 453–68.
Beck, U. 2004 'The Cosmopolitan Turn', in N. Gane (ed.) *Future of Social Theory*, London: Continuum.
Beck, U. 2006a *Cosmopolitan Vision*, Cambridge: Polity.
Beck, U. 2006b 'Living in the World Risk Society', *Economy and Society* 35(3): 329–45.
Beck, U. 2007 'Beyond Class and Nation: Reframing Social Inequalities in a Globalizing World', *British Journal of Sociology* 58(4): 679–705.
Beck, U. 2009a *World at Risk*, Cambridge: Polity.
Beck, U. 2009b 'Critical Theory of World Risk Society: A Cosmopolitan Vision', *Constellations* 16(1): 3–21.
Beck, U. 2010 'Remapping Social Inequalities in an Age of Climate Change', *Global Networks* 10(2): 165–81.
Beck, U. 2011a 'We Do Not Live in an Age of Cosmopolitanism but in the Age of Cosmopolitanisation: The "Global Other" is in our Midst', *Irish Journal of Sociology* 19(1): 16–34.

Beck, U. 2011b 'Cosmopolitanism as Imagined Communities of Global Risk', *American Behavioral Scientist* 55(10): 1346–61.
Beck, U. 2013a *German Europe*, Cambridge: Polity.
Beck, U. 2013b 'Why "Class" Is Too Soft a Category to Capture the Explosiveness of Social Inequality at the Beginning of the 21st Century', *British Journal of Sociology* 64(1): 63–74.
Beck, U. and Beck-Gernsheim, E. 2002 *Individualization: Institutionalized Individualism and Its Social and Political Consequences*, London: Sage.
Beck, U., Blok, A., Tyfield, D. and Zhang, J.Y. 2013 'Cosmopolitan Communities of Climate Risk: Conceptual and Empirical Suggestions for a New Research Agenda', *Global Networks* 13(1): 1–21.
Beck, U., Giddens, A. and Lash, S. 1994 (eds) *Reflexive Modernization: Politics, Tradition and Aesthetics in the Modern Social Order*, Cambridge: Polity.
Beck, U. and Grande, E. 2010 'Varieties of Second Modernity: The Cosmopolitan Turn in Social and Political Theory and Research', *British Journal of Sociology* 61(3): 409–43.
Beck, U. and Sznaider, N. 2006 'Unpacking Cosmopolitanism for the Social Sciences: A Research Agenda', *British Journal of Sociology* 57(1): 1–23.
Beck, U. and van Loon, J. 2011 '"Until the Last Ton of Fossil Fuel Has Burnt to Ashes": Climate Change, Global Inequalities and the Dilemma of Green Politics', in D. Held, A. Hervey, and M. Theros (eds) *The Governance of Climate Change*, Cambridge: Polity.
Beck, U. and Willms, J. 2004 *Conversations with Ulrich Beck*, London: Polity.
Bell, B. and Van Reenen, J. 2014 'Bankers and Their Bonuses', *The Economic Journal* 124(574): F1–F22.
Bennett, T., Savage, M., Silva, E., Warde, A., Gayo-Cal, M. and Wright, D. 2009 *Class, Culture, and Distinction*, London: Routledge.
Bhaskar, R. 1998 *The Possibility of Naturalism*, 3rd edition, London: Routledge [first published 1979].
Bhaskar, R. 2008 *Realist Theory of Science*, London: Verso [first published in 1975].
Bintliff, E. 2013 'More Hard-Up Britons Turn to Food Banks', *Financial Times*, 24 April. http://www.ft.com/cms/s/0/aa02aeee-ab53-11e2-ac71-00144feabdc0.html#slide0 (Accessed 10.08.2014).
Blaikie, P., Cannon, T., Davis, I. and Wisner, B. 1994 *At Risk: Natural Hazards, People's Vulnerability and Disasters*, London: Routledge.
Bohle, H.G., Downing, T.E. and Watts, M.J. 1994 'Climate Change and Social Vulnerability: Toward a Sociology and Geography of Food Insecurity', *Global Environmental Change* 4(1): 37–48.
Bourdieu, P. 1977 *Outline of a Theory of Practice*, Cambridge: Cambridge University Press.
Bourdieu, P. 1984 *Distinction: A Social Critique of the Judgement of Taste*, Cambridge, MA: Harvard University Press.
Bourdieu, P. 1987 'What Makes a Social Class? On the Theoretical and Practical Existence of Groups', *Berkeley Journal of Sociology* 32: 1–17.
Bourdieu, P. 1990 *The Logic of Practice*, Stanford, CA: Stanford University Press.
Bourdieu, P. 1993 *Sociology in Question*, London: Sage.
Bourdieu, P. 1998 *Practical Reason: On the Theory of Action*, Stanford, CA: Stanford University Press.

Bourdieu, P. 2000 *Pascalian Meditations*, Cambridge: Polity.
Bourdieu, P. 2001 'The Forms of Capital', in M. Granovetter and R. Swedberg (eds) *The Sociology of Economic Life*, 2nd edition, Boulder, CO: Westview Press [first published in 1983].
Bourdieu, P. Accardo, A. Balazs, G. Beaud, S. Bonvin, F. Bourdieu, E. Bourgois, P. Broccolichi, S. Champagne, P. Christin, R. Faguer, J-P. Garcia, S. Lenoir, R. Oeuvrard, F. Pialoux, M. Pinto, L. Podalydes, D. Sayad, A. Soulie, C. and Wacquant, L.J.D. 1999 *Weight of the World: Social Suffering in Contemporary Society*, Stanford, CA: Stanford University Press.
Bourdieu, P. 1991a *Language and Symbolic Power*, Cambridge: Polity.
Bourdieu, P. 1991b 'Genesis and Structure of the Religious Field', *Comparative Social Research* 13: 1–44.
Bourdieu, P. and Wacquant, L.J.D. 1992 *Invitation to Reflexive Sociology*, Cambridge: Polity.
Boyer, R. 2000 'Is a Finance-Led Growth Regime a Viable Alternative to Fordism? A Preliminary Analysis', *Economy and Society* 29(1): 111–45.
Brubaker, R. 1985 'Rethinking Classical Theory: The Sociological Vision of Pierre Bourdieu', *Theory and Society* 14(6): 745–75.
Brundtland, G.H. 1987 *Our Common Future: World Commission on Environment and Development*, Oxford: Oxford University Press.
Bullard, R.D. 1990 *Dumping in Dixie*: *Race, Class and Environmental Quality*, Boulder: Westview Press.
Cadman, L. 2009 'Life and Death in Our Posthuman(ist) Times', *Antipode* 41(1): 133–58.
Callon, M. 1998 'Introduction: The Embeddeness of Economic Markets in Economics', in M. Callon (ed.) *Laws of the Markets,* Oxford: Blackwell.
Campbell, J.L. 2010 'Neoliberalism in Crisis: Regulatory Roots of the U.S. Financial Meltdown', *Markets on Trial: The Economic Sociology of the U.S. Financial Crisis: Part B Research in the Sociology of Organizations* 30B: 65–101.
Cartwright, N. 1998 'Capacities', in J. Davis, D.W. Hands, and U. Maki (eds) *Handbook of Economic Methodology*, Cheltenham: Edward Elgar.
Cartwright, N. 1999 *The Dappled World*, Cambridge: Cambridge University Press.
Castells, M. 2000 *The Rise of the Network* Society, Vol. I, 2nd edition, Malden, MA: Blackwell.
Castree, N. 2008a 'Neoliberalising Nature: The Logics of Deregulation and Reregulation', *Environment and Planning A* 40(1): 131–52.
Castree, N. 2008b 'Neoliberalising Nature: Processes, Effects, and Evaluations', *Environment and Planning A* 40(1): 153–73.
Chon, G., Binham, C. and Noonan, L. 2015 'Six Banks Fined $5.6bn over Rigging of Foreign Exchange Markets', *Financial Times* 20 May. http://www.ft.com/intl/cms/s/0/23fa681c-fe73-11e4-be9f-00144feabdc0.html (Accessed: 19.06.2015).
Coates, D. 2000 *Models of Capitalism: Growth and Stagnation in the Modern Era*, Malden, MA: Polity.
Collier, A. 1994 *Critical Realism: An Introduction to Roy Bhaskar's Philosophy*, London: Verso.
Collier, P., Conway, G. and Venables, T. 2008 'Climate Change and Africa', *Oxford Review of Economic Policy* 24(2): 337–53.
Cooley, T., Marimon, R. and Quadrini, V. 2013 'Risky Investments with Limited Commitment', *NBER Working Paper* No. 19594.

Cooper, M. 2010 'Turbulence: Between Financial and Environmental Crisis', *Theory, Culture & Society* 27(2–3): 1–24.

CRESC 2009 *An Alternative Report on UK Banking Reform*, University of Manchester: Centre for Research in Socio-Cultural Change. http://www.cresc.ac.uk/sites/default/files/Alternative%20report%20on%20banking%20V2.pdf (Accessed 02.04.2012).

Crompton, R. 2010 'Class and Employment', *Work, Employment, and Society* 24(1): 9–26.

Crompton R. and Scott J. 2005 'Class Analysis: Beyond the Cultural Turn', in F. Devine, M. Savage, J. Scott, and R. Crompton (eds) *Rethinking Class: Culture, Identities, and Lifestyle*, Basingstoke: Palgrave Macmillan.

Crotty, J. 2010 'The Bonus-Driven "Rainmaker" Financial Firm: How These Firms Enrich Top Employees, Destroy Shareholder Value and Create Systemic Financial Instability', University of Massachusetts, Amherst. http://people.umass.edu/crotty/RMFC%20paper%20-%20July%202010.pdf (Accessed 02.03.2013).

Culpepper, P. 2011 *Quiet Politics and Business Power,* New York: Cambridge University Press.

Curran, D. 2013a 'Risk Society and the Distribution of Bads: Theorizing Class in the Risk Society', *British Journal of Sociology* 64(1): 44–62.

Curran, D. 2013b 'What Is a Critical Theory of the Risk Society? A Reply to Beck', *British Journal of Sociology* 64(1): 75–80.

Curran, D. 2015 'Risk Illusion and Organized Irresponsibility in Contemporary Finance: Rethinking Class and Risk Society', *Economy and Society* 44(3): 392–417.

Cutter, S.L., Boruff, B.J. and Shirley, W.L. 2003 'Social Vulnerability to Environmental Hazards', *Social Science Quarterly* 84(2): 242–61.

De Sherbinin, A., Schiller, A. and Pulsipher, A. 2007 'The Vulnerability of Global Cities to Climate Hazards', *Environment & Urbanization* 19(1): 39–64.

Dean, M. 1999 *Governmentality: Power and Rule in Modern Society*, London: Sage.

Devine, F. 2004 *Class Practices: How Parents Help Their Children Get Good Jobs*, Cambridge: Cambridge University Press.

Devitt, M. 1991 *Realism and Truth*, 2nd edition, Cambridge, MA: Blackwell.

DiNapoli, T.P. and Bleiwas K.B. 2014 'The Securities Industry in New York City', *New York State Comptroller Report,* 9-2015. www.osc.state.ny.us/osdc/rpt9-2015.pdf (Accessed 11.12.2014).

Dobbin, F. and Jung, J. 2010 'The Misapplication of Mr Michael Jensen: How Agency Theory Brought Down the Economy and Why It Might Again', *Markets on Trial: The Economic Sociology of the U.S. Financial Crisis: Part B Research in the Sociology of Organizations* 30B: 29–64.

Douglas, M. 1992 *Risk and Blame: Essays in Cultural Theory*, London: Routledge.

Douglas, M. and Wildavsky, A. 1982 *Risk and Culture: An Essay on the Selection of Technological and Environmental Dangers*, Berkeley, CA: University of California Press.

Drèze, J. and Sen, A.K. 1989 *Hunger and Public Action*, Oxford: Clarendon Press.

Economist 2013a 'The Measure of Global Warming: Carbon-Dioxide Concentrations Hit Their Highest Level in 4m Years', *Economist* 11 May 2013. http://www.economist.com/news/science-and-technology/21577342-carbon-dioxide-concentrations-hit-their-highest-level-4m-years-measure (Accessed: 19.06.2015).

Economist 2013b 'Workers Share of National Income: Labour Pains', *Economist* 2 Nov. 73–4.
Ehrenreich, B. 2001 *Nickel and Dimed: On (not) Getting by in Boom-Time America*, New York: Metropolitan Books.
Ekberg, M. 2007 'The Parameters of the Risk Society: A Review and Exploration', *Current Sociology* 55(3): 343–66.
Elder-Vass, D. 2005 'Emergence and the Realist Account of Cause', *Journal of Critical Realism* 4(2): 315–38.
Elliott, A. 2002 'Beck's Sociology of Risk: A Critical Assessment', *Sociology* 36(2): 293–315.
Elster, J. 1994 'Functional Explanation: In Social Science', in M. Martin and L.C. McIntyre (eds) *Readings in the Philosophy of Social Science*, Cambridge, MA: MIT Press [first published 1983].
Engelen, E., Ertürk, I., Froud, J., Johal, S., Leaver, S., Moran, M., Nilsson, A. and Williams, K. 2011 *After the Great Complacence: Financial Crisis and the Politics of Reform*, Oxford: Oxford University Press.
Erturk, I., Froud, J., Johal, S., Leaver, A. and Williams, K. 2007 'Against Agency: A Positional Critique', *Economy and Society* 36(1): 51–77.
Esping-Andersen, G. 1990 *Three Worlds of Welfare Capitalism*, Princeton: Princeton University Press.
Ewald, F. 1991 'Insurance and Risk', in G. Burchell, C. Gordon, and P. Miller (eds) *The Foucault Effect: Studies in Governmentality*, London: Harvester Wheatsheaf.
[FCIC] Financial Crisis Inquiry Commission 2011 *Financial Crisis Inquiry Report: Final Report of The National Commission on the Causes of the Financial and Economic Crisis in the United States*, U.S Government Printing Office, Washington.
Flemmen, M. 2013 'Putting Bourdieu to Work for Class Analysis: Reflections on Some Recent Contributions', *British Journal of Sociology* 64(2): 325–43.
Fligstein, N. 2010 'Politics, the Reorganization of the Economy, and Income Inequality, 1980–2009', *Politics and Society* 38(2): 233–42.
Folkman, P., Froud, J., Johal, S. and Williams, K. 2007 'Working for Themselves? Capital Market Intermediaries and Present Day Capitalism', *Business History* 49(4): 552–72.
Fortado, L. 2015 'Tom Hayes Alleged to Have Started Rigging Libor in 2006', *Financial Times* 27 May. http://www.ft.com/cms/s/0/c56b2f72-0465-11e5-95ad-00144feabdc0.html (Accessed: 19.06.2015).
Fortune 2007 'Fortune 500: Our Annual Ranking of America's Largest Corporations', *Fortune*. http://money.cnn.com/magazines/fortune/fortune500/2007/industries/Securities/1.html (Accessed 20.03.2013).
Fortune 2009 '150. Merill Lynch' in 'Fortune 500: Our Annual Ranking of America's Largest Corporations'. http://money.cnn.com/magazines/fortune/fortune500/2009/snapshots/2487.html (Accessed 20.03.2013).
Foster, J.B., Clark, B. and York, R. 2010 *The Ecological Rift: Capitalism's War on the Earth*, New York: Monthly Review.
Foucault, M. 1991 'Governmentality', in G. Burchell, C. Gordon, and P. Miller (eds) *The Foucault Effect: Studies in Governmentality*, London: Harvester Wheatsheaf.
Foucault, M. 2008 *The Birth of Biopolitics: Lectures at the Collège de France, 1978–79*, Basingstoke: Macmillan.

Froud, J., Johal, S., Haslam, C. and Williams, K. 2001 'Accumulation under Conditions of Inequality', *Review of International Political Economy* 8(1): 66–95.
Furedi, F. 1997 *Culture of Fear*, London: Cassell.
Garland, D. 2001 *The Culture of Control: Crime and Social Order in Contemporary Society*, Chicago: University of Chicago Press.
Giddens, A. 1973 *The Class Structure of Advanced Societies*, London: Hutchinson.
Giddens, A. 1979 *Central Problems in Social Theory: Action, Structure and Contradiction in Social Analysis*, London: Macmillan.
Giddens, A. 1984 *Constitution of Society: Outline of the Theory of Structuration*, Berkeley: University of California Press.
Giddens, A. 1990 *Consequences of Modernity*, Stanford, CA.: Stanford University Press.
Gillies, D. 2000 *Philosophical Theories of Probability*, London: Routledge.
Glyn, A. 2006 *Capitalism Unleashed: Finance, Globalization, and Welfare*, Oxford: Oxford University Press.
Goldthorpe, J.H. 2002 'Globalization and Social Class', *West European Politics* 25(3): 1–28.
Goldthorpe, J.H. and McKnight, A. 2004 'The Economic Basis of Social Class', CASE Paper 80. Centre for Analysis of Social Exclusion, London School of Economics and Political Science, London, UK.
Gorton, G. and Metrick. A. 2012 'Securitized Banking and the Run on Repo', *Journal of Financial Economics* 104(3): 425–51.
Greenberger, M. 2013 'Derivatives in the Crisis and Financial Reform', in M.H. Wolfson and G.A. Epstein (eds) *The Handbook of the Political Economy of Financial Crises*, Oxford: Oxford University Press.
Hacker, J.S. 2006 *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.
Hacker, J.S. and Pierson, P. 2010 'Winner-Take-All Politics: Public Policy, Political Organization, and the Precipitous Rise of Top Incomes in the United States', *Politics & Society* 38(2): 152–204.
Hacking, I. 1990 *Taming of Chance*, Cambridge: Cambridge University Press.
Hacking, I. 1995 'The Looping Effects of Human Kinds', in D. Sperber, D. Premack, and A.J. Premack (eds) *Causal Cognition: A Multi-Disciplinary Debate*, Oxford: Clarendon.
Haldane, A. 2010 'The $100 Billion Question', Presented at the Institute of Regulation and Risk, Hong Kong, 30 March. http://www.bankofengland.co.uk/publications/Documents/speeches/2010/speech433.pdf (Accessed 27.07.2012).
Haldane, A., Brennan S. and Madouros, V. 2010 'What Is the Contribution of the Financial Sector: Miracle or Mirage?', in A. Turner, A. Haldane, P. Woolley, S. Wadhwani, C. Goodhart, A. Smithers, A. Large, J. Kay, M. Wolf, P. Boone, S. Johnson, and R Layard *The Future of Finance: The LSE Report*, London School of Economics and Political Science.
Hall, P. and Soskice, D. 2001 *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*, Oxford: Oxford University Press.
Harvey, D. 2005 *Brief History of Neoliberalism*, Oxford: Oxford University Press.
Hesse, M. 1966 *Models and Analogies in Science*, Notre Dame, IN: University of Notre Dame Press.

Hesse, M. 2001 'Models and Analogies', in W.H. Newton (ed.) *A Companion to the Philosophy of Science*, Oxford: Blackwell.

Hills, J., Brewer, M., Jenkins, S.P., Lister, R., Lupton, R., Machin, S., Mills, C., Modood, T., Rees, T. and Riddell, S. 2010 *An Anatomy of Economic Inequality in the UK: Report of the National Equality Panel*, CASE Report 60. Centre for Analysis of Social Exclusion, London School of Economics and Political Science, London, UK.

Ho, K. 2009 *Liquidated: An Ethnography of Wall Street*, Durham: Duke University Press.

Ibarrán, M.E. and Ruth, M. 2009 'Climate Change and Natural Disasters: Economic and Distributional Impacts', in M. Ruth and M.E. Ibarrán (eds) *Distributional Impacts of Climate Change and Disasters: Concepts and Cases*, Cheltenham: Edward Elgar.

Inman, P. 2013 'UK Avoided Double-Dip Recession in 2011, Revised Official Data Shows', *Guardian* 27 June. http://www.guardian.co.uk/business/2013/jun/27/uk-avoid-double-dip-recession-ons-data (Accessed 29.06.2013).

IPCC 2007 *Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change,* Geneva, Switzerland: IPCC.

IPCC 2014a *Climate Change 2007: Climate Change Synthesis Report: Summary for Policy Makers, Fifth Assessment Report of the Intergovernmental Panel on Climate Change, Geneva, Switzerland: IPCC*. www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf (Accessed: 19.06.2015).

IPCC 2014b 'Summary for Policymakers', in C.B. Field, V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds) *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change,* Cambridge: Cambridge University Press.

IPCC 2014c 'Summary for Policymakers', in O. Edenhofer, R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, I. Baum, S. Brunner, P. Eickemeier, B. Kriemann, J. Savolainen, S. Schlömer, C. von Stechow, T. Zwickel, and J.C. Minx (eds) *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge: Cambridge University Press.

IPCC 2014d 'Regional Breakdown', in *Climate Change 2014: Impacts, Adaptation, and Vulnerability.Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. http://www.climdev-africa.org/document/ipcc-ar5-working-group-2-regional-breakdown (Accessed 02.08.2015).

Jamet, S. and Corfee-Morlot, J. 2009 'Assessing the Impacts of Climate Change: A Literature Review', *OECD Economics Department Working Papers*, No. 691, OECD Publishing. http://dx.doi.org/10.1787/224864018517 (Accessed 15.06.2011).

Japp, K.P. and Kusche, I. 2008 'Systems Theory and Risk', in J.O. Zinn (ed.) *Social Theories of Risk and Uncertainty*, Malden, MA: Blackwell.

Jarsulic, M. 2013 'The Origins of the US Financial Crisis of 2007: How a House-Price Bubble, a Credit Bubble, and Regulatory Failure Caused the Greatest Economic Disaster Since the Great Depression', in M.H. Wolfson and

G.A. Epstein (eds) *The Handbook of the Political Economy of Financial Crises*, Oxford: Oxford University Press.
Jay, M. 1984 *Marxism and Totality: The Adventures of a Concept from Lukács to Habermas*, Berkeley, CA: University of California Press.
Jenkins, S.P., Brandolini, A., Micklewright, J. and Nolan, B. (eds) 2013a *The Great Recession and the Distribution of Household Income*, Oxford: Oxford University Press.
Jenkins, S.P., Brandolini, A., Micklewright, J. and Nolan, B. 2013b 'The Great Recession and the Distribution of Household Income' Revised 25 March 2013 www.iza.org/en/papers/2138_11062013.pdf (Accessed 25.04.2013).
Kahneman, D. and Tversky, A. (1979) 'Prospect Theory: An Analysis of Decision under Risk', *Econometrica* 47(2): 263–92.
Keeley, B. and Love, P. 2010 *From Crisis to Recovery: The Causes, Course and Consequences of the Great Recession*, Paris: OECD.
Kemp, S. and Holmwood, J. 2003 'Realism, Regularity and Social Explanation', *Journal for the Theory of Social Behaviour* 33(2): 165–87.
Kenworthy, L. 2007 'Inequality and Sociology', *American Behavioral Scientist* 50(5): 584–602.
Keynes, J.M. 1921 *A Treatise on Probability*, London: Macmillan and Co.
Keynes, J.M. 1964 *General Theory of Employment, Interest, and Money*, San Diego: Harcourt [first published in 1936].
Khan, S. 2012 'The Sociology of Elites', *Annual Review of Sociology* 38: 361–77.
Kindleberger, C.P. and Aliber, R.Z. 2011 *Manics, Panics, and Crashes: A History of Financial Crises*, 6th edition, Basingstoke: Palgrave Macmillan.
Knight, F.H. 1921 *Risk, Uncertainty, and Profit*, Boston: Houghton Mifflin Co.
Knodt, E.M. 1995 'Foreword', in N. Luhmann (ed.) *Social Systems*, Stanford, CA: Stanford University Press.
Kolbert, E. 2014 *The Sixth Extinction: Unnatural History*, New York: Henry Holt and Company.
Kristal, T. 2010 'Good Times, Bad Times: Postwar Labor's Share of National Income in Capitalist Democracies', *American Sociological Review* 75(5): 729–63.
Kristal, T. 2013 'The Capitalist Machine: Computerization, Workers' Power, and the Decline in Labor's Share within U.S. Industries', *American Sociological Review* 78(3): 361–89.
Kuhn, T.S. 1996 *The Structure of Scientific Revolutions*, 3rd edition, Chicago: Chicago University Press [first published in 1962].
Lapavitsas, C. 2013 *Profiting Without Producing: How Finance Exploits Us All,* London: Verso.
Lash, S. 2000 'Risk Culture', in B. Adam, U. Beck, and J. van Loon (eds) *The Risk Society and Beyond: Critical Issues for Social Theory*, London: Sage.
Law, J. 2007 'Making a Mess with Method', in W. Outhwaite and S. Turner (eds) *The SAGE Handbook of Social Science Methodology*, London: SAGE.
Lehman Brothers 2005 *2004 Annual Report*, New York: Lehman Brothers.
Lehman Brothers 2008 *2007 Annual Report*, New York: Lehman Brothers.
Lewis, M. 2011 *The Big Short*, London: Penguin.
Lobell, D.B., Schlenker, W. and Costa-Roberts, J. 2011 'Climate Trends and Global Crop Production since 1980', *Science* 333(6042): 616–20.
Lowenstein, R. 2011 *The End of Wall Street*, London: Penguin.

Luhmann, N. 1993 *Risk: A Sociological Theory*, New Brunswick, NJ: Aldine Transaction.
Lupton, D. 1999 *Risk*, London: Routledge.
Lyng, S. 1990 'Edgework: A Social Psychological Analysis of Voluntary Risk Taking', *American Journal of Sociology* 95(4): 851–86.
Machin, S. 2015 'Real Wages and Living Standards', *Centre for Economic Performance*, Paper EA024. London School of Economics.
MacKenzie, D. 2006 *An Engine, Not a Camera: How Financial Models Shape Markets*, Cambridge, MA: MIT Press.
MacKenzie, D. 2011 'The Credit Crisis as a Problem in the Sociology of Knowledge', *American Journal of Sociology* 116(6): 1778–841.
MacKenzie, D. 2013 'The Magic Lever', *London Review of Books* 35(9). http://www.lrb.co.uk/v35/n09/donald-mackenzie/the-magic-lever (Accessed 05.12.2013).
Martell, L. 2008 'Beck's Cosmopolitan Politics', *Contemporary Politics* 14(2): 129–43.
Marx, K. 1975 *Economic and Philosophical Manuscripts (1844)*, in L. Colletti (ed.) *Karl Marx Early Writings*, London: Penguin.
Marx, K. 1976 *Capital*, Volume I, London: Penguin [first published in 1867].
Marx, K. 1983 'Preface to A Contribution to the Critique of Political Economy', in E. Kamenka (ed.) *The Portable Karl Marx*, London: Penguin [first published in 1859].
Marx, K. 1996 *The Eighteenth Brumaire of Louis Bonaparte* (*1851*), in T. Carver (ed.) *Marx: Later Political Writings*, Cambridge: Cambridge University Press.
Marx, K. and Engels, F. 1983 'From *The German Ideology*, Volume One', in E. Kamenka (ed.) *The Portable Karl Marx*, London: Penguin [written 1845–46].
Marx, K. and Engels, F. 1996 *The Communist Manifesto* (*1848*), in T. Carver (ed.) *Marx: Later Political Writings*, Cambridge: Cambridge University Press.
Maslin, M. 2009 *Climate Change: A Very Short Introduction*, Oxford: Oxford University Press.
McDowell, J. 1978 'Are Moral Requirements Hypothetical Imperatives?', in J. McDowell *Mind, Value, and Reality*, Cambridge, MA: Harvard University Press.
McKinsey 2015 'Debt and (Not Much) Deleveraging', February, McKinsey Global Institute. www.mckinsey.com/mgi (Accessed 01.10.2015).
McMylor, P. 1996 'Goods and Bads', *Radical Philosophy* 77: 52–3.
Miller, P. and Rose, N. 1990 'Governing Economic Life', *Economy and Society* 19(1): 1–31.
Mills. C.W. 1956 *The Power Elite*, Oxford: Oxford University Press.
Mingers, J. 2002 'Can Social Systems Be Autopoietic? Assessing Luhmann's Social Theory', *The Sociological Review* 50(2): 278–99.
Mishel, L., Bivens, J., Gould, E. and Shierholz, H. 2012 *The State of Working America*, 12th edition, Ithaca, NY: Economic Policy Institute, Cornell University Press.
Murphy, R. 2012 'Managing Risk under Uncertainty', in T. Measham and S. Lockie (eds) *Risk and Social Theory in Environmental Management*, Collingwood, VIC: Csiro Publishing.
Myles, J. 2003 'Where Have All the Sociologists Gone? Explaining Economic Inequality', *Canadian Journal of Sociology* 28(4): 553–61.
Mythen, G. 2004 *Ulrich Beck: A Critical Introduction to the Risk Society*, London: Pluto Press.

Mythen, G. 2005a 'Employment, Individualization and Insecurity: Rethinking the Risk Society Perspective', *The Sociological Review* 8(1): 129–49.
Mythen, G. 2005b 'From Goods to Bads? Revisiting the Political Economy of Risk', *Sociological Research Online* 10(3) www.socresonline.org.uk/10/3/mythen.html (Accessed 08.08.2011).
Mythen, G. 2007 'Reappraising the Risk Society Thesis: Telescopic Sight or Myopic Vision?', *Current Sociology* 55(6): 793–813.
Newell, P. 2005 'Race, Class and the Global Politics of Environmental Inequality', *Global Environmental Politics* 5(3): 70–94.
NY Comptroller 2013 'Average Salaries in New York City: Securities Industry vs. All Other Private Sector Industries'. http://www.osc.state.ny.us/press/releases/oct13/avg_salaries_nyc.pdf (Accessed 10.02.2015).
NY Comptroller 2014a 'New York City Securities Industry Bonus Pool'. http://www.osc.state.ny.us/press/releases/mar14/wall_st_bonus_pool.pdf (Accessed 10.02.2015).
NY Comptroller 2014b 'New York City Securities Industry Average Bonus' www.osc.state.ny.us/press/releases/mar14/av_bonus_chrt.pdf (Accessed 10.02.2015).
Nussbaum, M. 2010 *Not For Profit: Why Democracy Needs the Humanities*, Princeton, NJ: Princeton University Press.
O'Brien, K., Eriksen, S.N., Lynn, P. and Schjolden, A. 2007 'Why Different Interpretations of Vulnerability Matter in Climate Change Discourses', *Climate Policy* 7(1): 73–88.
OECD 2013 *Crisis Squeezes Income and Puts Pressure on Inequality and Poverty*, Paris: OECD.
O'Malley, P. 2004 *Risk, Uncertainty, and Government*, London: Glasshouse.
O'Malley, P. 2008 'Governmentality and Risk', in J.O. Zinn (ed.) *Social Theories of Risk and Uncertainty*, Malden, MA: Blackwell.
Outhwaite, W. 1987 *New Philosophies of Social Science: Realism, Hermeneutics and Critical Theory*, London: Macmillan.
Outhwaite, W. 2009 'Canon Formation in Late 20th-Century British Sociology', *Sociology* 43(6): 1029–45.
Pearce, F. 1989 *The Radical Durkheim*, London: Unwin Hyman.
Pearce, F. and Woodiwiss, T. 2001 'Reading Foucault as a Realist', in J. López and G. Potter (eds) *After Postmodernism: An Introduction to Critical Realism*, London: Athlone.
Pelling, M. 1997 'What Determines Vulnerability to Floods; a Case Study in Georgetown, Guyana', *Environment and Urbanization* 9(1): 203–26.
Perri, F. and Steinberg, J. 2012 'Inequality and Redistribution During the Great Recession', Federal Reserve Bank of Minneapolis Economic Policy Paper.
Philippon, T. and Reshef, A. 2009 'Wages and Human Capital in the U.S. Financial Industry: 1909–2006', *NBER Working Paper* Series No.14644.
Piketty, T. and Saez, E. 2003 'Income Inequality in the United States, 1913–1998', *Quarterly Journal of Economics* 118(1): 1–39.
Piketty, T. 2014a *Capital in the Twenty-First Century,* Cambridge, MA: Harvard University Press.
Piketty, T. 2014b 'Capital in the Twenty-First Century: A Multidimensional Approach to the History of Capital and Social Classes', *British Journal of Sociology* 65(4): 736–47.

Polanyi, K. 1957 *The Great Transformation*, Boston: Beacon Press [first published in 1944].
Power, M. 1997 *The Audit Society: Rituals of Verification*, Oxford: Clarendon.
Power, M. 2007 *Organized Uncertainty: Designing a World of Risk Management*, Oxford: Oxford University Press.
Rajan, R.G. 2005 'Has Financial Development Made the World Riskier?' Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming. 27 August 2005.
Rasborg, K. 2012 '"(World) Risk Society" or "New Rationalities of Risk"? A Critical Discussion of Ulrich Beck's Theory of Reflexive Modernity', *Thesis Eleven* 108(1): 3–25.
Rasmussen, T.N. 2004 'Macroeconomic Implications of Natural Disasters in the Caribbean', IMF Working Paper, International Monetary Fund WP/04/224.
Rawls, J. 1999 *Theory of Justice*, Rev. ed., Cambridge, MA: Belknap Press of Harvard University Press.
Raz, J. 1999 *Engaging Reason: On the Theory of Value and Action*, Oxford: Oxford University Press.
Redefining Progress 2004 'African Americans and Climate Change: An Unequal Burden', Oakland, CA: Redefining Progress. http://www.sustainlex.org/BlackCaucusfullCBCF_REPORT_F.pdf (Accessed 11.12.2011).
Reinhart, C.M. and Rogoff, K. 2009 *This Time Is Different: Eight Centuries of Financial Folly*, Princeton, NJ: Princeton University Press.
Reiss, J. 2007 'Do We Need Mechanisms in the Social Sciences?', *Philosophy of the Social Sciences* 37(2): 163–84.
Renn, O. 2008 *Risk Governance: Coping with Uncertainty in a Complex World*, London: Earthscan.
Rikagos, G.S. and Law, A. 2009 'Risk, Realism and the Politics of Resistance', *Critical Sociology* 35(1): 79–103.
Roberts, J.T. and Parks, B.C. 2006 *A Climate of Injustice: Global Inequality, North-South Politics, and Climate Policy*, Cambridge, MA: MIT Press.
Rosa, E.A. 1998 'Metatheoretical Foundations for Post-Normal Risk', *Journal of Risk Research* 1(1): 15–44.
Rosa, E.A. 2003 'The Logical Structure of the Social Amplification of Risk Framework (SARF): Metatheoretical Foundation and Policy Implications', in N. Pidegeon, R.E. Kaspersen, and P. Slovic (eds) *The Social Amplification of Risk*, Cambridge: Cambridge University Press.
Rose, N. 1990 *Governing the Soul: The Shaping of the Private Self*, London: Routledge.
Rose, N., O'Malley, P. and Valverde, M. 2006 'Governmentality', *Annual Review of Law and Social Science* 2: 83–104.
Rothstein, H., Huber, M. and Gaskell, G. 2006 'A Theory of Risk Colonization: The Spiralling Regulatory Logics of Societal and Institutional Risk', *Economy and Society* 35(1): 91–112.
Rustin, M. 1994 'Incomplete Modernity: Ulrich Beck's Risk Society', *Radical Philosophy* 67: 3–12.
Ruth, M. and Ibarrán, M.E. 2009 'Introduction: Distributional Effects of Climate Change – Social and Economic Implications', in M. Ruth and M.E. Ibarrán (eds) *Distributional Impacts of Climate Change and Disasters: Concepts and Cases*, Cheltenham: Edward Elgar.

Ruth, M., Kirshen, P. and Coelho, D. 2009 'Climate Change and Cities: Differential Impacts and Adaptation Options in Industrialized Countries', in M. Ruth and M. Ibarraran (eds) *Distributional Impacts of Climate Change and Disasters: Concepts and Cases,* Cheltenham: Edward Elgar.

Saez, E. 2013 'Striking It Richer: The Evolution of Top Incomes in the United States (Updated with 2012 Preliminary Estimates)', *Real-World Economics Review* (65): 120–9.

Saigol, L. 2008 'Nomura Creates $1bn Bonus Pool for Lehman Staff', *Financial Times* 14 September: 29.

Savage, M. 2000 *Class Analysis and Social Transformation*, Buckingham: Open University Press.

Savage, M. 2009a 'Contemporary Sociology and the Challenge of Descriptive Assemblage', *European Journal of Social Theory* 12(1): 155–74.

Savage, M. 2009b 'Against Epochalism: An Analysis of Conceptions of Change in British Sociology', *Cultural Sociology* 3(2): 217–38.

Savage, M. 2014 'Piketty's Challenge for Sociology', *British Journal of Sociology* 65(4): 591–606.

Savage, M., Bagnall, G. and Longhurst, B. 2001 'Ordinary, Ambivalent and Defensive: Class Identities in the Northwest of England', *Sociology* 35(4): 875–92.

Savage, M., Devine, F., Cunningham, N., Taylor, M., Li, Y., Hjellbrekke, J., Le Roux, B., Friedman, S. and Miles, A. 2013 'A New Model of Social Class? Findings from the BBC's Great British Class', *Sociology* 47(2): 219–50.

Savage, M., Devine, F., Cunningham, N., Friedman, S., Laurison, D., Miles, A., Snee, H. and Taylor, M. 2014 'On Social Class, Anno 2014', *Sociology* 1–20 (early view DOI: 10.1177/0038038514536635).

Savage, M., Warde, A. and Devine, F. 2005 'Capitals, Assets, and Resources: Some Critical Issues', *British Journal of Sociology* 56(1): 31–47.

Savage, M. and Williams, K. 2008 'Elites: Remembered in Capitalism and Forgotten by Social Sciences', *Sociological Review* 56(s1): 1–24.

Sayer, A. 1981 'Abstraction: A Realist Interpretation', *Radical Philosophy* 28: 6–15.

Sayer, A. 1992 *Method in Social Science: A Realist Approach*, 2nd edition, London: Routledge.

Sayer, A. 1995 *Radical Political Economy: A Critique*, Oxford: Blackwell.

Sayer, A. 2000 *Realism and Social Science*, London: Sage.

Sayer, A. 2005 *The Moral Significance of Class*, Cambridge: Cambridge University Press.

Sayer, A. 2011 *Why Things Matter to People: Social Science, Values and Ethical Life*, Cambridge: Cambridge University Press.

Sayer, A. 2012 'Facing the Challenge of the Return of the Rich', in W. Atkinson, S. Roberts, and M. Savage (eds) *Class Inequality in Austerity Britain: Power, Difference and Suffering*, Basingstoke: Palgrave Macmillan.

Sayer, A. 2015 *Why We Can't Afford the Rich*, Bristol: Policy Press.

Schumpeter, J.A. 1962 [1942] *Capitalism, Socialism and Democracy*, 3rd edition, New York: Harper and Row.

Scott, A. 2000 'Risk Society or Angst Society? Two Views of Risk, Consciousness and Community', in B. Adam, U. Beck, and J. van Loon (eds) *The Risk Society and Beyond: Critical Issues for Social Theory*, London: Sage.

Scott, J. 1996 *Stratification and Power: Structures of Class, Status and Command*, Cambridge: Polity.
Scott, J. 2002 'Social Class and Stratification in Late Modernity', *Acta Sociologica* 45(1): 23–35.
Sen, A.K. 1981 *Poverty and Famines: an Essay on Entitlement and Deprivation,* Oxford: Clarendon Press.
Sen, A.K. 1982 'Equality of What?', in *Choice, Welfare, and Measurement*, Oxford: Blackwell.
Sen, A. 1983 'Poor, Relatively Speaking', *Oxford Economic Papers*, New Series 35(2): 153–69.
Sen, A.K. 1985a *Commodities and Capabilities*, Amsterdam: North-Holland.
Sen, A.K. 1985b 'Well-Being, Agency and Freedom: The Dewey Lectures 1984', *The Journal of Philosophy* 82(4): 169–221.
Sen, A.K. 1993 'Capability and Well-Being', in M. Nussbaum and A.K. Sen (eds) *The Quality of Life*, Oxford: Clarendon Press.
Sen, A.K. 1999 *Development as Freedom*, New York: Oxford University Press.
Sen, A.K. 2009 *The Idea of Justice*, Cambridge, MA: Belknap Press.
Sherman, J. 2013 'Surviving the Great Recession: Growing Need and the Stigmatized Safety Net', *Social Problems* 60(4): 409–32.
Skeggs, B. 2004 *Class, Self, and Culture*, London: Routledge.
Skeggs, B. 2005 'The Making of Class and Gender through Visualizing Moral Subject Formation', *Sociology* 39(5): 965–82.
Slovic, P. 1987 'Perception of Risk', *Science* 236(4799): 280–85.
Slovic, P. 2000 *The Perception of Risk*, London: Routledge.
Slovic, P. and Peters, E. 2006 'Risk Perception and Affect', *Current Directions in Psychological Science* 15(6): 322–25.
Smith, M. 1994 *The Moral Problem*, Oxford: Blackwell.
Solow, R.M. 2009 'How to Understand the Disaster', *New York Review of Books* 14 May 2009.
Standing, G. 2011 *The Precariat: The New Dangerous Class*, London: Bloomsbury.
Stehr, N. and Bechmann, G. 2002 'Introduction', in N. Luhmann *Risk: A Sociological Theory*, New Brunswick, NJ: Aldine Transaction.
Stern, N. 2006 *Stern Review: The Economics of Climate Change*. http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/sternreview_index.cfm (Accessed 25.08.2010).
Stern, N. 2007 *The Economics of Climate Change: The Stern Review*, Cambridge: Cambridge University Press.
Stiglitz, J.E. 2006 *Economics*, 4th edition, New York: W.W. Norton & Company.
Stiglitz, J.E. 2009 'The Anatomy of a Murder: Who Killed America's Economy?', *Critical Review: A Journal of Politics and Society* 21(2–3): 329–39.
Stiglitz, J.E. 2012 *The Price of Inequality*, New York: Norton.
Stiglitz, J.E. and Boadway, R. 1997 *Principles of Micro-Economics and the Canadian Economy*, 2nd edition, New York: W.W. Norton.
Strydom, P. 2002 *Risk, Environment and Society*, Buckingham: Open University Press.
Swartz, D. 1997 *Culture and Power: The Sociology of Pierre Bourdieu*, Chicago: University of Chicago Press.
Szerszynski, B., Lash, S. and Wynne, B. (eds) 1996 *Risk Environment and Modernity: Towards a New Ecology*, London: Sage.

Taleb, N.N. 2010 *The Black Swan: The Impact of the Highly Improbable*, 2nd edition, New York: Random House.
Tett, G. 2009 *Fool's Gold: How Unrestrained Greed Corrupted a Dream, Shattered Global Markets, and Unleashed a Catastrophe*, London: Abacus.
Therborn, G. 2013 *Killing Fields of Inequality*, Cambridge: Polity.
Thompson, J. and Smeeding, T.M. 2013 'Country Case Study – USA', in S.P. Jenkins, A. Brandolini, J. Micklewright, and B. Nolan (eds) *The Great Recession and the Distribution of Household Income*, Oxford: Oxford University Press.
Turner, A. 2009 *The Turner Review: A Regulatory Response to the Global Banking Crisis*, London: Financial Services Authority.
Tversky, A. and Kahneman, D. 1974 'Judgement under Uncertainty: Heuristics and Biases', *Science* 185(4157): 1124–31.
UN Habitat 2009 *State of the World's Cities 2008/2009: Harmonious Cities*, London: Earthscan.
United States General Accounting Office 1999 'Long-Term Capital Management: Regulators Need to Focus Greater Attention on Systemic Risk', *Report to Congressional Requesters*, October 1999.
Urry, J. 2000 'Mobile Sociology', *British Journal of Sociology* 51(1): 185–203.
Urry, J. 2007 *Mobilities*, Cambridge: Polity.
Urry, J. 2011 *Climate Change and Society*, Cambridge: Polity.
van Asselt, M.B.A. and Renn, O. 2011 'Risk Governance', *Journal of Risk Research* 14(4): 431–49.
Wacquant, L.J.D. 2008 *Urban Outcasts: A Comparative Sociology of Advanced Marginality*, Cambridge: Polity.
Wacquant, L.J.D. 2013 'Symbolic Power and Group-Making: On Pierre Bourdieu's Reframing of Class', *Journal of Classical Sociology* 13(2): 274–91.
Warren, E. and Tyagi, A. 2003 *The Two-Income Trap: Why Middle-Class Parents Are Going Broke*, New York: Basic Books.
Weber, M. 1948 'The Social Psychology of the World Religions', in H.H. Gerth and C.W. Mills (eds) *From Max Weber: Essays in Sociology*. London: Routledge & Kegan Paul.
Weber, M. 1978 [1922] *Economy and Society*, 2 vols, G. Wittich and C. Wittich (eds) Berkeley, CA: University of California Press.
Weininger, E.B. 2005 'Foundations of Pierre Bourdieu's Class Analysis', in E.O. Wright (ed.) *Approaches to Class Analysis*, Cambridge: Cambridge University Press.
Wilkinson, I. 2001 'Social Theories of Risk: At Once Indispensible and Insufficient', *Current Sociology* 49(1): 1–22.
Wilkinson, R. and Pickett, K. 2010 *The Spirit Level: Why Equality Is Better for Everyone*, London: Penguin Books.
Winchester, P. 2000 'Cyclone Mitigation, Resource Allocation and Post-Disaster Reconstruction in South India: Lessons from Two Decades of Research', *Disasters*, 24(1): 18–37.
Wolff, J. and De-Shalit, A. 2007 *Disadvantage*, Oxford: Oxford University Press.
Wright, E.O. 1985 *Classes*, London: Verso.
Wright E.O. 1996 'The Continuing Relevance of Class – Comments', *Theory and Society* 25(5): 693–716.
Wright, E.O. 1997 *Class Counts*, Cambridge: Cambridge University Press.

Wright, E.O. 2002 'The Shadow of Exploitation in Weber's Class Analysis', *American Sociological Review* 67(6): 832–53.
Wright, E.O. (ed.) 2005 *Approaches to Class Analysis*, Cambridge: Cambridge University Press.
Wright, E.O. 2009 'Understanding Class: Towards an Integrated Analytical Approach', *New Left Review* 60: 101–16.
Wynne, B. 1996 'May the Sheep Safely Graze? A Reflexive View of the Expert–Lay Knowledge Divide', in S. Lash, B. Szerszynski, and B. Wynne (eds) *Risk, Environment and Modernity: Towards a New Ecology*, London: Sage.
Zinn, J.O. (ed.) 2008 *Social Theories of Risk and Uncertainty*, Malden, MA: Blackwell.

Index

abstract and concrete levels of explanation, 17, 52–61
abstraction, 14, 43, 53–7, 58–61, 75–6
action, reasons and causes for, 56, 152
actor network theory, 43, 58–59, 73–4
adaptation, 88, 104–5
advanced economies 1, 63, 152
  see also United Kingdom, United States
advantaged, least and most, 3–4, 11, 13–14, 18, 96, 101, 107, 111, 116, 131, 133–9, 141–2
Agamben, Giorgio, 58–9, 152, 153
agency, 56, 156
AIG, 123, 157
Andhra Pradesh, 101
assemblage, 59
asset inflation, 118–22, 124–5, 129, 133, 156–7
Atkinson, Anthony B., 7, 63, 149
Atkinson, Will, 5, 9, 10, 64, 74–5, 78, 83–7, 100, 108, 140–1, 154, 158
audit society, 27
austerity, 127, 131
autopoietic, 29
axes of conflict in world risk society, 108

bailouts, 127
balance sheets, 118–20, 123
Bangladesh, 103
banking, **ch. 6**, 1, 37, 118–39, 156–59
bankers, senior
  see finance employees, senior
Bauman, Zygmunt, 20, 83
Bear Stearns, 121, 129, 157–8
Beck, Ulrich, *passim*
  see also risk society; world risk society
Beck-Gernsheim, Elisabeth, 5, 9
beings and doings
  see capabilities
Bhaskar, Roy, 36, 54–7, 152
bifurcation between risk society and first modernity, 96
  see also narrative of discontinuity
black-boxing, 70, 81, 158
bonuses, 118, 123–6, 129, 132, 158
boomerang effect, 9, 44, 88, 97, 126–33, 158
borrowing short, 157
Bourdieu, Pierre, **ch. 4**, 8, 12, 17, 34, 63–82, 84, 100, 105, 108, 115, 125, 134–7, 143, 151, 153–4, 156, 158
Bourdieusian turn, 66, 73–5, 78–80
  see also cultural turn
brunt of risk society, 11, 85, 102–7, 114–18, 130, 132–7, 154
bureaucracies, 50
business model, banking, 118–19, 129

calculability of risk, 8, 10, 25–7, 32–3, 86–7, 90–5
California, 107
Callon, Michel, 34–6
Canada, 2
capabilities, 7, 105–7, 156, 158
  see also Amartya K. Sen
capacities, 56–7, 119
  see also Nancy Cartwright
capital, return to, 13, 120–2, 126
capitalism, 14, 52, 67, 97–100, 119, 125–8, 133, 151, 154–5
capitals, 8, 13, 17, 63–82, 98, 105, 116, 120–6, 129–37, 151, 153–8
  cultural, 65, 68–71, 76, 81, 136–7, 158
  economic, 68–71, 74–8, 105, 135–7, 153–4
  informational, 75, 136–7, 158
  social, 68–70, 75, 79
  symbolic, 68–70, 73–7
  types of economic capital, 71
capital market intermediaries
  see finance employees, senior

Cartwright, Nancy, 17, 43, 54, 56–8, 61, 65, 119, 152
CARs (Capitals, Assets, Resources), 17, 66–8, 73–6, 80–1, 153
Cassano, Joseph, 123
Castree, Noel, 53, 60
catastrophes, 33–4, 87–9, 92, 95–7, 150
  maximal, 87–9, 95–7
categorical vs gradational distinctions in class, 80
causal capacities/forces, 20, 24, 37, 54–7, 59–61, 99–100, 118–19, 150
Chernobyl, 48, 103
choice of risk, 106–7
  see also capabilities
cities, 2, 101
class, **ch. 4**, *passim*
  as additional site of structuration in risk society, 98–100, 110–11
  antagonism, 85–7, 100–5
  boundaries, 79–81
  as complex causal force, 99
  contradictory locations within, 81
  culture, 78–81
  economic dimension of, 69–71, 79, 153
  groupings, 79–81
  lived social groups, 80
  making, 79–81
  pervasive social cause, 72
  resources, 17–18, 66–9, 72–82, 85, 90, 105, 115–16, 134–7, 142, 153, 155
  relations, 5, 7, 10, 41–2, 64–72, 78–81, 84–8, 96–100, 105, 110–111, 114–17, 136–140, 141, 158
class position interaction with risk position, 44, 102, 137, 146
climate change, 2–3, 7, 14, 17, 33–4, 86, 96, 100–12, 113, 154–5
container theory of risk, 96–7
complementary relations, 17, 24, 64–74, 80–2
complex chains of causation
  see organized irresponsibility
concept vs conception of class, 108, 156
conduct of conduct, 24–8
consumption as active process
  see capabilities
contemporary inequality, 3, 9, 12–13, 18, 63–82, 112–15, 118, 142
  risk as a source of, 13, 18, 113–15, 118, 127–28, 142, 147
contingent-dependence realism, 35–40, 150
  see also realism
controllability and uncontrollability of risk, 4–6, 16, 20–1, 26–8, 31–2, 34, 39–40, 49–50, 86, 90–2, 116, 146–7, 155
Cooper, Melinda, 157–8
corporations, control but lack of ownership of, 129, 135–6, 157
corporate governance, 128–9, 135–6, 145–6
cosmopolitan, 45, 48, 107, 108–10, 116, 151
cosmopolitanism 45, 48, 107–10, 116, 151
counterfactual knowledge, 53, 59–61, 73, 130, 152
countervailing forces, 57, 72, 99, 119, 146
counter-performativity, 36–7
creation of opportunities for enrichment through risk, **ch. 6**, 4, 11, 138
Creative destruction, 4, 139
creative moment in critique, 10, 77, 106, 142
credit crunch, 127
credit default swaps, 122–3, 157
CRESC research, 13, 82, 115 119, 129, 133, 135, 149, 158, 159
credit intermediation, 118, 125
crises
  environmental, 2–3, 105, 108
  financial, 1–3, 17, 33, 38, 86, 107–8, 113–39, 141–7, 156–8
critical realism, 35–7, 43, 54–8, 60–1, 150, 152
Crompton, Rosemary, 64, 153
culpability
  see organized irresponsibility
Culpepper, Pepper, 144

Cultural approach to risk, 8, 16, 20–4, 28, 104, 143, 149–50
cultural turn, 75, 78–81

dappled world, 17, 43, 54–57, 61, 65, 72, 119, 152
Dean, Mitchell, 8, 26–28, 38, 42, 46
debt
  public, 1, 131, 133, 138
  see also leverage
democracy, 147
de-monopolizing Beck's risk society, **ch. 3**, 41–62
description vs explanation, 13, 59, 73–4
de-totalizing risk society, 53, 111, 142
Devine, Fiona, 66, 69–81, 153
dignity, social, 107, 156
disasters, natural, 32–3, 87–9, 105, 107
disjunctive understanding of risk society, 4, 83–7, 90–3
displacement, threat of, 102
distribution of bads, **ch. 5**, 11, 18, 33, 44, 83–112, 115, 126–8, 154–5
distribution of goods, 4, 8, 32–3, 45, 85–6, 97–8, 126, 144
distribution of income between labour and capital, 65, 70, 98, 126
distributional logics, 9, 11, 30, 44, 106, 113–14, 139–43, 151
Dobbin, Frank, 128–9
double hermeneutic, 38
Douglas, Mary, 8, 16, 20–4, 28, 104, 143, 149–50
drift, 159
droughts, 2, 96, 102
Durkheim, Émile, 69, 151

economic approaches to risk 5–7, 14, 36, 63, 149
  heterodox, 7
  mainstream, 6–7, 149
  neo-classical, 149
Elder-Vass, Dave, 56, 156
elites, 13, 18, 82, 115 , 125, 134–9, 149
  class, 125, 134–9
  risk-class, 134–9
emancipation, 67, 146, 152
emergent powers, 56
empirically oriented social theory, 11, 16, 33, 53, *passim*
empirical turn in social theory, 16
entitlement to food, 103
  see also capabilities
enlightenment function of risk, 89
epistemic fallacy, 55
epistemic vehicles, 58–60, 152
epistemological dimension of science, 55
epistemology, **ch. 2 & 3**
  of risk, 22, 34–40, 43, 90–5, 115, 150, 152
  tripartite epistemology of risk, 92–5, 154
epochal conception of risk society 9, 31–2, 42–3, 48, 61, 151
equity, 120–1, 128, 156
error of overspecificity, 138
Europe, 48, 98, 120, 156
eurozone crisis, 156
Ewald. François, 8, 20, 26–8, 34, 37, 154
explanation, 12, 22–3, 34, 48–54, 59, 63–5, 69–73, 77, 81, 95, 107, 112, 134, 143, 153
exploitation, 7, 31, 74–5, 79, 98, 144, 153
  problem of proliferation of axes of, 74–76, 153
external dangers, 3, 26
externalities, negative
  see distribution of *bads*; social production of risk

famines, 7, 103, 149, 156
  see also hunger
fasting, 107
  see also capabilities
fields, 8, 15, 67–8, 137
  see also Pierre Bourdieu
finance, complexity of contemporary, 18, 119, 135, 159
finance employees, senior, 18, 114–38, 157
financial crisis, 2008, 1–3, 17, 113–16, 118–38

financial risk, systemic, 7, 15, 18, 84, 99, 113–38, 142–3
Finland, 138
flooding, 2, 96, 101–3
food
  battles, 103
  deprivation, 103, 107
  production, effect of climate change on, 2, 33, 102–4, 107
  security, 138
  supply, 102–4, 107
forms of life, 106–7, 136, 146–7
fortunate 40 per cent, 133
flux of phenomena, 55–6, 99
  see also critical realism
Foucault, Michel, 24–5, 30, 58–9, 151, 153
front-office employees in financial institutions
  see senior finance employees
functional differentiation, 28–9
functionalism, 150
functionings, 106, 155
  see also capabilities
fundamental sources of social structuration, 34, 52–4, 61, 67, 90, 97, 99, 111, 149
Furedi, Frank, 146

Garland, David, 15
genealogy, 25, 30
gender inequalities, 11–12, 32, 102–4, 134
Germany, 46
Giddens, Anthony, 6, 20, 34, 38, 67, 151, 153
global politics of environmental inequalities, 102
global risk communities, 45–6, 151
global risks, 1–4, 33, 45, 48–51, 51, 60, 86–8, 102 107–10, 116, 125, 127, 133, 138–41, 155–6
  see also climate change; cosmopolitan; financial crises; financial risk; world risk society
globalization, 108–110, 127, 156
  see also global risks; world risk society
Goldthorpe, John, 9, 46, 83–4, 100, 108, 140–1, 154
governmentality, 25–31, 37–43, 58–61, 143
Great Depression, 1, 130, 138
Great Recession, 115, 126–139
  see also financial crisis, 2008

habitus, 8, 34, 67, 76–7, 156
  see also Pierre Bourdieu
Hacker, Jacob, 12–13, 159
Hacking, Ian, 27, 38
Haldane, Andrew, 1, 7, 11, 118–26, 130, 156
Hansen, James, 155
harm, possible, 3–4, 8, 21, 26, 30–2, 50–1, 62, 94–7, 139, 147
  see also risk
harm principle, 49, 117
Harré, Rom, 57
Harvey, David, 155
hazard
  see Luhmann; risk
hedge funds, 138
  see also shadow banking
hermeneutical approaches to social life, 56
Ho, Karen, 70, 136
humanly produced risks
  see social production of risks
humanization of nature, 33, 48, 83, 90, 105
  see also risk society; world risk society
hunger, 96, 104, 107, 138
  see also famines; fasting
hurricanes, 3, 101, 141
Hurricane Katrina, 3, 141
hybridization, 33
  see also humanization of nature

ideal types, 71
incentives, 119–26
  see also organized irresponsibility
India, 101
individualism, methodological, 6, 71
individualization, 5, 9
Indonesia, 138
industrial society, 32–3, 47, 86, 111

inequalities, **ch.1, 4–7**, *passim*
contemporary, 3, 9, 12–13, 18, 63–82, 112–15, 118, 130–42
international, 12, 96, 107–10, 156
normative dimensions of, 12, 63–4, 72, 111–12, 154
risk as a source of, 13, 18, 113–15, 118, 127–28, 142, 147
social scientific analyses of, 3, 5–9, 14, 63–82, 140–3
see also class; mismatch, risk; organized irresponsibility; risk-class
inescapability of risks, 9
see Beck, Ulrich
information asymmetries, 94, 110, 136
insecurity
see risk
institutions of production and distribution, 97–100
insolvency, 121–2, 127
insurance, social, 26–7
institutionalization of organized irresponsibility, 128–9, 142
interdisciplinary approaches, 14–15
intransitive dimension, 37, 55
see also critical realism; transitive dimension
investment banks, 120–36, 157–58
IPCC, 2, 14–15
iron cage of modernity, 27
irrational exuberance, 125

J.P. Morgan, 123, 129, 158
justice, 13, 14, 24, 96, 150, 154, 156
distributive, 14, 149
environmental, 13, 24, 96, 150, 154, 156
justifiability of significant income inequalities, 111

Kantianism, neo-, 26, 45
Keynes, John Maynard, 91–5, 154
Khan, Shamus, 68
Knight, Frank, 91–5, 149
Kuhn, Thomas, 152

landslides, 101
Lash, Scott, 20, 38, 152
latent side-effects, 4, 86
see also manufactured side-effects as risks
Latour, Bruno, 59, 73, 74
Lehman Brothers, 121–4, 129, 132, 157–8
leverage, 120–5, 137–9, 156–7
Lewis, Michael, 157
life chances, 8–12, 21, 62, 67–9, 83–6, 97, 101, 104–7, 112, 115, 126, 153, 156
as capabilities, 105–7
liquid and illiquid ownership, 129, 135–6
living in an age of side-effects, 32, *passim*
local risks, non-, 17, 48–53, 61–2, 84, 142, 145
see also global risks
looping effects, 38
Long-Term Capital Management, 138
losses, financial, 115, 119, 121–30, 132–3, 137, 144
logic of
class, 9, 44, 84, 106, 116, 134
distribution of goods and risks, 9–11, 33, 44, 84, 90, 100, 102, 106, 113–14, 116, 139–140, 143, 151
modernity, 27, 29–30
positional occupation of private escape routes, 100–10, 155
risk, 9–11, 44, 48, 92, 116, 134
London, city of, 132–7
Luhmann, Niklas, 8–9, 16, 20–1, 28–31, 50, 143, 151
Lyng, Stephen, 152

MacKenzie, Donald, 36–7, 122, 125, 157
Maginot Line fallacy, 138
Malaysia, 138
manufactured side-effects as risks, 48–50, 57, 62, 87–96, 100–12
see also living in an age of side-effects; risk society; world risk society
manufactured uncertainties, 5, 33–4, 49, 86–7, 97

mark-to-market accounting, 124–5, 137
market capacities, 7, 66–8, 79, 105, 116, 136, 144, 154
  see also Max Weber
market equilibrium paradigm, 6
market failure, **ch. 5 & 6**, 7, 83–139
market, mediated through, 96, 105, 146, 155
Martell, Luke, 110
Marx, Karl, 7, 12, 17, 63–82, 84, 98–100, 105, 115, 134–5, 143–4, 151, 153
maximum credible accident, 87
  see also catastrophes, maximal
means of production, 7, 67–70, 75, 105, 134–5
mega-technologies, 32
Merrill Lynch, 121–2, 129, 157–8
methodological justifications, **ch. 2 & 3**, 33–41, 42–62
micro-sociological approaches, 25–8
Mills. C. Wright, 149
mirages and miracles, 126
mismatch, risk, 18, 84, 114–15, 123, 127, 130, 133, 137–8, 143
misrecognition, 77–8, 154
models, 36–8, 58–9, 93, 103, 119, 126, 129, 152–4
  generalizable model of functioning, 58–9
modernity, 4, 9, 26–33, 50, 83–6, 95–7, 100, 111
  first modernity and second modernity (risk society), 4, 31–3, 84–86, 95–7, 100, 111
modernization, 4, 31–2, 47, 49, 86–90, 95, 97, 103–4, 151
  see also reflexive modernization
monopoly over scarce, safe goods
  see private escape routes, monopolization of
moral technology, 27
  see also governmentality
Murphy, Raymond, 154
Myles, John, 63
Mythen, Gabe, 5, 8–10, 42, 46, 48–9, 51, 83–5, 87, 91, 96–7, 103, 114, 117, 140–1, 144
narrative of continuity, 10, 114
narrative of discontinuity, 10, 83, 113–14
nationalism of class, methodological, 107–8
neoliberalism, 14, 98–9, 127, 142, 155
New York City, 118, 124, 129, 131–2
New York Stock Exchange, 129
New York Comptroller, 118, 124, 131–2
Nomura, 132, 158
North Sea, 46, 151
Norway, 46, 138
nuclear accidents, 33, 48, 86, 103
Nussbaum, Martha, 147

objectivism, 34, 37–39, 71
  see also realism
OECD, 1, 130–1
off-balance sheet exposures, 120
one per cent, top, 119, 125, 130–2, 136, 138
ontological dimension of science, 55
ontology, realist, 23, 54, 57, 61, 108, 150, 156
ontology of the nation state, 108
organized irresponsibility, 3–4, 11, 17–19, 31, 33, 50–3, 60–2, 84–90, 98–9, 111–39, 141–5, 149
organized non-liability, 50, 117
outbid, 101–4
  see also distribution of *bads*
over-the-counter' (OTC) derivatives, 125
our common future, 3

Paradigms, 6, 10, 17, 48, 55, 58–9, 85, 87, 89–90, 104, 116, 123, 152–3
partnerships to publicly traded companies, 129, 135
party, 67
Pay in high finance, 117–20, 123–5, 131–2, 136, 138–9, 157
Pearce, Frank, 150–2
performative dimension, 34–6
Pierson, Paul, 159
Piketty, Thomas, 7, 13, 63, 65, 149, 153
planetary boundaries, 155

Polanyi, Karl, 98
political economy of risk, 127, 141, *passim*
politics of risk production and distribution, 18, 143–6
politics of risk society, 18, 24, 110, 140
pollution, 22–3, 86, 155
pollution, air, 86, 155
  see also climate change
positivism, 55
possible futures, 33–4, 40, 139, 149–50
post-national risk community
  see global risk communities
poverty, 9, 83, 107, 141
Power, Michael, 37–9
practical adequacy, 60, 150
precariat, 12–13
private escape routes, 11, 18, 87–8, 100–5, 108–110, 115, 134, 155
  competition over, 101–2
  monopolization of, 11, 108
  positional occupation of, 100–10, 155
probability distribution, 27, 91–5, 122–3, 154
profits, 98, 118–29, 133–39, 156–8
  apparent, 119, 124, 126
  appropriation of, 129, 134–6
  short-term, 120–3, 136–8
projective social theory, 32–4, 40, 59
psychological approaches to risk, 5–6, 22

quid pro quo, 49–51, 117–18
quiet politics of risk, 140–6

race inequalities, 12, 102, 134
Rajan, Raghuram, 122–3
ratio of securities pay to private sector pay, 124, 132
rationality, 4, 24, 26–30, 32, 56, 59, 86, 91–4, 146, 152
  of risk, 92
Rasborg, Klaus, 42, 46
realism, 6, 8, 16, 20–41, 43–61, 71–2, 89–90, 95, 142, 148, 150, 152
  approach to risk, 21, 33–4, 36–40, *passim*
  contingent-dependence, 35–41, 150
  fallible nature of knowledge, 37, 55, 128
  immanent, 16, 33–5
  independence thesis, 35–6, 150
  ineliminability, 21, 33–40
  possibility of error, 35, 38–40
  reflexive, 39–40
  see also critical realism; dappled world
realist constructivism, 39–40
re-appropriate control over the systems of production of risk, 99, 143–48
reason, instrumental, 26, 32, 86
  see also rationality
reconstruction of theory of risk society
  see re-theorization of risk society
reflexive modernization, 4, 31–2, 47, 87–90, 103–4
  self-confrontation as, 4, 32, 47, 86, 126
  see also risk society
reflexivity, 105
refugees, environmental, 2
regional unevenness of risks, 87, 95–6, 108
relational approaches to class, 12, 17, 69, 74–8, 85, 98, 134, 153, 155
relational distribution of bads, 100–13, 155
  cosmopolitan turn and the, 107–13
relational economy, 7
relational inequalities, 11–13, 18, 66, 69, 72, 98, 101–3, 107–13, 134, 149
relations of definition of risks, 50, 151
relations of production, social, 52, 66–76, 79, 151
relations of risk production and distribution, 58
  see also positional occupation of private escape routes; mismatch, risk; structural risk position
relative income and wealth differentials, 11, 18, 76, 96, 100–5, 111, 155
relativism about risk, 22, 156
re-theorization of risk society, **ch. 3**, *passim*

return on equity (ROE), 120–1, 156
risk, *passim*
  arbitrage, 11, 115, 123–5, 137–8
  attribution, 30–1, 50
  awareness, 21–4, 29–31, 49, 146
  catastrophic, 33, 87–9, 95–7, 150
  colonization, 27, 143, 147
  as commodity, 126
  communities, 45–6, 151
  de-centring, 43, 47
  differing levels of calculability, 91–7
  distribution on a relational and antagonistic basis, 85–7, 100–10, 130–39
  economic, 12–3, 113–139, 142
  egalitarian, 9, 95, 97, 101, 103–4
  environmental, 1–3, 6, 7, 9, 13–18, 22–3, 32–4, 82, 83–90, 95–7, 100–12, 113–14, 118, 127–8, 134, 139, 141–7, 154–5
  environmental and financial risks (affinities), 6, 15–17, 82, 113–14, 117–18, 127–8, 134, 139, 141–7
  financial, 1–3, 6–7, 9, 13, 15–18, 31–3, 36–9, 51, 82, 84, 86, 91, 99, 106–7, 113–139, 141–7, 149, 156–8
  governance, 26–8
  gradations of, 10, 87–90, 93, 96–7
  hypothetical, 91
  and inequalities, **ch. 5 & 6**, *passim*
  lay notion of, 26, 94
  as *lingua franca*, 27
  as an object of distribution, 7–8, 12–13, 94–99, 105, 107, 131–7, 144
  as an object of production, 7–8, 13, 108, 116–26, 144
  perception, 6, 20, 22–4, 28, 35, 38–9, 89, 104, 150
  politicalization, 18, 21, 24, 110, 140, 143–6
  position, 12–17, 44, 85–91, 94–99, 105, 107, 115–22, 125, 133–7, 143–5, 155
  radically uncertain, 87–98, 103–5
  reinforces vs transforms, 10, 84
  technological, 22–3, 31, 32–5, 125, 127
  terror, 47, 108
  third category of, 93–5
  totalization, 11, 16, 42–6, 48, 52–3, 57, 60–1, 72, 90, 111, 142
  unevenness of, 3, 7, 11, 14, 17, 87, 89, 94, 96, 134, 139, 144–7, 155
  vs catastrophe, 89–91
  vs danger, 29–31
risk-class, 11, 18, 46, 115–119, 125, 133–4, 137, 145
risk illusion, 11, 18, 113–30, 133, 137–9, 156–7
risk-inflated earnings, 124–9, 131–3
risk replace class? 9, 45, 111
risk shift, 12
risk society, *passim*
  additional site of structuration of class relations, 98–100, 110–11
  core elements of the theory of, 41–52, 60–2, 85–7
  critics of theory of, 5, 9–10, 12, 16, 17, 28, 38–9, 42–3, 45–7, 51, 59, 61–2, 64, 83–7, 89–92, 97, 100, 110, 114, 140–2, 147
  de-totalizing the theory of, 52–4, 58–62, 111, 142
  disaster society, 87–91, 95–7
  see also Ulrich Beck; re-theorization of risk society
  subset of all risks, 46–52, 61
risk societies, two, 4, 11, 139
risk vs uncertainty, 91–5
Rose, Nikolas, 25–6, 43, 58
rural areas, 2, 101–3
Russia, 138

Saez, Emmanuel, 7, 63, 130–1, 149
Savage, Mike, 13, 20, 42, 59, 63, 66–9, 73–82, 115, 125, 149, 153–4
Sayer, Andrew, 17, 35, 37, 43, 52–60, 63, 69, 76, 81–2, 150, 152–4
Schumpeter, Joseph, 4, 139
science and technology, 22–3, 29–33, 86, 90, 144
Scott, Alan, 5, 9, 10, 42, 46, 83, 84, 87, 114, 140, 141
Scott, John, 5, 9, 46, 67, 68, 84, 100, 140, 153
sea levels, 2, 102

securities industry, 118–36, 157–58
  see also investment banks
semantic shift, 89
Sen, Amartya, 7, 103, 106–7, 149, 156, 158
shadow banking, 138–9
  see also financial risk, systemic
shareholder value revolution, uneven, 128–9, 135
side-effects, systematic
  see manufactured side-effects as risks
side-effect principle, 108
silos, 113
Skeggs, Beverley, 80
smog, 9, 33, 86, 141
  see also pollution, air
social construction of risks, 8, 21, 22, 29–30, 34–40, 55, 150
social practices, inequalities in, 67–68
  see also forms of life
social production of risks, 6, 11, 38–9, 47, 85–8, 96, 98, 108, 114–19, 126–7, 136–8, 141–3, 151
  see also risk, environmental; financial risk, systemic
social production of wealth/goods, 3, 5, 47, 85–6, 110, 151
social science, rethinking, 14
social sources of suffering, 15, 18, 82, 148
social structuration of risk, 34, 37–40, 53, 90, 108, 111, 149
social theory, systematic, 15, 17, 43, 58–62, 113, 128
sociological concepts, jettison prior, 39, 83, 111
sociology of risk, **ch. 2**, 4–5, 8–11, 14–15, 20–41, 114, 141–3
South Korea, 138
spatio-temporal dispersion of risk, increasing of, 88
species extinction, 2–3
Standing, Guy, 12–13, 63
state regulation, 125, 139, 142, 144, 159
status, 67, 69, 78
Stern, Nicholas, 2, 7, 96, 102
Stiglitz, Joseph, 121, 149, 156
stock markets, 36, 132
  see also shareholder revolution, uneven
structural risk position, 119, 125, 134, 137, 159
  see also risk position
structural transformations, 33, 53, 57
structuration, 34
  see also social structuration of risk
Strydom, Piet, 29, 31, 32, 39, 50, 51, 150
stylized facts, 128
superior synthesis, 69–71
  see also complementary relations
subsystems, 29–30, 50
surplus value, 7, 144
Sweden, 138

Tail risk insurance, selling, 120, 122–3, 137, 139
Taleb, Nassim Nicholas, 138
technocratic changes, 39, 139, 147
Tendencies, 32–4, 57, 72, 97, 99, 119, 141, 146, 150
  see also countervailing forces
Tendential realism, 56–8
Tett, Gillian, 123, 144, 156
Thailand, 138
theory effect, 78
Therborn, Göran, 114, 149
tier 1 capital, 120–1
Titanic society, 18, 99
toolbox, theory of risk society as a, 11, 14–15, 137, 143
  see also distribution of *bads*; mismatch, risk; organized irresponsibility; risk arbitrage; risk position; risk-class
totality, society as, 43–4
toxicity, 13, 33, 86, 103–4
  see also financial crisis, 2008
trading books, increasing, 120, 123–5, 139
transcendental inferences, 54, 152
transnational relational distribution of environmental *bads*, 107–10, 156
transitive dimension, 37, 55
  see also critical realism; intransitive dimension

transdisciplinary, 14
  see also interdisciplinary
Turner, Adair, 124–5

Uncontrollability
  see controllability and uncontrollability of risk
Uncertainty, measurable and unmeasurable, 91–5
  see also risk, radically uncertain
unemployment, 1, 46, 107, 130, 132
uneven appropriation of the benefits from the production of risk, 11, 17–18, 50–1, 84, 88, 92, 98, 107, 110, 114–19, 123–39, 142–4, 157
unintended consequences, 6, 39–40, 48, 51, 89, 155
United Kingdom, 46, 63, 119, 120, 124, 128–36
United States, 63, 102, 120, 128–36, 138
universal distribution of risk, 32–3
unrecognized consequences, 89
universal and maximal self-endangerment
  see risk, egalitarian; catastrophes, maximal
Urry, John, 2, 83, 156

value
  apparent, 18, 114, 118, 120, 129
  skimmers, 119, 133, 156
  surfers, 119, 133, 156
  surplus, 7, 144
voluntary exposure to heightened environmental risks, 107
vulnerability, 15, 88–90, 96–7, 101–5, 108, 112, 119–20, 125–6, 131, 150, 154
  intra-regional differentiation in risk, 96–7
  physical geography vs social geography of, 96
  spatial, 96, 101–2

Wacquant, Loïc, 69, 75, 96, 136, 158
Wall Street, 118–26, 129–37
Warde, Alan, 66, 69–81, 153
water insecurity/scarcity, 2, 103, 151, 155
Weber, Max, 7, 12, 17, 26–7, 32, 63–82, 84, 100, 105, 115, 134–6, 143–4, 153, 154
wealth, 7, 11–13, 18, 44, 47, 50–1, 65, 67, 81, 84–91, 96–108, 111, 119, 130–3, 136–139, 141, 145, 150–1, 155
Williams, Karel, 13, 82, 115, 119, 129, 133, 135, 158, 159
world risk society, 45–9, 90–1, 95–6, 108–9, 116, 151, *passim*
Wright, Erik Olin, 12, 65–72, 79, 81, 84, 100, 153
Wynne, Brian, 20, 38

Zombie categories, 39, 113