

# *World Risk Society*

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## *Risk Society Revisited:* Theory, Politics, Critiques and Research Programmes

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Living in an age of constructivism, the attempt to draw a line between modernity (or, as I would prefer to say, first industrial modernity) and world risk society (or second reflexive modernity) seems to be naïve or even contradictory. Within a constructivist framework, no one is able to define or declare what really 'is' or 'is not'. Yet, this does not square with my experience. I cannot understand how anyone can make use of the frameworks of reference developed in the eighteenth and nineteenth centuries in order to understand the transformation into the post-traditional cosmopolitan world we live in today. Max Weber's 'iron cage' – in which he thought humanity was condemned to live for the foreseeable future – is to me a prison of *categories and basic assumptions* of classical sociology (and the cultural, social and political sciences). We have to free ourselves from these categories in order to find out about the unknown post-Cold-War world. Don't get me wrong. I do not consider most of the philosophies and theories (sociologies) of so-called 'postmodernity' to fare any better since they cannot answer very basic questions about how and in what ways everyday lives and professional fields are being transformed. Conventional social sciences, I therefore want to argue, even if they are conducting highly sophisticated theoretical and empirical research programmes, are caught up in a circular argument. By using the old categories (like class, family, gender roles, industry, technology, science, nation-state, and so on), they take for granted what they actually try to demonstrate: that we still live, act and die in the normal world of nation-state modernity.

Some critiques of my book *Risk Society* (Beck, 1992) accuse me of being a 'realist'. But this is the result of a misinterpretation of my arguments. What strikes me about them is the inability of constructivist thinking to criticize and renew the frameworks of modern and post-modern sociology. Let me explain. I consider realism and constructivism to be neither an either-or option nor a mere matter of belief. We should not have to swear allegiance to any particular view or theoretical perspective. The decision whether to take a realist or a constructivist approach is for me a rather *pragmatic* one, a matter of choosing the appropriate means for a desired goal. If I have to be a realist (for the moment) in order to open up the social sciences for the new and contradictory experiences of the global age of global risks, then I have no qualms about adopting the guise and language of a ('reflexive') 'realist'. If constructivism makes a (positive) problem shift possible and if it allows us to raise important questions that realists do not ask, then I am content (for that moment at least) to be a constructivist. Having grown up with the constructivist philosophies of thinkers such as Kant, Fichte and Hegel, I find it insufficient today, especially in the area of sociology of risk, to restrict my analysis to one perspective or conceptual dogma only: I can be both a realist and constructivist, using realism *and* constructivism as far as those meta-narratives are useful for the purpose of understanding the complex and ambivalent 'nature' of risk in the world risk society we live in.<sup>1</sup>

Let us consider for a moment the current state of European intellectual thought. In 1989 a whole world order broke down. What an opportunity for venturing into uncharted terrain, exploring new intellectual horizons. This opportunity has not been seized. Instead the vast majority of theorists are still holding on to the same old concepts. Reversal rather than revision seems to be the order of the day: radical socialism, Giddens (1994b) suggests, has become conservative, and conservatism has become radical. Little has changed: the script of modernity is yet to be rewritten, redefined, reinvented. This is what the theory of world risk society is all about.

At this point, I should emphasize that I do not believe that 'everything goes'. I feel strongly that we have to be imaginative yet disciplined if we are to break out of the iron cage of conventional and orthodox social science and politics. We need a new sociological imagination which is sensitive to the concrete paradoxes and challenges of reflexive modernity and which at the same time is thoughtful and strong enough to open up the walls of abstraction in which the academic routines are captured.

In this chapter I would like to accomplish three main tasks. First, once again, I wish briefly to reiterate my argument of why the notion of risk society can be introduced as a new conception of a 'non-industrial' society, to ask 'what are "risks"?' and to inquire about the reality status of risks using 'constructivism' and 'realism' as a matter of pragmatic choice. Second, I want to address the views of some of my critics and in the process offer the reader a discussion of what I see as the theoretical issues which now limit the development of my ideas on global risk. Finally, I will highlight some of the theoretical and political avenues I would like to see explored in the near future and identify some issues for comparative study at a European level and beyond.

### Elements of a Theory of Risk Society

In the first part of this chapter I would like to gather up into a coherent whole arguments that are dispersed throughout my work on the sociological concept of risk and risk society. In so doing, I also hope to illustrate, indirectly, what I have learned from the existing criticisms of my earlier work.<sup>2</sup> I have structured these issues into eight major points.

1 Risks do not refer to damages incurred. They are not the same as destruction. If they were, all insurance companies would be made bankrupt. However, risks do threaten destruction. The discourse of risk begins where our trust in our security ends and ceases to be relevant when the potential catastrophe occurs. The concept of risk thus characterizes a peculiar, intermediate state between security and destruction, where the *perception* of threatening risks determines thought and action. As a result, I find it difficult to distinguish any great difference between Scott Lash's (1999) conception of 'risk culture' and my concept of 'risk society'. I do, however, find Lash's discussion valuable in that he has highlighted the radicalization of the cultural framework of risk by cultural theory and cultural studies. Yet, it seems to me that the 'relation of definition' (Marx) in the age of culturally defined risks still makes the notion of 'risk society' necessary (see discussion below). So ultimately: *it is cultural perception and definition that constitute risk*. 'Risk' and the '(public) definition of risk' are one and the same.

This peculiar reality status of 'no-longer-but-not-yet' – no longer trust/security, not yet destruction/disaster – is what the concept of

risk expresses and what makes it a public frame of reference. The sociology of risk is a science of potentialities and judgements about probabilities – what Max Weber (1991) called '*Möglichkeitsurteile*'. So risks 'are' a type of *virtual reality*, real virtuality. Risks are only a small step away from what Joost van Loon (1998) calls 'virtual risks in an age of cybernetic reproduction', and I wholeheartedly agree with his assessment when he writes: 'Only by thinking of risk in terms of reality, or better, a *becoming-real* (a virtuality) can social materialization be understood. Only by thinking risk in terms of a construction can we understand its indefinable "essence". Risks cannot be understood outside their materialisation in particular mediations, be they scientific, political, economic or popular' (van Loon, 1999). I believe this is the way in which the notions of constructivism and realism, although seemingly incompatible, can complement each other. The electronic media involved in the BSE crisis connect science, politics and popular consumer culture. In so doing, they render the invisibility of risk, for example the mutating prions of BSE, visible. They bring them into being through digitalized imagery. We, the consumers of such images, have no means of testing the adequacy of such representations, nor do we have to. Their origin is fabricated, manufactured in laboratories under microscopes and further enhanced by computer simulations. Their sources are truly cybertechnological, connecting chemistry, molecular biology and medicine with computer graphics and television broadcasts. Rendering the prion visible as a computer simulation has allowed news broadcasts to begin to interpret the uninterpretable (for instance, to tell us what BSE and CJD actually 'are') and to explain the unexplainable (how a normal prion – whatever that might be – could become 'pathological'). The mere possibility that the pathogenesis might be linked to the banal practice of consuming beef further illustrates the force of Benjamin's (1968) claim that in an age of mechanical reproduction, all aesthetic experiences may become politicized.

The 'becoming-real' of the risk of BSE is directly related to its mediation. Now that 'we' know that there 'are' possible risks, 'we' face a responsibility. This responsibility takes the form of a *decision* whether to eat beef and other bovine products or not. Therefore, CJD is no longer exclusively a hazard, as a strain has been identified that can be linked to BSE. Although the calculability of this risk has remained problematic, as a virtuality, it operates in exactly the same way. The sudden accessibility of the 'knowledge' regarding the possible relationship between BSE and CJD has thus transformed a hazard into a risk:

we now have a decision to make with consequences for ourselves, our loved ones and possibly the rest of our world (van Loon, 1999).<sup>3</sup>

The sociology of risk reconstructs a techno-social event of its (im)materiality. Where risks are believed to be real, the foundations of business, politics, science and everyday life are in flux. Accordingly, the concept of risk, when considered scientifically (risk = accident  $\times$  probability), takes the form of the calculus of probability, which we know can never rule out the worst case (see Prior, 1999). This becomes important in view of the socially very relevant distinction between risk *decision-makers* and those who have to deal with the consequences of the decisions of *others*. In this respect, Niklas Luhmann's (1993) differentiation between risk and danger pointed to the sociologically crucial problem of the acceptance of risk decisions. However, this leaves the central question unanswered: What does the calculus of probability and the social difference between decision-makers (risks) and the affected parties, encompassing ever larger social groups (dangers), mean for dealing with disasters? Who has the legitimate right to make decisions in such cases? Or, more generally, how will decisions on hazardous technologies become capable of legitimation in the future?

Closely associated with this issue is the question of what the 'objectivity' and 'subjectivity' of risks would mean in the first place in the context of 'virtual risk realities'. What is 'rational' and what is 'irrational'? This is certainly one point where a sociology of risk and risk society differs fundamentally from technical and scientific risk assessment (more on this later).

2 The concept of risk reverses the relationship of past, present and future. The past loses its power to determine the present. Its place as the cause of present-day experience and action is taken by the future, that is to say, something non-existent, constructed and fictitious. We are discussing and arguing about something which is *not* the case, but *could* happen if we continue to steer the same course as we have been.

Believed risks are the whip used to keep the present day moving along at a gallop. The more threatening the shadows that fall on the present day from a terrible future looming in the distance, the more compelling the shock that can be provoked by dramatizing risk today. This can be demonstrated not only with the discourse on the environmental crisis, but also, and perhaps even more emphatically, with the example of the discourse on globalization. For instance, the globalization of paid labour does not (as yet) exist to a large degree; it threatens or, more accurately, transnational management threatens

us with it. The exchange of (expensive) labour in Europe for (cheap) labour in India or Korea, after all, amounts to at most 10 per cent (in Germany) and primarily affects the lower wage and skilled groups (Kommission für Zukunftsfragen, 1997: ch. 7). The brilliantly staged *risk* of globalization, however, has already become an instrument for reopening the issue of power in society. By invoking the horrors of globalization, everything can be called into question: trade unions, of course, but also the welfare state, maxims of national policy and, it goes without saying, welfare assistance. Moreover, all of this is done with an expression of regret that it is – unfortunately – necessary to terminate Christian compassion for the sake of Christian compassion.

Established risk definitions are thus a magic wand with which a stagnant society can terrify itself and thereby activate its political centres and become politicized from within. The public (mass media) dramatization of risk is in this sense an antidote to current narrow-minded 'more-of-the-same' attitudes. A society that conceives of itself as a risk society is, to use a Catholic metaphor, in the position of the sinner who confesses his or her sins in order to be able to contemplate the possibility and desirability of a 'better' life in harmony with nature and the world's conscience. However, few sinners actually want to repent and instigate a change. Most prefer for nothing to happen whilst complaining about that very fact, because then everything is possible. Profession of sins and the identification with the risk society allow us simultaneously to enjoy both the bad good life and the threats to it.

3 Are risks factual statements? Are risks value statements? Risk statements are neither only factual nor only value statements. Instead, they are either both at the same time or something in between, a 'mathematicized morality' as it were. As mathematical calculations (probability computations or accident scenarios), risks are related directly and indirectly to cultural definitions and standards of a tolerable or intolerable life. So in a risk society the question we must ask ourselves is: how do we want to live? This means, among other things, that risk statements are by nature statements that can be deciphered only in an interdisciplinary (competitive) relationship, because they assume in equal measure insight into technical know-how and familiarity with cultural perceptions and norms.

What, then, is the source of the peculiarity in our political dynamics that allows risk statements to develop as a hybrid of evaluations in the intermediate realm of real virtuality and non-existent future which none the less activates present action? This political explosiveness

derives, primarily, from two sources: the first one relates to the cultural importance of the universal value of survival. Thus Thomas Hobbes, the conservative theorist of the state and society, recognized as a citizen's right the right to resist where the state threatens the life or survival of its citizens (characteristically enough, he uses phrases such as 'poisoned air and poisoned foodstuffs' which seem to anticipate ecological issues in this regard). The second source is tied to the attribution of the dangers to the producers and guarantors of the social order (business, politics, law, science), that is, to the suspicion that those who endanger the public well-being and those charged to protect it may well be identical.

4 In their (difficult-to-localize) early stage, risks and risk perception are 'unintended consequences' of the *logic of control* which dominates modernity. Politically and sociologically, modernity is a project of social and technological control by the nation-state. Above all others, it was Talcott Parsons who conceptualized modern society as an enterprise for constructing order and control. In this way, consequences – risks – are generated that call this very assertion of control by the nation-state into question, not only because of the globality of the risks (climatic disasters or the ozone hole) but also through the inherent indeterminacies and uncertainties of risk diagnosis. It is interesting to note that Max Weber (1968) does indeed discuss the concept of 'unintended consequences' in a crucial context, and not least of all because that concept remains related in structure to the dominance of instrumental rationality. However, Weber does *not* recognize or discuss the concept of 'risk', one of whose peculiarities is to have lost precisely this relationship between intention and outcome, instrumental rationality and control.

The construction of security and control of the type that dominated (social) thought and (political) action in the first stage of modernity is becoming fictitious in global risk society. The more we attempt to 'colonize' the future with the aid of the category of risk, the more it slips out of our control. It is no longer possible to externalize risks in the world risk society. That is what makes the issue of risk so 'political' (in a subversive meaning). In this paradox lies an essential basis for an important distinction between two stages or forms of the concept of risk (which, I feel, should answer some of the questions Scott Lash (1999) raises with his concept of 'determinate judgement' in opposition to 'reflexive judgement'). In the first stage of modernity (essentially the period from the beginning of industrial modernity in the seventeenth and eighteenth centuries to the early twentieth century), risk essentially signifies a way of calculating unpredictable

consequences (industrial decisions). As François Ewald (1986) argues, the calculus of risk develops forms and methods for making the *unpredictable predictable*. This is what Lash means by 'determinant judgement'. The corresponding repertoire of methods includes statistical representations, accident probabilities and scenarios, actuarial calculations, as well as standards and organizations for anticipatory care. This meaning of the concept of risk refers to a world in which most things, including external nature and the ways of life as determined and coordinated by tradition, continue to be considered pre-ordained (fate).

To the extent that nature becomes industrialized and traditions become optional, new types of uncertainties arise which Anthony Giddens and I call '*manufactured uncertainties*'. These types of internal risks and dangers presume a threefold participation of scientific experts, in the roles of producers, analysts and profiteers from risk definitions. Under these conditions, many attempts to confine and control risks turn into a broadening of the uncertainties and dangers.

5 So the contemporary concept of risk associated with risk society and manufactured uncertainty refers to a peculiar *synthesis of knowledge and unawareness*. To be precise, two meanings, namely risk assessment based on empirical knowledge (automobile accidents, for instance), on the one hand, and making decisions and acting on risk in indefinite uncertainty, that is, indeterminacy, on the other, are being conflated here. In this sense the concept of 'manufactured uncertainties' has a double reference. First, more and better knowledge, which most people assess in unreservedly positive terms, is becoming the source of new risks. Because we know more and more about brain function, we now know that a person who is 'brain-dead' may very well be alive in some other sense (because the heart is still beating, for instance). By opening more and more new spheres of action, science creates new types of risks as well. The current examples are again the advances in human genetics, which make it possible to blur the boundary between ill people and healthy people because more and more congenital diseases can be diagnosed, even those affecting people who consider themselves healthy based on their own experience (Beck-Gernsheim, 1993). Second, however, the opposite is also true: risks come from and consist of unawareness (non-knowledge). What are we to understand by 'unawareness'? In the unbroken security of a lifeworld, unawareness is often understood as being *not yet* aware or no longer aware, that is to say, as *potential* knowledge. The problems of unawareness are understood here from its opposite, from knowledge and the (unspoken) certainty in which the lifeworld resides.

In contrast to that, the inability to know is becoming ever more important in this second phase of modernity. I am not referring here to the expression of selective viewpoints, momentary forgetting or underdeveloped expertise, but, on the contrary, to highly developed expert rationality. Thus, for instance, the calculus of probability can never rule out a given event, or risk specialists may call each other's detailed results into question because they quite sensibly start from different assumptions. (See chapter 6 above.)

This is how a society based on knowledge, information and risk opens up a threatening sphere of possibilities. Everything falls under an imperative of avoidance. Everyday life thus becomes an involuntary lottery of misfortune. The probability of a 'winner' here is probably no higher than in the weekly lottery, but it has become almost impossible *not* to take part in this raffle of evils where the 'winner' gets sick and may even die. Politicians such as the British ex-Prime Minister John Major, who complained about the 'hysteria' of consumers in reaction to the debate over BSE in Europe and the resulting collapse in the beef market, yet encouraged people to take part in the national lottery, render a particular service to the credibility of politics. At the extreme end of the spectrum two strategies for dealing with 'manufactured uncertainties' are conceivable: if one embraces the view of John Major that only certain knowledge can compel us to act, then one must accept that the denial of risks causes them to grow immeasurably and uncontrollably. There is no better humus for risks than denying them. If one selects the opposite strategy and makes presumed (lack of) knowledge the foundation of action against risks, then this opens the flood-gates of fear and everything becomes risky.

Risks only suggest what should *not* be done, not what *should* be done. To the extent that risks become the all-embracing background for perceiving the world, the alarm they provoke creates an atmosphere of powerlessness and paralysis. Doing nothing and demanding too much both transform the world into a series of indomitable risks. This could be called the *risk trap*, which is what the world can turn into in the perceptual form of risk. There is no prescription for how to act in the risk trap, but there are very antithetical cultural reactions (within and outside Europe). Within different boundaries and times, indifference and alarmed agitation often alternate abruptly and radically.

One thing is clear: how one acts in this situation is no longer something that can be decided by experts. Risks pointed out (or obscured) by experts at the same time disarm these experts, because

they force everyone to decide for themselves: what is still tolerable and what no longer? They require a decision about whether or not and when and where to protest, even if this only takes the form of an organized, intercultural consumer boycott. These issues raise questions about the authority of the public, cultural definitions, the citizenry, parliaments, politicians, ethics and self-organization.

6 Even the antithesis of globality and locality is short-circuited by risks. The new types of risks are simultaneously local and global, or 'glocal' (Robertson, 1992). Thus it was the fundamental experience that environmental dangers 'know no boundaries', that they are universalized by the air, the wind, the water and food chains, which justified the global environmental movement everywhere and brought up global risks for discussion.

This 'time-space distantiation' (Harvey, 1989) of the hazards of choices between local and global risks confirms the diagnosis of the global risk society. The global threats have led to a world in which the foundations of the established risk logic are undermined and invalidated, in which there are only difficult-to-control dangers instead of calculable risks. The new dangers destroy the pillars of the conventional calculus of security: damages can scarcely still be attributed to definite perpetrators, so that the polluter-pays principle loses acuity; damages can no longer be compensated financially – it makes no sense to insure oneself against the worst-case ramifications of the global spiral of threat. Accordingly, there are no plans for follow-up care in case the worst case should occur. In the world of risk society the logic of control collapses from within. So, risk society is a (latent) *political society*.

World risk society theory does not plead for or encourage (as some assume) a return to a logic of control in an age of risk and manufactured uncertainties – that was the solution of the first and simple modernity. On the contrary, in the world risk society the logic of control is questioned fundamentally and not only from a sociological point of view but by ongoing modernization itself. Here is one of the reasons why risk societies can become *self-critical* societies. Different agencies and actors – for example managers of chemical industries and insurance experts – contradict each other. Technicians argue that: 'There is no risk', whilst the insurers refuse insurance because risks are too high. A similar debate is currently taking place within the realm of genetically engineered food.

In order to speak of the world risk *society*, it is also necessary for the global hazards to begin to shape *actions* and facilitate the creation of *international institutions*. That there are indeed such impulses

can be seen from the fact that the majority of the international environmental agreements were concluded during the past two decades. This border-transcending dynamism of the new risks does not only apply internationally, but also exists inside nation-states, implying that system boundaries no longer function properly either. This can be seen from the fact that risks are a kind of 'involuntary, negative currency'. No one wants to accept them or admit them, but they are present and active everywhere, resistant to all attempts to repress them. A characteristic of the global risk society is a metamorphosis of danger which is difficult to delineate or monitor: markets collapse and there is shortage in the midst of surplus. Medical treatments fail. Constructs of economic rationality wobble. Governments are forced to resign. The taken-for-granted rules of everyday life are turned upside-down. Almost everyone is defenceless against the threats of nature as re-created by industry. Dangers are integral to normal consumption habits. And yet they are and remain essentially knowledge-dependent and tied to cultural perception, whether they are manifested as alarm, tolerance or cynicism.

7 Let us now return to the realism–constructivism debate and concentrate on the distinction between *knowledge* and *impact*, as suggested by Barbara Adam (1998) in her latest book.<sup>4</sup> This distinction is important for understanding the second degree of 'uncertain global risks' faced by the world risk society, because the point of impact is not obviously tied to the point of origin. At the same time the transmissions and movements of hazards are often latent and immanent, that is, invisible and untrackable to everyday perceptions. This social invisibility means that, unlike many other political issues, risks must clearly be brought to consciousness; only then can it be said that they constitute an actual threat, and this includes cultural values and symbols ('the dying woods' or '*Le Waldsterben*') as well as scientific arguments. At the same time we know, at least in principle, that the *impacts* of risk grow precisely *because* nobody knows or wants to know about them. A case in point is the environmental devastation of Eastern Europe under the communist regime.

So – once again – risks are at the same time 'real' and constituted by social perception and construction. Their reality springs from '*impacts*' that are rooted in the ongoing industrial and scientific production and research routines. Knowledge about the risks, in contrast, is tied to the history and symbols of one's culture (the understanding of nature, for example) and the social fabric of knowledge. This is one of the reasons why the same risk is perceived and handled politically so differently throughout Europe and other parts of the globe. Moreover,

there are interesting relations between those two dimensions of risk. Thus, the enormous spatial disjuncture between knowledge and impact: perception is always and necessarily contextual and locally constituted. This local contextuality is only extendible in the imagination and with the aid of such technologies as television, computers and the mass media. The impact of the industrial way of life, in contrast, is spatially and temporarily open and tends to extend across the globe, on the one hand, and to the stratosphere and the universe, on the other. Radiation, synthetic chemicals and genetically engineered organisms are pertinent cases in point.

Many other examples can be used to highlight the unbridgeable temporal gap between actions and their impacts. Contemporary environmental hazards such as ozone depletion, damage to the reproductive and immune system of species or BSE have not arisen as symptoms until years after they began their impact as invisible effects of specific actions. Thus, for example, some of the Britons who died from the new variant of CJD had been vegetarians for the last ten years or so, which suggests a latent impact-period of at least that time. Other hazards externalize as symptoms only after they have combined to form a critical mass. That is to say, the impact is temporarily open-ended and becomes perceivable as symptomatic (thus knowable) only after it materializes into a visible 'cultural' phenomenon at some time and some place. This gap between source and perceivable symptom is one of the main conflict matters of social and expert construction: pesticides in foods, radiation and chemical damage to the unborn, and global warming are just a few illustrations of this temporal disjuncture.

This in turn links back to an issue I raised before and to the recognition that *the less risks are publicly recognized, the more risks are produced* (not only because of high industrialization but because of functional differentiation too). This might be an interesting 'law' of the risk society with particular relevance to the insurance business. The neglect of risk, in the first instance, would seem to serve the interests of the insurer, not those of the potential victims. Basic to the risk society is the self-transformation of risk from technical to economic risks, market risk, health risk, political risk, and so on. Important to the insurer is the *time gap* between the insurance contract and the emergence of the risk through nature and culture. So the insurer (or the insurer of the insurer) has to pay for it when this time bomb explodes. The problems that befell Lloyd's of London illustrate this case nicely. Several elements of this case are worthy of additional attention:

- Insurers are not in the same boat as manufacturers. Instead, insurers find themselves in a 'natural coalition' with the potential victims. This means that in order to act in their business' interest, they have to trust socio-scientific risk definitions, even rumours, and they have to find out about them during early stages of technological and industrial development.
- The neglect of risk information facilitates the growth and spread of risks. Asbestos is a case in point. During the Second World War the use of this material was expanding fast because it was seen as effective, durable and, above all, cheap, whilst the attendant risks were ignored.
- Commercial success and freedom from litigation result in complacency. Even worse, manufacturers turn their back on medical evidence of the link between their products and ill health. Just as the tobacco manufacturers did not – and still do not – want to know the health consequences of smoking, so the asbestos industries preferred to ignore warnings.
- Consequently, risk industries and insurance businesses get captured in the 'time cage' between ignored impact and growing risk, on the one hand, and between risk knowledge and cultural sensitivity, on the other. This is the very normal way in which the manufactured uncertainties of hazards are becoming internalized by industries and are transformed into potential *economic* disasters.

8 Finally, the notion of world risk society is pertinent to a world which can be characterized by the *loss of clear distinction between nature and culture*. Today if we talk about nature we talk about culture, and if we talk about culture we talk about nature. Our conception of a separation of worlds into nature and culture, which is intimately bound to modernist thought, fails to recognize that we are building, acting and living in a constructed artificial world of civilization whose characteristics are beyond these distinctions, which still dominate our thinking. The loss of boundaries between these realms is not only brought about by the industrialization of nature and culture but also by the hazards that endanger humans, animals and plants alike. Whether we think of the ozone hole, pollution or food scares, nature is inescapably contaminated by human activity. That is to say, the common danger has a levelling effect that whittles away some of the carefully erected boundaries between classes, nations, humans and the rest of nature, between creators of culture and creatures of instinct, or, to use an earlier distinction, between beings with and those without a soul (Adam, 1998: 24). Faced with the threat



people have the experience that they breathe like plants, and live *from* water as the fish live *in* water. The toxic threat makes them sense that they participate with their bodies in things – ‘a metabolic process with consciousness and morality’ – and consequently that they can be eroded like the stones and the trees in the acid rain (Schürz, 1984, quoted in Beck, 1992: 74).

That we live in a *hybrid* world which transcends our dichotic framework of thought has convincingly been argued by Bruno Latour (1995). I totally agree with him. Both of us see that the hybrid world we live in and constantly produce is at the same time a matter of cultural perception, moral judgement, politics and technology, which have been constructed in actor-networks and have been made hard facts by ‘black boxing’. Yet the notion of a ‘hybrid’ world is necessary but insufficient to understand the new. ‘Hybrid’ is more of a negative than a positive concept. It somehow says what it is not – *not* nature and *not* society and so on – but it does not really say what it is. I want to suggest that we have to overcome the ‘nots’, ‘beyonds’ and ‘posts’ which dominate our thinking. But if you ask what begins where the ends end, my answer is: the notion of risk and risk society. So risks are *man-made hybrids*. They include and combine politics, ethics, mathematics, mass media, technologies, cultural definitions and perception; and – most important of all – you cannot separate these aspects and realities, if you want to understand the cultural and political dynamics of the world risk society. So ‘risk’ is not only a notion which is used in a central matter by very different disciplines, it is the way the ‘hybrid society’ watches, describes, values, criticizes its own hybridity.

This complex ‘and’, which resists thinking in either-or categories, is what constitutes the cultural and political dynamism of global risk society and makes it so difficult to comprehend (for more detail on this, see Beck, 1999a). A society that perceives itself as a risk society becomes *reflexive*, that is to say, the foundations of its activity and its objectives become the object of public scientific and political controversies. One could say that there is a naïvely realistic misapprehension in the talk of risk society and this can culminate in a type of ‘neo-Spenglerism’. Equally possible and rational, however, is a reflexive understanding of risks, as developed here in the eight theses above. The concept of risk and the concept of world risk society are concepts of ambivalence, meaning that they destroy distinctions and reconnect antitheses. Accordingly, as stated above, the concept of (world) risk (society) means:

- 1 neither destruction nor trust/security but real virtuality;
- 2 a threatening future, (still) contrary to fact, becomes the parameter of influence for current action;
- 3 both a factual and a value statement, it combines in mathematized morality;
- 4 control and lack of control as expressed in manufactured uncertainty;
- 5 knowledge or unawareness realized in conflicts of (re)cognition;
- 6 simultaneously global and local reconstituted as the ‘glocality’ of risks;
- 7 the distinction between knowledge, latent impact and symptomatic consequences;
- 8 a man-made hybrid world which has lost the dualism between nature and culture.

Many social theories (including those of Michel Foucault and those of the Frankfurt School of Max Horkheimer and Theodor Adorno) paint modern society as a technocratic prison of bureaucratic institutions and expert knowledge in which people are mere wheels in the giant machine of technocratic and bureaucratic rationality. The picture of modernity drawn by the theory of world risk society contrasts sharply with these images. After all, one of the most important characteristics of the theory of risk society, so far scarcely understood in science or politics, is to open up – at least intellectually – the seemingly rigid circumstances and to set them in motion. Unlike most theories of modern societies, the theory of risk society develops an image that makes the circumstances of modernity contingent, ambivalent and (involuntarily) susceptible to political rearrangement.

Due to this often unseen and undesired self-discreditation (‘reflexive modernization’) which is provoked everywhere by the discourse of risk, something ultimately happens which sociologists loyal to Max Weber would consider impossible: *institutions begin to change*. As we know, Max Weber’s diagnosis is that modernity transforms into an iron cage in which people must sacrifice to the altars of rationality like the fellahim of ancient Egypt. The theory of world risk society elaborates the antithesis: *the cage of modernity opens up* (see also Beck et al., 1994, and chapter 2 above). So there is a utopia built into risk society and risk society theory – the utopia of a *responsible* modernity, the utopia of *another* modernity, *many* modernities to be invented and experienced in different cultures and parts of the globe (see below). Anyone who is simply focused on the risk potential of

the industrial society fails to understand that risks are a matter not just of unintended consequences – the ‘toxin of the week’ – but also of the unintended consequences of unintended consequences in the institutions. Using the case of BSE, one could say that it is not just cows, but also governing parties, agencies, markets for meat and consumers who are affected and thus implicated in the madness.

### Organized Irresponsibility and the Power Game of Risk Definitions

In the second part of this chapter I want to engage with some of the critiques formulated in Adam et al. (1999) and elsewhere. First, that there is a Germanocentrism, even ‘Bavariacentrism’ (Alan Scott), to my vision that risk society is identical with the ‘*Le Waldsterben*-society’. If this were the case, would it mean that Great Britain, even after BSE, is *not* part of world risk society?

Maybe there is a German background to risk society theory. Being ‘green’ is undoubtedly part of the German national identity. Testing atomic weapons may be part of the French national identity – I don’t know. And the cultural significance of ‘British (Sunday lunch) beef’ may be an important backdrop to the BSE crisis. Yet the conflicts that arise from these national issues cannot be confined within national boundaries. People, expert groups, cultures, nations, are getting involved involuntarily at every level of social organization: a European public is born unintentionally and involuntarily from the conflict over British beef.

In all my books I try to demonstrate that the return to the theoretical and political philosophy of industrial modernity in the age of global risk is doomed to failure. Those orthodox theories and politics remain tied to notions of progress and valorization of technological change. As such, they perpetuate the belief that the environmental hazards we face today can still be captured by nineteenth-century, scientific models of risk assessment and industrial assumptions about danger and safety. Simultaneously, they maintain the illusion that the disintegrating institutions of industrial modernity – nuclear families, stable labour markets, segregated gender roles, social classes, nation-state – can be shored up and buttressed against the waves of reflexive modernization sweeping across the West. This attempt to apply nineteenth-century ideas to the late twentieth century is the pervasive *category mistake* of social theory, social sciences and politics I am

addressing in my writings. In risk society theory ‘environmental’ problems are no longer conceived as external problems. Instead they are theorized at the centre of institutions. This immanence has been recognized by the legal science in Germany (with a debate on manufactured risks and uncertainties in public law), but *not* as yet clearly by the sociology of risk in either Great Britain or Germany.

At this point it is pertinent briefly to outline some of the core notions of the hazards of risk society: *organized irresponsibility*, *relations of definition*, *social explosiveness of hazards*, and to summarize the arguments of the *welfare state*. To me these concepts combine arguments why it is necessary not only to talk in terms of ‘risk culture’ (Scott Lash, 1999), which lacks the institutional dimension of risk and power, but also to theorize risk society with its cultural focus on the institutional base of contemporary globalized industrial society.

The concept of ‘organized irresponsibility’ helps to explain how and why the institutions of modern society must unavoidably acknowledge the reality of catastrophe while simultaneously denying its existence, hiding its origins and precluding compensation or control. To put it in another way, risk societies are characterized by the paradox of more and more environmental degradation – perceived and possible – coupled with an expansion of environmental law and regulation. Yet at the same time, no individual or institution seems to be held specifically accountable for anything. How can this be? To me the key to explaining this state of affairs is the mismatch that exists in the risk society between the character of hazards or manufactured uncertainties produced by late industrialism and the prevalent *relations of definition* which date in their construction and content from an earlier and qualitatively different epoch.

In risk society we must conceive of *relations of definition* analogous to Karl Marx’s *relations of production*. Risk society’s relations of definition include the specific rules, institutions and capacities that structure the identification and assessment of risk in a specific cultural context. They are the legal, epistemological and cultural power-matrix in which risk politics is conducted. The relations of definition I focus on can be identified with reference to four clusters of questions (see Beck, 1996):

- 1 Who is to define and determine the harmfulness of products, the danger, the risks? Where does the responsibility lie – with those who generate the risks, those who benefit from them, those who are potentially affected by them or with public agencies?

- 2 What kind of knowledge or non-knowledge about the causes, dimensions, actors, and so on, is involved? To whom have evidence and 'proof' to be submitted?
- 3 What is to count as sufficient proof in a world where knowledge about environmental risks is necessarily contested and probabilistic?
- 4 Who is to decide on compensation for the afflicted, and what constitute appropriate forms of future damage limitation control and regulation?

In relation to each of these questions, risk societies are currently trapped in a vocabulary that is singularly inappropriate not only for modern catastrophes, but also for the challenges constituted by manufactured insecurities. Consequently we face the paradox that at the very time when threats and hazards are seen to become more dangerous and more obvious, they become increasingly inaccessible to attempts to establish proof, attributions and compensation by scientific legal and political means.

Of course, there is the question about the identity of the political subject of risk society. Despite my extensive discussions on this subject, however, my answer to this question eludes critics as long as they read my texts from within the dualistic frames of Enlightenment thought: to argue that nobody and everybody is the subject. So it should not surprise us that this answer gets lost. But there is more to it, and my argument here is close to Bruno Latour's theory of quasi-objects. In my work, hazards are quasi-subjects, whose acting-active quality is produced by risk societies' institutional contradictions. Moreover, risk society is *not* about a 'dystopian warning'. I use the metaphor of the *social explosiveness of hazard* to explain the politicizing effects of risk (definition) conflicts. I explore the ways in which the virtuality, the 'becoming real' (van Loon, 1999) of large-scale hazards, risks and manufactured uncertainties set off a dynamic of cultural and political change that undermines state bureaucracies, challenges the dominance of science, and redraws the boundaries and battle-lines of contemporary politics. So hazards, understood as socially constructed and produced 'quasi-subjects', are a powerful, uncontrollable 'actor' that delegitimizes and destabilizes state institutions with responsibilities for pollution control, in particular, and public safety, in general.

Hazards themselves sweep away the attempts of institutional elites and experts to control them. The 'risk assessment bureaucracies', of course, have well-worn routines of denial. By utilizing the gap between impact and knowledge, data can be hidden, denied and

distorted. Counter-arguments can be mobilized. Maximum permissible levels of acceptance can be raised. Human error rather than system risk can be cast as villain of the piece. However, these are battles where victories are temporary and defeat is probable or at least possible because they are fought with nineteenth-century pledges of security in a world risk society where such promises are hollow and have lost their purchase. No longer the preserve of scientists and experts, the nature of hazards is demonstrated everywhere and for everyone willing and interested to see.

My political description and vision is close to François Ewald's idea of *safety* and the *welfare state*. Ewald's theory marks a significant shift in the interpretation of the welfare state. While the majority of social scientists have sought to explain the origins and constructions of the welfare state in terms of class interests, the maintenance of social order or the enhancement of national productivity and military power, Ewald's argument underlines the provision of services (health care), the creation of insurance schemes (pensions and unemployment insurance), and the regulation of the economy and the environment in terms of the *creation of security*. In relation to industries and technologies, of course, technical experts play a central role in answering the question: how safe is safe enough? We need to appreciate, however, that this model of the welfare state is most closely correlated with the institutions and procedures of continental Western Europe and much less with either Anglo-American capitalism or the social-democratic states of Scandinavia.

### Outlook: Opportunities of Risk

What follows from this for the future of sociology of risk and risk society? In this final section of the chapter I will offer a discussion of two possible implications.

First, as I said earlier, I admire the work of Bruno Latour, but with respect to the global risk society I disagree with his idea that 'We have never been modern'. Of course, the sun is rising as it has always done since ancient times. But – and this is a significant proviso – this similarity is only a surface one. If you take the issue of risk beyond its cultural definition and explore instead the details of the management of risks in modern *institutions*, the contemporary paradoxes and dilemmas come to the fore and it becomes apparent that the global risk society and its cultural and political contradictions cannot be understood and explained in terms of pre-modern management of

dangers and threats. This is not to deny, of course, that politicians as well as technical and legal experts could learn from the high priests of previous ages how to handle the demons of socially explosive hazards.

Second, risk society theory is *not* about exploding nuclear submarines; it is *not* one more expression of 'German Angst' at the millennium. On the contrary, I am working on a new and optimistic model for understanding our times. My argument interprets what others see as the development of a postmodern order in terms of a stage of *radicalized* (second phase) modernity, a stage where the dynamics of individualization, globalization and risk undermine the first phase of industrial nation-state modernity and its foundations. Modernity becomes *reflexive*, which means concerned with its unintended consequences, risks and their implications for its foundations. Where most postmodern theorists are critical of grand narratives, general theory and humanity, I remain committed to all of these, but in a new sense. To me the Enlightenment is *not* a historical notion and set of ideas but a process and dynamics where criticism, self-criticism, irony and humanity play a central role. Where for many philosophers and sociologists 'rationality' means 'discourse' and 'cultural relativism', my notion of 'second reflexive modernity' implies that we do not have *enough* reason (*Vernunft*) in a new postmodern meaning to live and act in a Global Age (Albrow) of manufactured uncertainties.

Many theories and theorists do not recognize the *opportunities* of the risk society, the opportunities of the 'bads'. I argue for the opening up to democratic scrutiny of the previously depoliticized realms of decision-making and for the need to recognize the ways in which contemporary debates of this sort are constrained by the epistemological and legal systems within which they are conducted. This, then, is one of the themes I would like to see explored further, preferably on a comparative transnational, transcultural, potential global level (see *Korean Journal of Sociology*, 1998). It would entail that we reconstruct social definitions of risks and risk management in different cultural framings; that we find out about the (negative) power of risk conflicts and definition where people who do not want to communicate with each other are forced together into a 'community' of shared (global) risks; and thus that we clarify the questions of *organized irresponsibility* and *relations of definition* in different cultural-political settings. This, it seems to me, would be a new worthwhile conceptual and political social science.

### Chapter 7 Risk Society Revisited: Theory, Politics, Critiques and Research Programmes

- 1 For the realism–constructivism debate, see chapter 2, pp. 23ff. above.
- 2 In addition to authors and papers in Adam et al. (1999), I owe a number of suggestions to Lau (1989), Giddens (1990, 1994), Bonß (1991, 1995), Beck-Gernsheim (1995), Goldblatt (1996), Lash et al. (1996) and Franklin (1998).
- 3 Van Loon (1999) perhaps offers a different view on Alan Scott's (1999) very sophisticated distinction between Mary Douglas' and my version of 'constructed' and 'real risks'.
- 4 I am using Barbara Adam's arguments here.

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