Recent Developments in Sociology of Risk and Uncertainty

My presentation aims to give a brief overview of the main streams of risk research and theorising in sociology as well as recent developments in order to show paths for further activities (please compare also the literature review paper on the SCARR-network’s homepage, Zinn 2004). The emphasis lies on sociology even though a lot could be said about interesting developments in other disciplines such as economics and psychology. You might also excuse that I will say little about the rational choice approach which I tend to assign to economic thinking. I will also remain silent on risk perception theory which is closer to the psychology or social-psychology of risk.

I have recently distinguished four main streams of sociological thinking on risk and uncertainty. A stream on risk and uncertainty in the context of (reflexive) modernisation can be distinguished from a cultural approach on risk. Additionally an approach foremost disseminated in Britain and Australia understands risk as a specific way to govern populations. This is the governmentality approach. Finally I would like to mention the system theory approach on risk which is well-known in German theorising on risk.

From risk society to a general theory of risk in reflexive modernity

The most well known approach in recent sociology of risk is the perspective of ‘risk society’ (Beck 1986, 1992). This approach had a very large initial impact, but conceptual and empirical critiques have developed subsequently.

One of the issues frequently mentioned refers to the concept of risk in Beck’s risk-society. The criticism is that ‘risk’ is narrowed to the responses of technical and environmental risks as unforeseen consequences of industrialization. The narrowed view on technical and statistical risk management seems to be insufficient for the given complexity concerning, for example, governmental risk-strategies and rationalities (Dean 1999), emotional and aesthetic (Lash 2000) or socio-cultural (Tulloch/Lupton 2003) perceptions and responses to risk.

However, a broader approach aiming for a societal perspective on risk but in line with the concept of reflexive modernization starts with uncertainty instead of risk (Bonß 1995). In this perspective, the probabilistic concept of risk emerges as a special case
of how security may be constructed. But the insight that calculability is a cultural construction only valid for special cases and not an objective matter has lead neither to a fundamental rejection of every risk-calculation nor to any subjective risk construction.

What is important is the change in interpretation and foundation of probability-calculations. They have become subjective and simultaneously related to contexts. Referring to the concept of bounded rationality, it is emphasized that social and cultural rationalities are both interactive and limited. They are grounded not on one general principle but on several particular concepts (as science, tradition, values, emotion). They complement each other situationally rather than systematically and in no way refer to an overall rational plan. It looks like a cultural “muddling through” which could be described under a different perspective as political conflicts about risk and security (Bonß 1995).

Therefore the experience of uncertainty has to be accepted as a fundamental modern experience and the view on problems of uncertainty needs to be changed. It should no longer be redefined as a problem of how to produce order and certainty. From such a perspective it would be already decided that the transformation of uncertainty into certainty, disorder to order, and ambiguity into clearness would be the optimal and only solution that should be strived for. However, this view on uncertainty is also dangerous, because of the latent consequences of risk action or second order dangers (Bonß 1995). That means that protective actions or security measures also produce dangers – called second order dangers – that should be recognised. Sensibility regarding unforeseen outcomes would be necessary rather than belief in the infallibility of a specific risk-construction.

Consequently newer research focuses on uncertainties (still foremost technical, medical, or scientific limits of producing certainty) and how they are managed or how they could be managed best (not as a final transformation of uncertainty into certainty but as a process of managing unpreventable uncertainties).
From risk and culture to a socio-cultural approach on risk

The cultural approaches on risk refer regularly to the work of Douglas (1966, 1992) and Douglas/Wildavsky (1982). In these approaches risk appears as a culturally given way to respond to threats of the boundaries of a group, organisation or society its definitions of reality and ways to maintain social order. Therefore risk is mainly understood in the difference between Self and Other. In the well-known grid/group schema Douglas and Wildavsky (1982) develop their functionalist notion of the link between modes of social organization and the individual’s responses to risk. Even though this approach was mainly criticised for an oversimplification of the far more complex and dynamic processes of how risk is dealt with and experienced (Tulloch/Lupton 2003) it is still used as a heuristic in order to analyse the different perceptions and responses to risk, (for example in organisations, Adams 2002). The ‘socio-cultural’ approach (Tulloch/Lupton 2003) and ‘risk culture’ (Lash 2000) try to overcome the functionalist view on risk by aiming at the far more complex and dynamic processes of risk issues in everyday life. Instead, risk knowledge is seen as historical and local, as constantly contested and as a subject to disputes and debates over their nature, their control and who is to blame for their creation. The advantage of these approaches is that thick descriptions of risk-taking and responses to risk are produced. By doing so a high variety of dimensions in risk-perception and risk-taking are described. It becomes clear, for instance, that risks are multidimensional and that risk-taking could be valued positively as well as negatively (Lupton/Tulloch 2002, Tulloch/Lupton 2003).

Furthermore, the socio-cultural perspective shows how risk is interwoven in processes of identity-formation and –continuation as well as in processes of group constitution. (Tulloch/Lupton 2003, Mitchell et al. 2001). The importance of power-relations and the role of aesthetics, habituations and emotions in people’s responses to risk are emphasized. The socio-cultural research foremost focuses on the individual’s risk perception and management in cultural contexts (often applied as (media-) discourses). The socio-cultural perspective shows the limits of approaches, which

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1 However, the quantitative approach using the socio-cultural approach in a framework of risk-perception is mainly criticized for the limited evidence of the influence of cultural issues on risk-perception (for example: Wilkinson 2001).
assume context independent rationalities like rational choice or over-homogenous risk concepts like governmentality or risk society, to explain how people manage and understand risk issues.

Recent research tries to bring together and test different approaches on risk in empirical projects using a socio-cultural perspective (Tulloch/Lupton 2003). However, using mainly qualitative methods it is difficult to produce general assumptions about (tendencies of) social change. Thus, the socio-cultural approach foremost argues against homogenizing concepts of social change. Furthermore, this approach seems to accept that living in late modernity implies the acceptance of some degree of uncertainty and instability (Crook 1999, 10).

The governmentality approach to risk (and uncertainty)

The literature on Governmentality and risk refers to Foucault (1991) and his concept of a new style of governance in modernity (Burchell et al. 1991, Barry et al. 1996, Dean 1999, O’Malley 2004). In this approach (as far as we can speak of a homogenous approach) risk is mainly understood as a concept entirely socially produced. There is no outer world, which forces society to respond to risk. Instead risk is understood as a specific way how to shape and control populations. Therefore it makes no sense to ask for more or less risk or how real risks are. Risk in this perspective is just a specific way to govern societies.

The significant societal transformation to a modern style of governance is that of a strategy which aims at persons themselves (with technologies to control bodies and persons directly) to a stile which is concerned with populations, abstract factors and indicators. The individual only appears as a bundle of specific indicators as part of a specific group formed by certain factors. Thereby risk is the core concept which indicates groups as risky or at risk which has to be treated. Consequently treatment no longer aims at specific persons as such but at groups identified by a bundle of factors and indicators. Risk is not just at the core of governance of institutions, organisations and governments. As well each individual is forced to interpret her- or himself as an autonomous subject and is treated as such by the government, institutions and organisations.
In the perspective of governmentality, power is not just understood as the prerogative of authorities. Rather it is constituted in practices as well as in knowledge, the way in which people think about an issue. Applying this perspective research studies on governmentality use the concepts such as »truth programmes«, »power strategies« and »technologies of the self« in order to show how risk is used in games of power and control in society. They enable research to analyse carefully the production processes of social reality and subjectivity in a network of power and control.

This approach is criticised in a socio-cultural perspective (by Lupton 1999) for its generalised model of the self which underestimates the possibilities and different responses to social risk demands. There is relatively little research which shows how social groups fight back against social ascriptions. Even though Hier (2002) is concerned with counter-communications it is on the level of groups and not of different individual’s subjective coping and responding to social ascriptions.

Additionally, an internal critique aims towards the narrowed view of the governmentality studies to risk (O’Malley 2004). The emphasis of risk as the central rational strategy by which modern industrial societies govern populations has narrowed the perspective of studies on governmentality. O’Malley claims that it should be recognized that liberal strategies of governance are also strongly linked to strategies managing uncertainties which have to be analysed as such:

"... it is not at all clear that risk is becoming the dominant telos or organising principle of contemporary government, as many suggest (Dean 1995a; Rose 1999b). Doubtless it is a very salient principle; but the promotion of neo-liberalism and entrepreneurial governance has also pressed a new telos of creative uncertainty to the foreground. Rather than concerning ourselves about a possibly futile exercise in measuring whether risk is 'spreading', we should recognise that risk and uncertainty are both being valorised in new ways and forms." (O’Malley 2004, 174)

Such a perspective in governmentality would converge with other sociological approaches on risk (as modernisation theory), discovering the importance of the more general concept of uncertainty which gives access to a more differentiated way to analyse the strategies apart from risk which are still and necessarily there to cope with uncertainty and ignorance.
Risk and systems theory

The system theory’s approach to risk in the tradition of Luhmann (1993) is mainly advocated by Japp (1996, 2000, compare also: Tacke 2001). The general research question in the context of this approach is how the ability of society to evolve could be improved and how the ability to solve problems could be increased. The original answer is by means of functional differentiation in societal sub-areas or subsystems like economy, justice, science etc. Since functional differentiation is limited, semantics are needed which cover different societal functions but do still accept the integrity of the specific functional logics of the sub-systems.

Risk problems could be managed from the perspective of system theory by strategies to combine first and second order observations. This means in a more intelligible language that neither the partial rationality (for example expressed through the concerns of neighbours of a nuclear power station) nor the public interest in general (securing the provision of electric energy) should be maximized, but a temporal combination of both is needed. One strategy as already mentioned is the embedding of partial interests of residents in a more general public interest so that suboptimal solutions become acceptable for the advantage of the public welfare. This kind of strategy rests on the acknowledgement and self-commitment to a public interest. Another strategy would be to reweigh a pure instrumental rationality to a more symbolic rationality or to seek after innovations. Innovations redefine a problem and a situation and reintegrate further groups and criteria which have been excluded before (Wiesenthal 1990, 40f.).

Thus, strategies of “evolutionary policy of risk-administration” (Japp 2000, 92f.) cannot produce substantial rationality in the sense of single right decisions or general obligatory purposes and reasonable consensus. In order to ensure more complex realities an observation of the results is needed. The uncertainty of the future is used to open opportunities for action, but the observation of the results is needed in order to intervene if it seems to be reasonable. However, in the perspective of system theory, such strategies do not lead to definite solutions but to new uncertainties.

Trust is a central issue in Japp’s considerations. In his view trust is needed to generate readiness for risk-taking. Only with prevention but without trust, there are no chances
to learn, and only hope or belief but no risky advance concession would be made (Japp 2000, 91).

The problem is, however, that for several areas (for example mad cow disease, nuclear power) where society has to deal with risk, the possibility of long-term learning by trial and error is not tolerated (Perrow 1984). Under such conditions the ability to act can only be protected by trust for example in systems as science, technology or government due to a lack of information or of transparency (Esposito 1997). This leads to the dilemma that trust is quite rational and necessary but also dangerous. However, not to trust and therefore not to act would be dangerous as well!

Where is sociological risk-theory heading?

**Risk and uncertainty is understood relational!**

In most theoretical thinking risk is reasonably understood in relation to uncertainty. This is the case for a societal approach on risk in the context of modernisation theory where risk is understood as one special rational strategy to transform unmanageable contingency into manageable complexity. It is also valid for the governmentality approach, even though it is quite a current development to acknowledge theoretically the significance of uncertainty as well. In system theory the distinction between risk and danger is introduced in order to approach the problem of uncertainty as a problem of responsibility.

**Risk is uncertain, too!**

It seems to become generally accepted that the rational calculation of risk is uncertain too. What follows from this is not a general rejection of rationality but a situated use of statistical strategies. Other strategies are used to cope with risk and uncertainty. Since uncertainty cannot be resolved ultimately and is sometimes also understood (just like risk) as something positive, many approaches converge more or less explicitly on the acknowledgement of uncertainty as a basic experience of modernity.

In the governmentality approach, O’Malley has recently suggested, not to focus only on the constructions of risks (and the transformation of uncertainty into risk) but also on the management of uncertainties as governmental strategies. That is, because most
problems are not constituted as clear risk problems but as problems of unsolvable uncertainty.

**Risk is both real and socially constructed!**

There is still the tendency in risk-research to distinguish between objective statistical/technical risks as the real risks and social or subjective risks as biased perceptions of objective risks. Even though there are better and worse scientific expertise and better or worse informed public, most sociological approaches rely on a weak constructivism as their normal epistemological approach to risk. Risk is understood as socially constructed but there is a world “out there” even though we have no direct access to it. There are still some approaches (e.g. governmentality), which focus especially on the societal constructions of risk and risk-strategies.

**No general recommendations could be given**

Since there seem to be no general but only situational and case related solutions for risk-problems no general recommendations for a increasing public readiness for risk-taking (Wilsdon/Willis 2004, Furedi 2002) or precaution (Harremoës 2002) can be given (Bonß 1995, Japp 2000). The demand for higher risk-taking is as misleading as a maximisation of precaution as long as both are understood as positions which have to be supported or refused generally. There is no general rationality available. Instead, risks have to be managed and valued separately.

If the British public currently seems to be more risk-averse to governmental decisions, this must not be interpreted as irrational, but as rational response to the strategies the government has recently used in order to publicly manage risks (e.g. BSE). To rebuilt trust is a long and onerous task.

**More theoretical integration in sociological theorising is needed**

Risk has been a sociological issue for at least twenty years, but there is comparatively little theoretical integration or discussion between the different approaches (one of the exceptions is Tulloch/Lupton 2003). Currently some similarities as mentioned are observable and we can hope that more integrated theoretical work will be developed in the future. Since there is no institutionalised coordination on the level of ISA or ESA the foundation of a Research Committee (RC) or Research Network (RN) on »the sociology of risk and uncertainty« would be a first significant step in order to integrate the range of sociological research and theorising on risk in the future.
So far there have been only few systematic links developed between media research and risk research. Often the sociological assumptions about the impact of the media ignore the already developed knowledge in media research.

Even fewer links have been developed between biographical research and risk research. The biographical concept of the subject in biographical approaches can be used to inform research on the influence of social contexts (as media, social class) and their response to risk. The biographical approach also opens connections to psychological and economical approaches to risk. By including biographical aspects, psychology, as well as economics, would gain a more dynamic model of the self and its development.

The socio-cultural approach could be connected to newer developments in other domains of risk research, as ‘quasi-rational’ economics, which are growingly aware of ‘non-rational’ factors as emotions and aesthetics.

**Sociology’s contribution to risk research**

Since there are several quite different impacts of sociology on risk research one specific contribution can hardly pointed out. However, the most important tribute of sociology to this topic has been certainly the linkage of risk problems to society in general. The acknowledgement that risk problems are deeply embedded in the society we live in and that they cannot necessarily be coped with by objective and technical risk assessment was the initial trigger for risk-sociology. In this context especially failures of governmental risk-management have shown that there is such a thing as society which needs to be taken into account.

Even more, it has been shown that manifold risk-knowledge is available in society, and scientific risk knowledge is not necessarily prior to local as well as lay-people knowledge. Therefore risk-management has to recognize the different forms and levels of knowledge if it will be successful.

Sociology also contributes to risk research a critical distance to our normative implications. It discovers the normative idea, that uncertainties have to be transformed in certainties by rational strategies, as a modern ideology with some unforeseen and also dangerous outcomes. The problem of second order dangers, the management of
ignorance and the at least unsolvable uncertainty in societal development are core issues which secure that risk research reflects upon their implicit assumptions narrowing their perspective. Sociology shows that neither a one-sided increase of precautions nor of undamped scientific development can be recommended.

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