Risk Management: An International Journal

Published by Perpetuity Press

Risk Management: An International Journal

ISSN 1460-3799

Quarterly

The Perception and Management of Security and Safety Risks: Implications for International Negotiations

Boris Porfiriev

Risk Management: An International Journal 2004, 6 (4), 9–25

The Perception and Management of Security and Safety Risks: Implications for International Negotiations

Boris Porfiriev[1]

The increasing complexity of the modern world introduces multiple risks for human and environmental safety and economic development, with the most serious involving threats to both national and international security. This poses a major challenge to national governments and international institutions responsible for crisis management policy, within which mitigation serves as both the most efficient conceptual framework and the most effective tool. At the core of this challenge is risk management, including components of risk handling and communication that imply an active negotiating role for the parties concerned. This paper attempts to show how and to what extent the perception and framing of the security risks under negotiation impact on the procedures of the agenda-setting, discussions, signing and executing of international agreements. To investigate this, four hypotheses concerning the role of both substance-specific and party-specific modes of risk perception in framing the model of the negotiation process are developed, and (in a preliminary fashion) tested. The discussion starts by considering the ways in which risk is perceived and managed as factors in international negotiations, providing an overview of the substance- and party-related issues in crisis policy, in particular those of crisis prevention and mitigation. This is followed by an analysis of parties' modes of risk perception and management, coupled with the specificity of risk issues as the substance of negotiations and embedded in national crisis policies.

Key Words: Risk perception; risk management; negotiations; safety hazards; security threats; disasters

Introduction

The increasing complexity of the modern world introduces multiple risks to human and environmental safety and economic development, with the most serious involving threats to both national and international security. This poses a real and hard challenge for national governments and international institutions responsible for crisis management policy. Mitigation is known as both the most efficient conceptual framework and most effective tool of such a policy. At the core of this is risk management, which incorporates hazard identification, analysis and evaluation, the treatment of risks, and risk communication. Within this decision-making process, particularly risk handling and communication components, the role of negotiations between the parties involved should be especially emphasised.

On the one hand, negotiations serve as a discussion forum for talks on the most hazardous and sensitive issues associated with safety and security risks. This provides a unique and efficient decision-support instrument for the parties jointly to find an applicable and acceptable solution,

to reduce the probability of incurring loss or damage through a disaster or conflict. This is crucial on the national scene, but even more so at the international level, where actors with different cultural and political traditions experience many more complications in seeking and finding such a solution, and where the implications for the prospects of world peace and sustainable development are often much more salient than in national talks. On the other hand, negotiations as such involve uncertainty, and this is particularly significant in the area of safety and security policy. This may complicate and even aggravate the problem under discussion instead of solving or attenuating it, and thus provide for risk amplification.

Given this, the way the parties involved perceive and frame the negotiated risk issues has a strong impact on the mode of communication, on the efficiency of the talks between them, and eventually on the success or failure of crisis policy. This paper is an attempt to study how and to what extent the impact the different ways of perceiving and interpreting (framing) security and security risks under negotiation have on procedures for the agenda-setting, discussions, signing and execution of international agreements. To investigate this, four hypotheses are developed and, in a preliminary fashion, tested. These concern the role of both substance-specific and party-specific modes of risk perception and interpretation in framing the negotiation process model. Given the initial character of verifying the hypotheses, the findings of the study should be considered as a preliminary.

To substantiate the exploration empirically, the study builds upon the findings of an earlier paper (Porfiriev, 2001) on institutional policy for crisis management in the Baltic Sea region, sometimes supplemented by examples from other areas of the world. However, in the context of this paper the institutions involved are considered parties to the negotiations, while the safety and security risks are the substance-related issues in the negotiation process.

The paper starts with a consideration of the risk perception and risk management modes as factors in international negotiations, providing an overview of the party-related and substance-related issues in crisis policy, in particular the issue of crisis prevention and mitigation. This is followed by an analysis of the parties' modes of risk perception and management, which are coupled with the specificity of risk issues as the substance of negotiations, embedded in national crisis policies.

Party-related and substance-related factors in risk perception and risk management: an overview

The earlier paper on institutional policy on crisis management in the Baltic Sea region (Porfiriev, 2001) revealed both commonalities and differences in existing national crisis policies. Such characteristics are in fact typical not only of that area but also of Europe, and indeed of the world, in general. Nations vary in terms of the perception of specific risks according to their differing management priorities and the functions of different 'stakeholders', including those from federal governments, as key actors in crisis management. Institutional policy models differ just as much in terms of degree of decentralisation: some states tend to centralise, some try to follow a more balanced approach. In addition, each country ploughs its own specific furrow in crisis policy decision support, with a few relying, in the area concerned, on established knowledge and databases—which in most cases, however, are being expanded and extended (or are only now emerging).

At the same time, the most notable common features of institutional policy models involve the increasing importance of crisis issues within overall national development policies. In recent years the salience of these issues has been greatly increased by the unprecedented terrorist attack

in the US on 11th September 2001, by the theatre crisis in Russia a year later, in which some 1000 hostages were seized and 130 killed, and then by the US-led international coalition's two military operations in Afghanistan and Iraq. Crisis policy not only addresses such events and conflicts as these but is become increasingly comprehensive, covering almost every type and kind of security and safety risks and involving a widening gamut of institutions, with governmental bodies playing the vital role.

These differences and commonalities in national crisis policies should have significant implications for the pattern and efficiency of negotiations involving crisis actors as parties. This follows primarily from trade-offs between risk management and crisis policy, on the one hand, and on the other hand from the crucial role of risk communication between the parties, which constitutes the core of the negotiation process. Exchanging opinions on and discussing risk-related issues, to improve a policy and/or to resolve a conflict, implies a consideration and understanding of the risk perception modes of the other party, as a necessary—though on its own insufficient—condition for both conflict resolution and disaster mitigation.

Indeed, efficient crisis policy assumes that the task of meeting this condition has priority over response to and recovery from crisis. Such setting of priorities, along with efforts to reduce the probability and severity of expected damage and losses, makes up the cornerstone of risk management concept and practice. This implies knowledge, expertise and experience on the part of particular decision makers and institutions in a particular nation or region, which will be to an extent unique in its geography, culture and history.

In turn, these qualities on the part of local decision makers and institutions take into account the particular society's idiosyncratic norms and values, which a vast set of sociological studies prove to be a significant factor in the evaluative process of risk perception and risk communication, with each community having its own specific set of risks which it believes to be of concern (Beck, 1992; Cvetkovich and Earle, 1991; Dake, 1991; Douglas and Wildavsky, 1982; Rayner, 1992). With specific nations involved in a negotiation process, one would logically expect such cultural differences to precipitate initial or persistent non-congruence between the parties, from agenda-setting to working out a bargaining formula to finally signing an agreement.

These generic cultural differences manifest themselves in specific cultural/organisational prototypical individuals or groups, who interact in various domains and activities, including that of negotiation. Cultural theorists distinguish three major prototypes or groups that could represent a negotiating party: 'bureaucrats', 'entrepreneurs' and 'egalitarians' (Douglas and Wildavsky, 1982; Rayner and Cantor, 1987; Thompson *et al*, 1990; Renn and Rohrmann, 2000).

Bureaucratic organisations, which constitute the bulk of international negotiatiors, primarily at the intergovernmental level, tend to rely on rules and procedures to cope with the uncertainty posed by a risk agent. Here the negotiation process is focused on seeking institutions and strategies capable of reducing the risk, or even better of avoiding it, either in compliance with existing international standards or by developing such standards (or acceptable compromises). Such an approach assumes an interpretation of risk as an adverse discrete event or set of events that should be handled in a repetitive way each time, using a specific *ad hoc* model. Once such solutions are provided for all eventualities considered, and an agreement signed, this type of negotiator evinces no further concern about risks.

Contrary to bureaucratic organisations, entrepreneurial prototypes tend to perceive risk not simply as adversity but also as an opportunity—they see risk-taking as an organic element within a set of chances to compete in the international market. Those risks providing for

explicit and significant benefits, from a short- or medium-term perspective, would serve as a key criterion for both selection and the assessment of efficiency in the strategy this type of negotiator would follow. This understanding of risk provides for its perception as a continuous process rather than a discrete event, which should be handled on a rational cost-benefit basis and with the respective negotiations complying with a multi-loop cyclic or spiral-type process model.

In contrast to this entrepreneurial prototype, egalitarians emphasise cooperation and equality, and tend to reduce or avert the risk even if the activity is perceived as beneficial. They are also disposed to focus on a long-term rather than short- or medium-term perspective. Such a model of risk conceptualisation and negotiation follows or is very close to the precautionary principle, or what some scholars label the 'ecological' approach to policy decision-making (Dynes *et al*, 1987; O'Riordan and Cameron, 1991; Freestone and Hey, 1996).

As to the difference in risk perception modes between individual actors, this should be considered a no less important factor than the above-mentioned non-congruence between negotiating parties. This follows from the specificity of cognitive structures, which reveals that risk interpretation depends on the individual perception of different kinds of hazards. Here, however, Luhmann's observation (1993:4) that such a perception is less a product of personal experience or evidence than a result of social communication should be particularly emphasised, in order not to overestimate the role of an individual in risk communication, including negotiation on risks.

Many studies show that in respect of peacetime hazards those associated with 'lifestyle' tend to get the highest ratings of risk magnitude, followed by technology-induced hazards, with the lowest ratings for natural hazards and occupational risk exposure. Such a pattern of risk perception leads to the variety of ways in which individuals and societies accept risk, which tends to be perceived as higher for natural and lower for man-made hazards (Brun, 1992; Renn and Rohrmann, 2000).

The salient factors influencing these disparities in risk perception involve dread, the artificiality of hazard and the inequitable (unfair) distribution of risks and benefits, all of which decrease risk tolerance, and familiarity with or knowledge of a hazard, the voluntariness of risk and the possibility of its personal and/or institutional control, all of which increase risk tolerance (Vlek and Stallen, 1981; Covello, 1983; Slovic, 1987; Renn, 1990). Of these factors, the two most important—accounting for the bulk of the variability in risk perception and risk acceptance—are dread and familiarity with the risk source. The former is associated with the potential for catastrophe, and is especially high in those cases of low-probability/high-consequence ('zero-maximum') risks, which are perceived as by far the most threatening. Familiarity with the risk source to a large extent precipitates the degree of risk voluntariness and controllability (Slovic *et al*, 1980; 1985; 1986; Slovic, 1987; 1992; 2000).

The existing disparities in how different hazards are perceived and handled by different kinds of actors influence social and political behaviour, including that of the media. This generates second-order risks that extend beyond those directly affected, and experiencing harm to human health, property and the environment, to involve impacts such as liability, loss of political reputation, loss of confidence in institutions, and insurance costs (Kasperson *et al*, 1988). Such an effect, called the 'social amplification of risk', can give rise to negotiations which reduce the possible tensions and conflicts associated with this process, or on the contrary can slow down or disturb the ongoing negotiations about reducing risks posed by primary hazards.

The possible implications of discrepancies in perception and management modes between different crisis policy actors as parties, and different kinds of hazards as crisis issues in dispute between these parties during negotiations on major risks, are discussed in more detail below. The propositions made in this respect involve data on national crisis policies in the Baltic Sea region (Porfiriev, 2001), as an illustration. The discussion starts with a consideration of the substance-related factors of risk perception, primarily the impact of the risk dread and familiarity factors on negotiations. This is followed by an analysis of party-related factors in the variability of risk interpretation and their implications for the negotiation process.

Substance-related factors: possible implications for negotiations on major risk issues

As mentioned above, there is multiple evidence of a significant increase in the political salience of crisis and crisis management issues. This implies that the risks associated with such issues will more and more be the focus of political activities, including negotiations at regional and international levels. With this in mind, two propositions are worth making (see below); they are accompanied by preliminary comments, including those on compliance between the negotiation model, based on particular risk perception modes, and actual experience. A reservation should be made in advance: that the experience discussed involves only selected negotiation issues, rather than the process in full detail. However, it is believed this will give at least some understanding of the degree of influence which substance-related interpretations of risk have on the parties' behaviour.

Proposition 1

- That low-probability/high-consequence risks—usually perceived as most dreadful—will lead to an early start to the parties' negotiations, more eagerness to work out and sign an agreement to reduce the threat or possible damage, and more willingness to stick to the agreed terms; this as compared to risks with low catastrophic potential, which are more likely.

Low-probability/high-consequence risks are characteristic of both political and social conflicts, including major terrorist attacks,[2] non-conflictual (natural and technological) disasters, and compound crises (eg global warming, or an infectious disease pandemic). To make a valid comparison, one should contrast the implications for negotiations of a low-probability/high-consequence risk and of a more likely/less catastrophic risk provoked by one and the same kind of hazard agent, for instance radiation. In this case, the original proposition could be reformulated in a way that the parties' eagerness and willingness to resolve the disputes, sign an agreement and stick to the agreed terms concerning the risks posed by a nuclear reactor meltdown would significantly exceed those coupled with the risks following from minor failures or, in Perrow's (1984) term, 'normal accidents'.

Existing experience of crisis management provides more evidence for than against this hypothesis, but far from absolute and undeniable support for it. In particular, we have no knowledge of any international negotiations before Chernobyl which seriously considered the risk of a nuclear reactor meltdown and drew up cooperation countermeasures. However, after the major radiation accidents at the nuclear power plants at Windscale (UK) in 1957 and especially at Three Mile Island (US) in 1979, numerous safety studies explored such a scenario, and the risk was perceived as catastrophic and totally unacceptable. At the same time, negotiations were held and agreements signed at both regional and international levels, including those within the framework of the International Atomic Energy Authority, which concerned safety issues involving less dreadful radiation risks.

As for Chernobyl, the pattern of response to and recovery from the world's worst radiation disaster showed a pronounced delay in starting international negotiations on the issue. The initial desire of the former Soviet Union's political elite to cover up this major accident from the national and international public precipitated an unwillingness to initiate negotiations—above all with the Baltic Sea states of Finland, Poland and Sweden, which outside the Soviet Union were the first to be affected by the fallout, and then with the other members of the European and world community, including international organisations. It took almost four months for the former Soviet Union, the villain of the piece, to join in international negotiations. These involved numerous disputes about public safety in the affected areas, in particular the safety of food items produced there, which complicated the resolution and signing of international agreements (Medvedev, 1990:190–225).

In spite of these complications during the negotiation process, two international conventions, on early warning of radiation accidents and on assistance to be provided in the case of a radiation emergency or accident, were signed as early as September 1986, some five months after Chernobyl. The amount of time provided for signing, the unanimity of the parties in respect of their support of the process, and the comprehensiveness of the coverage in these cornerstone documents were quite rare for this type of international agreement. The conventions laid the foundation for even more successful negotiations, leading to bilateral agreements signed between Russia and other European countries with an advanced nuclear power industry, including those from the Baltic Sea region (Denmark, Finland, Germany and Sweden). In addition, these documents played a role in fostering the disclosure of information, hitherto considered sensitive, not only to responsible international authorities but also to the public. Thus the 'right-to-know' principle was implemented in the area of nuclear and radiation risk management, providing a unique opportunity for non-governmental organisations (NGOs) to be involved in negotiations as a new and powerful party.

We believe that what the above shows is that perception of a risk as dread, as such, is an insufficient condition to trigger the negotiation process. It helps in identifying risk sources and in assessing the consequences of a catastrophe, ie of a hazard which has turned into a disaster; but it does not automatically make the parties start talking immediately about ways and means of minimising or eliminating the risk of a disaster. This does not address the development and implementation of risk reduction mechanisms, including working out, signing and carrying out the relevant agreements. This problem has to do with the specificity of risk evaluation and risk communication by the parties; it will be considered below, while looking at the party-related factors in the treatment of risks.

For the time being, it is only worth noting the role of risk actualisation and of immediate learning from disaster. The events at Chernobyl invalidated the earlier perception of their low probability, and prodded the decision makers into considering their severe consequences in a very different way, including changes in the mode of communication with practitioners, the media and the public. In turn, these changes produced political impacts that led the parties involved in disaster response to start talks and to seek the joint development and implementation of measures to reduce the negative effects, on both human health from the radioactive fallout (first-order risks) and on public behaviour (communication or second-order risks).

Proposition 2

- That with the risks from natural sources perceived as known and more familiar, the parties will be better prepared for negotiations, will understand each other more easily during talks, will reach an agreement or compromise, and will show more willingness to stick to the agreed terms, than they would in the case of man-made risks.

As mentioned above, both experts and the public perceive the risk of natural disasters as more known and familiar than technological risks. For collective behaviour in crises provoked by natural agents, solidarity and cooperation are more typically found than in those sparked by social and political conflicts. Considering the differences in crisis policy priorities and those in modes of risk perception and collective behavior in crises as factors influencing the parties' talks and the setting of agreements, one would logically expect international negotiations concerning natural hazards to be relatively more successful than those on man-made risks, in terms of both the discussion and implementation processes.

As in the case of low-probability/high-consequences risks, the available experience of crisis management provides evidence of in-principle or generic rather than unequivocal support for this hypothesis. For instance, one could try to compare the pattern of the parties' preparedness for and response to devastating floods in Europe and the major threat from chemical weapons dumped in the Baltic Sea.

The major floods in Europe in 1995, 1997, 1998 and 2001 caused significant damage to the national and EU economies, and thus set the agenda for talks between the responsible governmental bodies of the affected nations and of the EU. These talks particularly concerned the feasibility and efficiency of the joint mitigation efforts and relief aid. As part of these discussions, the idea of joint funding of such measures was introduced, but no formal agreement was achieved until late 2002. In the summer of that year, the disastrous flooding in Central Europe caused considerable and, in certain cases, unprecedented damage, above all killing some 100 people. Economic damage to the infrastructure and the natural and cultural heritage was particularly severe in Germany, where losses amounted to some €15 billion; on top of an economic slowdown, the floods pushed Germany's budget deficit close to the EU limit of three per cent of GDP. The economic damage was also considerable in the Czech Republic (€2–3 billion) and in Austria (€2 billion) (Fuller, 2002).

Within a list of measures to be taken directly and in the future to reduce the increasing risk of floods—and discussed by the parties during the talks, which started very soon after the flooding—the earlier idea on joint funding was revisited. In particular, the parties within the EU introduced a solidarity-based initiative to create an EU Disaster Relief Fund. This would come to the aid of member states and applicant countries whose citizens suffer as a result of natural disasters, and of flooding in particular. In addition, the Fund would be used to secure damaged preventive infrastructure such as dams and dikes, to reduce the risk of future flooding. Assistance from the Fund would be granted on request as a grant under a tripartite agreement between the EU Commission, the member state and the region, with the selection of risk reduction projects being a matter for the country and region concerned (Fuller, 2002; European Union, 2003).

To solicit monies for the Fund, a new mechanism would be introduced, requiring revision of the institutional agreement, to establish the procedure for mobilizing resources of €1 billion and for adopting a legal basis for operations. Some experts believe that the talks, the signing of a comprehensive agreement and the issuing of respective regulations could take some two years, despite the in-principle conformity between the parties. Particularly time-consuming would be the issues of what event constitutes a disaster, and of what institution in Brussels should serve as the final arbiter in making this assessment and releasing money to the affected area. To the two-year time-scale mentioned above should be added the few years after the first talks about joint funding explored the degree of the parties' willingness to set up an institutional mechanism to reduce the risk of a major natural hazard.

However, the efficiency of these efforts by the parties concerned, however deficient, far exceeded that which characterised the negotiations to agree on and implement mechanisms for handling major environmental risk in the Baltic Sea region. This risk is associated with the increasing transportation of oil and with potential oil spills, along with the storage and dumping of toxic chemicals both on land and at sea (Osokina, 2003; Stulov, 2003). Of particular concern is the issue of chemical weapons dumped in the Baltic Sea. At the end of World War II in 1945 the Allied armies seized more than 302,000 tons of German chemical weapons, containing yperite (mustard gas), lewisite and other extremely toxic substances. What is now known about this situation, and what more and more worries both governments and the public (in particular fishermen) in the Baltic Sea states, is the increasing threat to human and environmental health associated with such time-bombs ticking on the sea bed.

In the autumn of 1997 extremely high concentrations of yperite, arsenic and heavy metals were detected leaking from the sea-bed burial site to the southwest of Sweden. This area could be considered as providing the major threat, with its environmental impact showing a tendency to spread beyond the original borders of the dump area. The potential disaster would affect the populations of both the Baltic Sea and North Sea states—initially fishermen, who would have to stop working. Given that these seas provide for almost 2.5 million tons of fish and seafood annually, such a crisis would cause damage to the interests of between 80 and 250 million people living in and outside Europe.

The existing high level of risk called for the parties concerned to hold intensive talks and to take energetic measures to cope with and mitigate the risk of damage. However, so far what has been done can hardly be considered sufficient and effective. There have been only a few joint Russian-European surveys of the dumps, in 1995–97, and a couple of valuable high-level discussions between Russian officials and NATO chiefs in 1997. These negotiations were held within the Partnership for Peace framework and examined proposals from Russian technical experts to stop hazardous leakage from the dumped chemical ammunition. These proposals involved encapsulating the sunken ships, using concrete pumped directly to the sea bed.

In spite of European experts' uncertainty as to whether this technology was the best available method, the discussions then gave rise to the idea of international cooperation on a new project, called 'Skagen'. Subsequent political changes in Europe and the lasting economic crisis in Russia impacted adversely on the implementation of this idea, with both joint dump surveys and multilateral consultations being suspended. The negotiations did not resume until 2000, with only slight progress achieved in the practical field by 2002. Different interpretations of risk priorities by the parties concerned led to an undervaluation of the abundant data on the dumps accumulated in Russia and other Baltic Sea states over previous decades, and delayed the development of international legislation for handling such specific hazardous objectives. This has also inhibited the development and implementation of safe technical solutions, acceptable to all the parties, to reduce the risk and prevent a major disaster (Porfiriev and Vyalishev, 2001).

The examples cited show that superior knowledge of and familiarity with risk where natural rather than technological sources of risk are concerned is a major factor in the parties' better preparedness for negotiations, the ease with which they can be initiated, and better mutual understanding during the talks themselves; this increases the chances of reaching an agreement and/or compromise, and sticking to the agreed terms. When technological hazards are involved, however, the odds are less favourable. Compared to the influence of the dread risk factor discussed above, knowledge of and familiarity with risk helps not only towards better identification of its sources and assessment, but also provides for the parties to start talks earlier about the mechanism of risk reduction and to reach a better understanding of the generic

design of such a mechanism. However, this does not automatically guarantee that an agreement will be signed in good time or that it will be comprehensive in scope, let alone that the participants will be willing to stick to the agreed terms and will implement the agreement efficiently. Such matters are dependent on a set of other conditions associated with the negotiating parties and their behaviour.

This is particularly true if one more type of man-made risk, social and political conflict, is considered, prominent among which are terrorist attacks like those carried out by Al Qaeda in the early 2000s. With respect to their origin, these attacks have much in common with technological hazards. At the same time they are no less familiar and known to the public than natural disasters, and are currently perceived as much more dreadful by the nations affected—while those who support terrorist attacks believe they are part of the struggle for liberation, and/or acts of retribution. This duality leads to ambiguity, on the part of the nations concerned, in the perception and handling of these risks. On the one hand, it precipitates an increased readiness to negotiate and compromise, while developing and signing international counter-terrorism agreements typical of natural disaster risks. On the other hand, meanwhile, the lower level of willingness to stick to agreed terms, and the desire to reconsider and to make these less binding and more flexible, put the issue of negotiation on terrorist attacks close to that on technological risks. This has been shown in particular by Spain's withdrawal from the coalition forces in Iraq in April 2004, and by persistent attempts by some other members of the coalition to do the same.

However, we argue that less willingness to negotiate and lower negotiating efficiency with respect to the risk of a major terrorist attack, as compared to that of natural hazards, are primarily associated with the issue of equity and of the equality of distribution, between specific recipients, of risks and benefits, rather than familiarity with and knowledge of the hazard, or with dread. For this reason this issue is considered in more detail in the next section, on party-related factors in types of risk negotiation.

Party-related factors: possible implications for negotiations on the major risk issues

Given the discrepancies in risk perception and risk management modes as between crisis management actors, precipitated by the variety of cultural, political and socio-economic conditions mentioned above, it would be logical to expect these would have significant implications for the parties' behaviour and for the negotiation process as a whole. In this connection, two more propositions are worth making (see below); they are accompanied by brief comments. One of these hypotheses refers to the types of crisis management organisations as parties, and the other one to these organisations' negotiating counterparts, and to experts and advisors in the negotiating teams. The brief comments on the propositions are illustrations to provide observations and early testing of the hypothetical parties' behaviour model, based mostly on the cultural theory of risk perception derived from actual experience. However preliminary and generic, these comments will (it is believed) prove helpful in understanding the degree of influence which party-related interpretations of risk have on negotiations.

Proposition 3

- That the talks will tend to focus, given that the bulk of international negotiations are held at the governmental level by bureaucratic organisations, on rules and procedures to reduce or avert risk in compliance with existing international standards, or by developing such standards. Once a compromise or consensus has been reached, and an agreement signed, the residual risk will be considered negligible or even zero.

Available experience of crisis management proves the principal validity of the hypothesis. A vast body of experience shows governmental agencies playing the major role in the development and implementation of national crisis policies, with the cooperation of regional and international agencies. Common to all these agencies is that they are bureaucratic organisations, with the worldview and style typical of this kind of institution, which they bring to the perception and handling of risk. Such an organisation, with functionality being the core of its culture and punctuality, diligence and discipline its core work ethic, sticks to hierarchy and cohesiveness in its group relations.

This implies that these organisations interpret negotiated risks like any other uncertainty, to be treated using a set of rules and procedures, which are either established through existing standards and agreements, or need to be developed by special agencies and/or experts. In any event, sticking to rules and procedures is considered paramount in reducing or averting a risk, which is perceived first as a debilitating factor for the bureaucratic organisation, and only then for a society or international community. Negotiations on the risk posed by or associated with EU enlargement, particularly those concerning the Kaliningrad region of Russia, may serve as a case in point.

The process of admitting the ten countries, including those from the Baltic Sea region, which joined the EU in 2004 involves a set of problems. A few of these deal with the far western Russian exclave of the Kaliningrad region. This area has serious socio-economic troubles, including high rates of unemployment, crime and prostitution, which are perceived by the neighbouring EU applicants as a risk spilling over into their territory. In turn, this raises the border regime issue, which is a significant problem of its own, following from the requirement of the Schengen agreement to establish visa regimes between member and non-member countries. In the specific case of Kaliningrad, the implication is that Russians who travel between the region and 'mainland' Russia by rail or road, as most do, will cross Lithuania, and should thus apply to that country for a visa.

The problem is further complicated by the issue of freight transportation between the region and mainland Russia across an EC border, and thus subject to EC customs regulations. This implies the imposition of tariff fees on freight transported between two parts of Russia. In political circles in Russia, and among the bulk of the public, both issues are considered a risk to national sovereignty. From an immediate or short-term perspective, citizens' right to travel and trading companies' right to transport goods free of fees from one part of the country to another could be violated. From a long-term perspective, this might lead to the Kaliningrad region's alienation from the Russian Federation, of which it might cease to be an organic part. It is hardly surprising, however, that Lithuania and the EU looked at this problem in a different way and used arguments of their own (eg the risk of increasing crime rates due to illegal immigration) to substantiate their negotiating position.

This discrepancy in risk perception created a complex issue to be negotiated by the parties concerned. These were represented by teams composed of professional diplomats from the European and Russian parliaments, ministries of foreign and interior affairs, border control agencies and others of the respective parties' institutions. Talks on the options of conflict resolution were focused almost exclusively on procedural issues. Given that the Russians unequivocally rejected the existing requirements on the use of visas, a compromise was found in the introduction of a special permit issued by Lithuania to those coming to and from the Kaliningrad region via that country. As soon as this new travel 'standard' was agreed, in 2003, the EU ceased to consider the problem as a risk to be negotiated by the Union, but rather as a bilateral issue between Lithuania and Russia.[3]

Proposition 4

- That commonalities between types of national culture and the professional areas of particular actors involved in negotiations will reinforce each other, lead to the parties' modes of risks perception coalescing or at least converging, and thus facilitate better understanding and the reaching of an agreement or compromise; and that an increasing involvement of professional experts as decision-making advisors on policy and as consultants will add to the efficiency of the parties' talks and to their cooperation in reducing the risk of major crisis or disaster.

As a previous study has shown (Porfiriev, 2001), the significant peculiarities of the Baltic Sea states go hand in hand with certain shared geographical and historical conditions, which have led to the cultural proximity of these nations as part of European civilisation. This factor plays an important role in the development of cooperation in the field of crisis policy between these countries, especially between neighbouring states and between them and other European nations, including collaboration within established regional institutions.

In addition, the study revealed the similarity between key national coordinators or decision makers in this field, with all of them belonging to the same institutional and professional type of law enforcement agency. The personnel of these agencies tend to share basic professional values and worldviews, despite an array of existing cultural and political differences, with professional identity being a more important factor in group members' behaviour than respective cultural prototypes. Moreover, some sociological studies even assume that with the disparities in risk perception between the countries being less pronounced than those between the different professional groups within one country, it may be that in the process of globalisation national identities are partially exchanged for professional identities worldwide (Renn and Rohrmann, 2000:103–45).

In the case of negotiations on a possible or actual crisis or disaster when the similarity of risk perception modes provided by the professional area common to the parties involved overlaps with the commonality stemming from cultural proximity (as in the Baltic Sea region), it would be logical to expect a reinforcement effect to facilitate the talks. Practical experience shows that in fact such an effect is often evinced when professional crisis and/or emergency managers communicate with each other directly, or when mediators alone are formally involved.

Another example is the successful talks and the cooperation built on the agreements reached in the late 1990s between high-ranking police officers, using the Interpol framework, on reducing the increasing risk of drug-trafficking and money-laundering. A further example is the negotiation and cooperation between national sanitary and veterinary services on minimising the risks caused by outbreaks of BSE and foot-and-mouth. Particularly worth mentioning are the simulation seminars organised in 1999–2002, within the international crisis policy conferences, by the Crisis Management Research and Training Center in Stockholm, under the aegis of the Swedish Emergency Management Agency (then the Agency for Civil Emergency Planning, or ÖCB). The seminars modeled decision-making and negotiations between international teams from the Baltic Sea states on reducing (fictitious) risks and political crises, such as hostage-taking, accidents to nuclear-powered spaceships, etc. All the team members, although with different backgrounds, had practical crisis management experience as either political advisors or, mostly, trainers. The experience of the seminars proves that such professional commonality helps the parties to understand each other and to reach an agreement or compromise whatever the risk to be negotiated.

However, the same experience also shows that the reinforcement and facilitating effect mentioned above fails to occur as soon as the political affiliations and manoeuvring of a particular negotiating team or party outweigh its professional competence and skills. Some scholars consider such

manoeuvring a specific part of some political cultures, a contention that is not disputed here; at the same time the case is better interpreted in terms of risk redistribution, ie the willingness of a party to shift the risk and thus make the benefit/residual risk ratio acceptable. The most recent example underpinning this observation is the official talks on the risks involved in the preparation for and the unleashing of war in Iraq.

Despite undoubtedly high levels of competence as a common feature in the professional and cultural backgrounds of the European parties, the latter disagreed in evaluating the expediency and risks of such a major military operation and its future implications. The key reason for this lay in the qualitatively different degrees, within the European nations, of political affiliation with the US. To consider here only the Baltic Sea region, at the onset of the war Latvia demonstrated, along with the UK, Spain and Bulgaria, high levels of support for the operation, as a key European stakeholder in the issue. At the same time, France, Germany and Russia were the major European opponents of the operation (the latter two in the Baltic Sea region) considering it 'a key political mistake'

Coupled with different political affiliations is discrepancy in the interpretation of risks. Judging from official statements made both unilaterally and during international talks one could assume two conceptualisations or images of risk, differing in principle (Renn, 1990). These comply with the key finding that people are risk-prone if the prospect of gains is strong, and risk-averse if that of losses is strong (Kahneman and Tversky, 1979). Such conceptualisations were embedded in and guided the political thinking of the two parties.

Conceivably, decision makers within the 'pro' party applied a rational, quasi-deterministic approach to the evaluation of the operation. This reinterpreted the abovementioned 'zero-maximum' concept in risk-benefit terms as maximum political and economic gains against acceptable and voluntary risk. Some liken this to financial risk management, while others believe it closer to chess (like Brzezinski's 'great chess-board' of world politics), or even gambling.

In a contrary fashion, those of the opposing party followed a precautionary approach to risk and risk-handling, with a 'do-no-harm' principle at the core. This implies an involuntary approach to taking the risk of war, following from a much greater consideration of public perceptions and anxieties about the risks involved in that war—in particular, those of triggering a chain of events with large catastrophic potential, including a wave of new major terrorist attacks, with even the randomness of these perceived as a threat. As Spain's withdrawal from Iraq showed, from time to time parties could reconsider their initial premises under a drastic change in their perception of the dreadfulness and fairness of the risks involved, and move to the opposite risk paradigm.[4]

Special mention should be made of the role of professional expertise in shaping these two risk conceptualisations, with their respective implications for policy-making negotiations in particular. From the official statements and comments of those representing the proponents of the war on the post-war future, it could be implied that most of the decision-making relied on the expertise of analysts primarily from the military, political and economic fields. Previous experience shows that expert assessments made by this kind of analysts tend to be technocratic (mission- and means-focused) and short-term, or at best medium-term, oriented. This leads to the volatility of such assessments, with the value of risk often reconsidered, sometimes swinging to the opposite extreme. In the context of the war in Iraq, one is immediately reminded of the case of Dr Kelly, an acknowledged defence expert in the UK, in July 2003. The making public of his opinion that no real evidence of weapons of mass destruction existed in Iraq was followed by his mysterious death, and this considerably changed public perceptions of the war's validity and of the risks involved for the British.

Such potentially volatile assessments contrast with the systemic and long-term approach typical of experts in the social and political field, who are more concerned with the uncertainty of global implications for the longer-term future as a result of change and associated risks provoked by the crisis in Iraq. Such expertise also actively uses cooperation within the research community, and the knowledge and database provided by academia and the universities, rather than isolated small 'think tanks' and information sourced only from governmental agencies.

An earlier study (Porfiriev, 2001) revealed different degrees of development amid the spectrum of research institutions involved in crisis policy-making in the countries of the Baltic Sea region. The available data did not distinguish the disciplinary area of the crisis research community, that leaves no grounds for hypothesising about this aspect of the impact on negotiations or for using it as evidence to illustrate the abovementioned two kinds of decision support. However, this data allows the reasonable assumption that the active participation of the more established and active research communities in Germany, Russia and Sweden in discussions and talks about major crises, including that in Iraq, involved more comprehensive consideration and handling of risks. These meetings occurred both at official and public level, with the latter providing the former with feedback crucial to decision-making.

The point here is twofold. With the public perception and assessment of risk being more intuitive and less formal, 'the basic conceptualization of risk is much richer than that of experts and reflects legitimate concerns that are typically omitted in expert risk assessments' (Slovic, 1987:285). Given that, to obtain from society the level of public trust necessary to carry out the crisis policy, political decision makers should consider not only people's perception and assessment of risk as such but also their level of trust in experts, or more generally in scientists and government officials. This means that professionalism *per se* on the part of risk experts as policy advisors and consultants during negotiations does not guarantee more efficient talks, nor the cooperation of the parties in reducing the possible implications of the major crisis or disaster. This makes the above proposition 4 in this respect at least controversial.

Closing thoughts

The contemplation of the interrelationship between risk interpretation by principal crisis policy actors, on the one hand, and negotiations on major risks with these actors involved as parties, on the other, reveals an ambiguous picture. This stems both from the complexity of and insufficient investigation on negotiated risks as a research subject, and from the pilot character of this study. Its findings should be considered only in a preliminary way, and need further in-depth exploration. However, some observations are already worth making at this stage of investigation.

Above all, with the perception and interpretation of risk making up the core of risk communication between the parties, this should be considered the key independent variable or factor in the negotiation process and its policy implications. This implies additional and increasing efforts by the parties' negotiating teams to study the issue in advance and to learn from earlier experience in coping with uncertainty and complexity. This is coupled with the specificity of both the substance (risk) and its conceptualisation by the parties, which differentiate such negotiations from talks on 'ordinary' issues. In addition, it requires a change in the composition of advisory teams, which should contain a greater proportion of social scientists, in particular those expert in the sociology and psychology of risk.

The substance-related factors in risk perception and risk management are a salient issue for negotiations in two respects. One of these deals with the sources of risk. The study findings show that the distinction between natural and man-made sources, traditionally used in sociological

studies of disaster risk to explain the variance in conceptualisation and behaviour, only partly helps to understand the particular nature of the parties' activities. Instead, a distinction between the risks associated with major crises stemming from conflict, on the one hand, and from other sources, on the other, is more essential and productive in both analytical and policy terms.

In addition, considering the substance-related issue in a more generic way it is worth stressing that the uncertainty and complexity of risk as such provides for unique opportunities for political manoeuvering (Renn, 1992). This takes this issue closer to that of party-related factors in risk perception and risk management modes, which have even more significant implications for negotiations. The argument here is that a party or parties, driven by specific political affiliation and preferences, can exploit the probabilistic nature of risk to place the responsibility on the opponent or to protract negotiations. This may involve the second-order risk of turning negotiations into a creeping crisis. This factor often outweighs the possible commonalities existing between the type of culture and the professional area of the parties and between specific actors, which in other circumstances should reinforce each other, allowing for the bridging of discrepancies in risk perception.

To some extent this problem could be mitigated by the bureaucratic type of organisations dominant in negotiations on risks, in particular at the intergovernmental level where most disputes arise. Organisations of this type normally tend to reduce or avert the risk by focusing on rules and procedures in compliance with existing international standards, or by developing such standards. However, excessive adherence to procedural tuning involves the second-order risk of losing flexibility and creativity, which are highly necessary to the parties in handling the uncertainty and complexity typical of international talks on risk.

This brings to the fore two more requirements to negotiating risks. One refers to the organisation of talks, in particular the development of realistic criteria for reaching acceptable and timely agreement. A possible but in no way unique solution here could imply the deliberate establishment of a low threshold for the number of parties needed to ratify an agreement.[5] The other requirement for negotiation on risk issues concerns the party's teams, both decision makers and their advisors. The available experience and data show that the members of these teams should be trained and/or talented in applying heuristic tools, in addition to routine procedures, to a greater extent than those (top management and experts) involved in talks on routine issues.

Notes

1 Boris Porfiriev is Director of the Risk and Crisis Research Center, Institute for International Economic and Political Studies, Russian Academy of Sciences, Moscow; email: b_porfiriev@hotmail.com.

2 This was particularly true before the unprecedented attack in the US on 11th September 2001. The events that followed this attack, both in this and other regions of the globe (eg Indonesia and the Philippines in Asia, Russia and Spain in Europe, let alone the Middle East) changed the situation dramatically. They prove that in the 21st century the probability of major terrorist attacks should no longer be treated as low, even in the world's leading nation. However, it is worth noting that in purely statistical terms the probability of such attacks remains at an order of magnitude lower than for major natural and technological disasters.

3 However formally correct this might have been, it could not but lower the level of negotiations. Given the complexity of the issue and existing Russia-Lithuania border complications, in the short term this would (it was thought) disturb EU-Russia dialogue and cooperation. The present

author made such a forecast in the draft of this chapter provided for discussion by the PIN committee members in June 2003, which soon came true. On 21st May 2004 the EU and Russia signed a joint protocol on bringing to an end the negotiations on Russia's joining the WTO, which implied prompt facilitation of the visa regime between the parties and the solution of the principal issues concerning the Kaliningrad region. However, there still remains a 'residual' risk for the implementation stage, given the significance of the remaining differences between the negotiating parties.

4 To overcome this and other cleavages, and to facilitate negotiations on and the handling of this kind of major risk, some experts propose setting up an EU Security Council. Its organisation and composition should combine elements of the UN Security Council, where some countries are recognized as 'more equal' than others, and elements of the US system, where all relevant agencies of the executive are represented. The idea is in tune with the political compromise to set up a modest military headquarters for EU-led operations, a deal first agreed by the EU's 'Big Three' (Britain, France and Germany) and later accepted by all the other member states. (For more details see Everts and Missiroli, 2004).

5 The approval procedure for the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal in could serve as a good example. This procedure allowed for the treaty to enter into force with ratification approved by only 20 of the 35 signing nations. (Such a decision-making tool would be helpful in speeding up ratification of the Kyoto protocol to reduce the risks of global climate change, first negotiated and signed as early as 1997.)

References

Beck, U. (1986) *Risikogesellschaft: auf dem Weg in eine andere Moderne*. Frankfurt/Main: Suhrkamp. (Trans. 1992, *Risk Society: Towards a New Modernity*. London: Sage.)

Brun, W. (1992) Cognitive Components of Risk Perception: Natural versus Manmade Risks. *Journal of Behavioral Decision Making*. Vol. 5, No. 2, pp 117–132.

Comfort, L.K. (ed.) (1988) *Managing Disaster: Strategies and Policy Perspectives*. Durham, NC: Duke University Press.

Covello, V. (1983) The Perception of Technological Risks: A Literature Review. *Technological Forecasting and Social Change*. Vol. 23, No. 4, pp 285–97.

Cvetkovich, G. and Earle, T. (1991) Risk and Culture. *Journal of Cross-Cultural Psychology*. Special issue.

Dake, K. (1991) Orienting Dispositions in the Perception of Risk: An Analysis of Contemporary Worldviews and Cultural Biases. *Journal of Cross-Cultural Psychology.* Vol. 22, pp 61–82.

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

Dynes, R., De Marchi, B. and Pelanda, C. (eds) (1987) *Sociology of Disasters: The Contribution of Sociology to Disaster Research*. Milan: Franco Angeli Libri.

European Union (2003) *Community Response to the Flooding in Central Europe*. At *http://europa.eu.int/scadplus/en/lvb/g24216.htm*.

Everts, S. and Missiroli, A. (2004) To Claim a Global Role, the EU Needs Its Own Security Council. *International Herald Tribune*, 10th March.

Freestone, D. and Hey, E. (eds) (1996) *The Precautionary Principle and International Law: The Challenge of Implementation.* International Environmental Law and Policy Series. The Hague: Kluwer Law International.

Fuller, T. (2002) Disaster Fund Proposed for EU: Measure Would Be a Step Forward towards European Centralization. *International Herald Tribune*, 29th August.

Kahneman, D. and Tversky, A. (1979) Prospect Theory: An Analysis of Decision Under Risk. *Econometrica.* Vol. 47, No. 2, pp 263–91.

Kasperson, R., Renn, O., Slovic, P., Brown, H., Eemel, J., Goble, A., Kasperson, I and Ratick, S. (1988) The Social Amplification of Risk: A Conceptual Framework. *Risk Analysis* Vol. 8, No. 2, pp 177–87.

Luhmann, N. (1993) *Risk: A Sociological Theory*. New York: Aldine de Gruyter.

Medvedev, Z. (1990) *The Legacy of Chernobyl*. Oxford: Blackwell.

O'Riordan, T. and Cameron, J. (eds) (1991) *Interpreting the Precautionary Principle*. London: Cameron May.

Osokina, I. (2003) Ekologicheskaia stabilnost' Baltiki – nasha startegicheskaia zadacha ('The ecological stability of the Baltic is our strategic goal'). *Izvestia*, 17th November.

Perrow, C. (1984) *Normal Accidents: Living with High-Risk Technologies*. New York: Basic Books.

Porfiriev, B. (2001) Managing Security and Safety Risks in the Baltic Sea Region: A Comparative Study of Institutional Crisis Policy Models. *Risk Management: An International Journal*. Vol. 3, No. 4, pp 51–62.

Porfiriev, B. and Vyalishev, A. (1999) The Baltic Sea: Mitigating the Major Chemical Threat. *Baltinfo*. No. 25, pp 8–9.

Rayner, S. (1992) Cultural Theory and Risk Analysis. In Golding, D. and Krimsky, S. (eds) *Social Theories of Risk*. Westport, CT: Praeger.

Rayner, S and Cantor, R. (1987) How Fair is Safe Enough? The Cultural Approach to Societal Technology Choice. *Risk Analysis*. Vol. 7, No. 1, pp 3–13.

Renn, O. (1990) Risk Perception and Risk Management, Part 2: From Risk Perception to Risk Management. *Risk Abstracts*. Vol. 8, pp 1–10.

Renn, O. (1992) The Social Arena Concept of Risk Debates. In Golding, D. and Krimsky, S. (eds) *Social Theories of Risk*. Westport, CT: Praeger.

Renn, O. and Rohrmann, B. (eds) (2000) *Cross-Cultural Risk Perception: A Survey of Empirical Studies*. Dordrecht: Kluwer Academic.

Rhinard, M. (2000) *Actors and Institutionalization: The Role of Actor-based Networks in Constructing the European Technology Policy Domain*. Working Paper No. 26, presented at the 28th Joint Sessions of Workshops, Robert Schumann Center for Advanced Studies.

Rosenthal, U., Boin, R.A. and Comfort, L.K. (2001) The Changing World of Crises and Crisis Management. In Rosenthal, U., Boin, R.A. and Comfort, L.K. (eds) *From Crises to Contingencies: A Global Perspective*. Springfield, IL: Thomas and Thomas.

Slovic, P. (1987) The Perception of Risk. *Science*. Vol. 236, pp 280–5.

Slovic, P. (1992) The Perception of Risk: Reflections on the Psychometric Paradigm. In Golding, D. and Krimsky, S. (eds) *Social Theories of Risk*. Westport, CT: Praeger.

Slovic, P. (2000) *The Perception of Risk*. London: Earthscan.

Slovic, P., Fischhoff, B. and Lichtenstein, S. (1980) Facts and Fears: Understanding Risk. In Shwing, R. and Albers, W. (eds) *Societal Risk Assessment*. New York: Plenum.

Slovic, P., Fischhoff, B. and Lichtenstein, S. (1985) Characterizing Perceived Risk. In Kates, R., Hohenemser, C. and Kasperson, J. *Perilous Progress: Managing the Hazards of Technology*. Boulder, CO: Westview.

Slovic, P., Fischhoff, B. and Lichtenstein, S. (1986) The Psychometric Study of Risk Perceptions. In Covello, V., Menkes, J. and Mumpower, J. (eds) *Risk Evaluation and Management*. New York: Plenum.

Stulov, I. (2003) Tsena sliva ('The price of spillage'). *Izvestia*, 25th September.

Thompson, M., Ellis, W. and Wildavsky, A. (1990) *Cultural Theory*. Boulder, CO: Westview.

Vlek, C. and Stallen, P.J. (1981) Judging Risks and Benefits in the Small and in the Large. *Organizational Behavior and Human Performance*. Vol. 23, pp 235–71.