

Chapter 2

Distributed Responsibility in Risk Governance

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Introduction

The principles of responsibility and accountability have increasingly become a significant concept for the political capability to act independently and make decisions without superior authorization. In the context of responsibility, the political system in modern democracies delegates political functions, duties and authorities and justifies the logic, meaning and reasoning behind this justification. The assignment and allocation of responsibility imply that the consequences of political action can be assigned to those subjects who are assigned to be responsible. Subjects of responsibility could be individuals, groups, organizations, states or other institutions. It is significant for the principle of responsibility that we can identify a causal relation between the subjects that are accountable for the decision making, the substance of the decision itself and the consequences of decision. Hence, a socio-political concept of responsibility conveys the freedom of decision and action as well as represents the social and legal rules and norms of a society by which we are able to judge the success or failure of political action.

The critical analysis and reflection in numerous studies on technological and environmental risks—such as chemical substances, biotechnology, energy, fracking, electromagnetic fields, biodiversity, climate change, water resources, food, etc.—that have been published in the last two decades point to some regularities and patterns of substantial problems and shortcomings in terms of the definition and localization of responsibility and accountability in the governance of such risks (cf., e.g., Hampel et al. 2001; IRGC 2013; Klinke et al. 2006; WBGU 1999, 2000a,

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2000b; Renn et al. 2011; Klinke and Renn 2014). In particular, the diffusion of responsibility and diminished responsibility in the context of handling uncertainty, the scientific production of reliable cognitive and evaluative knowledge, controversial expert opinions, expert-lay divides, ambiguous interpretation of consequences, questions of risk-benefit distribution, questions of fairness and justice, issues of acceptability and the legitimation of collectively binding action and arrangements, as well as the trade-offs between conflicting goals, reveal a conglomerate of conflicts, problems and challenges that have not been adequately addressed by present risk regulation systems. This situation co-accounts for the disenchantment with politics and the discontent of people affected, which becomes an increasing cause for the distrust of public risk regulation institutions.

One of the implications that can be drawn from a reconstructive and interpretive understanding and explanation of relationships and structure is that the causal connections are not clearly visible. This is true for the relationships between the source and agent of risks, the social perception and interpretation of risks, the conventional risk estimation, risk management solutions and traditional risk communication that are integrated in a political culture of risk regulation restrained and dominated by techno-scientific systems and complex political processes and structures. Thus, the principle of responsibility is incrementally losing its collective function to guide, steer and restrain the classical risk analysis process and produces a contradictory situation. On the one hand, the proportion of individual responsibility with regard to the risk consequences is growing to a greater extent. On the other hand, a decreasing number of actors are solely responsible for risk impacts. The rise of individual responsibility comes along with the diffusion of accountability and reasoning which has far-reaching implications. The accumulating interconnectedness of individual and collective actors enhances the willingness to be prospectively responsible for tasks and thus the possibility to fail. To the same degree, retrospectively, the acceptability of acknowledging the responsibility and accountability in a case of failure is declining.

Debates about responsibility and accountability in the handling of risk and uncertainty give rise to a set of pressing questions about the ethical-normative foundations of political responsibility and accountability, the relationship between individual and collective responsibility, the diffusion of responsibility, the justification and communication of responsibility, and procedures allocating and producing responsibility. These questions have implications for how a risk governance framework that augments the classical risk analysis approach could reorganize and facilitate the execution of responsibility and accountability, as it raises the question of how power, authority and legitimacy can be enacted, differentiated and distributed. Can responsibility and accountability of socio-political processes and institutions that guide and facilitate the assessment, evaluation, management and communication of risk and uncertainty be distributed, and how? Based on today's structures, we could envisage a distributed system of responsibility and accountability in risk governance in a more decentralized and non-hierarchical system. In this light, we argue for a functional differentiation and distributed responsibility and accountability in risk governance in order to be capable of grasping and addressing

the relevant cognitive and evaluative knowledge, the explanation of risk phenomena and consequences, the implications for human existence and social life, and the social and political principles and goals of how to avoid, mitigate and control risk consequences and undesired uncertainties (cf. Klinke and Renn 2012, 2014).

This rationale sets the stage for the article. Our goal is to elaborate on a functional differentiation through distributed responsibility and accountability that can be produced through epistemic, associational and public deliberation in the governance of risk and uncertainty. This notion addresses the need for an approach to normative-theoretical advances and institutional feasibility that devolves authority and shares responsibility beyond the conventional political system and fosters a deliberative democratization in our society (cf. Klinke 2016).

The classical model of risk analysis, including risk assessment, risk management and risk communication, lacks an adequate ascription of responsibility and accountability to institutions and processes that have the ability to acquire the scientific and experiential substance relevant to how to handle issues of uncertainty and ambiguity in the course of public policy making and regulation. The challenges are associated with the role, significance and contestation in terms of systematic expert knowledge, anecdotal lay evidence, the ability to make sound judgments, and the societal involvement of norms and values in risk governance. These issues are manifoldly discussed and theoretically founded in scholarly literature under key words such as “speaking truth to power” (Wildavsky 1987), “regulatory science” (Jasanoff 1990), “democratization of science” (Funtowicz and Ravetz 1993), “civic science” (Bäckstrand 2003), “democratization of expertise” (Liberatore and Funtowicz 2003), “when does power listen to truth” (Haas 2004), or “a functional division of labor for post-normal risk governance” (Klinke and Renn 2014). They also have been theorized in risk society and reflexive modernization as discourse and practice of science (Beck 1992). However, the literature does not sufficiently reflect on who has the ability to act independently and make substantial estimations and judgments on the epistemological, ontological and teleological dimensions of risk and uncertainty, and how it could be organized.

Our approach to address this deficit favors a design method that is a focus on redefining specifications of a risk governance framework in order to gain key insights and essential understanding that lead to a more holistic perspective on risk governance that is capable of distributing responsibilities and accountabilities in terms of the acquisition of cognitive expertise and societal experience. However, our approach is not an abstract and ideal configuration of risk governance institutions and processes. Rather, our methodological approach is to normatively and theoretically reason a possible realization of responsible risk governance as an attempt “to make sense of practice, and guides to the actions by which we forge practices” (Bevir 2011, 7). The following proposal of distributed responsibility and accountability in risk governance accentuates the significance of the functional differentiation and incorporation of expertise and experience. It relies on three pillars of distributed responsibility through differentiated deliberation in risk governance: epistemological, associational and public deliberation. It is a new approach to resume political responsibility that can be seen as legal obligation of risk

governance in a democratic political system that we denote as a substantial political responsibility and accountability.

Epistemological Deliberation

We argue that collective decision making in a risk governance process embedded in a democratic system depends on the authority and responsibility of experts that are appropriately selected and substantiated by the experts' acknowledged ability to provide effective and truthful expertise on the basis of scientific evidence on risks and related opportunities as well as the likely impacts of different policy options (cf. Mansbridge et al. 2012; Christiano 2012). The principle of distributing competences and responsibility is a fundamental pillar in modern democracies. Passing on the task and duty to produce substantial cognitive and evaluative knowledge to experts is therefore entrusting responsibility to a group in society that has a comprehensive and authoritative systematic knowledge and scientific skills in terms of the interdisciplinary risk estimation and characterization that other actors do not hold. The process of epistemological deliberation places the responsibility for assessing risks, analyze associated social concerns and characterize a risk profile to the careful consideration and discussion of scientific specialists in natural, technical and social science areas because they are the only actors that can generate reliable and profound scientific insights and the related substantiated body of knowledge that is policy-relevant. The designation as risk expert authority "is itself often conditionally earned through deliberative means and within specialized deliberative communities" (Christiano 2012, 15). These epistemic communities comprise loosely connected actors, each with issue-specific knowledge and competences, who seek to collectively facilitate convergence and agreement on cognitive and evaluative understandings and policy-relevant problem solving (Haas 1992).

The epistemological deliberation includes the scientific assessment of the risks to human health and the environment, an assessment of concerns, an estimation of social and economic implications and an ascertainment of irreducible scientific uncertainties. Experts of natural and technical sciences should produce the best estimate, including an assessment of exposure and vulnerability, and of the physical harm that a risk source poses. If possible, the estimate should be based on quantitative data. Experts of social sciences identify and analyze the issues that individuals or society as a whole associate with a certain risk. For this purpose, social science methods such as surveys, focus groups, deliberative opinion polls, structured hearings, econometric analysis or macro-economic modeling are valid inputs in the deliberative system because they can help to gather risk perceptions and experiences, and measure psychological stress and social vulnerabilities and conflicts (cf. Chambers (2012). Additionally, available information about irreducible and irresolvable epistemic and genuine scientific uncertainty need to be collected, and the potential for cognitive and evaluative conflicts are revealed. In conclusion, a deliberative assembly of natural, technical and social sciences is supposed to

characterize the risks beyond the established assessment criteria and ascertain a risk profile (cf. Klinke and Renn 2002; WBGU 2000).

We believe that pre-estimation and interdisciplinary risk estimation require a deliberative process in which recognized scientists draw upon the classic ideal of deliberation in order to gain cognitive reference frames and meaning structures. Scientists aspire to identify and analyze relevant science-based data and knowledge, jointly learn about cognitive and evaluative understandings as well as define issue-specific challenges, especially irreducible uncertainty and issues of socio-political ambiguity. Scientific deliberation is based on coherent and conclusive reasoning and the persuasive power of arguments that emanate from probative facts, logics and systemic knowledge. This in turn sheds light on the risk sources and effects, the complexity of identifying and mapping cause-effect relationships, the remaining irreducible scientific uncertainties, and the consequences for current and possible future developments. The cognitive evidence and arguments exchanged by experts can be empirically verified on the basis of traceability and consistency. They resonate with their shared causal beliefs. The major task of expert deliberation is to ascertain the most cogent cognitive explanation of the risk phenomena in question as well as to clarify dissenting views (e.g., by addressing the socio-political, economic and/or environmental impacts which are to be expected given specific regulatory activities). The overall goal is to establish consensual knowledge about cause-and-effect relationships, uncertainties and ambiguity and policy-relevant criteria for judging acceptability and tolerability of a given risk. Since truth seeking motivates scientific experts, communication in the deliberation process aims at an agreement in the form of a cognitive convergence, i.e., the participating experts agree on a single outcome of pre-estimation and interdisciplinary risk estimation for the same reasons because no significant conflicts of opinions and interpretations emerge, and negotiation and bargained compromise are excluded (cf. Mansbridge et al. 2010, 70).

The epistemological deliberation will be socially and politically acknowledged and respected as institutional responsibility for the decisions on risk estimation and characterization when the deliberation is embedded in and takes place among legitimate risk-research institutions with relevant expertise, risk competences and consultative skills. State-run risk agencies, expert advisory bodies, institutes of higher education, independent and neutral research institutes and non-profit, impartial think tanks can, if they are able to facilitate the state of the art in the respected knowledge domain and if they are recognized to represent the respective epistemic community, provide professional expertise and resources that generate cognitive and evaluative knowledge relevant for reference frames and meaning structures (cf. Rich 2004). They can also validate ideas and concepts about and criteria for risk characterization and risk evaluation. These research entities possess substantial authority because they operate through a sense of credible obligation when it comes to the objective and unprejudiced production of expert knowledge and systematic information that is generally accepted by the public sphere. An example of an acknowledged state-run risk institution is the German Federal Institute for Risk Assessment—despite some critiques—that identifies and assesses

risk with regard to consumer health through expert deliberation within a network of scientific institutes. Another example is the European Food Safety Authority that relies on the deliberation of expert committees and a Europe-wide network of risk research institutes to assess food and feed safety.

Though the structure of distributed responsibility through differentiated deliberations is not organized hierarchically and expertise is not superior, the subject of the epistemological deliberation is distinct from the central matters of associational and public deliberation, but relevant as it provides the substantial expertise that marks the beginning of the risk governance process. Hence, experts produce the cognitive and evaluative reference frames and meaning structures on which the other deliberative processes and institutions ought to rely. Associational and public deliberation “draw[s] from the rewards of expertise while reducing the potential deliberative costs of bias, disrespect and non-inclusion” (Mansbridge et al. 2012, 14). However, this expertise may not be self-explanatory for common-sense understanding and “competent experts are not adept at explaining the reasons for their decisions to non-experts, the system as whole requires some agents with the capacity to translate expert conclusions into recommendations” (Mansbridge et al. 2012, 15) that participants of associational and public deliberation can comprehend and continue processing.

Associational Deliberation

Meeting the disputed responsibility in terms of risk evaluation is the second pillar of a distributed responsibility in risk governance. We propose associational processes and institutions of deliberation that foster the interplay between scientific expertise and stakeholder experience. Associational deliberation refers to a group-based approach in risk governance that involves experts who represent the cognitive and evaluative reference frames and meaning structures of risk estimation and collective actor groups, who represent government, economic interests and public interest and bear the responsibility to deal with the ontological and ethical challenges and issues related to risk phenomena. Associational deliberation shapes an arena for a reflexive debate in which relevant collective actor groups of the state, society and economy exchange issues and lessons associated with the given risk that they learned from their lifeworld of experiences in a narrative way. Round table discussions, mediations and negotiated rulemaking are procedures that actively engage collective actor groups and have often proven to be valuable in real-world public policy making (Beierle and Cayford 2002; Renn et al. 1995).

The cognitive and evaluative reference frames and meaning structures produced through epistemological deliberation enter the associational deliberation as valid scientific substance forming the starting point of discussion. It begins with experts giving testimony. The responsibility of the agents representing scientific expertise in associational deliberation is to familiarize the other collective actor groups with the cognitive and evaluative reference frames and meaning structures that they,

scientists, have attained through risk estimation and to reveal the challenges associated with the genuine and epistemic character of scientific uncertainty. However, the nature of risk means that actors need to acknowledge that science cannot adequately describe the virtual socio-political implications resulting from scientific uncertainty. The participants of the associational deliberation have the opportunity to question the cognitive and evaluative knowledge given. The collective actor stakeholder groups add their experiences and perspectives, gleaned from social life, and discuss commonalities and conflicts associated with a given risk. The stakeholders' perceptions of and reactions to uncertainty affect the situations and contexts as well as the behavior that is relevant when acceptability and tolerability are determined. The amalgamation of scientific and experiential substance creates an epistemic and moral surplus that enables the evaluation of risk on the large scale of society by judging the acceptability and tolerability of risks that are deemed to be socially and publicly reasonable in the light of the common good which is an essential process in risk governance.

The collective actor groups prejudge whether and to what extent society would accept the consequences of the risk being implemented and the remaining uncertainties and tolerate the tension between the responsive actions of appropriate safeguarding and acting under insecurity. In this regard, the participants encounter questions about the scope and profoundness of safety, protection and precaution. Here, perceptions of just or unjust distribution of risk and benefits are highly significant. Stakeholder deliberation seeks ways to ensure that good reasons are exchanged to elaborate to what extent uncertainty is reasonable for society, the necessary level of safeguarding, and the margin of safety that one is willing to invest in order to avoid undesired consequences. Through deliberation, stakeholders attempt to establish a balance between too little and too much precaution, agree to trade-offs between the competing extremes of over- and under-protection, and orient themselves to a pareto-optimal equilibrium in the degree of risk regulation. In so doing, the participants also try to pre-estimate the practical relevance and impact of preventive, adaptive and mitigative strategies and measures (e.g., containment of application, safety margins, extending retention etc.).

Drawing on Parkinson (2006, 148–150), we argue that the legitimate source for participation in associational deliberation is relevance and not a broad variety of groups or a fixed set of traditionally defined groups. Hence, the relevant kind of stakeholder is one who is affected by the risk decisions. It is important that agents responsible for the organization of risk governance take into account who is affected by the risk, actively seek to engage them, and justify their relevance. Furthermore, stakeholder groups ought to have the chance to nominate themselves and thus assume political responsibility. The selection of the relevant stakeholders does not reflect statistical representativeness, electoral or proportional representation or a selection based on partisanship, but should be a mirror of a variety of relevant perspectives. The participating representatives of collective actor groups personify an extraction of experiences and viewpoints of the society affected by the given risk. Hence, distributed responsibility in risk governance can claim a kind of descriptive representation of society because participants share experiences, social

characteristics and underlying beliefs and values with outsiders (cf. Parkinson 2006, 154–155).

The Ethics Council on Energy Transition in Germany serves as an example of an intermediary and moral authority in a larger context of governance arrangements that accepted the responsibility to appraise the risk and benefits of phasing out of nuclear energy and render the decision of a transitioning to more renewable forms of energy (Renn 2015). The council acted as communicator and facilitator between the state and society in a pluralistic and corporate manner. The Council was established by the German federal government in 2012 in the aftermath of the Fukushima disaster and comprised representatives from the scientific community, government, the economic sector and civil society. The Council was associative and self-dependent in nature. The Council's recommendation and decision has been unanimously approved by the German parliament.

Another example is the UK Chemicals Stakeholder Forum that advises the UK government, specifically the Department for Environment, Food and Rural Affairs. The Forum evaluates risks of using chemical substances that are hazardous to the environment and to human health, and establishes priorities in terms of risk reduction. The Stakeholder Forum's risk evaluation is based on the scientific risk assessment of an expert deliberation within the Hazardous Substances Advisory Committee which is responsible for the compilation of the science-based background knowledge.

Public Deliberation

The third pillar of distributed responsibility in risk governance is that the public at large assumes the responsibility to share sovereignty over risk decisions and the framing of binding recommendations by means of deliberation that would be put to a vote.¹ Public deliberation constitutes a direct-democratic practice in risk governance where non-partisan, unorganized laypeople that are affected by a given risk are entitled to bring in their experiences and desires, have their voices heard and directly influence the risk decision making. Public deliberation is based on public reason giving that is intended to promote agreement. We canvass for public deliberation to be built into the heart of the formal democratic decision processes. Public deliberation would take place in the form of mini-publics, such as consensus conferences, citizen juries or panels, and deliberative opinion polls that are composed of ordinary citizens (cf. Fishkin 2009; Goodin 2008; Goodin and Dryzek 2006; MacKenzie et al. 2012; National Research Council 2008). Mini-publics do not meet claims of statistical representativeness or electoral representation, but the

¹For different ways on how public deliberation could work at the core of formal democratic decision making, see Goodin (2008). Cf. also Warren and Pearse (2008) who analyze the case of a citizen assembly in British Columbia, Canada, that was empowered to make a decision on the electoral system which led to a referendum. Cf. also Chambers (2012).

“deliberation in these mini-publics is representative of—and hence can substitute for—deliberation among mass publics that simply cannot deliberate together in the same ways” (Goodin 2008, 11). Mini-publics meet some standards of representativeness of the public at large because the diversity of social characteristics and the plurality of perspectives in the larger society is substantially present, as Goodin (2008, 13) puts it.

We propose that citizens in mini-publics reason together about the risk decision by exchanging narratives about and making claims on the same topic (cf. Parkinson 2012, 154). Experiences with mini-publics reveal that citizens develop well-considered and reasoned valuations that can solidify the public opinion at large, complement expert judgments and formulate politically relevant policy options (MacKenzie et al. 2012, 95). Hence, public deliberation via mini-publics has two specific scopes of responsibility in risk governance: setting socio-political goals and establishing strategies for risk policy, and addressing socio-political ambiguity. To do so, mini-publics must receive the cognitive and evaluative reference frames and meaning structures as knowledge sources, hear the evidence and reasons behind it from the experts and then question them. They should also hear testimony—judgment of acceptability and tolerability—from agents of the stakeholder groups. After this, the citizens, who may have both common and conflicting interests, would deliberate on the specific risk at hand. They would determine the precepts and strategies for action that would instruct the specific public policy addressing the risk. “The best discussions clarify both conflict and commonality, and perhaps forge genuine commonality where it had not existed before” (Mansbridge 2006, 118). More practically, the mini-publics would reflect the reasons for specific risk management options, and participants would make a well-informed opinion based on a reasoned weighing of the options (cf. Klinke and Renn 2010). In so doing, mini-publics would strengthen the risk governance structures and processes by producing trust relationships with the public at large and executive agencies of the government (MacKenzie et al. 2012, 96–97). The public at large would trust the mini-publics because they would serve as faithful custodian of the information and experience that guides the people’s political judgment. Government executives might trust public deliberation to help guide the risk decision making because they could anticipate public opinion on risk phenomena that has not yet been attached or cannot be grasped at all, especially with regard to contentious issues arising from socio-political ambiguity.

In the framework of the Great Lakes regime, mini-publics have been established as a part of the political process to discuss revision of the Great Lakes Water Quality Agreement (Klinke 2006, 2009). In these mini-publics, participants heard from experts and stakeholders and engaged in extensive discussions and then made recommendations that led to the enactment of the new 2012 Great Lakes Water Quality Agreement. Another example of effective mini-publics is the public deliberation about a waste disposal strategy for the Black Forest area in Germany. In the first phase, a roundtable of stakeholders determined policy goals and developed several options on how to meet these goals. In a second phase, randomly selected citizens of the area were asked to comment on these options and delineate

lessons for their own municipality. Finally, the citizens were asked to locate waste facilities that would meet the goals of waste disposal and explicit fairness criteria.

When experts dissent, expert/lay divides or moral disagreements become apparent because of interpretive and/or normative ambiguity,² and citizens can attenuate the risk issue by addressing the underlying norms and values that manifest the inherent conflicts. To this end, citizens can cross-examine witnesses that represent conflicting perspectives and disputed claims. The citizens then determine which substance might be the basis for an agreement or account for dissent in the light of the cogency of the dissenting views, especially with regard to their factual and common good-related claims. What are the reasons for the dissent? How can differences be overcome? Is additional expertise necessary?

Cases of high levels of socio-political ambiguity may induce more conflict than commonalities in mini-publics, though, in such instances, the deliberation can at least clarify the obscured outlines of underlying friction. Such a discussion can lead to the revelation of antagonisms and repudiations, and thus to greater mutual understanding. According to scholars who advocate an expansion of the deliberative ideals for the practice in democracy, public deliberation may eventuate into a process of negotiation where the mini-publics cannot reconcile conflict and difference in opinions. "In negotiation, the members of the group try to craft a decision that all members can accept as better than their best alternative to a negotiated agreement" (Mansbridge 2006, 119).

Conclusion

This book chapter has argued for a shift from governmentally driven risk regulation with a classical approach to risk analysis to a risk governance framework that constitutes distributed responsibility by means of differentiated deliberation modes in order to be capable of tackling uncertain and ambiguous risk phenomena in way that is deemed to be socially and publicly acceptable. The notion of distributed responsibility in risk governance has an analytical-descriptive and normative dimension: as an analytical description of how responsibility and decision making in terms of risk estimation, evaluation, management and policy choices can be functionally shared and as a normative conception for improving the execution of this obligation through ways and means of deliberative democracy. The distribution of responsibility in risk governance directs our attention to the societal and political obligation to tackle issues of uncertainty and ambiguity that many risks are associated with and give rise to epistemological, ontological, ethical and teleological questions. We have outlined a risk governance frame with a functional differentiation that assigns particular responsibilities and tasks to experts, stakeholders and

²For the definition and explanation of complexity, uncertainty and ambiguity, see Klinke and Renn 2012, 2014).

the public because such a distributed responsibility through differentiated deliberation enables the integrative production of expertise and experience. In addressing the nature and scope of epistemological, associational and public deliberation, we have attempted to elucidate who is responsible for what, and how scientific and experiential substance via deliberative means can be acquired. This chapter contributes to the debate about the relationship and collaboration of the state, society and experts, as well as the tension between the scientification and democratization of risk decision making.

In advancing the democratic polity for risk governance, the institutionalization of distributed responsibility in risk governance structures and processes can contribute to increase legitimacy, accountability, political reasoning and effectiveness because it strengthens the role of society in risk policy making. It does this by rescaling political responsibility and authority through (1) reshaped existing risk governance institutions and (2) new and innovative risk governance institutions. First, existing risk governance institutions need to become institutionalized focal points and fill new, active roles that facilitate the distribution of responsibility. Second, new risk governance arrangements need to be institutionalized with an adequate political concept of distributed responsibilities by means of differentiated deliberation that constitute a democratic polity that complements our representative systems.

However, it is important to acknowledge that obstacles have to be faced in the institutionalization of the proposed distribution of responsibility in risk governance. We would like to draw the attention to two crucial issues that cannot be resolved conclusively from the perspective of our proposal. First, distributed responsibility in the form of epistemological, associational and public deliberation relies on the willingness and active participation of collective and individual actors. This claim has a procedural dimension to it that concerns inclusion/exclusion, the gate-keeping role, representativeness and adequate forms of direct involvement. Which members of epistemic communities will be recognized as experts with discernment? Which stakeholders and individuals are seen as trustful and having the ability to judge well? Which interest do collective actor groups represent? Who decides on the rules governing representation? Which deliberative forms and procedures are adequate? Answers to these questions are contested in policy and academic literature alike.

Second, deliberation presupposes procedural properties and conditions that facilitate reason giving and persuasion, even though restrained forms of bargaining and negotiation are acceptable when they led to a communicative agreement. Here, a substantial claim is crucial. Associational and public deliberation prompt the participants to assert publicly acceptable reasons and justifications. Such public reasoning presumes individual capability in terms of deliberative competences and skills. Hence, the outcome of a communicative agreement depends on participants being able to translate their interests into a commonly acceptable language and to differentiate conclusive from implausible narratives and good from bad reasoning (Bohman 1997, 337–338; Forst 2001, 362). The more the participants give reasons in favor of the common good, the more likely it is that they can resolve conflicts and achieve one outcome. Yet the reference frame and meaning structure of the

common good also need to be defined by deliberation, taking into account the affected people of a given risk and the relevant substance.

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