Introduction

This thesis is a philosophical investigation of risk communication. Risk communication is a field of practice, but also a theoretical concept belonging to a risk management framework. The thesis explores the existing concept as used in the literature, but also tries to redefine it and seeks to explore its potential beyond its traditional field of application. This short introduction attempts to put the three following essays in a conceptual context. The conceptual background and a proposal for a redefinition is worked out in more detail in the next section named “the idea of risk communication”, that section is however more of a conceptual complement to the essays than an introduction to them.

The thesis consists of three different essays all related to risks, risk communication and vulnerability. The first addresses the idea of free choice and individual risk taking, and points to risk taking from vulnerability in a situation without access neither to reliable information nor decent options. The second examines the democratic ideal of participatory and two-way communication in the risk communication literature and points to the discrepancy between that ideal and the inequality between the parties. The third addresses the idea that planned expert to lay communication could be a means to create public trust. It questions whether trust should be a goal for risk communicators and whether it would also be valuable for the public to trust although trusting would make them more vulnerable.

The aim of my project is twofold: i) to contribute to an existing literature of risk communication, ii) to develop the concept of risk communication and explore its philosophical potential, general scope and implications outside the traditional field of risk management. An underlying less explicit theme is to investigate how well philosophy lends itself to develop theories outside the traditional scope of philosophy. In this thesis, essays I and II primarily address the first aim, and essay III can be seen as a bridging paper between philosophy and risk communication literature. The second aim is only directly addressed in this introduction and hinted at in the including essays, but will be further developed in the second part of the project making
out the finishing part of my PhD thesis. Hence the subheading “Towards a philosophy of risk communication”.

Risk communication is rather young as a discipline and field of study. The term “risk communication” was first formulated in 1984 (Gurabardhi et al 2005). Risk communication research evolved in the 1980s (Chess et al 1995) as a development from the risk perception research that had developed in the 70s and in response to public protests against controversial technology such as nuclear power (Grabill and Simmons 1998). This means that risk communication has right from the start developed as a means for addressing the discrepancies between lay and expert views on risks. Since then two different approaches of how to achieve a more common understanding between experts and public has evolved (see e.g. Rowan 1994). The first is the top-down or technocratic approach that addresses risk communication as experts informing the public about risks in order to influence and persuade the public to share the expert’s view. The other approach is the participatory or stakeholder involvement approach that stresses a two-way communication or a mutual exchange of information between experts and public. Behind this approach lies an assumption that risk decisions are not only technical decisions but are inevitably also rather value-laden. Since the public is as much experts on values as the scientific experts, risk communication should aim for mutual learning and understanding. It can thus be argued that there are three underlying assumptions or ideas within much of risk communication theory:

1. **The knowledge gap**: Risk communication is a response to “a gap” in risk conceptions and knowledge between expert and public. This gap is thought to explain why the public sometimes has irrational views on risks and hence protest against the best expert judgments (Fischhoff 1995; Grabill and Simmons 1998, 418, p 42). With the right kind of information it was believed that this gap could be decreased.

2. **The problem of distrust**: Part of the problem is a growing distrust, a "crisis of trust" is claimed to exist. The public perception of high risks was discovered to be correlated to high distrust. This distrust for governments, regulators, and hazardous industries can be remedied with the right kind of trust building communication, or so it is argued (see e.g. Löfstedt 2005, p 9, 19).
3. The need for public participation or stakeholder involvement: (held by some but questioned by others): If straightforward communication has not reached the public in the way expected, and “the gap” remains, this is because communicators have not thought of the public as partners and have not regarded them as equals. What it is needed is something like Habermas’s ideal speech situation and a two-way democratic dialogue (Renn 1992, Renn 2004; Chess et al 1995; Grabill and Simmons 1998, p 422; see also Leiss 2004 on the permanence of “the gap”).

Since these ideas are implicit in much risk of communication theory, research and planning, they are therefore a natural starting point for the philosopher and hence also for this thesis.

Risk communication touches upon many issues of normative and political interest: individual and group vulnerability, equality, justice, and influence over information and decisions. For example: people in poor communities or regions are more exposed to risks due to lack of counteractive means or alternatives than those in more fortunate circumstances (see Essay I; Kasperson and Kasperson, 2001). Risk communication theory has typically not addressed the more overarching normative or political issues but has more commonly focused on practical matters such as how to make communication with different publics work, how to influence their views on risks, and on how to regain the once lost trust of the general public. It has developed ideas on how to involve a local public and how their contribution to risk decisions could result in better risk management and make communication outcomes mutually benefiting. This thesis starts from there and asks: what else can risk communication do or not do for democracy?

The Idea of Risk Communication

Prevalent Ideas of What Risk Communication Is

Risk communication is broadly speaking information about risks, their consequences, and means to counteract them. More specifically risk communication is often referred to as the professional (industry or government) communication to the general public with the aim to establish acceptance or an understanding of the magnitude and likelihood of collective risks, such as those from nuclear power or chemical emissions, and an
understanding of risk decisions or policies concerning such risks. Furthermore, risk communication can also refer to professional communication addressing individuals in order to influence their behaviour concerning individual risk taking, in order to avoid such risks as those from drugs abuse, careless driving, toilet littering or unsafe sex. In addition, it can be a means for involving the public in decision-making processes concerning risks.

In the risk communication literature there is often a wide range of practices that are referred to as risk communication: doctor-patient conversations, warning labels, citizen panels, public hearings, referenda, stakeholder involvement, dissemination of printed information, etc. There are several wide descriptions alluding to risk communication as more of less any kind of information or communication between different parties related to risk indicating a very wide view of risk communication. Here is one example from the National Research Council (1989) of a wide notion of risk communication.

“Risk communication includes all messages and interactions that bear on risk decisions. Thus risk communication includes announcements, warnings, and instructions moving from expert sources to nonexpert audiences… But it also includes other kinds of messages –about risk information and risk information sources, about personal beliefs and feelings concerning risks and hazards, and about reactions to risk management actions and institutions. Not all these messages are strictly about risk, but all are material to risk management” (National Research Council, 1989, p 22)

Essay II of this thesis proposes a tentative typology of seven different kinds of risk communication that would be included in such a wide notion. These are:

a) *Mutual exchange of expertise.* This refers to discussion between experts or regulators about how to proceed or how to regard a topic of risk.
b) Informal risk communication refers to communication among non-experts about risks, such as neighbours discussing the risks from lightning, radon, or food preservatives.

c) Advice to the public, is expert to lay communication whether doctor patient conversations, or big campaigns for example to promote the use of condoms, seat belts, bicycle helmets etc.

d) Personal inquiry refers to an individual actively seeking information about risks whether contacting his local industry to inform him- or herself about their emissions, or the teenager surfing the Internet on how to avoid bad experiences from drugs or extreme sports.

e) Public reactions are lay protests directed to decision makers, whether governmental, industrial, or others, perhaps forming a group in order to inform themselves and protest against their local nuclear power plant. This includes organized interests such as consumer groups, environmental groups, etc.

f) Information from the risk inducer (decision maker) is the typical technical risk communication case, the industry or regulator informing the public about their risk decisions or levels of risks. But also: the information leaflet about side effects that is provided along with some medicine from the manufacturer, such as a leaflet given to women about contraceptives.

g) Information from a third party includes expert warnings about risks, criticism of industrial hazards by environmental groups, etc.

This list is not conclusive, neither are the listed types mutually exclusive. The list can nevertheless serve as an illustration of the scope of different practices implied by the wide notion discussed. Despite being implied by the wide notion, these practices are not equally present in the literature. Alongside the wide view there seems thus to be an implicit much narrower notion or risk communication. There, the focus has primarily been on expert to lay communication, that is c), f) and g). For example: public health campaigns such as aids preventive information from governmental bodies directed to the general public (advice to the public); industrial plants informing the local citizens about their emissions, waste management programs, etc. (information from the risk inducer); or an independent agency
informing the public about risks from radon and nuclear power (information from a third party). Informal risk communication, that is b), has sometimes been alluded too in theoretical discussions of the scope of risk communication but seldom discussed at length. Alternative perspectives such as when the experts or decision makers are on the receiving end of communication (mutual exchange of expertise or public reactions) or lay individuals actively seeking out information perhaps from unofficial sources (personal inquiry) have not been addressed much. This is not surprising given the fact that risk communication has grown to a profession and hence the focus on professional communication is a natural consequence.

However, if we look at the total picture of information that makes out the sources of expert and public opinions on risks, this focus may be an unfortunate restriction. It is quite possible that the major sources of information on which the general public base their attitudes and opinions towards a certain risk are not from professional risk communication (see eg. Bailey et al 2006). Alternative possibly more influential sources are: informal risk communication (such as opinions and experiences from friends); information from a third party (such as from media or the official opinion of a group one belongs to); and personal inquiry (such as information one actively looks up on the internet or at the local library). Similarly the major sources of information for experts are not likely to be professional risk communication either, but rather information from other experts. Decision makers are perhaps informed by experts, but also from public reactions.

We could thus conclude that there seem to be discrepancy between those practices actually discussed and those implied by the concept defined.

The Technical and the Democratic Approaches to Risk Communication

Katherine Rowan (1994) identified two basic approaches to risk communication that she calls technical and democratic, with different strategies and goals (cf. Fiorino 1990, Gabrill and Simmons 1998; see also National Research Council 1989, on “risk messages” versus “risk communication”). These should be regarded as implicit models of ideal risk communication, according to Rowan. The technical ideal amounts to experts informing and persuading the public about the results of risk analyses and the
decisions of risk managers. Its objectives are thus information and persuasion, so that the public does not fear risks not to be feared and shares the conclusions and views of the experts and decision makers. The democratic ideal by contrast describes “a rule-governed process whereby all parties affected by a risk are guaranteed maximum participation and power in decisions about its management” (Rowan 1994, p. 400). Its objective is mutual understanding, and political fairness of decisions, where experts and public are thought to learn from each other, contributing with different but equally valid input.

The main idea of the technical approach to risk communication is quite simple: there is a risk expertise and they convey information to the public in need for such information (see e.g. National Research Council 1989, p 19-20). Once the public receives the right information they will also come to see the righteousness of risk decisions and judgements. The democratic approach on the other hand seeks the mutual understanding of the public and expertise and talks of lay expertise. It is based on the conviction that most risk decisions are not only technical decisions but bear on values and needs public involvement by those affected (see e.g. Löfstedt 2005, p 20). The two approaches spring from different views on the risk perceptual gap between experts and public. In the first case the public is thought to come closer to the views of the experts if they receive the appropriate information. In the latter the public’s diverging views are valued as complementary and to be included in the risk decision process to some extent.

A Seminal Definition of Risk Communication

Do the two normative ideas of democratic and technical risk communication jointly refer to all risk communication practices implied in a wide notion of risk communication? Covello, Von Winterfeldt, and Slovic (1986) worked out a much-quoted relatively wide definition of risk communication as early as 1986. According to them risk communication can be defined as:

“…any purposeful exchange of information about health and environment risks between interested parties. More specifically, risk communication is the act of conveying or transmitting
information between parties about: a) levels of health or environmental risks; b) the significance or meaning of health or environmental risks; or c) decisions, actions or policies aimed at managing or controlling health or environmental risks”

(Covello et al 1986, p 172)

Besides limiting risk communication to health and environmental risks specifically, this definition does identify some crucial aspects: that of exchange of information (which indicates an inclusiveness of information forms beyond expert dissemination to a lay audience); the idea of purposeful exchange of information (indicating a planned activity with specific goals in mind); and the idea of affected parties (that is, information beyond those who already know and are in a position to decide). This is obviously a definition with a democratic bent, since it includes more than mere dissemination of results and decisions and is formulated in terms of “exchange of information” allowing for a two-way process. It is in that sense a wide definition of risk communication that includes at least elements of both technical and democratic risk communication. It does at least not explicitly exclude any of the seven tentative kinds of communication.

A Narrow and a Wide Definition of Risk Communication – Two Proposals

I want to reformulate the implicit wide and narrow idea of risk communication into two explicit definitions, in order to make the practice and normative scope of risk communication clearer.

Risk Communication (narrow) = _def_
Professional planned information or dialogues about risks and risk decisions directed towards target audiences of the public.

Risk Communication (wide) = _def_
Information or dialogues accessible to affected parties that influence their risk decisions and risk attitudes.

Conceptually, the two definitions thus answer to two prevalent ideas of risk communication, one more pragmatic and the other more theoretical.
Extensionally, the narrow definition is limited to the professionally planned communications, that is, expert-to-public communication, but is neutral concerning democratic or technical approaches. The wider definition on the other hand answers a different question and includes a wide range of communication practices also outside the professional field of risk communication.

If we compare the wide definition of risk communication with the narrow definition we can identify the following divergences between the two:

First, there is difference in the agent of risk communication. According to the narrow definition it is the initiator or communicator, in the professional sense, who is the agent, namely the risk manager or risk regulator. According to the wide definition the agent is any individual or group, also organizations and experts, in need of information. This difference leads to a difference in identifying the occurrence of risk communication. According to the narrow definition that there is risk communication whenever someone is conducting a planned dialogue or disseminating information concerning risks. Consequently there is no risk communication when there is no such information disseminated or communicated. According to the wide definition there is risk communication whenever there is information around and about that influences how people conceive of certain risks. And conversely, there is no risk communication when there are no sources of information influencing risk decisions or risk attitudes.

Second, the different views on what risk communication is result in diverging views on what successful risk communication would mean. The two definitions lead us in different lines of thought. From the narrow definition we would identify risk communication by asking whether the management or regulator communicates about the risks under their influence to the public. It would then let us identify success of such as process by asking how this communication is conducted and whether this is successful. Successful risk communication from this perspective would be assessed in terms of fulfilling whichever goals or effects that were intended by the communicators whether that would be acceptance, increased safety, increased awareness, or establishing a trusting relationship of communication. From the wider definition we would instead be interested in finding out whether there are
accessible sources of information concerning this kind of risk. The subsequent questions to ask for assessing its success would then be: Which are the sources? Are they reliable? Is the need for information fulfilled? Success is assessed to the extent it fulfils the informative needs of those concerned whatever those may be. For example: information of long term effects; information about alternative courses of actions or alternative sources of information; information about available channels and forums for discussions; or information on how to influence, counter-act, or re-interpret information, alternatives and courses of actions. The informative needs should be understood in a wide sense in limited to the content and general availability of information, but also the specific availability to those concerned. This includes physical access to dialogue forums for those with functional disorders; information in a language that is understandable to those concerned, including those with special needs; dialogue forums on dates and times that are accessible for those concerned; etc.

Third, whereas the narrow definition limits risk communication to a certain kind of activity either being performed or not, the wide definition identifies any kind of information filling the specific function of informing views and attitudes on risks. The wide definition thus regards all bits and pieces that are crucial in understanding and forming attitudes towards risks as risk communication, regardless of their source or intended message. It should be stressed however that the wide definition does not specifically focus on a lay audience risk perception but also includes the information that influences the risk perception of risk managers, experts and risk communicators.

Fourth, as a result of the differences between the needs for information and the purpose of informing about risks, there is a possible difference in the kind of risks communicated between the two definitions. Planned communication from government bodies, private corporations, experts and the like, can be assumed to have a focus on risks that are of interest to those specific communicating bodies. The wide definition is not partial to such information but includes information concerning all kinds of risks that are of interest to the individual. This can include risks that go against the public interest, such as illegal risk taking, or risks in opposition to the government. Many risks are for example undoubtedly taken on the wrong
side of the law, whether in protest to it, due to lack of legal alternatives, or in order to avoid taking other illegal risks, indicating a need for information about how to avoid risks that fall outside the interests of professional risk communication.

My two definitions thus clearly point in different directions that imply almost two different perspectives on risk and information. Although they are descriptive, they provide the normative question, “what is excellent risk communication?” with two different meanings. It can either relate to what excellent communication practice directed towards the public is. This is the question commonly addressed in the form of heuristics and pragmatic advice to risk communicators and theoretical models of public participation, etc. Or it can relate to what kind of information concerning risk should ideally be available to those facing risks or being responsible for risks. This question points forward to issues of transparency, dissemination of information between experts, literacy, public access to official documents, and what research to prioritize. The latter question has however not been the main focus in risk communication literature, but hopefully the three essays in this thesis point in that direction.

**Preview of Essay I-III**

Essay I is a comment on risk perception theory, particularly on the psychometric model. In the risk perception literature individual risk-taking is, implicitly or explicitly, presumed to be a result of either valuing the benefits from risk taking or a failure of comprehending the severity or probability of risks. Thus individual risk taking can be counter-acted through risk communication about the nature of such risks. The essay challenges this view, and points to a kind of risk that does not seem to fit this explanation. These risks are referred to as **risks from vulnerability.** Examples of such risks would be: dangerous means for emigrating; amateur abortions and compensated kidney donations for repaying debts. A hypothesis intended to complement prevalent explanations to risk taking is proposed: some risks taken could be explained in terms of the **poor outset conditions** of the risk taking individual; **a lack of reasonable alternative actions** to choose from; the **hope** that an option is believed to offer; and the **liability to disinformation** concerning alternative actions and their risks.
In difficult cases there is a combination of these elements: the individual risk taker may be offered a hope inspiring an escape, but a risky one, out of an already unbearable situation, with no other reasonable alternatives in sight, and the only source of information as to the risks may be someone earning his or her living in offering such escapes. The main conclusion is that these risks cannot be solved through traditional risk communication without also providing information on substantial alternatives.

Essay II addresses the democratic approach to risk communication and the ideal of risk communication as a dialogue between more or less equal stakeholders. Risk communication is often framed in the literature as being either technical and one-way or democratic and two-way. In this context democratic and two-way communication is often preferred either as an ideal for building mutual trust between, for example, an industry and the local population, or two-way communication is regarded as a complementary or a more developed form of communication. The essay starts from these democratic approaches, distinguishes between two-way communication and democratic approach, although both are contrasted to one-way dissemination of information to the public. The essay argues that even the democratic or two-way approaches to communication are often in practice far from the stated ideal of equal participants exchanging ideas. Often the initiative for the dialogue, the background knowledge, and the influence over the communication process and the risk inducing activity are asymmetric. The essay identifies three different levels of influence in the communication process and consequently three different levels of influential asymmetry. These levels are: communicative influence (over the communication process); informative influence (over access to information) and risk role asymmetry (over risk decisions). These aspects can strengthen or counteract the overall influential balance between the parties depending on how they are distributed. A typology of different kinds of risk communication practices is developed based on such distributions. Seven kinds of risk communication practices are presented, fitting into the categories of symmetrical communication; communication from scattered asymmetry; and communication from clustered asymmetry. It is concluded that the practices most often discussed in the literature sort under the category clustered asymmetry, with
communicative influence, information, and risk role influence tilting to one party's advantage.

Essay III explores the concept of trust, an often-mentioned objective for risk communication and asks the question if and then why this should be an objective for professional risk communicators and risk managers. The essay argues that the value of trust for governments and agencies is fairly straightforward: public trust is needed on the grounds of democratic justification of those institutions. This argument does however not lend itself with the same force to private corporations.

The philosophical literature on trust is recapitulated in order to identify a convincing argument for the value of trust in risk communication. Neither the cognitive nor the emotive analyses of trust seem however sufficient, it is argued, since beliefs and attitudes do not directly affect corporations or government agencies, but only dispositions for action. The problem is then reformulated as: what kinds of behaviour or dispositions does trust imply that can be of value to corporations? The idea of trust as being the absence of thoughts or feelings about trust for the one trusted, that Olli Lagerspetz, proposes in his *Tacit Demand*, is investigated. From this a hypothesis of trust as comfortable defocusing is proposed. This idea seems to account for an increase of efficiency for private corporations and would thus be a strong argument for the value of trust as a goal in risk communication. The very same idea can also explain how public trust makes the public more vulnerable when trusting, and supports an argument against trusting on precautionary grounds for the public. It is concluded that there are strong arguments for the value of trust but the vulnerability aspect needs to be addressed. Trust is identified as one among several post-deliberative stances, and the argument from vulnerability could be taken to imply that different stances should ideally be represented in society, including both trust and control.

**Questions to Explore Further**

The three essays included in this thesis address the topic of risk communication from different perspectives. In Essay I the perspective is
turned to the individual about to take a risk (that is, to choose an action that involves uncertain but unwanted consequences) and the factors that matter in order to make an informed choice. Two questions can be raised from the implications of this perspective. First, risk communication cannot only concern information about a particular risk but must also address information concerning alternatives to that risk. Second, it points to a need for verifying or checking information with a third party, especially concerning possibly biased information or informal risk communication. The next question to address from that Essay is the question: Do we have a right to information? Could access to information, important enough to make a possible difference between life and death or between a bearable and an unbearable life, be considered a global right? Conversely: do we have an obligation to provide such information should we possess it? Or even stronger: is there an obligation to map the needs of any information that we possess in case it should turn out to be of crucial importance? I would like to further explore the issues of information from the perspective of global ethics and development ethics since most of the more severe risks are to a large extent taken in the less privileged regions.

Essay II addresses risk communication from two different approaches, namely the democratic and the technical one. It proposes a typology of different kinds of risk communications and sorts them according to the variable of three different kinds of power. The seven kinds of risk communication bring together different kinds of risk communication practices referred to in the literature and deduced from one of the more general definitions of risk communication. One question to further explore from Essay II is the notion of informal risk communication that seems very little touched upon in the risk literature. An interesting hypothesis to develop is that most risk communication, in the wide sense of information informing risk decisions and attitudes, comes from peers, carefully selected media sources and websites that already confirm pre-existing risk views.

Essay III addresses the topic of trust which has been widely discussed in both philosophy and risk research, but with somewhat different approaches. Interesting topics to develop further is the idea of trust as comfortable defocusing as a comment on the philosophical debate on trust in
general and in relation to the trust/reliance distinction in particular. I would like to test the strength of that distinction and examine if trust cannot actually be reduced to reliance and expectations of competence, predictability and goodwill. There is an obvious difference between trusting a machine to work and a person to take care of us, but this difference may not be attributed to different forms of trusting. Such a difference could be explained by the fact that what it is for a machine to function predictably and reliably is different from what it is for a human in a social role function predictably and reliably.

The questions of trust (Essay III), vulnerability (Essay I), and equality (II) all point in the direction of political philosophy and issues of justice.

References


