Let us define a disaster. Most picture the aftermath of devastation, the social, political and economic consequences of either a tsunami, earthquake or something completely ‘unexpected’. But disasters are not just the sum of their effects; they are a mixture of risks, of measures put in place to mitigate those risks or the lack thereof, and even the actions taken after the event of a disaster. We define a disaster as a sudden catastrophe that causes great damage or loss of life, and can be typified into two main areas: Natural: an event that occurs due to the earth’s process; and Human/man-made: disasters caused by or could be prevented by humans.

Charles Perrow, author of *Normal Accidents (1984),* defined the cause of accidents as not by a single element, but by unanticipated behaviors and interactions involving a huge number of components of various kinds. If accidents were normal, then they were inevitable[[1]](#footnote-1) due to the complexity of tightly coupled systems, such that the more complex and less linear a system was, the less space for a misalignment in place or a greater opportunity for unexpected changes in the subsystems. This idea of the surrounding environment being responsible for a disaster is shared by Ulrich Beck in his *Risk Society(1992).* Beck believes that certain groups cause disasters because they enable support for a reality which certain organizational activities occur. Because organizations create man-made environment problems, his idea of our society is one driven by risk mitigation logic, such that social institutions like the welfare state address the hazardous side effects of wealth creation.

Now that we have summarized the two author’s arguments, we shall describe how much they complement each other. Perrow sees that as technology develops, the complexity of a system increases, such that it becomes the source of unpredictability[[2]](#footnote-2). Like a risk society, complex systems are inherently beyond control. Beck supports this argument as he claims that as our society shifts from industrial modernization, which focused on control, to reflexive modernization, where our anxiety leads to an attempt to prevent the worst (Beck, pg 49). This led to integration as a key strategy to obtain more control, be it over our environment or over the work process. However, because we do not have perfect knowledge, our attempts at modernization means that there are unintended side effects. For example, we attempted to improve our pesticides with DDT, only to discover that the new chemical we have introduced is inherently harmful to our health. Because no one holds the monopoly of knowledge, we would not be able to account for the risk. We can only have more knowledge, and predict the effects of actions, but no one is sure that there would be no risk. The increase in complexity leads to a deviation from the straight path of reason and as we attempt to trace our way through the labyrinth of knowledge, we encounter more risks. Risks are a consequence of modernization. And modernization is the increasing integration of complex subsystems we have no perfect knowledge of.

We see a lack of attribution of responsibility as our disasters grow more complex. No longer the simple earthquake or landslide alone, our man-made disasters are overseen by numerous parties. Perrow criticizes how we create and organize hazards that we cannot effectively manage (Perrow, p. 10). Because we cannot attribute disasters to one human factor alone, the blame gets passed back and forth, such that the members involved do not bear the blame of a disaster alone. This ties in with how Beck feels that organizations create man-made environmental disasters (Beck, P. 48). Because different people have different perceptions of risk, there would always be incomprehensibility. When would the next accident occur? How would it happen? You can only remedy the risks that are occurring now, but you cannot claim that there will never be a next accident. Our modern systems are complex and tightly coupled, such that we have contradictory organizational requirements. In the Three Mile Island Accident, different stakeholders with different concerns meant different goals.[[3]](#footnote-3) (Beck, P. 46) The media sought for one explanation, the operators attempted to shift the blame to the manufacturers, while the manufacturers pointed the guilty finger at the operators for not performing to Standard Operating Procedure.

There would be no disaster in which the responsibilities rest on the shoulders of those guilty ‘equally’ and ‘fairly’. Externalities or social costs are ignored by the elites and borne by others (Perrow, P. 34) as the level of risk cannot be determined without doubt. Beck views the various definitions of risk as a form of uncertainty. (Beck, P. 49) If you do not know what is occurring to you is the effect of a disaster, then how do you claim compensation? Because a disaster is so hard to define, those who are part of the cause often either shift the blame to others or deny their involvement. There is a “general lack of responsibility” (Beck, p. 33) shared by those in control, be it the government, the corporations or the general upper class. The blame is passed around, such that there is an increasing isolation between the person responsible and the disaster itself. While it does bring social certainty and popularity to the concept of system, the distancing allows both the victims to blame the seemingly uncaring ‘perpetrators’ while those thought responsible comfort themselves in the knowledge that theirs was but the smallest part in a disaster.

We shall now move on to how accidents become ‘normal’, a pre-existing part of our society. Perrow’s Theory insists that accidents in today’s high-tech societies are closely associated with complex structures with built-in risks and those risks are therefore inevitable in our lives. Beck argues that our modern society has risks all about, such that no single nation could cover it by itself. (Beck, P.21) We can see this in examples such as the Southeast Asian Transboundary Haze, where one country’s hotspots led to its neighbors being affected despite the disparity in incomes. Here, the risks are obvious but at the same invisible. We know that the haze creates respiratory issues, and associate an increase in coughs and the rise in electricity bills as we attempt to mitigate the effects of the Haze. However, we cannot delineate the roles that guilty parties play, nor can we hold them accountable. We cannot judge responsibility when we are still undecided on the cost of a disaster. We prefer to deal with facts and figures rather than vague claims. Because Modernization risks are “knowledge dependent”, (Beck, pg. 26), we rove using the sensory organs of science, with tangible statistical tests. But if there is room for doubt, then other parties would shift the hot potato onto others. (Beck, pg. 43) In our earlier example, we have Indonesia, the main source of the hotspots. We have the Indonesian government unwilling to ratify an agreement on transboundary haze until 2012, even when there was no legal punishment. We have a remote environment which makes it hard to get statistics on the level of burning, and policies implemented are reactive rather than preventive. Because of the self-profit mindset shared between the natives, the corporations paying the natives and the government unwilling to derail their efforts, the haze becomes an everyday part of the Southeast Asian life. This catastrophe which we try to avoid becomes an expected occurrence because of the different goals of the culpable parties and the affected victims.

Perrow’s ideas complement Beck’s if we were to view Beck’s Risk Society as the background in which Perrow’s Normal Accidents became an everyday part of our lives. We would be constantly adapting to the environmental impact of a global economy based on scientific and technical knowledge becomes more important to social organization and social conflict. We would have to accept that as our transport and public utilities become more interlinked, we would have experience both an increase in risk and a decrease in control. Complementing Beck’s and Perrow’s views of an encompassing world of involved parties, the idea of uninsurable risk also plays a role after the Cold War. We find our welfare system and ‘Greater Society’ unable to cover for the increasingly common ‘natural’ disasters previously thought not possible. Risk not only becomes unavoidable, but unaccountable. Who would be made to pay? Because the capitalist avoids lowering his own margins, he attempts to avoid responsibility and thus tries to justify his escaping the blame. Capitalism may drive increasing productivity, rationalization and efficiency, but there would grow a misalignment between the aims of the company (profit) and the aims of the government (welfare). There is a lack of accountability as those who seek to avoid the costs shift the blame to others, and responsibility becomes harder to define.

### Bibliography

Beck, Ulrich. 1992. Risk Society. London: Sage Publications.

Perrow, Charles. Normal Accidents: Living with High-risk Technolgies. New York: Basic Books, 1984.

1. No matter how effective conventional safety devices are, there is a form of accident that is inevitable” (3). [↑](#footnote-ref-1)
2. It takes just the right combination of circumstances to produce a catastrophe, just as it takes the right combination of inevitable errors to produce an accident. (356) [↑](#footnote-ref-2)
3. By drawing lines of causation, companies and occupations are caught in the firing line of accusation.  Politicians and politics release pressure by holding individuals and not systems responsible for the accidents and damage. (46) [↑](#footnote-ref-3)