# Summary

## Introduction, definition of the problem and hypothesis

This doctoral thesis focuses on the developments in the way in which Dutch society dealt with a number of highly divergent threats from the nineteenth century until the present day: child abuse, road unsafety and risks related to genetic modification in food production. Special attention is paid to the question to what extent and how the government over the years pursued a policy to combat these problems.

The reason for this thesis is the widely shared observation that the manner whereby Western society dealt with threats to life, wellbeing and the environment, has gone through important changes in the last few decades. Danger and harm are getting more public attention than before and they are less tolerated. The concept of risk has been used much more often. Furthermore, changes are noticeable in the intensity and the nature of the measures taken to cope with dangers. Many authors in Western countries have noticed an increasing emphasis in government policies on the prevention of risks.

In the literature, changes in the Western approach towards risks are often heaped together. Particularly Ulrich Beck's term 'risk society' is often used to refer to developments regarding very different kinds of risks, varying from technological risks to crime risks. This assumes that there are meaningful parallels between changes which occurred in very different social domains.

Although this assumption is not self-evident, it is implied in a great deal of existing literature. Besides, it is not or hardly problematized. To find out if and to what extent the assumed parallels are real, concrete and carefully specified comparisons must be made between the various approaches in society to a number of strongly differing risk problems: a *most different approach*. In order to gain the clearest insight into the similarities and differences in the way in which society dealt with the various risk problems, it is important to assume a situation in which environmental factors are maximally equal. This argues in favour of examining how various risks were dealt with within one and the same context, in other words within one (national) society.

In the existing literature, no comparisons can be found that meet these criteria. I will provide a contribution to fill this gap by conducting a comparative study into the changing manner in the tackling of various risk problems in a Western society I know best, the Dutch one. The risk problems I have selected, child abuse, road unsafety and genetically modified food, considerably vary in terms of nature, consequences and size. There is also a great difference in the intensity of the social reactions to these risks.

Although I am mainly interested in the changes in the approach to risks and harm that have occurred in the past decades, my research will also focus on earlier developments because I think this will increase understanding of recent developments. I consider the end of the nineteenth century to be a good starting point for my research into the public approach to child abuse and road unsafety. At the time, the idea that children are entitled to protection from their own parents gained in strength resulting in the implementation of child protection measures in 1905. In addition to this social innovation, a technological innovation was introduced in the Netherlands: the car. This met a critical condition for developing the social problem of road unsafety. My chapter on the public approach to genetically modified food does not go back as far as the nineteenth century because the 'unnatural' genetic modification of organisms with the help of the so-called recombinant DNA technology did not take place until the 1970's.
The following research question plays a central role in my research:
*To what extent can similarities be noticed in the way the public approach to road unsafety, child abuse and genetically modified food developed in the Netherlands as of the end of the nineteenth century?*
Inspired by the French philosopher François Ewald and the Dutch legal sociologist Roel Pieterman, I start from the hypothesis that the developments in the public approach to the relevant risk problems can be understood as manifestations of cultural transformations. According to Ewald and Pieterman the Western approach to harm and risk went through two essential transformations since the end of nineteenth century. Using Pieterman's terms, these are the transition from an early modern guilt culture to a modern risk culture, and subsequently to a late modern precautionary culture (Ewald speaks of the paradigms of responsibility, solidarity and safety). Although Ewald and Pieterman mainly focus on the public approach to risks of a technological nature, I have assumed that the ideal-typical concepts of a guilt, risk and precautionary culture can also explain the changing approach to other types of risks. This implies the assumption that similarities in the development of the approach to child abuse, road unsafety and genetically modified food are related to common cultural and social breeding grounds.

## Research approach

As stated before, I will mainly focus on government policy to fight risks within the broader scope of the public approach to risks. Policy documents and legislative documents are my most important research material. The effect of government policy in everyday life will not be included systematically in my research. A pragmatic reason for this is that policy and legislative documents are readily available and easily accessible, whilst field research would be required to

acquire information on government policy in practice insofar as there is no literature on this subject. A principle reason is that a primary focus on documents fits well into the social constructivist perspective I use. Social construction is the attribution of meaning and language plays a crucial role in this process. Names and definitions reveal and determine how reality is perceived. Changes in the way in which risk problems are construed should therefore also be noticeable in language. As I will be focusing on changes in government policy it is obvious to look into how these changes can be found in policy documents in which the government has recorded all their (intended) policies. With respect to genetic engineering, I will also pay attention to EU policy documents, as gentechnology policy is to a large extent formulated at a European level.
I consider shifts in government policy on risk problems to be a manifestation of or a reaction to changes in the broader public approach to risks. In order to include this social context, I examined other relevant documents in addition to policy documents. First, I studied a category of documents which come very close to the policy document genre, namely parliamentary documents: reports of meetings in the Lower Chamber and the Upper House, parliamentary questions, motions and amendments to legislative proposals. Furthermore, my research includes various documents of another nature: books from the entire period of research, rulings by the Supreme Court, reports from various organisations, such as the Youth Care Inspectorate and the Scientific Council for Government Policy, newspaper articles with regard to specific cases of risk realisation and internet pages with opinions on the risk problems examined and the way they were dealt with.
In addition, I have studied secondary sources of literature, but no sharp distinction can be made between this literature study and the analysis of the primary documents which make up my research material. Many documents used in my research have a double function: I treat them as a source of information and as a manifestation of the public approach to the relevant risk problems.

## Theory

Now I will discuss how the concepts of guilt culture, risk culture and precautionary culture are specified by Pieterman and Ewald. The guilt culture was dominant in the nineteenth century. Harm is primarily considered to be an individual responsibility and it has a moral connotation: it is a disgrace. Those suffering harm have obviously not been careful enough. An individual suffering harm can only transfer the liability and the disgrace to another individual if the other person can be fully blamed for the harm. The available means were civil law, in particular the wrongful act, and criminal law. The high threshold of proof for both ways to transfer liability, strengthened the guilt cultural practice so that the person suffering the harm usually ended up having to foot the bill.

The emphasis on individual responsibility matches with a restrained government. Government responsibility was largely limited to creating and guarding the prerequisites for a safe and orderly society. This includes civil legal procedures, as well as criminal prosecution of individuals whose actions deserve punishment. However, conducting a policy to combat risk problems linked with human behaviour was rare in the guilt culture.
The risk culture started to evolve around the transition to the twentieth century and became dominant during the mid-twentieth century. As a result, the significance of the individual responsibility and of the moral meaning of harm decreased, and the still small possibilities for compensation were expanded. These developments were related, among other things, to the growing understanding that people's actions are determined to a significant degree by factors largely beyond their control. This may be their social environment, but on a more practical level also the machines they have to work with. One of the first manifestations of the risk cultural approach was the 1901 Accidents Act, which marked a shift from the view that industrial accidents are caused by carelessness of the labourers to the view that industrial accidents often are more due to the risky environment in which labourers have to work in than to individual behaviour.
In the risk culture, the transfer of harm becomes the rule rather than the exception. It often concerns a transfer to groups via private or public insurances. Hence the question who is responsible for the harm becomes a lot less relevant: if many are responsible, no one in particular is responsible. In addition to the compensation for harm, a lot of emphasis was put on the prevention of harm. Both forms of dealing with harm were facilitated by risk assessments. They are necessary so as to divide harm equally over a risk group, but also to avoid harm effectively. Avoiding harm, by the way, is not a *must* in the risk culture but is considered to be an unavoidable by-product of positive issues such as economic growth and technological progress. Preventing harm is desirable but is not pursued at all cost.
The government plays an active role in all this. It has abandoned its nineteenth century restraint and has started to pursue policies in many areas. This is evident from the greatly increasing number of public laws. More than before, the government is taking responsibility for pursuing safety, but because harm is not considered to be a disgrace, this responsibility does not have a strong moral nature.
As of the end of the twentieth century, the dominance of the risk culture is dwindling as a result of the rise of the precautionary culture. Risk tolerance is decreasing and preventing harm becomes an explicit priority. In the precautionary culture, the aim for prevention is adopted from the risk culture and developed further while interventions take place at an earlier and earlier

stage. This shift from preventive to more preventive is nothing new - it was also present in the risk culture - but in the precautionary culture the continuation of this development goes hand in hand with three transformations which have changed the aim for prevention fundamentally. The three transformations are: 1) economic-rational restrictions no longer apply because the importance of preventing harm is considered to be invaluable; 2) uncertainty with regard to the harmful effects of certain actions or products is no longer a barrier where the aim for prevention is no longer being pursued; 3) risk knowledge as a basis for preventive actions is getting less important because the focus shifts increasingly towards uncertain risks and the fear of a serious effect starts playing such a central role that any chance larger than zero is actually unacceptable. Consequently, Pieterman and Ewald no longer speak of prevention but of precaution.

With the transformation from prevention to precaution, responsibility becomes important again and in the perception of harm and risk moral aspects come to play an increasingly important role. The realisation of risks is considered to be a sign that someone has made an attributable mistake. The attention given to responsibility in the precautionary culture differs in two important ways from the way in which responsibility was perceived in the guilt culture. Firstly, human responsibility extends much further in the precautionary culture than in the guilt culture. In the guilt culture, no one could be held responsible for the harm suffered by someone else if there was an uncertain risk beforehand in terms of the relationship between cause and consequence or the harmful effect of the consequences. In the precautionary culture, however, people can also be held responsible for uncertain risks. Likewise, dangers which by tradition were considered to be beyond human power, such as natural disasters, will sooner give rise to responsibility questions in the precautionary culture than in the guilt culture. Secondly, according to Pieterman, it is not the individual who plays the central role in the answer to the responsibility question, but society's 'administrators' whereby one should mainly, but not solely think of governments.

Although the three different cultural approaches to harm and risk each were prominent at different periods, the rise of one approach, according to Ewald and Pieterman, did not mean the decline of another approach. It is, however, Pieterman's opinion that a new approach influences an older approach: the cultural repertory of an old approach loses its dominance and is changed by a new approach.

## Findings

Now I will examine to what extent the developments in public approach to child abuse, road unsafety and genetically modified food can be designated as a manifestation of a transformation from a guilt culture to a risk culture and from

a risk culture to a precautionary culture. I will conclude that such a designation is possible to a large extent. First I will focus on the transformation from a guilt culture to a risk culture and subsequently on the transformation from a risk culture to a precautionary culture.

*From guilt culture to risk culture*

Various developments in the approach to child abuse and road unsafety can be covered by the transformation from a guilt culture to a risk culture. In fact the shift from a guilt to a risk culture began at the point I chose as the starting point of my case studies: as from the end of the nineteenth century, the rise of a risk approach is noticeable in the case of both child abuse and road unsafety. It was not until the 1960s, however, that this approach became dominant.

In the case of genetically modified food, there is no clear transition from a guilt to a risk culture. From the beginning, the approach to risks was characterized by a mixture of risk cultural and precautionary cultural elements. At least two explanations can be given for the almost complete absence of guilt cultural elements in this case. Firstly, the history of the public approach to genetic modification only started in the 1970s, long after the guilt culture started declining. Secondly, it is much more difficult to apply the guilt cultural principles in this case. Unlike child abuse and road unsafety, 'normal' citizens had nothing to do with the development of risks and harm. After all, only scientific institutes and high tech companies are engaged in the development and application of genetic engineering. The emphasis the guilt culture put on each citizen's personal responsibility for the harm he/she suffered, would not be really adequate in this case. Moreover, genetic engineering more often leads to uncertain risks than to concrete harms. The guilt cultural approach, however, is reactive and retrospective: its mechanisms, private law and criminal law, cannot be applied if an uncertain risk has not caused concrete harm, or it, at least, has not been transformed into a concrete danger.

**A restrained and reactive government**

The guilt cultural aspects of the public approach to child abuse and road unsafety until the 1960s consist mainly of a relatively restrained and reactive government attitude and a tendency to 'blaming the victim'. Besides, the emphasis on the liability of the individuals causing the harm is especially noticeable in the case of road unsafety.

Until the mid-1900s, there were hardly any policy measures to fight road unsafety and child abuse. The government introduced the Children's Acts in 1905 and the Motor Vehicle Act in 1906. In both cases, they were prompted by lobby groups in society. The introduction of these laws did not mean government had completely abandoned their restrained and reactive approach. Although the Motor Vehicle Act introduced specific rules aimed at preventing

car accidents, for a long time compliance was only stimulated by punishing the violators caught. That approach is quite passive and reactive.
The child protection measures resulting from the Children's Acts were meant to be preventive, but chiefly concerned the prevention of juvenile delinquency. At the beginning of the twentieth century, child abuse received little attention. It was not broadly acknowledged as a social problem until the 1960s. Moreover, an important part of what is now considered to be child abuse, hitting children, was accepted at the time as a means of raising children. During the first half of the twentieth century, child protection measures were also used to rescue children from a child abuse situation, but those cases were a fraction of the total child protection measures, and probably just a drop in the ocean of the total child abuse cases.
During the first half of the twentieth century, the efforts to combat road unsafety and child abuse increased. The majority of these efforts originated from private initiatives, however.

**Individual responsibility and 'blaming the victim'**
The principle of individual responsibility plays the main role in the guilt culture: everyone should take responsibility for their own life, including the accompanying risks. This is evident in the arguments put forward by various ministers to defend the government's restrained approach with regard to road safety until the 1950s. According to them the number of road accidents would not decrease unless road users started behaving more carefully. This is connected with a tendency of 'blaming the victim'. In 1950, the Minister of Justice, explicitly stated that the most vulnerable groups of road users, cyclists and pedestrians, were a main cause of road accidents.
With regard to child abuse, 'blaming the victim' is also practice, namely in the overall approach to children who were growing up in a problem situation and were being abused. Until the mid-twentieth century, so much emphasis was on the danger that children would run wild and so much effort went into disciplining them that there was little room for the notion of victimhood. Abuse was a sign of neglect, and neglected children were considered to be a potential perpetrator rather than a victim.
Unlike in the road safety case, in the child abuse case less emphasis was put on those who caused the harm during the first half of the twentieth century. Although parents who seriously abused their children could be sentenced unconditionally to several years in prison, more cases are known of abusive parents who were not held criminally liable and the case was settled by terminating the parental authority or by applying a supervision order.

**Activating the government**

The first signs of a rising risk culture were noticeable at the beginning of the described development of the approach to child abuse and road unsafety. Among other things, they bear upon the government's approach. The government moved from being a passive watchman to an active organiser of society when issuing the Children's Acts and the Motor Vehicle Act. The Children's Acts in particular, which made binding intervention in families legally possible, formed a fundamental break with the past, in which the private sphere of the family was almost holy and hence government intervention was taboo. These first steps towards a more intervening government approach in these cases were followed by more measures. As I have already stated, however, the government's approach remained rather restrained and reactive during the first half of the twentieth century. It was not until the 1960s that the government started pursuing a (pro) active policy in order to combat child abuse and road unsafety. Unlike child abuse and road unsafety, genetic modification was soon placed on the policy agenda after it came to attention. At the beginning of the 1970s, the technology started receiving attention and scientists announced a moratorium on its use. In 1977, the government took various policy initiatives. However, they were in no rush to introduce specific rules to control the risks of genetic engineering.

**The declining importance of the principle of individual responsibility and of the moral meaning of risks**

Essential to the rise of the risk culture is the declining importance of the principle of individual responsibility and of moral-normative views on risk and harm, which were dominant in the guilt culture. We see this development in all three cases, although genetic engineering is a somewhat separate case due to the lack of a guilt culture starting point.

With regard to child abuse cases, a new approach started to develop in the 1960s. Children were no longer considered to be potential perpetrators, but were seen as victims. This did not mean that the moral judgement of abusing parents became stronger. First and foremost, child abuse was no longer seen as a moral evil or as a criminal offence, but as a sign of inability to raise a child. Therefore, child abuse offenders should not be punished and subjected to compulsory interventions, but be approached with help and trust. Voluntary care became the appropriate solution for cases of child abuse.

With regard to road safety, a new approach was being adopted and the view that individual road users were chiefly responsible for traffic accidents was abandoned. According to the new approach, traffic accidents were seen as complex events in which 'the vehicle' and 'the road' were just as important as the road user. The first road safety policy document, which appeared in 1967, even stated that road safety could best be enhanced by first improving the road and the vehicle because those factors were easier to change than human beings.

As mentioned, the principle of individual responsibility did not play a role in genetic engineering and therefore, it could not decrease in importance. There is, however, a risk-cultural tendency to put moral questions in brackets, namely in the choice to leave ethical and social considerations out of the authorisation procedure for performing recombinant DNA experiments and, at a later stage, genetically modified organisms and genetically modified food. In the Netherlands as well as in the EU, the legislators did not want the authorisation procedure for gentech products to be anything more than a technical assessment of the risks.

**The rise of prevention and compensation**

In the risk culture the rule that everyone bears their own harm was replaced by the rule that bad luck has to be eradicated. Roughly, this is pursued in two ways: by compensating harm and through prevention. According to Pieterman, the mechanism of compensation is pre-eminent. My cases reveal a clear rise in pursuing the elimination of harm, but in contrast to Pieterman's view, prevention appears to be more important than compensation. Prevention applies to all the domains I have examined, though it must be noted that in the genetic engineering case pursuing prevention has had a precautionary nature right from the start. Clear examples of the compensation mechanism, however, were only found in the road safety case.

It is not surprising that compensation is not really an issue in the other cases. Children who are abused by their parents are usually not in a position to demand compensation in a civil court. In the case of genetic engineering, the risks are mainly uncertain and there is little concrete harm. In so far as there is no concrete harm or a threat of concrete harm, compensation due to an unlawful action or via insurance is not an issue. The conclusion to be drawn is that the compensation mechanism is less widely applicable than the prevention mechanism.

With respect to road safety, a first step towards wider compensation opportunities was made with the introduction of a certain degree of strict liability for car owners in 1924. The most important step, however, was made when compulsory third party liability insurance for car owners was introduced in 1965, as a result of which victims of collisions had more security that their harm would be compensated. The widening of the case law pertaining to the strict liability of drivers in the 1990s, as a result of which the question of who is to blame became almost totally irrelevant, also fits well into the risk culture logic.

There were preventive elements in the approach to road unsafety and child abuse in the first half of the twentieth century, but it was not until the late 1960s that the approach to both problems got an explicitly preventive character. Reducing the number of traffic casualties became the main objective of the preventive efforts in road safety policies. To this end, efforts were taken to prevent

accidents (among other things by safer roads and a more effective approach of driving under influence of alcohol), as well as to prevent serious and deadly injuries in accidents (among other things by the introduction of the obligation to wear seat belts in cars and helmets on motor bikes and mopeds).
The preventive nature of the new approach to child abuse consisted, among other things, in pursuing to trace child abuse as early as possible. Subsequently, upset family relationships had to be improved by means of voluntary assistance. This way, the problem would be tackled at the roots. It is also important that over the years the definition of child abuse was adjusted regularly. As a result, one could speak of child abuse at an earlier stage and it was possible to intervene ever earlier.
With regard to the policy for curbing the risks of genetic engineering, which started to take shape in the 1970s, prevention was much stronger than in the two other cases. In the cases of child abuse and road unsafety, the new emphasis on prevention went hand in hand with the awareness that it is impossible to prevent all harm. This awareness is typical of the risk culture. In the case of genetic engineering the aim to prevent risks was much more absolute. For instance, this was evident in the prohibition to conduct genetic modification experiments without prior evaluation, and later, in the tight conditions to which field experiments were subjected, even though there was no concrete evidence with regard to the harmful effects of genetic engineering. Therefore, the pursuit of prevention had a precautionary cultural bias from the very beginning. However, the pursuit of prevention was curbed by some elements of the risk culture, such as the government's positive vision regarding the economic potential of genetic engineering and its faith in scientific knowledge.
*Towards a precautionary culture?*
All my cases reveal a shift towards a precautionary approach to risks and harm, but this shift is not equally marked in all cases and does not equally result in policy changes. Precautionary thinking is most evident in the case of genetically modified food, but the public approach to child abuse and road unsafety, gradually gets more characteristics which are typical of the precautionary culture.

**The further development of prevention and absolutising safety**
In the precautionary culture, the pursuit of prevention that was present in the risk culture intensifies and changes in character. Interventions shift to an earlier and earlier stage, while 1) economic rational limitations are no longer applied, 2) uncertainty regarding harmfulness is no longer a barrier where prevention is no longer being pursued, and 3) less importance is attached to risk knowledge as a basis for preventive intervention. To a certain extent, the intensification and the character change in the pursuit of prevention is discernible in all my cases.

Previously I stated that the pursuit of prevention in the case of genetic engineering had a precautionary bias from the beginning. Now I will specify this by means of the three mentioned transformations. The first transformation had not yet been particularly successful, because so much effort was being put into a policy by which the prevention of risks and the utilisation of the economic potential of genetic engineering would be balanced. The second transformation was clearly visible right from the start: active attempts were made to prevent risks although it was unclear how real they were. The third transformation was enforced more than the first one, but not as much as the second one. Risk knowledge has limited importance in genetic engineering because it is linked with uncertain risks for which no reliable chance-times-effect calculations could be made. However, risk assessments were made by scientists, who despite the uncertainty they encountered, worked as systematically and scientifically as possible and held on to a risk approach in terms of chance and effect.
As from the beginning of genetic engineering, critics of genetic engineering pleaded for further implementation of the three mentioned transformations. They rejected the economic rational limitations to the pursuit of prevention, which was evident, for example, from their plea for a moratorium on genetically modified crops and genetically modified food. Moreover, they attached much less importance to risk knowledge than the official policy did. This view was expressed in, among other things, the criticism that the long term effects of small chances were not sufficiently weighed in the authorisation policy for genetically modified crops. Moreover, they criticised the one-sided focus of the authorisation policy on risks and stressed the need for more attention to the ethical and social implications of genetic engineering.
Initially, this strong precautionary approach could not influence genetic engineering policies in the Netherlands and the EU with their moderately precautionary bias. However, as of 1996 (the year of the BSE crisis and the arrival of the first genetically modified soya bean in Europe) the strong precautionary approach gained support from the governments of a number of EU member countries. Against the will of, among others, the European Commission and the Dutch government, they forced a moratorium on the authorisation of genetically modified products, which lasted from 1998 to 2004. Thus they managed to enforce new rules which strengthened the precautionary nature of EU policies considerably. From then on permits for genetically modified products were only granted temporarily, environmental risk assessment became stricter, more had to be monitored after authorisation, more attention was paid to the long term risks, the obligatory labelling system was expanded, and more attention was paid to ethical and social considerations.
With regard to road safety, the pursuit of prevention mainly changed through the adoption of the Sustainable Safety vision at the beginning of the 1990s. Transformation 3 (lessening the importance of risk knowledge) hardly played a role, if any, but transformation 1 (the cessation of economic rational limitations)

did play a role and in a way transformation 2 (passing the uncertainty barrier) also played a role.
Transformation 1 is mainly apparent in the SWOV Institute for Road Safety Research's point of view, which provided an authoritative elaboration of Sustainable Safety in which cost-benefit considerations are by definition in favour of prevention. The SWOV also tended to set aside other forms of limiting the pursuit of prevention, for instance through such values as mobility and freedom. They pleaded, for example, for a total ban on mopeds, a ban on novice car drivers to drive at night and for an alcohol ignition interlock device (alcolock) in every car.
If the proposal for an alcolock in every car would be realised, this could also be seen as a sign of transformation 2, the pursuit to pass the uncertainty barrier. With respect to alcohol in traffic, the uncertainty concerns the question whether individual road users are under the influence of alcohol. The measures which have been taken in the past decades with regard to alcohol and traffic can largely be considered as attempts to reduce that uncertainty. But the uncertainty cannot be banished: as long as there are no alcohol checks everywhere and always, there will always be drivers who consumed too much alcohol without being caught. Applying an alcolock to every car could solve this problem because every driver would be checked permanently. However, it would be more accurate in this case to speak of *evading* the uncertainty barrier rather than of *transgressing* beyond it. The uncertainty with regard to the use of alcohol is not removed, but becomes irrelevant. No attempts are made to *find out* if someone has consumed too much alcohol. Every driver is simply subjected to an impersonal system that prevents them from driving under the influence of alcohol.
The previous paragraphs largely discuss the desired policy of an influential organisation of road safety experts, but not the policy that has been implemented already. There is a difference between the radical elaboration that the SWOV gives to Sustainable Safety and the more realistic and pragmatic manner in which this concept has been translated into policy so far. There are no concrete plans to introduce the far reaching measures proposed by the SWOV, but the most recent road safety policy plan (2008) hints at the possibility to take the direction suggested by the SWOV. All in all, the conclusion must be drawn that pressure is exerted to give the pursuit of prevention in the road safety policy a more precautionary character, but that none of the three transformations discussed has actually been implemented.
In the case of child abuse, the three transformations are recognisable to various degrees. With regard to the first transformation it should be noted that it is not so much about removing economic rational limitations, but, like in the road safety case, more generally about setting aside limitations raised by other values than safety. In the approach to child abuse, whereby paying attention to risks was previously integrated into a welfare perspective, the risk element was absolutised as from the 2000s and a new approach was adopted in which safety

was dominant. To enhance safety, compulsory interventions were chosen sooner than before and the desire to improve the parenting situation lost its prominence.
The second transformation was implemented to a large degree. Interventions to combat child abuse are implemented and urged at an earlier and earlier stage and in some cases there have been attempts to level the uncertainty barriers. As of the 2000s there is a stronger focus on so-called integral or universal prevention, which primarily refers to the availability of 'parenting support and upbringing assistance' for all parents and children. Although it did not concern drastic interventions, the net was spread out so widely that the pursuit of prevention was in fact extended to everyone, while the question who would abuse their child without this intervention was not even under discussion. Another striking example of prevention at or over the uncertainty barrier, is the application of the family supervision order to unborn children since 2008.
The third transformation, lessening the importance of risk knowledge, cannot be unambiguously said to be noticeable in the child abuse case study. The concept of risk has recently become popular in this case and risk knowledge has become more important as a basis for child abuse prevention. It can be stated, however, that, inasmuch risk plays a role in child abuse in terms of chance and effect, in the 2000s so much emphasis was put on the serious effects that the probability aspect was pushed into the background. Fatal child abuse cases stimulated a number of changes in discourse and policy, while the fact that these cases did not represent all child abuse cases was hardly acknowledged.

**The expansion and allocation of responsibility**
According to Ewald and Pieterman human responsibility expands in the precautionary culture and in the perception of harm and risk moral aspects play an increasingly important role. Pieterman poses that the expanded responsibility is primarily borne by society's administrators.
The expansion of human responsibility and the role of administrators is apparent in my case studies. At the same time it is notable that in each case the government, as the 'main administrator', does not take full responsibility. As of the last decade, this responsibility is pushed back or shifted to other parties, such as companies, social organisations and the general public. These developments are hardly touched by Ewald and Pieterman. Other authors have elaborated on this development, referring to it as 'responsabilisation'.
The expansion of responsibility in both directions is most evident in the child abuse case. Until quite recently, child protection and child (health) care organisations were only obliged to try and combat child abuse. They were not held accountable for cases of child abuse that could not be prevented or stopped. Following a number of fatal child abuse cases in the 2000s the responsibility of these organisations was expanded in a manner that changed its nature considerably: for the first time they were called to account for serious or fatal

child abuse cases with which they were (or had been) involved. This development can be described as a shift from an ‘obligation to perform to the best of one’s ability’ to an ‘obligation to produce results’. The most noticeable sign of the fundamental changes becoming visible is the criminal prosecution of the family supervisor of a fatally abused girl, Savanna, on the grounds of culpable negligence. Another manifestation of the changing views on the responsibility of child protection institutions and care organisations is the recent practice to conduct an investigation into possible mistakes after the death or serious abuse of a child that they knew by or under the supervision of one or more state inspectorates.

The changes in the child abuse case did not only concern the responsibility of child protection and child (health) care organisations. Government, too, started taking more responsibility than before to combat child abuse and was more often addressed on their responsibility as main administrator. Remarkably, however, not only more responsibility was taken by and allocated to the government, but they also started emphasizing the responsibility of other public actors, such as schools, sports clubs and hospitals.

In the road safety case, an important step towards the expansion of responsibilities of the government as an administrator was made in the second half of the 1980s. A quantitative programme target was set up to reduce the number of traffic victims. This was a more explicit commitment to achieve certain results than in the other two cases, although no consequences were applied if those results were not achieved. The adoption of the quantitative programme targets did not only mean an expansion of the government’s responsibility. The government emphasized that these targets could only be met ‘if all Dutch people participated’. This responsabilisation of ‘all Dutch people’, however, was less important than the responsabilisation of the local authorities by the national government. Until then provinces, local councils and water boards did not pursue specific road safety policies and were now told to do so by the national government. Ultimately this led to a partially decentralised road safety policy.

The expansion of the administrators’ responsibilities did not end with the adoption of the quantitative programme targets. The role of the traffic system in road unsafety was emphasized when Sustainable Safety was introduced in the 1990s and hence the administrator’s responsibility to improve the system. Since then, a breeding ground has been created for a similar transition from an obligation to perform to the best of one’s abilities to an obligation to produce results as in the child abuse case. This transition implies that administrators are held responsible retrospectively for victims of the ‘failing system’. The clearest example is the criminal conviction of the Stichtse Vecht Local Council in 2012 for the death of two motorbike riders who fell because of bumps in the road and subsequently were run over. Like Savanna’s supervisor, the local council was

blamed for culpable negligence. The local council should have provided an even road. Then this ‘preventable accident’ would not have happened.
In contrast to the two other cases, in the case of genetically modified food the attention for the responsibility issue has never waned. The human responsibility for risks was highly emphasized from the beginning. The responsibility issue had a strong moral character for those who mainly emphasized the dark side of genetic engineering. However, this case is not about every person’s responsibility, because most people are definitively not involved in genetic engineering and its alleged risks. Companies and scientific organisations dealing with genetic engineering have the first responsibility. Moreover, a large responsibility to prevent harm was allotted to the administrators right from the start. However, there was no broad social consensus as to how large that responsibility should be. Critics of genetically modified food considered the realisation of any possible risks from genetic engineering unacceptable. They felt that government had to ensure sufficient prevention by means of regulations or, if need be, by announcing a moratorium. When the application of genetic engineering in the food industry started to pay off, they demanded the government to take measures to prevent 'contamination' of conventional food by genetically modified food. Moreover, they wanted guarantees for the continuation of a gentech free food chain.
Government assumed their responsibility at an early stage to only allow genetic engineering activities after prior assessment and on safety conditions. At the same time they tried to put their responsibility into perspective. They did so by stating that 100 percent safety does not exist. Moreover, the government pointed out that contamination cannot be prevented completely, but that it poses no risks. Besides, the responsibility for a gentech free food chain was allocated to ‘the market’. Critics of genetically modified food asked the government to assume an obligation to produce results, but the government did not want to go any further than an obligation to perform to the best of their abilities.
The strengthening of the previously discussed precautionary nature of the European genetic engineering policy brought about an expansion of the responsibility of the manufacturers of genetically modified products and of the government. Far reaching measures, for example, had to be taken to prevent contamination. This could be seen as a step towards the desired government obligation to produce results. But the government’s responsibility did not undergo a definite change in character. They still do not guarantee a complete ban of risks or the continuation of a gentech free chain. And the new anti-contamination policy does not go so far so as to exclude a mix of genetically modified food and conventional food; thresholds are implemented.
In the genetic engineering case, no administrators have been held responsible for individual incidents of risk materialisation so far. This is mainly due to the fact that to date such cases have not occurred or only happened occasionally, at least

in the Netherlands. If they were to occur, the administrators of the system that should guarantee the safety of genetically modified food would probably also be held responsible. This happened, for example, during the BSE crisis, which is often used as a warning by those in favour of precaution in genetic engineering.

# Conclusions

The answer to my research question on similarities in the public approach to road unsafety, child abuse and genetically modified food in the Netherlands since the end of the nineteenth century can be summarised in four conclusions.

The first conclusion is that the developments in the public approach to risk and harm in my cases were largely characterised by a parallel development. The similarities in the cases are too evident and too numerous to be cancelled out by the differences, which, as expected, are also present. There is no case in which an entirely different type of development took place. However, at a number of points the similarities are limited to two of the three cases. But these are not always the same and therefore there is no case which is the odd one out. The most notable deviation to the common pattern is probably the almost total lack of guilt cultural elements in the genetic engineering case. However, this deviation is no surprise considering the origin and the nature of the risks in genetic engineering and the fact that the period which is covered by this study started almost three quarters of a century later than the other two cases. Especially with regard to the last point, it can be said that this deviation was incorporated in the research design.

The second conclusion is that the concepts used to draw my comparisons, the ideal types of guilt culture, risk culture and precautionary culture, have proven to be useful in analysing the developments in the three different cases. This provides solid grounds to assume that the changing public approach to other risk problems can be also understood in terms of guilt, risk and precautionary culture.

The third conclusion concerns the relatively late rise of the concept of risk in the child abuse case. It is remarkable that as of the 1960s the public approach to child abuse has, in many ways, a risk cultural character, whilst the crucial concept of risk was not used explicitly until the 2000s. In this aspect the child abuse case differs from the two other cases. The late rise, however, of the concept of risk is not unique for the public approach to child abuse, but can also be perceived in the much broader domain of social safety. An explanation could be found in the nature of risks relating exclusively to human actions that are considered to be morally repugnant. Identifying and addressing these risks is hindered by more obstructions and negative side-effects than tackling risks with a technological component. Policies aimed at individuals or groups that pose a risk, for example, can very easily produce a stigmatizing effect: hardly anyone

wants to be branded as a potential child abuser or criminal or to have close ties with such a person. This problem does not occur in policies aimed at the risks of genetic engineering. My statement is that it was not until safety became more important that less importance was attached to the negative sides of the use of the concept of risk in the domain of social safety. In other words: the rise of the precautionary culture was necessary before a central element of the risk culture, the concept of risk, could start playing an important role in the public approach of child abuse and in the domain of social safety more generally.

The fourth conclusion is that the rise of the precautionary culture in my cases is partly a matter of potential not (yet) materialised completely. It is highly probable that this potential will never be fully realised. The latter has to do with the presence of 'counterweight factors' in each case. The wish to drive 130 km/h on the motorway and the aversion against having to take an alcohol test when stepping into your own car, thwart a rigid attempt to an increasing improvement of road safety. The widely acclaimed value of family integrity is an obstruction to tackle child abuse at an earlier stage. Likewise, the importance of economic development counterbalances pleas to ban genetically modified food until the risks have been removed.

The existence of a counterweight implies that the development towards a precautionary culture cannot be seen as an unstoppable evolutionary process. Even where precautionary thinking is predominant, as in the case of genetic engineering, the presence of a counterweight means that precautionary developments can halt at any time or can be partially corrected.