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**Industrialisation, Risks and Strict Liability:
The Diverse Paths of German and US Law**

by

Gert Brüggemeier

INDUSTRIALISATION, RISKS AND STRICT LIABILITY: THE DIVERSE PATHS OF GERMAN AND US LAW

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I. INTRODUCTION

Sociological risk research distinguishes between the concepts of danger and risk. *Dangers* are the natural events, which have always imperilled mankind: tempests, wild animals on land and sea, epidemics, earthquakes and tsunamis. By contrast, *risks* are man-made contingent perils, in particular in relation to industrial or technical development. The nineteenth Century industrial revolution which began in Europe and the USA spread in different stages of development to the rest of the world and is now said to have led to *another modernity* – ‘risk society’ or ‘age of risk’. This development was of less influence on private law in general, especially contract law. For civil liability law, however, it was a clear watershed.

This has long been ignored. There was a long tradition of personal liability prior to the industrial revolution. This was the classic responsibility for human wrongdoing – fault-grounded liability. And there is an emerging bulk of impersonal liability after the industrial revolution. Its new paradigms are technical risks, enterprises and insurance. An ethically neutral mechanism of distribution of risks and losses is replacing the honourable culture of individual responsibility. Basis of this new risk pooling and liability channelling on risk taking enterprises was loss spreading by insurance – especially State social insurance and private third party (liability) insurance. Against this backdrop, “stricter” forms of liability came to the fore – quasi-strict enterprise liability and no-fault liability. Both types of industrial liability for the first time showed up archetypically in the German Imperial Liability Act (*Reichshaftpflichtgesetz – RHPfLG*) of 1871.¹

Notwithstanding these social developments did civil law in general, and law of delict in particular, of the continental European codifications adhere to its pre-industrial moral heritage: namely, Roman law (*dolus/culpa*) and natural law. In a similar way the law of torts of the Anglo-American Common Law remained pre-industrial until the 20th Century. The social consequences of the industrial revolution radiated only very gradually and in differing forms into the private law of all old industrial countries or were accommodated by functional equivalents, such as loss spreading through insurance schemes.² “Strict liability” was such a new element in private law. Until today, the concept of strict liability for risks and its contours have remained nebulous. This lecture undertakes a comparative-historical approximation having regard also to the cultural underpinnings of the two different legal answers to identical societal challenges presented here.³

¹ See below in the text.

² On Germany from an evolutionary economics point of view cf. M. Eckardt, *Technischer Wandel und Rechtsevolution*, 2001, pp. 272; for the US: K.S. Abraham, *The Liability Century*, 2008; as comparative-historical accounts cf. J.M. Kleeberg, *From Strict Liability to Workers Compensation*, 36 *Intern. Law & Politics* 53 (2003); M. Martin-Casals (ed), *The Development of Liability in Relation to Technological Change*, 2010 and W. Ernst (ed), *The Development of Liability for Traffic*, 2009.

³ For a European (and beyond) stock-taking cf. B. Koch/H. Koziol (eds), *Unification of Tort Law: Strict Liability*, 2002.

II GERMANY – RISK ABSORPTION THROUGH SOCIAL INSURANCE AND DIFFERENT HEADS OF *GEFÄHRDUNGSHAFTUNG*

The notion of strict liability in civil law⁴ commonly understood as liability without fault comprises very different elements: *inter alia* contractual warranty; vicarious no-fault liability of employers; civil liability for sacrifice of assets; neighbour-liability for nuisance; exceptional cases of Roman no-fault liability (*custodia*: animals, things that fall from buildings); liability for defective products;⁵ and liability for risks of technical plants and facilities, regardless of their defectiveness. Here, *Gefährdungshaftung* is used exclusively in the latter context as liability for technical-industrial risks. This *Gefährdungshaftung* is in its distinct German form the result of industrialisation: steam engines, mines, railways and other motorisation on ground, water and in the air. This new technical-industrial world with its industry- and transport-related accidents forced law practitioners and legislatures to seek new regulatory strategies for dealing with these risks outside of the well-trodden paths of the romanist-pandectist legal doctrine.

In Germany, the first statutory answer to industrial accidents was enterprise liability (*Unternehmenshaftung* pursuant to § 2 RHPfG 1871), before 1884 the great new alternative concept of compulsory State insurance for accidents at workplace (replacement of liability with the principle of loss spreading) came into force, a model which successively continental European states adopted.⁶ The German answer to the “age of railways” was a sort of strict civil liability (1838/1871), out of which the modern *Gefährdungshaftung* developed. The form in which this liability answer was presented, was that of narrow *special legislation*. This relationship of rule and exception was underscored by the *BGB* legislator, when it insisted not to overload the *BGB* and its personal fault principle with special provisions of stricter liability. Still today, this bias determines the relationship between the law of delict and *Gefährdungshaftung*. There followed incrementally with nearly each particular technological innovation a new special regulation: Railway, automobile, aircraft, energy installations, atomic energy, damage to the environment by industrial activities, and genetic technology. Strict liability of the manufacturer for defective products takes a special

⁴ In the common law strict liability is used as an umbrella term to lump together anything from near-absolute liability to little more than a reversed burden of proof. Cf., *inter alia*, Winfield & Jolowicz on Tort, 17th edn, 2006, at paras. 1-38.

⁵ For the EU see Directive 85/374 EEC on liability for defective Products, (1985) OJ L 210/19; from a comparative historical point of view cf. S. Whittaker (ed), *The Development of Product Liability*, 2010; D. Fairgrieve (ed), *Product Liability in Comparative Perspective*, 2005.

⁶ *Inter alia* France 1898. – Also the common law countries England and USA pursued the path of special legislation, at least as far as accidents at workplace were concerned: Workers’ Compensation Acts/Statutes (strict employers’ liability with compulsory liability insurance; abolition of the tort system): England 1897 (shifting in 1947 to a National insurance system); and - with some delay - USA 1910-1920. On the US see more below in the text.

place internationally, *between* quasi-strict enterprise liability and *Gefährdungshaftung*. Nothing further is said on that theme here.⁷

This *Gefährdungshaftung* has in the Germanic legal area been consistently justified with three arguments.

1. Social progress by technological innovations with their contingent potentiality of risk may only be bought at the price of a “guarantee liability” of the risk taker. 2. Risk taking enterprises can distribute the losses caused by the risk exposure to others by spreading (insurance) and passing on to the public; and 3. enterprises can minimise the risk through organisation, control and safety precautions.

1. THE RAILWAY

a) § 25 Prussian Railway Act of 1838

The railway was developed in England. The ‘age of the railway’ began at the latest in 1830 as the first steam locomotives came into regular use between Liverpool and Manchester.⁸ The railway liability law however had its origin in 1838 in Prussia, then a thoroughly agrarian state, disposing at the time only of one 34 km long stretch of railway between Berlin and Potsdam. There, in 1838, a railway Statute came into force, which regulated the conditions for the state licencing of private railway companies. The Statute also contained a provision on liability (§ 25):

The [railway] company is liable for all damage incurred by *persons and goods during transportation by rail* and by *other persons and their goods*, and it may only exonerate itself from such liability by proving that the damage arose from the personal fault of the injured person or through *unavoidable external factors*. The *risky nature of railways per se* shall not constitute one such factor.

§ 25 of the Railway Act combined traditional and modern elements. The Prussian minister of administration originally intended to establish a liability of railway companies which based on a presumption of fault. The slightly distinct final outcome was particularly influenced by a written opinion of *F.C. von Savigny*. For *Savigny*, the leading Romanist of those times, the Roman law’s quasi-delict of the *actio ex recepto*⁹ seemed to have served as a blueprint.

Primary goal of § 25 was the protection of the integrity of transported persons and goods. The scope of protection was extended to ‘other persons and their things’. What was intended by this expression

⁷ Cf. S. Whittaker, *Development of Product Liability*, 2010. The correct understanding is that products liability for manufacturing defects (“flaws”) is strict, whereas for design und warning defects it is enterprise negligence liability. Differently D. Wuyts, *The Product Liability Directive* (2014) 5 JETL 1.

⁸ The world’s first modern railway is said to be the Stockton and Darlington Railway, opened in 1825 in Yorkshire, England. The first German railway (with an English locomotive) operated in 1835 between Nuremberg and Fürth.

⁹ According to the action *ex recepto*, shipmasters (*nautae*), innkeepers (*caupones*), and stable owners (*stabularii*) were under a liability independent of fault for the goods brought by guests onto their premises. This liability could be avoided only in instances of acts of God. - Art. 2051 Cod. civ., though in 1865 mediated by French law, also seems to have its roots in this Roman *actio ex recepto*.

remained unclear. This concerned first the victims of accidents related to the railways, for example in the context of railway crossings. *Savigny* took the view that the protection should also encompass injury caused during the normal use of 'risky' railways, in particular, the damage to neighbouring land through vibrations or sparks. This aimed at the protection of the interests of the Prussian landed gentry. Whilst this approach was restrictively interpreted in the case-law, courts have instead extended the area of application of § 25 to the railway personnel. Railway employees were during the regulatory process, if mentioned at all, without exception regarded as potential wrongdoers whose fault had to be imputed to the company. By this case law, contrary to the intention of the legislator, accidents of railway employees 'during transportation' led to damages claims.

The liability of the railway company was excluded in cases of contributory negligence¹⁰ and unavoidable external factors. A step towards modern *Gefährdungshaftung* was the clarification that the inherent risks of the railway were not in themselves excluding factors. The central weakness of § 25 *PrEGB* was its mere dispositive effect. It was thereby subject of contractual waiver. Regular use was made of this disposability in the contracts with railway passengers and (after the judicial extension to accidents at work) in the employment contracts with the railway personnel. § 25 remained for a time black letter law. The rapid extension of the railway network in Prussia was not hindered by this legal regime.

Other states within and without the German Confederation (1818-65), in particular Austria-Hungary and Switzerland, adopted this approach to liability. Where this was not the case, the courts came to conclusions which were comparable to findings of no-fault liability, using fictitious constructs. The Judgment of the Superior Appellate Court of Munich dated 14th June 1861 has achieved some fame: the regular operation of a railway was considered a "culpable activity", which made the railway responsible under fault liability for damage to property caused by the escape of sparks. Outside of Prussia recourse was also had to the concept of civil compensation for enforced sacrifice of assets (*Aufopferung*). – A comparable oscillation between overstressing fault liability (especially in France) and tending to no-fault compensation under property law characterise the legal development in the other European industrial states.¹¹

b) § 1 Imperial Liability Act (*Reichshaftpflichtgesetz* – RHPfIG) of 1871

In 1871, after the unification of Germany, the *Reichshaftpflichtgesetz* was passed. § 1 RHPfIG adopted the legal fundamentals of § 25 *PrEGB* and transposed them into a railway liability law for the entire territory of the new German Empire. Its rationale remained ambivalent. The preparatory materials (*Motive*)

¹⁰ It was due to the *culpa compensatio* doctrine of the *Ius Commune* of those days. This corresponded to the doctrine of contributory negligence of 19th century common law.

¹¹ A comparative account of the damage-by-sparks cases can be found in Martin-Casals (ed), *Liability in Relation to Technological Change*, 2010 (covering England, France, Germany, Italy and Spain).

explicitly speak of presumed fault, although this notion, as distinguished from the Austrian Act of 1869, does not show up in the official text. § 1 read:

If in the operation of a railway a person is killed or injured, the railway company is liable for the resulting damage unless it can prove that the accident was caused by either an act of God or the fault of the killed or injured person.

§ 1 *RHPfG* determines in a precise way the basis of liability, the scope of protection and the exceptions to liability. The focus is no longer on contract-near transportation, but now on the *technical operation*. However not the damage by regular operation leads to damages but injuries incurred by *accidents* in the operation of a railway. The scope of protection is restricted to persons, namely the killing and injury of transported persons, of railway personnel and third parties. Damage to property is, as distinct from Prussian law, no longer included, without being given any explanation for this in the preparatory materials.¹² Transported goods were covered by carriage contracts. In spite of its focus on injury to persons, there is no mention of compensation for *pain and suffering* neither in the text of the Act nor in the preparatory materials. Although foreign to Roman law, pain and suffering awards were recognised in Germanic law and spread throughout the case law of 19th Century's *ius commune*. In addition, moral damages were also included in the Austrian railway liability law. Importantly, railways' liability under the *RHPfG* is in the form of *binding law* and thereby no longer to the disposition of contractual parties. Lastly, the Act of 1871 does not provide for a ceiling of railway companies' liability. Liability caps were generally unknown in the laws of those days.

In respect of exclusion of liability, on the one hand, it rested on *acts of god*, which replaced the notion of the unavoidable external factor. On the other hand, liability remained excluded in case of contributory negligence of the injured person. That changed after the coming into force of the *BGB* on 1st January 1900. Henceforth, a regime of comparative negligence applied.¹³

2. INDUSTRIAL LABOUR ACCIDENTS

Apart from railway liability the *Reichshaftpflichtgesetz* attempted a political solution of the most virulent social problem of on-going industrialisation – the accidents at workplace. An extension of the no-fault type of railway liability to other risky industries was promoted in the socio-political discussions about a private law contribution to the problem of industrial accidents. This initiative floundered against resistance from

¹² The unspoken reason for this restriction may be the overarching target of the *Reichshaftpflichtgesetz*: i.e. providing compensation for physical injuries by industrial accidents. See on this below in the text.

¹³ That is a proportional reduction of the amount of damages (§ 254 *BGB*) instead of forfeiture.

heavy industry. Instead, the result was a direct liability of a enumerated class of risky enterprises for the fault of executives and other enterprise representatives (§ 2 RHPf/G). This singular statutory rule of enterprise liability for mere fault of representatives is a forerunner to the modern liability of organisations for 'systemic fault'. Plainly, it is to be distinguished from the classic cases of employers' vicarious liability for torts of their employees (§ 831 BGB/Art. 1384 (3) C. civ./Art. 2049 Cod. civ.) or the corporate liability for delicts of executives (§ 31 BGB), which in principle lead to joint and several liability. Here, the liability is channelled exclusively on the enterprise. Although this provision of law is still in force today, it has achieved no practical significance. The problem of industrial accidents remained – even after 1871 – socio-politically and legally contentious. In 1884, this issue was resolved in an entirely different way, instead of damage compensation through private liability law the principle of distribution of loss was used, by way of introducing a compulsory State insurance scheme for accidents at workplace. Through their onus for financing, there were economic incentives on employers to invest in accident avoidance. This social insurance scheme has been extended in the 20th Century to accidents on the job and at public schools generally, also including accidents on the transport to and from job or school.

3. THIRD PARTY (LIABILITY) INSURANCE

Both of the two new grounds for liability under *Reichshaftpflichtgesetz* 1871, the nationwide no-fault liability of railway companies under § 1 and the liability of industrial enterprises for executives' fault under § 2, had the further effect that they contributed significantly to the emergence of an independent new branch of private insurance industry in Germany – third-party insurance. The availability of liability insurance with the concomitant effect for businesses of passing on its costs to the public (through fares and prices) in turn served as a dominant stimulus for the further spread of stricter forms of liability: The chance to externalize the risks of business activities on insurers and customers made it more sensible to internalize the losses caused by these activities as costs on the risk creating enterprises.

4. AUTOMOBILE AND AIRCRAFT

Towards the end of the 19th Century, the railway was complemented by further revolutions in transport technique: steamship, automobile and airplane. German no-fault liability law was extended to cover automobiles and aircrafts. *Steamships* have been spared to date (in contrast e.g. to Switzerland or Russia).

a) *The Automobile*

The automobile was invented in Germany (C. Benz 1886); the first boom the automobile experienced was, however, in France. In Germany, at the first official count in 1907, there were 10000 personal cars and 15000 motorcycles registered. In 1909 the Act on Automobile Traffic (*Gesetz über den Verkehr mit Kraftfahrzeugen – KFG*) came into force, which contained a relatively detailed chapter on the liability of car operators. Its main provision (§ 7 para 1) read:

If in the operation of an automobile a person is killed, his body or health injured or property damaged, the operator of the automobile is obliged to compensate the resulting damage.

This provision marks the very beginning of modern *Gefährungshaftung*. The eggshells of *receptum* liability and of quasi-contractual carriage as well as any presumption of fault are definitively thrown away. Target of the law was the taming of the new risks of automobile traffic. In contrast to the railway liability laws therefore, this norm concentrated primarily on the protection of persons outside the motor vehicle, in particular pedestrians.¹⁴ Liability was triggered where a person was killed or injured or if property was damaged *in the operation* of a car. The passengers in the car and the employees of a commercial car operator were left out. The latter fell under the coverage of industrial accident insurance, the former under contract law or general law of delict. The addressee of this strict liability was the *owner* or *operator* of the automobile. Any authorised driver, non-identical with the operator, was only liable for fault, which in case of accident was presumed. In the second half of the 20th Century, the scope of liability was progressively widened to cover passengers who (paid or unpaid) were transported by automobiles.

Instead of *force majeure* or act of God, the ‚inevitable event‘¹⁵ constituted an exclusionary ground. It took nearly 100 years until there was in 2002 a return to *force majeure* (known already from § 1 *RHPfKG*). § 12 *KFG* contained for the first time ceilings to liability. These served to check the increasing premiums of liability insurance so as to ensure their affordability. In 1939, following the Scandinavian (1929) and English (1930) model, a compulsory liability insurance for car owners was introduced. Aimed the liability insurance so far primarily at the financial protection of the policy holder, with compulsory liability insurance the guarantee of the compensation of the injured victim came to the fore.

¹⁴ As far as other car drivers are concerned, the principle of ‚mutuality of risk‘ applied (i.e. each motorist exposes the other to the same inherent risk of car driving). This leads to an automatic reduction of damages taking into account each motorist’s own risk of operating an automobile.

¹⁵ § 7 (2) sent. 2 *KFG*: „An event is in particular regarded as inevitable when it is caused by the conduct of the injured or of a third party not employed by the car operator or by an animal and the operator as well as the driver paid highest due care under the given circumstances.”

b) *The Airplane*

In 1908, the age of airplanes began (flight of the *Wright* brothers in England/journey of *Zeppelin's* blimp in Germany). In 1922, the German legislator passed an Act on Air Traffic (*Gesetz über den Luftverkehr – LVG*). § 19 read:

If in the operation of an aircraft by an accident a person is killed, his/her body or health injured or property damaged, the operator of the aircraft is obliged to compensate the damage.

The regulatory approach is in line with the automobile liability. Liability caps are contained; compulsory liability insurance provided for. No exclusionary ground was introduced. Although causation 'by an accident' was explicitly incorporated in the text of the law, the courts went further by extending the umbrella of protection of § 19 *LuftVG* so as to include damage to persons and property on the ground caused, e.g., by low-flying aircrafts.

As far as the *international* carriage of passengers and cargo by air is concerned, this national law was soon replaced by international conventions. In 1929, the *Warsaw Convention* (WC) was passed.¹⁶ It originally provided for a regime of quasi-strict liability of air carriers (i.e. presumption of fault).¹⁷ This was a compromise between the strict liability of French contract law (*'obligation de résultat'*) and the strict law of other continental European countries like Germany, on the one side, and the respect for the supposed needs of the developing juvenile aviation industry, on the other side. The liability was limited by fixed amounts for death or personal injury of the passengers.¹⁸ Although Art. 17 WC also focused on an 'accident', its interpretation has been stretched by courts from the materialization of technical risks to man-made incidents (including terrorist acts or sexual assaults by co-passengers).¹⁹ – The WC was succeeded by the *Montreal Convention* of 1999 (MC).²⁰ It was less a newly conceived legal document but a consolidation of the WC and its amendments hitherto into a single treaty. MC established a two tiered system of responsibility of air carriers (Arts. 17 and 21): (1) Strict liability up to an amount of 113 100 SDR²¹ for each killed or injured passenger. *Force majeure* and acts of god are not recognized as exclusionary grounds. (2) Unlimited quasi-strict liability for exceeding extents of damages. The carrier can exonerate itself from this liability by showing evidence that (i) the damage was not due to its fault or that (ii) it was solely caused by the fault of a third party.

¹⁶ [Warsaw] Convention for the Unification of Certain Rules Relating to International Carriage by Air of 12 Oct. 1929 (amended at The Hague on 28 Sept. 1955 and by Protocol No. 4 of Montreal 1975).

¹⁷ Art. 17. The air carrier could rebut the presumption by showing that it has taken 'all necessary measures' to avoid the damage (Art. 20). This liability regime of Arts. 17, 20 WC comes close to the strict liability under § 7(1)(2) KFG 1909.

¹⁸ Art. 22. Liability was unlimited if the passenger (or his/her relative) could prove that the accident was caused by intentional or reckless behaviour of the carrier's personnel (Art. 25).

¹⁹ As landmark case cf. *Air France v. Saks*, 470 U.S. 392 (1985); on this in general (albeit exclusively from an Anglo-American law perspective) see G. Leloudas, *Risk and Liability in Air Law*, 2009.

²⁰ [Montreal] Convention for the Unification of Certain Rules Relating to International Carriage by Air of 28 May 1999.

²¹ Special Drawing Rights of the International Monetary Fund (= 175 800 USD, as of Dec. 2011).

The principles of comparative negligence apply in both cases (Art. 20). Any damages claim of a passenger falling in the ambit of this Convention is bound to its rules and limits. (The crew members are under their respective national social insurance or workmen compensation schemes.) - By EU law, this liability regime has been extended to all air carriage effected by EU or EEA air carriers regardless whether it is a domestic, inter-union, or international flight.²²

Many steps have been undertaken to work out an international convention on air carriers' liability for *damage to third parties on the ground* (Rome Convention). These drafting works have not yet come to a final result. This scenario remained so far under the respective national law.

5. CHARACTERISATION

The German model to tackle the emerging new risks of industrialisation developed out of an authoritarian-welfare-State's proneness to preventive risk regulation. This model had two tracks: State social insurance and 'stricter' forms of civil liability beyond the fault principle (enterprise liability and *Gefährdungshaftung*). The first was in the *Bismarck* era not to be separated from the political context of the attempted State domestication of the new class of industrial workers and their organisations (socialist parties; trade unions) and their integration into the society of imperial Germany. The special legislation on no-fault liability also came from politics. The different heads of liability for technical risks developed before and after 1900 in the shadow of the great systematic codification of the *BGB*. This lay in the hands of pandectist academics and practitioners. The *BGB* was conceived as 'the' liberal constitution of the Empire (party autonomy/freedom of contract/fault/property). Political attempts to incorporate strict liability provisions into the *BGB* law failed. The statutory norms of no-fault liability notwithstanding their individual differences came about as *ad hoc* pragmatic technical exceptions from the prevailing fault principle, which were to be interpreted narrowly; further, no analogy was available. Compensation for pain and suffering remained restricted to the *BGB* law of delict.²³ This exceptionality, disparate manifestation and distance to the 'grand idea of private law'²⁴ have until today hindered the development of a scientific doctrine of *Gefährdungshaftung*, which could give political orientation to coherent legislation. Academic initiatives to a fundamental reform, that is, the unification of the individual headings plus a general clause

²² Cf. Regulation (EC) No 889/2002 of the EU Parliament and Council of 13 May 2002 on air carrier liability in the event of accidents, OJ L 140/2 of 30.5.2002 (amending Council Reg. (EC) No 2027/97).

²³ It was not earlier than 2002 that compensation of moral damage in the law of *Gefährdungshaftung* has been made available by an Amendment to the Law of Damages.

²⁴ Elegantly worked out by E.J. Weinrip, *The Idea of Private Law*, 1995.

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of *Gefährdungshaftung*²⁵ or the complete replacement of the disparate provisions on *Gefährdungshaftung* with a unifying general clause²⁶, have to date failed.

Mutatis mutandis the same is true for *enterprise liability*. It started as an unsuccessful, nearly forgotten statutory rule (§ 2 *RHPfG*) and became then after the turn of the 20th Century the subject of judge-made law. The courts tried to pave a way for organisational responsibility filling the gap in the *BGB*'s law of delict between the employers' vicarious liability for presumed own fault (§ 831) and the law of individual fault liability (§ 823 (1) et seq.). Not recognised by the individualistic Romanist *BGB*, enterprise liability is – like *Gefährdungshaftung* – still struggling to lose its label as ‘illegitimate child’ of private law.

III USA: NEGLIGENCE-CENTRED TORTS SYSTEM AND OUSTED STRICT LIABILITY

The common law of the United States like English common law in the first place recognised manifest personal civil wrongs (torts). A large part comprises intentional injuries, for example trespass to persons,²⁷ goods and land. In the 19th Century, the new all-encompassing tort of negligence emerged. It soon became the unifying principle of American tort law. It also stood in the centre of the social management of the consequences of the industrial revolution. The post-civil war and post-depression period to the close of the 19th Century is characterized through the emergence of big firms, the development of liability insurance and culminated then in the constitutional disputes and political discussions about the replacement of the traditional torts system in parts through alternatives like the (no-fault) workers compensation legislation of the early part of the 20th Century.²⁸

At this point, the USA was already the leading industrial nation of the world, but also the nation with the highest incidence of industrial accidents (certainly by comparison with industrial nations like England and Germany).

1. INDUSTRIAL ACCIDENTS

If in continental Europe natural law and enlightenment philosophy were the basis for the eminence of the subject-paradigm in private law, simply interfaced with doctrines of economic liberalism, it was the other

²⁵ This path has been pursued by the Chinese legislator when codifying the law of delict in 2010 (arts. 70-74). Cf., inter alia, Brüggemeier, *Modernising Civil Liability Law in Europe, China, Brazil and Russia*, 2011, pp. 194.

²⁶ This solution can be found in the Russian and Brazilian Civil Code. On this in greater detail see Lecture 3.

²⁷ On this see now in greater detail Restatement (Third) of Torts: Intentional Injuries to Persons, 2014 (discussion draft).

²⁸ Generally on this time of so-called Gilded Age cf. L.M. Friedman, *A History of American Law*, 3d edn. 2005, Part III, ch. 1: „Blood and Gold“.

way around in the US. Here, economic liberalism, the ideology of free entrepreneurship and individual responsibility determined the discussion in law and politics up until the 20th Century.

Accidents at work in the second half of the 19th Century were judged by common law.²⁹ The business-employer was liable to the injured worker under the tort of negligence only in cases of carelessness, which was, as a rule, not provable. Additionally, the enterprise-employer could even in cases of its fault (i.e. fault of its executives), rely upon the worker's voluntary *assumption of risk*. The worker was treated as if he had accepted the employment by formation of contract as it was. If the worker came to injury through the fault of a fellow worker, the employer might be vicariously liable. This doctrine of *vicarious liability* rendered the business-employer without its own fault liable for the torts of its employees. It is a 'strict' liability of businesses for the wrongful acts of their employees committed within the scope of their employment. Here, however, the *fellow servant rule* stood in its way.³⁰ Pursuant to this rule, the employer was not liable for damage done by an employee to another employee during his employment. Frequently, also *contributory negligence*³¹ affected the victim's claim. Already slight contributory fault of the victim led – like in the contemporary German *ius commune* – to a complete forfeiture of liability. The 'unholy alliance' of these three common law defences (assumption of risk, fellow servant and contributory negligence) had the bitter consequences that the victims of industrial accidents and their (surviving) dependents had to shoulder the financial burden of the accident alone, which often catapulted them into poverty and misery.

This complete failure of the common law of torts in the field of industrial accidents eventually spurred the legislature into action. Until the end of the 19th Century, individual States enacted so-called Employers' Liability Acts. They were in their content and scope thoroughly varied. They did by no means change the fundamentals of liability law. The limited common aim of these Acts was simply to mollify the common law defensive bulwark against the damages actions of victims of industrial accidents. It is noteworthy that the courts in the USA, contrary to the approach in England and Prussia, dismissed contractual waivers of these limitations of liability.

In 1910, 23 States and the federal government had passed Employers' Liability Acts. The *Federal Employers' Liability Act* (FELA) originated in 1906 and was limited to the interstate railway transport. It eliminated the fellow servant rule, replaced contributory with *comparative negligence*³² and abolished assumption of risk, to the extent that the railway company had acted in violation of legal safety regulations.

²⁹ As locus classicus cf. O.W. Holmes, *The Common Law*, 1881.

³⁰ In England: *Priestley v. Fowler*, 3 Mees & Wels 1 (1837); in USA: *Farwell v. Boston & Worcester RR Corp.*, 45 Mass. (4 Met.) 49 (1842).

³¹ Cf. W.S. Malone, *The Formative Era of Contributory Negligence*, 41 Ill. L. Rev. 151 (1946).

³² That is, transition from forfeiture of liability to proportional shares (quota) depending on the degree of fault.

Most tellingly, FELA 1906³³ was declared unconstitutional by the US Supreme Court, before an amended version in 1911 passed the constitutionality test.³⁴

If the Employers' Liability Acts trimmed only the fringes of the common law of torts, the *Workmen Compensation Statutes* entered new ground. Between 1910³⁵ and 1920, they were introduced in 43 States and rolled out a private law variant of the *Bismarckian* industrial accidents insurance. Workmen compensation statutes were characterised by three elements: 1. Abolition of the traditional negligence liability in tort; 2. Strict liability of the employer, save for intentional self-harm by the employee; 3. Swift, but limited compensatory payments in the case of injury and death. In particular compensation for pain and suffering is excluded.

The businesses were under an obligation to take out a special workmen compensation insurance, unless the firm was allowed to go down the road of 'self insurance'. The insurance costs were passed on through product prices to the costumers. In so far as the degree of union-type organisation of the personnel permitted, the employers also attempted to offset these costs by reducing salaries.

2. RAILWAY, AUTOMOBILE, AND AIRPLANE

a) *The Railway*

Soon after its breakthrough in 1830 in England, the railway took the USA. 'The railroad created America'. In 1840, the railways stretched for less than 3000 miles; in 1850, 9000 miles; in 1860, 30000; and in 1870 the railways stretched to 53000 miles.³⁶ In respect of liability for accidents, the common law of torts – i.e. negligence – dominated here, too.

To this extent, the common law shared a peculiarity with the Roman law of *receptem* liability. It traditionally recognised the quasi-contractual strict liability of common carriers for goods. Common carriers are today State-regulated transport undertakings, which offer freight and public transportation services. To the category of common carriers belong amongst others airlines, railways, bus companies, and taxi firms. The railway companies were strictly liable as common carriers only for damage to transported goods. Cases of physical injury to persons, passengers as well as railway employees, remained under the regime of negligence liability. For railway employees, this first changed with the passing of the respective

³³ *The Employers' Liability Cases*, 207 US 463 (1908).

³⁴ *Second Employers' Liability Cases*, 223 US 1 (1912).

³⁵ The first Workers' Compensation Statute in the US was enacted 1910 in New York and then declared unconstitutional by the N.Y. Court of Appeals: *Ives v. South Buffalo Ry.*, 94 N.E. 431 (1911): „The statute, judged by our common law standards, is plainly revolutionary.“ It required an amendment to the state's constitution of New York and a judgement of the US Supreme Court (243 U.S. 188 (1917)), stating the compatibility with the US Constitution, to bring the Statute finally into legal force.

³⁶ J.F. Stover, *American Railroads*, 1961, pp. 19, 26, 144/145.

Employers' Liability Acts (like FELA 1906), and then through the Workmen Compensation Statutes from 1910 onwards. In respect of passengers, general contract law and torts law (negligence) persisted.

An interesting question goes to the responsibility for the damage to third parties, in particular in cases of crashes on railway crossings and where animals are on the railways as well as in respect of damage caused by sparks flying from the locomotives. In cases of individual wrongful acts of railway employees, this was an instance of vicarious liability. Where no such personal wrongs given (the majority of cases), the injured parties had no recourse.

The conflicts which arose from this over the apportionment of damages between the land owners, who are legally using their premises, and the legal operation of the 'risky' railways belong to a since forgotten history of strict liability in the USA. From the middle of the 19th Century onwards, many States enacted so-called *Spark Fire Statutes* and *Cattle Injury Statutes*. These made the railway without fault liable for all damage caused in its running.³⁷ None of these rules remained in force today. They disappeared with those specific risks. The relevant law is again the general law of torts.

The railway liability served in these times of unprecedented societal change as a fertile ground for legal-political debate. This is made clear by an oft-cited case: *Ryan v. New York Central R.R.* (1866).³⁸ Through the sparks from a locomotive, a woodpile on the railway's own land caught fire. The fire spread and engulfed a neighbouring building, which burned to the ground. Its owner brought a damages action in negligence.³⁹ Even in this case, where carelessness was admitted, the action was dismissed. That the building was set alight by the fire which spread from the woodpile on the railway company's land and not directly by the sparks from its locomotive led the court to the conclusion that this was an indirect injury to the plaintiff's property. It presented the problem of imputation; in the language of the common law, the issue of proximate cause. The New York Court of Appeals denied that the plaintiff's damage was attributable to the railway (with little persuasive justification), declaring the damage too remote. The rationale which appeared to have motivated the decision was less the protection of the railway companies against excessively high damages claims, but more that the party whose property was damaged by fire should bear the burden for taking out (first party) insurance for just that risk. Home owners' first party insurance was already commonly spread, whereas liability insurance was at the time unknown. 30 years

³⁷ The Spark Fire Statutes passed the constitutionality tests they were put to by the railway companies, whereas many Cattle Injury Statutes had been declared unconstitutional. Cf. Witt, *Accidental Republic*, 2004, at pp. 135/136 with further references.

³⁸ 35 N.Y. 210 (1866).

³⁹ „by careless management or through the insufficient condition of *its* [the sued railway company] engines". Organisational fault or per-se culpable activity?

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later, with liability insurance available, the decision would have been made on the basis of which of the parties might have been the ‘better insurer’.⁴⁰

More importantly, in this judgment emerged already a principle which will become 100 years later a paramount topic of the American reform discussion: private first party insurance as alternative to the torts system.⁴¹

b) *The Automobile*

The automobile was in fact invented in Germany; its ‘second invention’ however happened in the US. With the passage to industrial mass production in 1908 (*H. Ford’s Model T*) the numbers of automobiles exploded: In 1900 there were only 8000 cars in the US. 1915 saw 2 million cars; 1920, 9 million; and 1930, 23 million.⁴² Although the automobile took some time getting used to, American lawyers did not consider to apply the English *Rylands v. Fletcher* doctrine or the principle of ‘strict liability for ultrahazardous activities’ for owners of automobiles. The mantra then was that not the car was hazardous, rather the risk was caused by its drivers. In terms of tort liability, the car accidents fell and still fall within the negligence regime.

At the beginning of the 1930s, at the first height of the motorisation wave as well as that of the incidence of accidents with 30000 deaths in one year, the model of strict liability with obligatory insurance was up for debate (the Columbia Plan).⁴³ This Plan was not however followed in the turmoil of the world economic crisis. On the second peak of the automobile expansion in the 1960s, there was a renewed and intensified discussion of automobile safety and of no-fault regimes.⁴⁴ The legal-political reaction was twofold. A new regulatory approach was pursued with the passing of the National Traffic and Motor Vehicle Safety Act in 1966 by which a safety agency has been established.⁴⁵ Concerning liability the law itself remained unchanged. Most states introduced compulsory liability insurance; several other states installed various forms of no-fault first party insurance.

c) *The Airplane*

Liability for domestic air traffic accidents in the US did not follow straightforward the well trodden path of railway, motor vehicle and maritime law, i.e. the negligence system. The law changed when aviation

⁴⁰ The Court overlooked the circumstance that already in those days the railway company could spread the loss by passing on the cost to its costumers

⁴¹ Cf. below in the text and fn. 58.

⁴² For figures cf. Abraham, *Liability Century*, at p. 70

⁴³ Report by the Committee to Study Compensation for Auto Accidents to Columbia University Council for Research in the Social Sciences, 1932.

⁴⁴ R. Keeton/J. O’Connell, *Basic Protection for the Traffic Victim: A Blueprint for Reforming Automobile Insurance*, 1965.

⁴⁵ National Highway Traffic Safety Administration (NHTSA).

developed. In the early days of aviation damage to person and property on the ground was in the fore. Different to driving automobiles was the operation of aircrafts regarded as an ultrahazardous activity and the operators were held strictly liable for all damage caused by airplanes. As early as 1922 this principle was also expressed in the Uniform Aeronautics Act. Its section 5 providing for strict liability has been adopted by a large number of states. The consideration of aviation as ultrahazardous dominated also the discussions and proceedings of the ALI when drafting the First Restatement of the Law of Torts in the 1930ies.⁴⁶ Doubts about aviation as ultrahazardous activity began to increase after World War II. The first to face this new approach were the passengers. Courts often dismissed their claims because of assumption of the risk of flying. Other courts applied the doctrine of a rebuttable presumption of fault of the air carrier. The Restatement (Second) of Torts in 1977 passed – after highly controversial discussions within the ALI – a new paragraph 520A. Addressing only the problem of damage to person or property on the ground caused by airplanes a majority of the ALI members adhered to the position that the damage results from an “abnormally dangerous activity”. The Third Restatement has now let this problem explicitly unanswered.⁴⁷ The nowadays prevailing approach is quasi-strict liability of air carriers. They and their personnel have to use utmost care and in case of an accident a breach of care is presumed.

International flights are under the umbrella of the respective International Conventions. The US ratified the Warsaw Convention 1934; today, the Montreal Convention of 1999 is in force with its two-tiered system of liability as far as passengers and their baggage are concerned. The crew members are under workmen compensation schemes and general torts law, respectively.

3. STRICT LIABILITY FOR PARTICULARLY HAZARDOUS ACTIVITIES

Next to the important case of statutory strict liability of employers in cases of industrial accidents (workers’ compensation) and the historical episode of strict liability for railways, the common law in the US seems to recognise strict liability only in a very refined area: liability for ultrahazardous activities.⁴⁸ This development is also in the American common law closely connected to the English case of *Rylands v Fletcher* stemming from the 1860s (which at first sight seemed to be an odd starting point for a law of strict liability as it was undoubtedly a case of negligence):⁴⁹

⁴⁶ Restatement of the Law: Torts, vol. 3, 1938, see comments to § 520.

⁴⁷ Restatement (Third) of Torts: Liability for Physical and Emotional Harm, vol. 1, 2010, p. 272.

⁴⁸ A second (hybrid) area is the liability for ‘defective’ products which in French and American law developed out of the contractual warranty liability. Products liability is internationally treated as a special case (cf. fn 6). In the US the liability for manufacturing defects (flaws) is strict; according to a prevailing view design defects are under a negligence liability. Cf. Restatement (Third) Torts: Products Liability, 1998; Owens, Products Liability, 2d edn. 2008.

⁴⁹ 3 H. & C. 774 (Exch. 1865); L.R. 1 Exch 265 (Exch.Ch. 1866); L.R. 3 H.L. 330 (1868).

J. Rylands ran a large textile factory in a region which was heavily impacted by farming and mining. He drilled a small reservoir in the earth in order to provide his factory steamers with water. The reservoir burst because the floor underneath was carved out by abandoned mining shafts. The escaping water put the neighbouring mining works of *Fletcher* out of use. *Rylands* had contracted competent engineers to construct the reservoir but they did not pay due care. They ought to have inspected the floor of the reservoir more closely.

Fletcher did not, however, sue the engineers, but sued *Rylands*, the wealthy industrialist. *Rylands'* vicarious liability was ruled out because his engineers were independent contractors and no employees. The Court of Exchequer dismissed the action against *Rylands*. It found that *Fletcher's* case was not made out on any of the pleaded causes of action (negligence, nuisance, trespass). The Appellate Court reversed the first instance decision and granted *Fletcher's* claim. Justice *Blackburn* founded a new strict liability cause of action in the case of highly hazardous activities. This decision was upheld in the House of Lords. However, *Lord Cairns* reverted to the underlying neighbour concept: if persons put their land to an 'unnatural use', they will be liable for damages flowing therefrom irrespective of fault.

Reception of this concept in the US had two phases. In the foreground was the refusal to introduce strict liability for the risks of industrial undertakings in the industrialised states of the North East in the 1870ies and 80ies. Strict liability was seen as 'obstacle in the way of progress and improvement'. Representative of this is the well-known case of an exploding steam boiler: *Losee v. Buchanan*.⁵⁰

The second phase began at the end of the 19th Century. The negative effects of an unbridled industrialisation were impossible to ignore. Mining accidents and spectacular dam bursts led to a reconsideration of strict liability *à la Rylands v Fletcher*. The concern to protect the national industry against the costs of damages claims decreased at the beginning of the 20th Century. That said, the courts made heavy work of the open recognition of strict ('absolute') liability.⁵¹

A watershed moment was the introduction of *Rylands* into the First Restatement of Torts in the 1930ies. § 519 acknowledged a strict liability for ultrahazardous activities.⁵² In defining what constituted the same, recourse was had to *Rylands* itself: the magnitude of risk which flowed from the activity (*Blackburn*) and its 'uncommonality' relative to the local habits (*Cairns*). Since technical-industrial risks and 'unnatural' use did not fit particularly well together, now there is a generalised concept referred to as *uncommon usage*. This is doubly misleading.

⁵⁰ 51 N.Y. 476, 484 (1873): a strict liability standard would „create a liability which would be the destruction of all civilized society“; see also *Brown v. Collins*, 53 N.H. 442 (1873) and *Marshall v. Welwood*, 38 N.J.L. 339 (1876).

⁵¹ On this generally cf. C.O. Gregory, *Trespass to Negligence to Absolute Liability*, 37 Va. L. Rev. 359 (1951).

⁵² Restatement of the Law: Torts, vol. 3, 1938, §§ 519, 520

For one thing, the concept undermines the constitutive moment of the technical risk and its contingency. All modern technical risks – from railway and steamboat to automobile and aircraft up to nuclear power plants – have in a short time become generally accepted as common usage. Further, it is misleading to have reference to the usage by the great part of the population,⁵³ in that here, with one exception, the automobile, these activities are not common undertakings of the regular person. Rather, they are industrial activities, which are simply not customarily carried on by normal persons. They are *per se* ‘uncommon usage’ in the sense of the Restatement. These infelicities have not been eliminated in further Restatements.

40 years later, § 520 of the Restatement (Second) of Torts listed factors, which the courts should take into account when classifying activities as ‘abnormally dangerous’.⁵⁴ The first three concern the extent of risk; the next two the unusual nature of usage. The last factor contains a new risk-utility element. The liability could in spite of great danger and unusual use, fall away where the advantages of the activity for the society outweigh the possible risks.

The Third Restatement 2010 has limited itself again to the two basic criteria: particular hazardousness and uncommon usage. The public policy reservation was dropped.⁵⁵

This *Rylands*-type of liability for hazardous undertakings has in both respects, scope of application and extent of case law, remained limited.⁵⁶ It still has but a residual role in today’s American law of torts.

4. CHARACTERISATION

For at least 150 years, the traditional torts system with negligence liability at its core, including the ‘grass roots’ civil jury determining the question of negligence in individual states’ courts,⁵⁷ in connection with the influential legal profession and the not less powerful insurance industry has become so deeply rooted in American society that attempts to change the system have repeatedly failed. The new super-tort negligence has proved so robust and flexible that it could, next to the traditional liability of human beings, also encompass the liability of large scale industrial companies. The *Learned Hand formula* or cost-benefit

⁵³ Restatement of the Law: Torts, 1938, p. 45: “An activity is a matter of common usage if it is customarily carried on by the *great mass of mankind* or by *many people in the community*.” (emphasis added - G.B.)

⁵⁴ Restatement (Second) Torts, vol. 3, 1977, § 520: (1) existence of a high degree of risk of some harm to the person, land or chattels of others; (2) likelihood that the harm that results will be great; (3) inability to eliminate the risk by the exercise of reasonable care; (4) extent to which the activity is not matter of common usage; (5) inappropriateness of the activity to the place where it is carried on; and (6) extent to which its value to the community is outweighed by its dangerous features.

⁵⁵ Restatement (Third) Torts: Liability for Physical and Emotional Harm, vol. 1, 2010, § 20.

⁵⁶ One of the few generally recognised cases is *explosives*: production, storage, transport, application. Cf., inter alia, W.K. Jones, *Strict Liability for Hazardous Enterprise*, 92 Colum. L. Rev. 1705 (1992).

⁵⁷ 7. Amendment (1791) of the US Constitution: „In suits at common law,, the right of trial by jury shall be preserved, and no fact tried by jury, shall be otherwise re-examined in any Court of the US, than according to the rules of the common law.“

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standard of negligence is a representative expression of this enterprise liability. The individualism of the reasonable person survives in the disguise of the efficient risk taker.

The one really enduring breakthrough in strict liability succeeded *outside* the torts system through the workers' compensation legislation. Attacks from the academy urging uptake of this strict liability concept have thus far had little success.⁵⁸ Within the torts system this seed has not germinated beyond the narrow field of strict liability for abnormally dangerous activities. The relevance of the hybrid forms of liability *between* negligence and strict liability such as vicarious liability; statutory negligence and strict liability for defective products are however not to be ignored.

To summarize: The US torts system is characterised by a fundamental ambivalence: On the one hand adherence to individualism under the unifying principle of negligence focusing on responsibility, fault and incentives; on the other hand adherence to actuarialism by balancing of probabilities and practicing loss spreading via insurance schemes. The US torts law got struck on its passage from individual blame to corporate blame to no-blame; between the morality of corrective justice and the neutrality of collective justice. Proposals to do away in parts or as a whole with the allegedly fortuitous and expensive torts system for personal injuries remained rare exceptions.⁵⁹

IV CONCLUSION

It is not by coincidence that civil liability law is internationally clinging on the grand old tradition of the Roman and natural law's responsibility for fault, as it has been taken up exemplarily in the French civil code of 1804: the trias of *dolus*, *culpa* and *casus*. If one leaves this classic world of individual responsibility and starts envisaging the different world of industrial modernity and its liability law, things soon lose lucidity. An irritating variety of depersonalised 'stricter' forms of enterprise liability has been developed, both covertly and overtly, by special legislature and by case law. In parts liability has been substituted by insurance, e.g. State social insurance. Balance of probabilities and risk absorption by the best loss spreader have replaced the fault rationale. As far as physical injuries by the materialisation of technical risks are concerned the law of delict has in continental Europe been replaced by insurance schemes, or liability law

⁵⁸ See especially the law professors W. Douglas, A. Ehrenzweig, L. Friedman, C.O. Gregory, F. James, F. Kessler, W. Prosser in the middle of the 20. Century: later on G. Calabresi, *The Costs of Accidents*, 1970. – As a recent account of „strict enterprise liability“ cf. Keating, *The Theory of Enterprise Liability and Common Law Strict Liability*, 54 *Vand. L. Rev.* 1285 (2001).

⁵⁹ As a partisan of a comprehensive social insurance scheme cf. S. Sugarman, *Doing Away with Personal Injury Law*, 1989; id., *Cal. L. Rev.*; as supporters of a private first party insurance as alternative cf. J. O'Connor, *Ending Insult to Injury. No-Fault Insurance for Products and Services*, 1975; G. Priest, *New Legal Structure of Risk Control*, 119 *Daedalus* 207 (1990). – In England P.S. Atiyah shifted from a supporter of a social insurance scheme to a partisan of a system of private first party insurance. Cf. P. Atiyah, *The Damages Lottery*, 1997.

operates in the meantime *like* an insurance system. Finally compensation of damages ends as a loss distribution by collectives (via damage division agreement between insurers). In last resort the general public pays twice – as taxpayers and as costumers of products and services. The advantage is that neither the business risk taker nor the fortuitous risk exposed victim is let alone with the damage. Maybe the US torts system is haunted by so many crises because it is farer away from this hotchpotch of insurance coverage and depersonalised responsibility than Europe.