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# Tort Liability of Suppliers of Raw Materials and Components Integrated into a Product: A Comparative Analysis of Chinese, E.U. and U.S. Law

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Abstract

The scope of this project is to investigate the tort liability rules that, in the United States, the European Union and China, apply to suppliers of raw materials and components integrated into a product for injuries caused to consumers. It is clear that, to understand and grasp the complexity of the legal issues at stake, a comparative law approach is much needed. This project aims to understand how product liability rules are applied in the three above-mentioned legal regions, as well as to highlight the factors explaining differences and commonalities between the theoretical and operational approaches characterizing each of them. As to the European Union, the project focuses primarily on England, France, Germany and Italy, which are deemed as the most representative jurisdictions of product liability rules in Europe. Overall, the project aims to show that every rule should be understood within the broader legal, economic and cultural context in which it is applied.

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## Introduction

The aim of this research project is to compare the tort liability rules that, in the United States, the European Union and China, apply to suppliers of raw materials and components integrated into a product for injuries caused to consumers. As to the European Union, since there are too many Member States in the Union to fully survey all of them, the project focuses primarily on England, France, Germany, and Italy, which are deemed to be representatives of product liability approaches in the European Union. The project chooses England, instead of the whole national systems of United Kingdom, because England is the birthplace to English common law.

Such a study naturally involves a historical presentation of the evolution of legal doctrines in product liability field in the United States, the European Union, and China. Yet, it also looks at the contemporary, substantive rules concerning tort liability of the supplier of components or raw materials that are integrated into a product. To the extent that it underlies the harmonies and disharmonies between American, European, and Chinese legal systems addressing the problem in question, the inquiry also throws some light on the circulation of American model of product liability in the European Union, and on the acceptance and resistance of the European Union (and partially of the U.S.) model in Chinese legal system. Moreover, the present work also focuses on the law in action. Recognizing that much of its focus is on the law in books, the dissertation dedicates the last chapter to the law in action concerning the lives of product liability claims against the supplier of raw materials or components.

More in particular, the three Chapters are structured as follows.

Chapter I tries to present a picture of the development of legal doctrines in relation to product liability in the United States, the European Union, and China. For such purpose, paragraph 2 surveys the legal experience in the United States, distinguishing between two different periods: U.S. litigation before the middle of the twentieth century (paragraph 2.1), and the U.S. legal

experience after the well-known decision of *Greenman v. Yuba Power Products. Inc.* in 1963 (paragraph 2.2). Paragraph 3 introduces the various European approaches that existed in England, Germany, France, and Italy prior to the transposition of the European Union Directive 85/374/EEC (or "the Product Liability Directive") (paragraphs 3.1-3.4). The Chapter then discusses whether the Product Liability Directive has achieved in providing full harmonization (paragraph 3.5) and investigates the influence of this Product Liability Directive outside the European Union (paragraph 3.6). Moving to China, paragraph 3 addresses the development of defective products liability in China and the legal borrowings from Western legal systems. The paragraph is divided into three parts: the history of product liability in China before the Product Quality Law of 1993 (paragraph 4.1), the Chinese reception of the European Union Model (paragraph 4.2), and the U.S. influence on Chinese product liability laws (paragraph 4.3).

Chapter II examines the liability rules applying to suppliers of components and raw materials integrated into a defective product in the United States, the European Union and China. In the introductory part, the Chapter briefly surveys the doctrines that govern the contractual and tort remedies that existed in different legal systems before the rise of strict liability in product liability field. It also offers a definition of the notions of 'suppliers', 'components', and 'raw materials' (paragraph 2).

The Chapter then moves on to deal with a few general liability standards that apply to the supplier of components and raw materials in the product liability field, including the definition of defectiveness, the categories of defects, the notion of recoverable damages, and the possible defenses available to the supplier. As to the definition of defectiveness, paragraph 3 first introduces the different test of defectiveness that might be used in contractual and tort actions in the legal systems under study. To this purpose, it examines several important tests that were proposed by scholars and judges in the United States, including the consumer-expectation test, the risk-utility test, the *Barker v. Lull Engineering Co.* test, the test of 'negligence without imputed knowledge', the notion of communicative tort, and the doctrine of cheapest cost avoider, as well as theories of absolute liability. Among these tests, the test consumer expectation and risk-utility tests are of primarily importance and of great comparative value, as their influences extended well beyond the U.S. Therefore, the last part of paragraph 3 discusses the reception (and also the rejection) of these two tests in the European Union and China, and explains the reasons for the aforementioned

choices. The following paragraph 4 deals with the categories of defects in the United States, in the European Union, and also in China, and discusses the tests of defectiveness that are applied to varied type of defects. Paragraph 5 focuses on damages, with particular reference to the categories of damages, to damages to persons and to property, as well as to punitive damages in the different legal systems analyzed. Finally, paragraph 6 compares in detail the defenses available in these legal systems: the development risk defense (paragraph 6.1); contributory negligence (paragraph 6.2); the respect of the relevant laws on manufacturing standards (paragraph 6.3); a large number of potential users (paragraph 6.4); the production of components and raw materials in accordance with design or specification instructed by the final producers (paragraph 6.5).

Chapter III focuses on the law in action. It traces out the factors that might affect the lives of product liability claims against the supplier of components and raw materials in the United States, the European Union, and China. The chapter adopts two lenses – those of legal pluralism, informed by the legal stratification doctrine (paragraph 1.1), and of the dispute pyramid (paragraph 1.2) – to explore notions of 'lumping' and 'claiming'. It then analyzes in detail some of the factors that may affect the lives of product liability claims against components or raw materials producers, such as lumping in a community (paragraph 3), insurance and other compensation schemes (paragraph 4), defective product recall (paragraph 5), civil procedure (paragraph 6), litigation costs and litigation funding (paragraph 7).

Conclusions ensue.

# Chapter I. A History of Product Liability Law

## 1. The Roadmap

Product liability is nowadays thought of as a subject spanning from contract, tort, consumer law, and even administrative and criminal matters[1]. This view is, however, rather modern than historical. The compensation for the harm inflicted by a defective product to a victim of the nineteenth century was not governed by the strict standards of liability we have today. In that century, the law of negligence was slowly being establishing in both England and the United States[2]; while, in continental Europe, "fault" became a dominant concept in civil liability[3], and was incorporated into the *Code Napoleon* (1804)[4], which, thereafter, spurred a codification wave in Europe and elsewhere[5].

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[1] *See* John F. Clerk, *Clerk & Lindsell on Torts*, 19th edition, Sweet & Maxwell, 2006, p.695.

[2] *See* Jerry Kirkpatrick, "Product Liability Law: From Negligence to Strict Liability in the U.S.", 30 *Business Law Review* 48 (2009), pp.48-49.

[3] *See* André Tunc, "A Codified Law of Tort – The French Experience", 39 *Louisiana Law Review* 1051 (1979), p.1055. Professor Tunc noted that the fault principle was conceived and expressed by the natural law school jurists, particularly by Domat and Grotius in the seventeenth century. After the French revolution, the principle was adopted by Code Napoleon drafters. *See* also Guido Calabresi, *Ideals, Beliefs, Attitudes, and the Law*, Syracuse University Press, 1985, p.136; John Bell and David Ibbetson, *European Legal Development: The Case of Tort*, volume 9, Cambridge University Press, 2012, pp.51-73.

[4] Articles 1382 and 1383 of Code Napoleon of 1804: "Every action of man whatsoever which occasions injury to another, binds him through whose fault it happened to reparation thereof" and "Everyone is responsible for the damage of which he is the cause, not only by his own act, but also by his negligence or by his imprudence."

[5] *See* Tamar Herzog, *A Short History of European Law*, Harvard University Press, 2018, pp.209-216; Jean-Louis Halpérin, "Codification and Modernization in Private Law", in Heikki Pihlajamäki, Markus D. Dubber and Mark Godfrey (eds.): *The Oxford Handbook of European Legal History*, Oxford University Press, 2018, pp.916-918;

The main purpose of this chapter is to present a picture of product liability history in the United States, the European Union, and China. Since the U.S. is generally considered as a leading example in product liability development, this chapter will use some U.S.-derived concepts, such as manufacture defects, failure to warn, and design defects to evaluate the developments of other laws[6]. As to the European Union, this chapter focuses primarily on England, France, Germany and Italy, which are four main representatives of product liability approaches in the region. We choose England instead of the whole national system of United Kingdom because England is the birthplace to English common law. As for other parts of United Kingdom, Wales and Northern Ireland largely follows English law, while Scottish law has a strong civil law tradition, and the "main reception of English law didn't occur until the nineteenth century"[7]. As for China, the country has referred to the European Union and the U.S. product liability law models for its legislation and judicial practice in the last three decades. In all these regions, one cannot ignore the remarkable contribution of judges and of scholars in creating and shaping both the theories and practices of product liability laws.

The chapter will first introduce liability regime for defective products in the United States, highlighting the legal precedents that have played a significant role in establishing, as well as abolishing, common law doctrines in the product liability field. The chapter will then introduce the various approaches adopted in Europe, both before and after the harmonization process initiated by the Directive 85/374/EEC[8]. In addition, it will investigate the influence of European

Salvatore Riccobono, *Roma Madre delle leggi*, Palumbo, 1954, pp.49-53; Paolo Grossi, *L'Europa del diritto*, Editori Laterza, 2016, pp.135-154 (where the author describes the codification wave after the Napoleon Code of 1804 in Europe).

[6] *See* Franz Werro & Eric Mittereder, "Products Liability in the European Union: A Story of Unity or Plurality", in Mauro Bussani and Franz Werro (eds.): *European Private Law: A Handbook*, volume II, Stämpli Publishers, Carolina Academic Press, 2014, p.146.

[7] *See* Kenneth Reid and Reinhard Zimmerman, "The Development of Legal Doctrine in a Mixed System", in Reinhard Zimmerman and Kenneth Raid (eds.): *A History of Private Law in Scotland*, volume 1, Oxford University Press, 2000 p.10; Alan Watson, *Legal Transplants: An Approach to Comparative Law*, 2nd edition, University of Georgia Press, 1993, pp.36-56.

[8] On 25 July 1985, the European Economic Community Council issued the Directive 85/374/EEC on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products, OJ L 210, 7.8.1985, pp.29–33. It is worthy to note that, France, Italy, and West Germany joined

model of product liability outside the European Union. Finally, the chapter will describe Chinese product liability law before and after the Product Quality Law of 1993[9]. While recognizing that China is importing rules from the European Union and also the U.S., this chapter will tickle out some distinct characteristics of Chinese product liability law that transplant from the U.S. or the European Union laws[10].

## 2. Liability Regime for Defective Products in the United States

The U.S. position on defective product exhibits a transition from contract to tort based on negligence, and then to the strict liability[11]. To present a story of such transition, we have to begin with warranty in the sales of commercially supplied goods. Warranty, in modern legal usage, is a term that affects some relatively minor or subsidiary aspect of the subject matter of the contract. Breach of warranty gives rise to a right to claim damages, but not, in general, to a right to rescind the contract[12]. The use of the word "warranty" in this sense is reserved for the less important terms of a contract, or those which are collateral to the main purpose of the contract, the breach of which by one party does not entitle the other to treat his obligation as discharged.

In the mid-nineteenth century, against the background of rising litigations on matters of industrial goods caused harm, common law judges were divided in their opinions about warranty. Judges did not reach upon a consensus upon the modern fact that warranty can be expressed or implied. There were judges who stick with the principle of "*caveat emptor* (let the buyer aware)", according to which it is up to buyer bear the risk of defects in absence of expressed warranty; and there were

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the Community in 1957 by acceding to the Treaty establishing the European Economic Community (also known as "Treaty of Rome"), while United Kingdom joined the Community in 1972, and East Germany become part of the Community after Germany unification in 1990.

[9] The Chinese Product Quality Law of 1993 is a reception of European model of product liability system in China. The law was modified in 2000, and 2009.

[10] For the topic of legal transplants, *see* Alan Watson, *Legal Transplants*, pp.21-35.

[11] *See* Leon Green et al, *Torts: Cases and Materials*, 2nd edition, West Publishing Co., 1977, p.256.

[12] *See* Guenter H. Treitel, *An Outline of the Law of Contract*, 6th edition, Oxford University Press, 2004, p.327; *see* Hugh G. Beale, *Chitty on contracts*. *General Principles*, 28th edition, Sweet & Maxwell, 1999, p.597.

judges who constructed "implied" warranty for merchantability and fitness for purpose to protect the buyer[13]. It was the latter interventionist approach which eventually dominated the wave, as it was formally recognized in the S.14. Sale of Goods Act 1893 in England, and also in § 15(1) and (2) of the Uniform Sales Act of 1906[14] in U.S, which was in fact based upon the former act. Both Acts embraced the implied warranty for the merchantability of quality and for the fitness of goods for particular purpose. In other words, both of the common law countries have adopted "implied warranty" in their legal systems, and followed a similar path in the nineteenth century as well as in the beginning of twentieth century.

Apart from warranty doctrine, the notion of contract privity was equally a barrier to the buyer's claim against manufacturer, and to the bystander's claim against the seller and the manufacturer. Since the nineteenth century, product liability developments in the U.S. have focused on breaking away with the privity doctrine. Privity is a principle of contract law, according to which a valid agreement only creates rights and duties between the parties to it. The privity doctrine is like a coin with two sides: on the one side, it avoids that the parties to a contract impose duties on a third party; on the other side, it does not protect the third party who is injured by a breach of contract to which he is not a party[15].

An implication of the privity doctrine in the nineteenth century was that manufacturers of defective products were exempted from (contractual and tortious) liability vis-à-vis the ultimate users of his product because there is no contract between them. Further, in the nineteenth century, it was generally believed that it would be burdensome for manufacturers and sellers to hold them responsible to consumers (include bystanders) whom are distant, and unknown to them[16]. From the end of the nineteenth century, however, this understanding of the privity doctrine was received with growing criticism. Reasons underlying this criticism were that the social philosophy of U.S.

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[13] *See* the case-law mentioned by Jane Stapleton, *Product Liability*, Butterworths, 1994, pp.10-11. Such is the story in both England and the United States.

[14] The Uniform Sales Act was an early attempt to unify U.S. sales law. It was drafted by Professor Samuel Williston in 1906. The act was adopted in 34 states by 1947. Its full text is accessible at http://source.gosupra.com/docs/statute/221.

[15] *See* Richard A. Epstein, "Rebuilding the Citadel: Privity, Causation and Freedom of Contract", in M. Staurt Madden (ed.): *Exploring tort law*, Cambridge University Press, 2005, pp.230-232.

[16] *See* William L. Prosser, *Handbook of the Law of Torts*, West Publishing Co., 1941, p.674.

was more and more oriented in recognizing that the doctrine did violence to the fact that intermediate sellers are merely a conduit of the product, and that either manufacturers or sellers dealt with goods that could possibly do harm to another person[17].

Against the growing perception that the privity doctrine has caused injustice to consumers, the doctrine experienced a series of attacks from court decisions, starting from the major landmark decision in the case *Macpherson v. Buick Automobile Co.*[18] in 1916. The U.S., eventually, developed a broad negligence-based liability for defective products to a complete system of strict liability for defective products in 1960s[19].

## 2.1 Litigating in the U.S. before the Middle of Twentieth Century

Before 1850, a person who was injured by a product would have had a tough road to get recovery from the product manufacturer, the supplier of raw materials, and the manufacturer of the product's components[20]. The key English case *Winterbottom v Wright*[21] of 1842, which embraced a non-liability rule, had a great influence in the United States. In this case, a mail-coachman who was hurt by a defective coach, was refused to maintain an action against the defendant. The defendant was not the manufacturer of the coach, but rather a repairman who was hired by the postmaster general to keep the coach in good condition. The court reasoned that the defendant only owned a duty of care to the postmaster general with whom he had a contract. Lord Abinger, in giving the court's opinion, feared that establishing a tort duty in favor of the mail-coachman would have ensued "the most absurd and outrageous consequences"[22] that have no limit.

In 1852, the decision by the New York Court of Appeals in *Thomas v Winchester*[23] provided exceptions to the non-liability rule set by the *Winterbottom* case. Mrs. Thomas's physician

[17] *See* William L. Prosser, *Handbook of the Law of Torts*, p.674.

[18] 217 N.Y.382 (1916).

[19] *See* Alastair M. Clark, *Product Liability*, Sweet & Maxwell, 1989, pp.13-24.

[20] *See* Richard A. Epstein, *Simple Rules for a Complex World*, Harvard University Press, 1995, pp.215-216.

[21] 10 Mees. & Welsb. 109 (1842).

[22] 10 Mees. & Welsb. 109 (1842), at 114.

[23] 6 N.Y.397 (1852).

prescribed her a dose of dandelion for her illness. The producer of dandelion employed Gilbert to label medicine, who however had mislabeled a deadly poison – belladonna – as dandelion. Mrs. Thomas's husband bought the mislabeled medicine from a drug dealer, under the belief that it was dandelion; Mrs. Thomas took the drug and was greatly injured. She then brought an action against the producer Winchester, and his agent Gilbert based upon negligence. Judge Ruggles differentiated the case from *Winterbottom v Wright*. He opined that, in opposition to the *Winterbottom* case, where the defendant's negligence in keeping the coach in good condition was not an act imminently dangerous to human life, the case before him involved a defendant whose negligence has put human life in imminent danger, and that therefore liability must be imposed.

In *Loop v Litchfield*[24], a subsequent decision by the same court, Judge Hunt held that the manufacturer was not liable for the defect of a balanced wheel that caused the plaintiff (Mr. Loop)'s death, because the wheel was not, in itself, an instrument of danger. In *Torgesen v Schultz*[25], the plaintiff suffered the loss of an eye because of the explosion of a siphon bottle of aerated water. The court restated the doctrine enshrined in *Thomas v. Winchester* and other similar cases. The defendant is held liable, "based upon the duty of the vendor of an article dangerous in its nature, or likely to become so in the ordinary usage to be contemplated by the vendor, either to exercise due care to warn users of the danger or to take reasonable care to prevent the article sold from proving dangerous when subjected only to common usage"[26]. Later, in *Staler v Ray Manufacturing Co*.[27], an exploding coffee urn was held to be liable to become a source of great danger if not carefully and properly constructed.

Since the *Winchester* case, the courts gradually allowed the plaintiff to sue the manufactures whenever the product was "inherently dangerous", or if the product was "imminently dangerous" because it was defectively made and was sold to the plaintiff "with a knowledge and a concealment of its dangerous condition"[28].

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[24] 42 N.Y.351 (1870).

[25] 84 N.E.956 (1908).

[26] 84 N.E.956 (1908), at 957.

[27] 88 N.E.1063 (1909).

[28] *See* Richard A. Epstein, *Simple Rules for a Complex World*, p.219. Also *see Huset v. J.I. Case Threshing Mach. Co.*, 120 F.865 (8th Cir. 1903), at 873. The *Huset* decision sustained the general rule that a manufacturer's liability is

Sixty-four years after the *Winchester* case, the decision in *MacPherson v Buick Motor Co.*[29] established tort liability for defective products on a general basis of negligence. The facts underlying the case were the following. MacPherson bought an automobile from a retail dealer. He was then injured in a car accident caused by the defects of a wood component of the wheel that Buick Motor Corporation bought from another manufacturer. Judge Cardozo identified the issue at stake as to whether the defendant Buick Motor Corporation had a duty of care to the plaintiff rather than to the immediate purchaser of the car only. Judge Cardozo held Buick Motor Corporation liable for the plaintiff's personal injury. Moreover, Judge Cardozo extended the doctrine under *Thomas v Winchester* by asserting that a thing of danger "is not limited to poisons, explosives, and things of like nature, to things which in their normal operation are implements of destruction", but rather "is such that it is reasonably certain to place life and limb in peril when [the thing is] negligently made"[30]. Judge Cardozo's extension of the doctrine reflected his view that a legal principle is not only directed by the force of logical progression through analogy or philosophical method, but also by the force of historical development, community customs, and also "the lines of justice, morals and social welfare"[31].

Before *MacPherson*, the manufacturer's liability was premised upon the fact that the product was "imminently dangerous"[32]. After the decision, a new doctrine – the so-called "*MacPherson Doctrine*" – emerged. As tort law scholar William L. Prosser commented, *MacPherson* was a successful assault at the "citadel of privity"[33] in product liability field. Not all U.S. courts accepted the "*MacPherson Doctrine*" at start, but the decision steadily swept the country, and opened the courthouses' doors to a growing number of cases involving harm caused by defective products[34].

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limited to the party with whom he has contract. However, the third party could sue the manufacturer if the latter conceals a known defect, and the defective product has imminent danger to its purchaser.

[29] 217 N.Y.382 (1916).

[30] 217 N.Y.382 (1916), at 389.

[31] *See* Benjamin N. Cardozo, "The Nature of Judicial Process: Lecture I: Introduction. The Method of Philosophy", 1 *Journal of Law* 329 (2011), p.339. The article was first published in 1921.

[32] *See* Edward G. White, *Tort Law in America*, expanded edition, Oxford University Press, 2003, p.120.

[33] *See* Willian L. Prosser, "The Assault upon the Citadel (Strict Liability to the Consumer)", 69 *Yale Law Journal* 1099 (1960).

[34] *See* Leon Green et al, *Torts: Cases and Materials*, pp.260-261.

However, there still existed many hurdles for the transition from the negligence-based liability of defective products to strict liability. Under the "*MacPherson Doctrine*", a plaintiff still had to establish a duty of care in negligence, to some extent escape the quandaries of the privity, and (as we will better see in the next paragraph) overcome limitations posed by the laws of warranty. The tort of negligence generally requires an existence of a duty of care, the breach of the duty of care, and the damage, as well as a causal connection between the defendant's careless conduct and the damage[35]. William L. Prosser defines "negligence" as conduct falls below a standard established by the law for the protection of others against reasonable risk of harm[36]. While, the standard is an external one that based upon the social demands of an individual, rather than upon his own notions of what is proper[37].

The breakthrough came with *Escola v Coca Cola Bottling Co.*[38], a case decided by the Supreme Court of California in 1944. The plaintiff Escola, a waitress in a restaurant, was injured by a bottle of Coca Cola broke in her hand. The jury in the trial court offered a verdict in favor of her, which found the defendant negligent based upon the doctrine of "*res ipsa loquitur*" (the thing speaks for itself)[39]. The defendant appealed. The Supreme Court of California affirmed the trial court's judgment. The decision became well known, however, not because it minorly clarified application

[35] *See* John F. Clerk, *Clerk & Lindsell on Torts*, p.383.

[36] *See* William L. Prosser, *Handbook of the Law of Torts*, p.220.

[37] *See* Oliver Wendell Holmes, "The Common Law" in Richard A. Posner (ed.): *The Essential Holmes: Selections from the letters, speeches, judicial opinions, and other writings of Oliver Wendell Holmes*, Chicago University Press, 1996, p.257.

[38] 24 Cal.2d 453 (1944).

[39] The "*res ipsa loquitur*" doctrine origins from the judgment of Erle C.J. in *Scott v London and St. Katherine Docks*, 3 H.&C. 596, 601 (1865). It represents a rule of evidence rather than principle of law. The doctrine allows a claimant to create a rebuttable assumption merely through the description of his injury, without having to allege and prove any specific act or omission on the part of defendant. Also *see* William L. Prosser, "Res Ipsa Loquitur - Collisions of Carriers with Other Vehicles", 2 *Current Legal Thought* 751 (1936), pp.751-752. Prosser concluded Dean Wigmore's three requirements for the application of Res Ipsa Loquitur doctrine: (1) the plaintiff must have been injured by an apparatus or instrumentality which was under the exclusive control of the defendant, as to both inspection and operation. (2) The nature of the instrumentality must be such that injury is not ordinarily to be expected from it in the absence of negligence. (3) The injurious occurrence or condition must not have been due to any voluntary action on the part of the plaintiff.

of "*res ipsa loquitur*" doctrine but thanks to Judge Traynor's concurring opinion. Judge Traynor was a strong proponent for strict liability in products-related harms. In his concurring judgment, he wrote that, "[e]ven if there is no negligence, however, public policy demands that responsibility be fixed wherever it will most effectively reduce the hazards of life and health inherent in defective products that reach the market"[40]. Although "*res ipsa loquitur*" is strict liability in clothing[41], it is hard to use this doctrine to infer that the wholesaler or the retailer or other sellers in the supply chain is negligent, because they are under no duty to examine the goods, nor to inspect them[42].

## 2.2 The U.S. Experience after *Greenman v. Yuba Power Products, Inc.*

Since the 1950s, many courts started to apply warranty claims to manufacturers of defective products[43]. Generally, there are three main reasons to deny pretenses based on warranties in product liability claims: the absence of privity of contract; the likely failure by the plaintiff to notify the seller of the breach; and contractual disclaimers provided in the contract between the producer and the seller[44].

The first decision to repudiate privity defenses for a warranty claim was *Henningsen v Bloomfield Motors Company, Inc.*[45] in 1960. Mr. Henningsen bought a new car from a dealer, Bloomfield Motors. The car was manufactured by Chrysler Corporation (the defendant), and had a steering defect. Mr. Henningsen's wife was injured when the car became out of control and crashed. Mrs. Henningsen had no privity either with the dealer or the manufacturer. The court found this was not an issue in the case, because privity was no longer a valid doctrine. The defendant claimed that Mr. Henningsen had signed an express warranty when he purchased the car, essentially disclaiming the manufacturer's responsibility for defective parts. But the court struck the clause down as

[40] 24 Cal.2d 453 (1944), at 463.

[41] *See* Charles O. Gregory, "Trespass to Negligence to Absolute Liability", 37 *Virginia Law Review* 359 (1951), p.383.

[42] *See* William L. Prosser, "The Assault upon the Citadel (Strict Liability to the Consumer)", pp.1117-1118.

[43] *See* David G. Owen, *Products Liability in a Nutshell*, 9th edition, West Academic Publishing, 2015, pp.10-11; *see*, for example, *Trust v. Arden Farms Co.*, 50 Cal.2d 217 (1958).

[44] *See* David G. Owen, *Products Liability in a Nutshell*, pp.91-111.

[45] 32 N.J. 358 (1960).

"inimical to the public good"[46], and held both the dealer and manufacturer liable to Mrs. Henningsen, claiming that "the burden of losses consequent upon use of defective articles [must be] borne by those who are in a position to either control the danger or make an equitable distribution of the losses when they do occur"[47].

As a result, the decision allowed an injured user of an automobile to recover against the manufacturer for a defective steering gear, although the user was not even the purchaser of the product. The case marked the complete fall of citadel – privity of contract[48]. Other subsequent cases allowed the plaintiffs to sue the manufacturers despite the privity of contract. For example, in another often-cited decision – *Goldberg v Kollsman Instrument Corp.*[49], the court allowed the beneficiary of a person killed in an airplane crash to proceed against the airline manufacturer who had assembled a plane with the defective altimeter that caused the accident. In *Goldberg*, the daughter of the deceased sued the defendant airline company, as well as the companies that manufactured the plane itself and the plane's altimeter. The court held that the aircraft manufacturers were liable for breach of the law-implied warranties when an article he made "was likely to be a source of danger if not properly designed and fashioned", irrespective of "the privity with an injured party or parties, so long as that party's use of the article was reasonably contemplated"[50]. The court, however, dismissed the claim against the altimeter manufacturer, as it did not deem it necessary to extend the above rule to component part manufacturers, as the liability in airplane manufacturer already provides adequate protection.

Three years after *Henningsen*, in *Greenman v Yuba Power Products, Inc.*[51], the plaintiff sued the defendant for breach of warranty. The Supreme Court of California decided in favor of a person injured by a defective power tool, and found the manufacturer strict liable irrespective of any contractual limitations. In giving the unanimous opinion of the court, Judge Traynor stated that, "[a] manufacturer is strictly liable in tort when an article he places on the market, knowing that it

[46] 32 N.J.358 (1960), at 404.

[47] 32 N.J. 358 (1960), at 379.

[48] *See* William L. Prosser, "The Fall of Citadel (Strict Liability to the Consumer)", 50 *Minnesota Law Review* 791 (1966).

[49] 12 N.Y.2d 432 (1963).

[50] 12 N.Y. 2d 432 (1963), at 436.

[51] 377 P.2d 897 (Cal.1963).

is to be used without inspection for defects, proves to have a defect that causes injury to human being"[52]. Judge Traynor also rejected the manufacturer (the defendant)'s defense that the plaintiff failed to notify the seller for the breach of warranty within a reasonable time, and therefore, the cause of action shall be barred by § 1769 of the Civil Code of California[53]. In his words, "[t]he notice requirement of section 1769, however, is not an appropriate one for the court to adopt in actions by injured consumers against manufacturers with whom they have no dealt"[54].

The case *Greenman v. Yuba Power Products, Inc.* is a touchstone for strict product liability. Judge Traynor clearly exposed the rationale for strict product liability, which is based upon the assumption that injured consumers are powerless to protect themselves, while the manufacturer knows his product[55]. This assumption does not come from nowhere. Since the beginning of the twentieth century, the distribution process of goods from manufacturers to the consumers, as well as the production process of goods became more complex, and less transparent than before[56], all these making it more difficult for consumers to gain information about the safety of products. In addition, insurance coverage for the manufacturer of a product has become common. These developments implied an expansion of strict liability for the defective products[57].

Between the 1950s and the 1960s, most leading U.S. academic scholars advocated a wider use of the tort liability system in defective product litigation[58]. Judges like Traynor worked to craft new

[52] 377 P.2d 897 (Cal.1963), at 900.

[53] § 1769 of the Civil Code of California provides that, "[i]n the absence of express or implied agreement of the parties, acceptance of the goods by the buyer shall not discharge the seller from liability in damages or other legal remedy for breach of any promise or warranty in the contract to sell or the sale. But if, after acceptance of the goods, the buyer fails to give notice to the seller of the breach of any promise or warranty within a reasonable time after the buyer knows, or ought to know of such breach, the seller shall not be liable thereof".

[54] 377 P.2d 897 (Cal.1963), at 900.

[55] *See* Edward G. White, *Tort Law in America*, pp.202-203.

[56] *See* Robert L. Rabin, "The Legacy of Five Landmarks in Tort Law", in M. Staurt Madden (ed.): *Exploring tort law*, Cambridge University Press, 2005, p.56.

[57] *See* Richard A. Epstein, *Simple Rules for a Complex World*, p.227.

[58] *See* William L. Prosser, "The Assault upon the Citadel (Strict Liability to the Consumer)"; "The Fall of Citadel (Strict Liability to the Consumer)"; *see* also James Jr. Fleming, "General Products – Should Manufacturers Be Liable without Negligence?" 24 *Tennessee Law Review* 923 (1957); George L. Priest, "The Invention of Enterprise Liability: A Critical History of the Intellectual Foundations of Modern Tort Law", 14 *Journal of Legal Studies* 461 (1985).

rules with the purpose of broadening recovery for the victims of defective products. In 1965, such developments were enshrined in § 402 A of the Restatement (Second) of torts published by the American Law Institute. § 402 A of the Restatement (Second) of torts summarized the rules of strict product liability elucidated in *Greenman* decision[59], and determined the rise of strict product liability in the United States.

§ 402 A of the Restatement (Second) of Torts sets forth products liability for "any product in a defective condition unreasonably dangerous", a definition that embraces the so-called "consumer expectation" test. The test relies upon the reasonable character of an ordinary consumer, and mandates that a product is dangerous if it lacks the safety that an ordinary consumer is entitled to expect. The consumer expectation test has a root upon warranty laws.

One of the fundamental pillar of contract law is the protection of reasonable expectations of the contracting parties. Warranty law is based upon a manufacturer's explicit and implicit representations to consumers in product sales transactions, and the law protects expectations reasonably generated by such representations. In addition, because expectation protection is a fundamental value of tort law as well, this was the natural liability test for the new tort doctrine.

The consumer expectation test is an objective test. Since the test relies upon the notion of a "reasonable" consumer, the test has proven to be unsatisfactory, especially when dealing with defective products designs[60]. One of the reasons is that the difficulty of identifying whose expectations should be protected, especially in those cases when the victim's safety is protected by others[61]. The victim can be a child, a patient, an employee, and a bystander. The issue is whether

[59] § 402 A of Restatement (Second) of Torts (1965) states that:

"(1) One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer, or to his property, if (a) the seller is engaged in the business of selling such a product, and (b) it is expected to and does reach the user or consumer without substantial change in the condition in which it is sold.

(2) The rule stated in Subsection (1) applies although (a) the seller has exercised all possible care in the preparation and sale of his product, and (b) the user or consumer has not bought the product from or entered into any contractual relation with the seller".

[60] *See* James A. Henderson, Jr. and Aron D. Twerski, "What Europe, Japan and Other Countries Can Learn from the New American Restatement of Product Liability", 34 *Texas International Law Journal* 1 (1999), p.3.

[61] *See* David G. Owen, *Products Liability in a Nutshell*, p.160.

the victim's expectation should govern, or the expectation of his patron (s) should govern[62]. Courts usually take the expectation of those who can control the risks' expectation. Another reason is that, consumers usually have no expectations regarding the dangerous characteristics of a product design, or the alternative designs[63]. If a consumer is presumed to have expectation of the danger of a product design, the "obvious danger" rule will apply, because it is the consumer bought what he paid for, therefore excludes the recovery for a claimant.

By the 1970s, U.S. courts have begun to differentiate more sharply among manufacturing, design, and warning defects, and apply doctrines that borrowed from negligence theories to the latter two categories of defects[64]. Since the 1980s, the product liability development in the U.S. has changed its course and has moved towards limiting the rights of victims[65]. This is clear not only in the shift from strict to negligence liability, but also in the decisions reducing punitive damage awards[66], limiting retailers' liability[67], and expanding the defenses for product manufacturers[68].

In 1998, American Law Institute provided the Restatement (Third) of Torts: Products Liability. The new Restatement abandoned the consumer expectation test of defectiveness adopted by § 402

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[62] In the purchaser-bystander situation, because the bystander's expectation is vague, court usually adopts the expectation of purchasers, because the purchasers can best evaluate and control the risks. *See*, for example, *Bellotte v. Zayre Corp.*, 352 A.2d 723 (1976) (a five-year-old child was burned because his cotton pajama top ignited while he was playing with his matches. Whether the pajama was dangerous should not be contemplated by the child, as he lacked the legal capacity to contemplate dangers in any cotton fabric. Instead, it should have been contemplated by the parents who purchased the pajama for him).

[63] *See* Alistair M. Claik, *Product Liability*, p.160.

[64] *See* the Restatement (Third) of Torts: Products Liability § 2 (a) – (c) (1998). The Restatement (Third) of Torts drafters treated the law of defectively designed products, and products deemed defective because of inadequate warning, as governed by negligence principles. On this point, see also infra in the text.

[65] *See* David G. Owen, *Products Liability in a Nutshell*, p.12.

[66] *See*, for example, *Grimshaw v Ford Motor Company* (or "the Pinto case"), 119 Cal. App.3d 757 (1981), where the plaintiff suffered burns to 90 percent of his body because a design defect in his Pinto car. At the trial level, the jury awarded him with punitive damages of $125 million, but the sum was later reduced to $3.5 million on appeal. *See* also *BMW of North America, Inc v Gore*, 116 S. Ct. 1589 (1996), in which the U.S. Supreme Court used the Eighth amendment of the Constitution to limit punitive damages awards.

[67] *See* David G. Owen, *Products Liability in a Nutshell*, pp.13-15.

[68] *See* 62 A Am. Jur. 2d Product Liability § 1192-§ 1201, listing a series of defenses, such as assumption of risk, misuse of the product, alteration or modification of the product, state of art, etc.

A of the Restatement (Second) of Tort. In addition, it established a tripartition of categories of defectiveness: defects in manufacturing, defects in design and defects because of inadequate instructions or warnings. Further, § 2 (b) of the new Restatement adopted a risk-utility test in design defects[69]. The test requires comparing the risk-utility of the design chosen for the product with those of a possible alternative design. The rationale for this risk-utility test is very much the same as the one underlying the "Hand formula"[70], which embodies potential negligence elements. § 2 (c) deals with defects resulted from failure to warn[71]. It adopts a test of 'adequacy' for the instructions or warning, in respect to reasonable safety of a product. However, for the manufacturing defects, strict liability in tort, and the consumer expectation test, remain the preferred basis of recovery in manufacturer[72].

Today, product liability law has become much more complex in the U.S., as a result of judicial decisions and proliferated statutes as well as safety regulations at both the state and federal level[73].

[69] *See* the Restatement (Third) of Torts: Product Liability § 2 (b): "[A product] is defective in design when the foreseeable risks of harm posed by the product could have been reduced or avoided by the adoption of a reasonable alternative design by the seller or other distributor, or a predecessor in the commercial chain of distribution, and the omission of the alternative design renders the product not reasonably safe".

[70] *See United States v Carroll Towing Co*., 159 F.2d 169 (2d Cir.1947). Judge Hand's opinion then became widely renowned as the "Hand formula". The formula aims to evaluate the relation between the cost of precautionary measures (B), the probability of loss if measures are not taken (P), and the expected loss (L). In the case that $B < PL$, the producer's failure to take precautionary measures implies negligence.

[71] *See* the Restatement (Third) of Torts: Product Liability § 2 (c): "[A product] is defective because of inadequate instructions or warnings when the foreseeable risks of harm posed by the product could have been reduced or avoided by the provision of reasonable instructions or warnings by the seller or other distributor, or a predecessor in the commercial chain of distribution, and the omission of the instructions or warnings renders the product not reasonably safe".

[72] *See* David G. Owen, *Products Liability in a Nutshell*, p.230.

[73] *See* David G. Owen, *Products Liability in a Nutshell*, pp.13-15; *see*, for example, The Washington Products Liability Act (WPLA) of 1981, that created a single cause of action for product-related harms, and thereafter, preempted the common law theories of negligence in product liability claims. *See* also 15 USCS§ 2056, containing the federal statutes on consumer product safety standards.

## 3. The Variety of European Approaches

Moving our view towards Europe, we soon discover a seemingly divergent pattern of product liability development in England, France, Germany, and Italy. To present a simple sketch before the implementation of the Directive 85/374/EEC, English court challenged in 1932 the privity doctrine in the iconic case *Donoghue v Stevenson*[74], but they kept on embracing the doctrine until the 1960s. Germany started its special product liability law with the famous *Hühnerpes*t case of 1968[75], set its product liability regime based upon the tort, and use the reversal of burden of proof as a mechanism to find the manufacturers liable for defective products caused harm. In France, in the early 1930s, the French Court of Cassation already decided some cases in favor of the third party victims in sales contract, as it found the seller of defective products could be negligent since he is a professional dealer[76]. As for Italy, Italian courts started to find the manufacturer liable through a logic presumption of fault from the *Saiwa* case in 1964[77]. We shall bear in mind that all these continental European countries shared a Roman legal legacy in their legal tradition[78]. By

[74] *See* [1932] AC 562. Strictly speaking, *Donoghue v Stevenson* is a Scotland case, yet English law and Scots law are identical on the subject.

[75] *See* BGHZ 91, 53 (chicken pest). *See* also Ulrich Magnus, "Product Liability in Germany", in Piotr Machnikowski (ed.): *European Product Liability: An Analysis of the State of the Art in the Era of New Technologies*, Intersentia, 2016.

[76] *See* Cass. civ., 22 July 1931, *Gaz.Pal.*1931, 2, 683; Cass.req., 8 March 1937, S.1937, 1, 241, rapp. Pilon, D. 1938, 1, 76, note René Savatier, as reported by Jean-Sébastien Borghetti, "Product Liability in France", in Piotr Machnikowski (ed.): *European Product Liability. An Analysis of the State of the Art in the Era of New Technologies*, Intersentia, 2016, p.207.

[77] *See* Cass., 25 May 1964, n. 1270, in *Foro it.*, 1965, I, 2098.

[78] *See* Gianni Santucci, *Diritto romano e diritti europei: Continuità e discontinuità nelle figure giuridiche*, 2nd edition, il Mulino, 2010, pp.11-20 (the author introduces the fact the Roman law once was "*ius commune*" in legal practice and university education until the end of eighteenth century. National codifications such as the Prussian Civil Code, the Code Napoléon, the Austrian Civil Code, all received a good deal of influence from Roman law principles and legal categories); also *see* David Ibbetson, "English Law and the European Ius Commune 1450-1650", 8 *Cambridge Yearbook of European Legal Studies* 115 (2005), p.126.

contrast, England, although it shared similarities with *ius commune*, gradually differentiates itself from continental Europe[79].

The Directive 85/374/EEC aimed to uniform the laws in relation to product liability in these legal systems, yet whether a complete harmonization is realized remains to be a question worth discussing. In this part, first we will try to show the historical patterns of product liability development in the four European legal systems prior to their transposition of the Directive 85/374/EEC; then we will introduce the Directive 85/374/EEC's historical background, purpose and characteristics; last, we will discuss the reception and harmonization of this Directive in four legal systems – England, Germany, France and Italy.

## 3.1 England

The story of product liability in England could be separate into three phases: pre-*Donoghue v Stevenson*; after *Donoghue v Stevenson*; and after the transposition of the Directive 85/374 in 1987. Before *Donoghue v Stevenson*, recoveries for physical losses in product liability litigations were often barred by the privity doctrine[80]. The *Donoghue v Stevenson* case provided the basis for liability in negligence for harm caused by defective products. Then, by 1980s, liability in negligence and liability in contract in England was supplemented by a strict liability regime under part I of the Consumer Protection Act 1987, introduced as a result by the Directive 85/374 to harmonize the Member States laws. Other laws (such as the Employer's Equipment Act 1969 and Vaccine Damage Payment Act 1979) dealt with specific cases and situations related to defective

[79] *See* Tamar Herzog, *A Short History of European Law*, pp.93-115 (the author opines that the English Common Law, although is not the same as *Ius Commune*, is a sibling of the latter). There is another view that English law is not built on the foundations of Roman law, and is uniquely exceptional compared to the continental European Law. For this view, *see* Reinhard Zimmermann, *The Law of Obligations: Roman Foundations of the Civilian Tradition*, Clarendon Press, 1996, pp.1-33; Konrad Zweigert and Hein Kötz, *Introduction to Comparative Law*, 3rd edition (Tony Weir *translated*), Clarendon Press, 1998, pp.181-183; Ruben De Graaf, "Concurrent Claims in Contract and Tort: A Comparative Perspective", 4 *European Review of Private Law* 701 (2017), p.720.

[80] *See* Donal Nolan and John Davies, "Tort and Equitable Wrongs", in Andrew Burrows (ed.): *English Private Law*, 3rd edition, Oxford University Press, 2013, p.996.

products: the former stipulate a vicarious liability for employers, in case that workers are injured by defective equipment where the defects is due to the negligence of someone other than the employer; and the latter provides those who suffered severe disablement as a result of vaccination with fixed-sum payments.

### 3.1.1 Pre - *Donoghue v Stevenson*

In England, before the *Donoghue* case of 1932, the manufacturers of dangerous products were not recognized as owning a duty of care to the final users of their products. In other words, they were not liable for the harm caused to final users by defective products. A classical illustration of this non-liability rule is the decision *Winterbottom v Wright* which we have discussed earlier.

This general rule was accepted in subsequent cases[81] during the nineteenth century, and also in the early twentieth century. In *Heaven v Pender*[82] of 1883, the plaintiff Heaven was a workman employed by Grey who was a ship painter. Grey contracted with a ship owner to paint the outside of his ship. The ship owner whose ship was in the defendant's dock, has a contract with the defendant, as to supply an ordinary stage that to be slung outside the ship for the purpose of painting. The ropes by which the stage was slung, which were supplied as a part of the instrument by the defendant, had been scorched and were unfit for use, and were supplied without a reasonably careful attention to their condition. When the plaintiff began to use the stage the ropes broke, the stage fell, and the plaintiff was injured. The Divisional Court held that the plaintiff could not recover against the defendant. The plaintiff appealed. The Court of Appeal ruled that the defendant has an obligation to the plaintiff to use ordinary care and skill in suppling a safe staging.

In looking into the case, Sir William Brett opined that the issue of this case is whether the defendant owns a duty of care to the plaintiff. He put that, "[w]henever one person is by circumstances placed in such a position with regard to another that anyone of ordinary sense who did think would at once recognize that, if he did not use ordinary care and skill in his own conduct with regard to

[81] *See Longmeid v Holliday* (1851) 6 Exch 761; *George v Skivington* (1869) LR 5 Ex; *Bates v Batey* [1913] 3 KB 35. These cases unanimously reject recovery for plaintiffs who were harmed by defective products.

[82] *See* [1883] 11 QBD 503.

those circumstances, he would cause danger of injury to the person or property of the other, a duty arises to use ordinary care and skill to avoid such danger"[83].

Sir William Brett's judgment was an attempt to formulate a generalization of the duty of care[84], but he failed to persuade other Masters of Rolls to find the same. Nevertheless, this generalization foreshadowed the application of the law of negligence in defective product-related harm, since the liability was made dependent upon the conduct of the defendant, and the defendant's culpability in creating a danger of injury to the person or property. However, it is argued that the facts of this case were much closer to occupier's liability than to the manufacturer liability, since the defendant did not manufacture the defected rope, nor did he supply the rope for business purposes to the victim[85]. Rather, he was an occupier who owed a duty of care to make sure that visitors were reasonably safe in using the premises for the purposes for which they were invited or permitted by the occupier to be there[86].

The *Heaven v Pender* decision did not overturn the general rule of no-liability for manufacturer. In *Bostock & Co Ltd v Nicholson & Sons Ltd.*[87] of 1904, Judge Bruce J reiterated this general rule of no-liability, and stated that "[n]o liability is incurred in the ordinary case of a separate and distinct collateral contract with third person uncommunicated to the original contractor or wrongdoer, although the non-performance of this contract may in one sense have resulted from the original wrongful act or breach of contract"[88].

In *Earl v Lubbock*[89] of 1905, the plaintiff was injured when a wheel came off a van he was driving; the defendant had a contract with the plaintiff's employer to keep his fleet of vans in repair, and it was alleged that his employee has either negligently serviced the van or negligently failed to inspect the van to see what repairs were needed. However, the court found that the van with its

[83] *See* [1883] 11 QBD 503, at 509.

[84] *See* David Ibbetson, *A Historical Introduction to the Law of Obligations*, Oxford University Press, 2001, p.189.

[85] *See* John F. Clerk, *Clerk & Lindsell on Torts*, p.699.

[86] S.2 (1), (2), Occupiers Liability Act (U.K.) 1957. This Act merely deals with visitors. The duty that an occupier owes to persons other than his visitors, is governed by Occupiers Liability Act (U.K.) 1984.

[87] [1904] 1 KB 725.

[88] [1904] 1 KB 725, at 742.

[89] [1905] 1 KB 253.

defect was not a thing dangerous in itself, and that, therefore, the defendant was not liable[90]. Such was the state of law before 1932[91].

In *Donoghue v Stevenson*, the purchaser bought a bottle of ginger beer in a café, and offered it to the plaintiff Ms. Donoghue. There was a decomposed snail in the bottle. Ms. Donoghue suffered shock and severe gastro-enteritis. She sued the manufacturer – with whom she had no contract with – in tort based on negligence. The House of Lords employed Sir William Brett's general principle about the duty of care in *Heaven v. Pender*, and ruled that the manufacturer owed the plaintiff a duty of care. By a 3-2 majority, it overturned previous precedents that the lack of contract privity shall bar the damage recovery for the plaintiffs. As Lord Atkin wrote in his speech for the House of Lords,"[a] manufacturer of products which he sells in such a form as to show that he intends them to reach the ultimate consumer in the form in which they left him with no reasonable possibility of intermediate examination, and with the knowledge that the absence of reasonable care in the preparation or putting up of the products will result in an injury to the consumer's life or property, owes a duty to the consumer to take reasonable care"[92]. By finding the manufacturer rather the retailers liable for the sale goods, the House of Lords produced a doctrine that laid foundation for modern English product liability law. However, this case was to have much widespread influence than in product liability only[93]. In the famous passage, that Lord Atkin said about the duty of care has become a pillar for English tort law:

"[T]he liability for negligence, whether your style it such or treat it as in other systems as a specie of 'culpa', is no doubt based upon a general public sentiment of moral wrongdoing for which the offender must pay. However, acts or omissions which any moral code would censure cannot in a practical world be treated so as to give a right to every person injured by them to demand relief. In this way rules of law arise which limit the range of complainants and the extent of their remedy. The rule that you are to love your neighbor becomes in law: You must not injure your neighbour,

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[90] *See* David Ibbetson, "*George v Skivington* (1869)", in Charles Mitchell and Paul Mitchell (eds.): *Landmark Cases in the Law of Tort*, Hart Publishing, 2010, p.92. The author provided detailed analysis on *Earl v Lubbock* (1905), and compared it with *Skivington* (1869) and *Winterbottom v Wright* (1842).

[91] *See* Lord Denning, *The Principle of Law*, Butterworths, 1979, pp.227-281, and pp.229-236.

[92] *See* [1932] AC 562, at 599.

[93] *See* Carol Harlow, *Understanding Tort Law*, 3rd edition, Thomson Sweet & Maxwell, 2005, pp.47-75.

and the lawyer's question: Who is my neighbour? receives a restricted reply. You must take reasonable care to avoid acts or omissions which you can reasonable foresee would likely to injure your neighbour. Who then, in law, is my neighbour? The answer seems to be persons who are so closely and directly affected by my act that I ought reasonably to have them in contemplation as being so affected when I am directing my mind to the acts or omissions which are called in question"[94].

From this passage, derives the famous "neighbor principle", which signifies that a person owes a duty of care to others in circumstances that he shall reasonably foresee that his acts or omissions could cause damage to the victim[95].

### 3.1.2 After *Donoghue v Stevenson*

Although the *Donoghue* doctrine proposition of Lord Atkin is much broad, but the proposition is confined to the manufacturer of products[96]. The rule established by *Donoghue v Stevenson* that the manufacturer owns a duty of care to consumers was applied to products in general, such as cloth[97], chemicals[98], vehicles[99], as well as warnings and labels[100]. On the plaintiff's side, it was extended

[94] *See* [1932] AC 562, at 580.

[95] *See* Cees van Dam, *European Tort Law*, 2nd edition, Oxford University Press, 2013, pp.103-104.

[96] *See* Lord Denning, *The Principle of Law*, p.231 (the *Donoghue* doctrine was confined to negligent acts, and was held not to apply to negligent statement).

[97] *See Grant v Australian Knitting Mills, Ltd.* [1936] AC 85 (the plaintiff contracted dermatitis by a defective woolen underwear he bought from a retail shop. He sued the retailer, and the producer-Australian Knitting Mills, Ltd., who were both held liable to him).

[98] *See Vacwell Engineering Co Ltd v B.D.H. Chemicals Ltd* [1971] 1 QB 88 (glass ampoules containing a chemical which combined explosively with water were unfit for their purpose when bearing a warning only of "harmful vapour").

[99] *See Herschtal v Steward and Arden Ltd* [1940] 1 KB 155 (an employee of Steward and Ardern Ltd negligently fitted the rear tyre into a motor car that was supplied to Herschtal. The tyre came off when plaintiff was drove the car. The plaintiff sustained a nervous shock, sued the defendant for tort based on negligence).

[100] *See Kubach v Hollands and Another (Federick Allen & Son (Poplar) Ltd, Third Party)* [1937] 3 All ER 803 (a schoolgirl was severely injured in an explosion caused by chemical substances in a chemistry class. The first defendant, Miss Hollands, was the owner and headmistress of the school. The Second defendant, the seller who had failed to

to include purchaser, user[101], and casual bystander[102]; on the defendant's side, it was extended to those who are involved in production other than the producer, for example, the assembler[103].

However, before the mid-twentieth century, English judges were not willing to extend the *Donoghue* doctrine[104]. Despite the generalization of duty of care by Sir Brett M.R. in *Heaven v Pender*, and Lord Atkin in *Donoghue v Stevenson*, judges were remaining loyal to the doctrine of privity. In addition, because the Donoghue doctrine required the plaintiff to prove the negligence of producers, it made the burden of proof a hurdle for victims seeking recovery. In *Daniels and Daniels v R White &Sons Ltd and Tarbard*[105] in 1938, the difficulty to prove negligence became obvious. The plaintiff, Mr. Daniels, bought a jug of beer and a bottle of R White's beer from the seller Mrs. Tarbard. He and his wife Mrs. Daniels drank the lemonade simultaneously, and suffered injury from it. They sued the manufacturer and bottler R White & Sons Ltd for injuries caused by a defective bottle of lemonade that contained carbolic acid, based on the law of negligence. They also sued Mrs. Tarbard, based on an implied warranty that lemonade should be sold as described, and should be fit for its purpose under section 14 of the Sale of Goods act of 1893. However, the court found that the manufacturer was not liable because it has adopted a "fool-proof method of

examine the chemical substance before resale, was held liable for negligence. The manufacturer escaped the liability on the round that the chemical substance has been sold for a variety of purposes, and the seller failed to do intermediate examination).

[101] *See*, e.g. in *Donoghue v Stevenson* itself.

[102] *See Kubach v Hollands and Another (Federick Allen & Son (Poplar) Ltd, Third Party)* [1937] 3 All ER 803.

[103] *See Malfroot v Noxal Ltd* [1935] 51 TLR 21 (an assembler was held liable because it negligently fitted a side-car to a motorcycle. The fitter came off and injured the passenger); *see Howard v Furness Houlder Argentine Lines Ltd and A & R Brown Ltd* [1936] 2 All ER 781 (an assembler was held liable because it negligently re-assembled a valve chest with the bridge upside down for a steamship. An explosion occurred in the ship and injured an electric welder).

[104] *See* Michael Lobban, "The Law of Obligations: The Anglo-American Perspective", in Heikki Pihlajamäki, Markus D. Dubber and Mark Godfrey (eds.): *The Oxford Handbook of European Legal History*, Oxford University Press, 2018, pp.1037-1043.

[105] *See* [1938] 4 All ER 258.

cleaning, washing, and filling bottles"[106], and effectively supervised the process so that the presence in the bottle of 38 grains of carbolic acid could not have been attributed to its negligence.

In addition, the court reaffirmed the doctrine of privity by finding that Mrs. Tarbard was not liable to Mrs. Daniels' injury because of the absence of privity, but rather she was liable to Mr. Daniels for the damage, based upon implied warranty term under § 14 of the Sale of Goods Act 1893. This section provides the victim of defective products can sue the retailers for the damage, based on an implied term about quality or fitness of the goods, and the description of goods[107]. However, this implied term could not cover Mrs. Daniels' injury, nor could it be invoked by Mrs. Daniels against Mrs. Tarbard. As a bystander, Mrs. Daniels was not able to claim compensation from the seller.

In fact, many cases fell under contract remedial system. The turning point came with the establishment of a Royal Commission on Civil Liability and Compensation for Personal Injury in December 1972, under the chairmanship of Lord Pearson. In the ultimate report, the Pearson Royal Commission recommended the introduction of strict liability for defective products. In 1979, the Sale of Goods act was revised. Under section 52 (2) and section 54 of the Sale of Goods Act 1979 – that all reasonably foreseeable damage whether to the persons, and property other than the product itself are compensable. In 1985, the Council Directive 85/374/EEC on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products, introduced a non-fault product liability regime into United Kingdom. The Directive was then incorporated into the Part I of the Consumer Protection Act 1987. In which, it adopts the strict liability rule in § 2(1)[108] of the Act.

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[106] *See* [1938] 4 All ER 258, at 262. Also *see* Ken Oliphant and Vanessa Wilcox, "Product Liability in England and Wales", in Piotr Machnikowski (ed.): *European Product Liability. An Analysis of the State of the Art in the Era of New Technologies*, Intersentia, 2016.

[107] S.13, and S.14, the Sale of Goods act of 1893 require goods must be of 'satisfactory quality', which means the good shall meet "the standard that a reasonable person would regard as satisfactory, taking account of any description of the goods, the price (if relevant), and all the other relevant circumstances".

[108] § 2 (1) of the Consumer Protection Act 1987 provides that "[s]ubject to the following provisions of this Part, where any damage is caused wholly or partly by a defect in a product, every person to whom subsection (2) below applies [producer and various others] shall be liable for the damage".

## 3.2 Germany[109]

In general, it is considered that the history of German product liability law started with the *Hühnerpest* (chicken pest) case of 1968[110].

Before this case, the injured victim of a defective product was, in theory, entitled to damage compensation from a contractual perspective under § 278 BGB (*Bürgerliches Gesetzbuch*) which stipulated that, "the obligor is responsible for fault on the part of legal presentative, and of persons whom he uses to perform his obligation, to the same extent as for fault on his own part"[111]. Under this section, the fault of an obligee (or a debtor) is presumed, and further answers for his auxiliaries' fault[112]. Germany courts have long supported the right of third parties to claim damages for non-performance and even defective performance of a contract that was intended to have protective effects for the third party[113]. But this contractual perspective was rarely adopted when it concerns manufactured products caused harm.

The main avenue for redress of products liability injuries was therefore liability in tort under § 823, para. 1 BGB. A characteristic feature of this norm is that it protects certain specific interests (like life, health and property) against any tortfeasor's intentional or negligent, and unlawful violation[114]. Any other interest does not fall within the umbrella of protection of § 823 BGB. However, the difficulty with applying § 823, para. 1 BGB in defective products litigations, was that the plaintiff has to prove the defendant manufacturer's fault.

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[109] Here, we refer to Western Germany after World War II. After the fall of Berlin Wall, Germany was reunified.

[110] *See* BGHZ 91, 53 (chicken pest); also *see* Ulrich Magnus, "Product Liability in Germany", p.238.

[111] § 278 BGB, translated by *Bundesministerium der Justiz* and *Juris GmbH*, www.gesetze-im-internet.de/englisch_bgb.

[112] For a detailed discussion of § 278 BGB, *see* Basil S. Markesinis and Hannes Unberath, *The German Law of Torts*: *A Comparative Treatise*, 4th edition, Hart Publishing, 2002, pp.703-704.

[113] *See* Ulrich Magnus, "Some thoughts on Germany's Contribution to European and Comparative Law", 38 *Bracton Law Journal* 87 (2006), p.96.

[114] § 823, para.1 BGB provides that, "[a] person who, intentionally or negligently, unlawfully injures the life, body, health, freedom, property or another right of another person is liable to make compensation to the other party for the damage arising from this".

One way round this problem is applying § 831 BGB[115]. Under § 831 BGB, an employer is liable for the injury an employee unlawfully caused to the third party. The employee, according to § 831 BGB, must perform the task assigned to him from the employer. However, the employer can be exempted from such liability if he proves that he took reasonable care in selecting, training, and supervising the employee, or he proves that the injury would still have occurred if he had exercised such care [116]. In addition, § 831 BGB implies that the employee must perform his task within the scope of his work duty; and by carrying such task, his act caused the damage to the victim. This cause must be immediate, and adequate. It is the plaintiff who has to prove this causal relationship between the damage, and the act of the employee. But if the employee works for a larger company, the employer does not need to prove that he exercised reasonable care in selecting and supervising the employee, but rather to prove that he selected and supervised the managers with reasonable care[117]. Moreover, § 831 BGB is limited to the circumstance of an employee's act caused damage. In cases that the plaintiff's damage has no direct and immediate relationship with the employee's act (which often is the case in modern production and redistribution of the goods), there is no liability under § 831 BGB. It is clear that § 831 BGB does not help the injured party in product liability cases[118].

[115] § 831 BGB: "(1) A person who uses another person to perform a task is liable to make compensation for the damage that the other unlawfully inflicts on a third party when carrying out the task. Liability in damages does not apply if the principal exercises reasonable care when selecting the person deployed and, to the extent that he is to procure devices or equipment or to manage the business activity, in the procurement or management, or if the damage would have occurred even if this care had been exercised.

(2) The same responsibility is borne by a person who assumes the performance of one of the transactions specified in subsection (1) sentence 2 for the principal by contract".

[116] *See* Cees Van Dam, *European Tort Law*, p.502; Konrad Zweigert and Hein Kötz, *An Introduction to Comparative Private Law*, pp.632-633; Hein Kötz, "The Doctrine of Privity of Contract in the Context of Contracts Protecting the Interests of Third Parties", 10 *Tel Aviv University Studies in Law* 195 (1990), p.196.

[117] This is known as "defense of decentralized exoneration" (*dezentralisierter Entlastungsbeweis*), *see* Cees Van Dam, *European Tort Law*, pp.502-503; also *see* BGH 25 October 1951, BGHZ, 1= NJW 1952, 418, also reported in Basil S. Markesinis and Hannes Unberath, *The German Law of Torts: A Comparative Treatise*, pp.775-776.

[118] *See* Hein Kötz, "The Doctrine of Privity of Contract in the Context of Contracts Protecting the Interests of Third Parties", p.197.

Another way round above problem is applying § 823, para.1 of BGB, and shifting the burden of proof in legal proceedings. In the *Hühnerpest* (chicken-pest) case of 1968, the German Federal Supreme Court (*Bundesgerichtshof*, BGH) rejected the idea of using contractual lenses to protect the injured party's rights, and rather based its reasoning upon the law of tort. In this case, a chicken farmer had his chickens vaccinated by a veterinarian (Dr. H) to against fowl pest. The veterinarian used a serum that the defendant company produced. A few days after the vaccination, the fowl pest broke out. More than 4,000 chickens died, and the farmer had to slaughter more than one hundred chickens. The Federal Research Institute for virus disease in animals, and the Paul-Ehrlich Institute established that the sampled bottles contained active ND (Newcastle Disease) viruses. The plaintiff sued the defendant company for recovery of his damages. The German Federal Supreme Court (*Bundesgerichtshof*, BGH) found that the vaccine was defective, and had caused the disease to the chickens. In this case, the condition of tort liability under § 823 BGB were deemed to be satisfied. As to the proof of the defendant company's negligence, the court decided that the burden of proof had to be reversed – it was the defendant who must show that he was not at fault[119].

Therefore, the court helped the plaintiff to alleviate the burden of proof because it recognized that it was especially difficult for the plaintiff to prove the ordinary courses of events in the business of manufacturing the products, and to additionally prove that the manufacturer was at fault. However, the Court did not overturn the general rules that the injured party has to prove the defendant's fault, and the causal connection between that fault and the ensuing damage. Instead, it provided an exception in the area of product liability, wherein the plaintiff only needs to prove the product was defective when it left the factory, and his injury was caused by the defect[120]. While the reversal of burden of proof is applied only when the plaintiff proved the cause of damage was of an organization nature within the manufacture's area of responsibility and if the damage occurred due to an actual defect in the product[121].

The court did not go as far as to introduce a strict liability regime for the manufacturer as it has been done in California by Justice Traynor's decision for *Greenman v Yuba Power Products* of

[119] *See* Basil S. Markesinis and Hannes Unberath, *The German Law of Torts: A Comparative Treatise*, p.560.

[120] *See* Konrad Zweigert and Hein Kötz, *An Introduction to Comparative Private Law*, p.666.

[121] See Cees van Dam, *European Tort Law*, p.325.

1963. Nevertheless, the Court's shift of the burden of proof for the negligent production of defective goods has made German Product Liability Law much closer to a strict liability of the manufacturer[122].

Another road for the injured party to claim compensation in tort is § 823, para. 2 BGB[123] which mandates tort liability under protective statute. One of the essential character of the 'protective statute' mentioned by § 823, para. 2 BGB is that it might be whatever kind of provision (most often, an administrative one) and might define imperatives and forbiddances[124]. For example, with respect to the production of certain goods, a protective statute shall apply; their breach automatically triggers the application of § 823, para. 2 BGB. If the protective norm requires intent, this degree of fault is necessary for triggering tort liability under § 823 para. 2 BGB; otherwise the court can assume a presumption of fault based upon a breach of the protective norm[125].

In addition, § 3 and § 6 of Product Safety Act (*Produktischerheitsgesetz* – 2015) require that products are sufficiently safe. However, the Act does not establish a separate liability from § 823 BGB[126]. In sum, a special regime of product liability law existed in Germany before the enactment of the Product Liability Act (*Produkthaftungsgesetz* – ProdHaftG) of 1989 (which approximates EEC directive 374/1985). The regime dealt with product liability cases through fault-based tort liability and the shift of the burden of proof that is in favor of the victim's interest.

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[122] *See* Ulrich Magnus, "Some thoughts on Germany's Contribution to European and Comparative Law", p.93.

[123] *See* § 823, para. 2 BGB: "The same duty is held by a person who commits a breach of a statute that is intended to protect another person. If, according to the contents of the statute, it may also be breached without fault, then liability to compensation only exists in the case of fault".

[124] *See* Martin S. Smagon, "Liability for breach of law under § 823 sec. 2 BGB", Bettina Heiderhoff and Grzegorz Zmiji (eds.): *Tort Law in Poland, Germany and Europe*, Sellier, 2009, pp.25-28; *see* Cees van Dam, *European Tort Law*, pp.285-286.

[125] *See* Michael Martinek, "Product Liability in Germany between Culpa Principle and No-Fault Approach: The German Experience Confirming South African Indolence (continued)", 1995 *Journal of South African Law* 629 (1995), pp.629-630.

[126] *See* Ulrich Magnus, "Product Liability in Germany", p.240; for the English text of the German Product Safety Act, translated by the Language Service of the Federal Ministry of Labor and Social Affairs, *see* the website https://www.gesetze-im-internet.de/englisch_prodsg/index.html.

## 3.3 France

In French law, there were many claims based on harms caused by products that have been managed by French courts either through contract law rules or through tort law ones, but never in relation with Article 1240 (former Article 1382) and Article 1241 (former Article 1383)[127] of the French Civil Code which provide a general principle for liability based upon fault.

To begin with contract, the French Court of Cassation adopted a pro-consumer approach as early as in 1930s, as it found the seller and manufacturer of a defective products could be liable to the third party victims, based on contractual liability of a professional dealer[128]. This approach had its underpinning from Roman law legacy, as the Roman law of sales imposes liability upon the seller for the hidden defects of goods, even without statement or promise by him[129].

Normally, in a sale contract, if a buyer of a defective product discovers the defect, he can choose to rescind the sale contract, or paying a reduced price. Under the French Civil Code, a plaintiff who seeks recovery before the private law courts has to choose either contractual or tort claims. In fact, most earlier product liability claims were mainly relied upon contract law rather than tort law, and more specifically upon the "latent defect warranty" (*garantie contre les vices cachés*, or

[127] Article 1240 (former Article 1382 of the French Civil Code): "Every act whatever of man that causes damage to another, obliges him by whose fault it occurred to repair it". Article 1241 (former Article 1383 of the French Civil Code): "We are responsible not only for the damage occasioned by our own act, but also by our own negligence or imprudence". These translations, authored by David W. Grunning, law professor at Loyola University, New Orleans, United States, are available at the website https://www.legifrance.gouv.fr/Traductions/Catalogue-des-traductions. In 2016, the "*Ordonnance n° 2016-131 du 10 février 2016 portant réforme du droit des contrats, du régime général et de la preuve des obligations*" reformed rules in the French Civil Code that governing evidence and obligations. The Ordinance, which left the contents of the tort law chapter untouched, also changed the sequential orders of previous French Civil Code articles.

[128] *See* Jean-Sébastien Borghetti, "Product Liability in France", p.207.

[129] *See* Matteo Marrone, *Istituzioni di diritto romano*, 3rd edition, Palumbo, 2006, pp.466-468; also *see* Simon Whittaker, *Liability for Products: English Law, French Law and European Harmonization*, Oxford University Press, 2005, pp.228-230. This must also link to the notion of good faith in Roman law. For the development of good faith doctrine in France, *see* Geoffrey Samuel, *Understanding Contractual and Tortious Obligations*, LawMatters Publishing, 2005, pp.31-32 (in France, good faith has translated itself into two main obligations – devoir de loyauté and a duty of cooperation).

warranty against latent defect) in light of Article 1641 of the French Civil Code[130] (which obliges the seller to provide buyers a warranty against hidden defects that render sold goods improper for their intended purposes). Further, French law does not embrace a rigid perception of contract privity. It has for instance developed a concept of chain of contract that allowing any person (included the sub-buyers) – who has acquired the ownership of a defective good – to claim compensation against any members of the contractual chain (that is, previous sellers, and manufactures)[131].

There existed other obstacles for the injured party's recovery of damages under the French law. However, they were eventually removed by either French courts or by legislative reforms. For example, according to Article 1655 of the French Civil Code, a buyer who suffers injuries or damages from the defect of a product, that distinct from a diminution of value, can claim for damages only under the condition that the seller know of the defect at the time of sale. This is an obstacle for a plaintiff who is seeking recovery. However, the French courts has partially removed this obstacle by applying an evidence presumption that the seller – as a "professional dealer" – shall know of the defect at the time of sale[132]. Besides, the notion of "professional dealer" was extended to both the manufacturer and professional sellers such as distributors, or retailers[133]. Another notable obstacle was the prescription period stipulated by Article 1648 of the French Civil Code. The Article originally required the action based upon "latent defect warranty" must be "brought by the buyer within a short time, depending on the nature of the material defects and the

[130] *See* Duncan Fairgrieve, "*L'exception française?* The French Law of Product Liability", in Duncan Fairgrieve (ed.): *Product Liability in Comparative Perspective*, Cambridge University Press, 2005, pp.84-86. Also *see* Article 1641 of the French Civil Code: "The seller is held to warrant against latent defects in the thing sold which make it improper for the use for which it is intended or which so impair such use that the buyer would not have acquired it, or would only have paid a lower price, if he had known of them".

[131] *See* Jean-Sébastien Borghetti, "Product Liability in France", p.232; also *see* Olivier Moréteau, "Basic Questions of Tort Law from a French Perspective", in Helmut Koziol (ed.): *Basic Questions of Tort Law from a Comparative Perspective*, Jan Sramek Verlag KG Wien, 2015, pp.28-29.

[132] *See* Cass. civ., 1e, 24 November 1954 JCP 955.II.8565; Cass. com., 1 July 1969, *Bull. civ. IV*, n°243, Gaz. Pal. 1970, 1, tables v° vente, n°43; Cass. com., 20 January 1970, JCP, 1972, II, 17280; Cass. com., 27 April 1971, D. 1971; *see* also Jean-Sébastien Borghetti, "Product Liability in France", p.206.

[133] *See* Duncan Fairgrieve, "*L'exception française?* The French Law of Product Liability", p.87.

custom of the place where the sale was made"[134]. This Article was interpreted by French courts to mean that claimants must have filed the claim within a short period from their discovery of the defect, or from the date in which they should have reasonably come to know of the latent defect[135]. In 2005, this Article was amended to stipulate two years prescription period, wherein a claimant should bring the claim within two years of the discovery of the defect since he knew or should have reasonably known of.

In general, this pro-consumer approach expanded the use of contract theory to compensate victims of defective products. Aided by the *non-cumul* rule of French law[136], when a plaintiff could have pursued either a delictual or a contractual action against the defendant, the contractual action seemed to be more convenient, since it was easier for the plaintiff to act against the manufacturer other than the immediate seller and prove his non-performance of the contract.

As to the liability in tort, French courts have sometimes imposed strict liability on manufacturer through an interpretation of Article 1242, para. 1 (former Article 1384, para. 1) of French Civil Code, which focuses upon the injury caused by the actions of things, and have other times imposed liability on the manufacturer by virtue of a presumed fault rule, as he put defective products into circulation[137]. In respect of the action of liability for things, enshrined in Article 1384, para. 1, the paragraph brought complex interpretive challenges, as other paragraphs of the same article – from para. 2 to para. 5 – concerned vicarious liability of subjects (occupiers, parents, masters and

[134] *Cf* the original version of Article 1648 in the Napoleon Civil Code of 1804: "The action resulting from faults annulling sale must be brought by the purchaser, within a short interval, according to the nature of such faults, and the usage of the place where the sale was made" with the current version of Article 1648: "An action resulting from redhibitory defects must be brought by the buyer within two years from the discovery of the vice".

[135] Cass. com., 18 February 1992, *Bull civ IV* N◦. 82; Cass com 3 May 1974 JCP 1974.II.17798.

[136] *See* John Bell and David Ibbetson, *European Legal Development: The Case of Tort*, volume 9, pp.78-79; also *see* Patrice Jourdain, "Non-cumul des responsabilités et responsabilité du fait d'autrui", 3 *Revue trimestrielle de droit civil* 674 (juillet-septembre 2018), p.675 ("*[L]a règle du non-cumul, mieux nommée règle de non-option, entre les responsabilités contractuelle et délictuelle*").

[137] *See* Article 1242, para. 1 (former Article 1384, para. 1) of Code Civil: "A person is responsible not only for the injury which is caused by his own act, but also for which is caused by the act of persons for whom he is bound to answer, or by things which he has had his care"; for a comment of this rule, *see* Simon Whittaker, "The Law of Obligations", in John Bell, Sophie Boyron and Simon Whittaker (eds.): *Principles of French Law*, 2nd edition, Oxford University Press, 2008, pp.403-408.

employers, teachers and artisans) other than the manufacturers. For the most part of the nineteenth century, the mainstream interpretation of Article 1242, para. 1. reads it in connection with Article 1243 (former Article 1385) (liability for animals caused damage) and Article 1244 (former Article 1386) (liability for the ruin of building) of French Civil Code[138]. Clearly, this paragraph was intended to deal with liability resulted from actions of the things one was keeping. Article 1243 and Article 1244 were understood as an expression of the Roman law rule of liability for things[139], insofar as they impose liability without proof of fault. However, there was a problem of coordination with Article 1242, para. 1, whose content was seen as fault-based[140]. Towards the end of the nineteenth century, Article 1242, para. 1 was therefore reinterpreted as to impose strict liability for the action of things that are under one's care[141], and as to isolate it from the enumerations of liabilities in other paragraphs of Article 1242 as well as Article 1243 and Article 1244.

In 1930, the French Court of Cassation's interpretation of Article 1384, para.1 (today Article 1242, para. 1) in the *affaire Jand'heur*, established a "presumption of responsibility against the person who is in custody of the inanimate thing"[142]. Such responsibility could only be avoided by the

[138] *See* Tony Angelo, "The Mauritius Approach to Article 1384 (1) of the French Civil Code", 4 *The Comparative and International Law Journal of Southern Africa* 57 (1971), pp.57-58.

[139] *See* Matteo Marrone, *Istituzioni di Diritto Romano*, pp.513-514 (*actio de pauperie*, regarding animal keeper's liability), and p.515 (*positum aut suspensum*, regarding not habitable house caused harm).

[140] *See* Tony Angelo, "The Mauritius Approach to Article 1384 (1) of the French Civil Code", p.58, fn.4 (to prove the view, the author cited French case decided by the Court of cassation *Painvin v. Deschamps* – Cass. civ. 19 July 1870, D 1870. 1.361 – where "a laundry worker sued his employer for damages for injuries suffered when a laundry boiler exploded. He failed because he did not show fault on the part of the employer"); *see* Geoffrey Samuel, *Understanding Contractual and Tortious Obligations*, pp.11-12.

[141] *See* Simon Whittaker, "The Law of Obligations", p.382; Tony Angelo, The Mauritius Approach to Article 1384 (1) of the French Civil Code, p.58; *see* also John Bell and David Ibbetson, *European Legal Development: The Case of Tort*, p.79, esp. fn.18 (the authors cite a French case happened in later 1890s to prove the trend of re-interpretation of Article 1384, para. 1: Cass. civ., 16 June 1896, Oriolle, Guissez et Cousin c Teffaine, S. 1897.1.17, note Esmein; D.1897. 1.433, concl. Sarrut, note R. Saleilles).

[142] *See* Cour de Cassation, Chambres réunies, 13 February 1930, 4D 1930 1 57 (which interpreted Article 1242, para. 1 as follows: "*Attendu que la présomption de responsabilité établie par cet article à l'encontre de celui qui a sous sa garde la chose inanimée qui a causé un dommage à autrui ne peut être détruite que par la preuve d'un cas fortuit ou*

defendant if he successfully raised a defense of a fortuitous event or force majeure, rather than simply proving that he was not at fault[143]. This interpretation applied to manufacturer's liability. Further, with regarding Article 1384, para. 1 (today Article 1242, para. 1), French courts developed two terminologies – "*la garde de la structure*" and "*la garde du comportement*" –: the former implies the person is responsible for harm caused by the defect of the thing, while the latter implies the person is responsible for harm caused by the handling of the thing[144]. This distinction, however, is limited to cases where the thing is dangerous in itself, as it happens, for example, for explosives or flammable or corrosive products caused harm[145].

Nonetheless, French lawyers and courts continued to rely extensively on either contractual liability or the strict liability of the keeper of things under Article 1242, para. 1 rather than the general fault liability rules under Article 1240, and Article 1241[146]. In 1985, the European Directive 85/374/EEC create a strict liability regime. However, it took France thirteen years to implement the directive into French law until the *Loi* of 19 May 1998[147]. The transposition then become part of the French Civil Code from Article 1245 to Articles 1245--17. We will explain the reluctance for French law to implement the Directive 85/374/EEC in the section regarding harmonization of product liability directive. In sum, the French law of product liability exhibits a constant interaction

*de force majeure ou d'une cause étrangère qui ne lui soit pas imputable ; qu'il ne suffit pas de prouver qu'il n'a commis aucune faute ou que la cause du fait dommageable est demeurée inconnue*").

[143] *See* Cour de Cassation, Chambres réunies, 13 February 1930, 4D 1930 1 57; *see* also Simon Whittaker, *Liability for Products*, pp.52-53.

[144] *See* Simon Whittaker, "The Law of Obligations", pp.385-386; *see* also Simon Whittaker, *Liability for Products*, p.54; also *see* Eva Steiner, *French Law – A Comparative Approach*, 2nd edition, Oxford University Press, 2018, p.273.

[145] *See* Simon Whitaker, *Liability for Products*, p.54, fn.118 (citing the case Cass. civ., 1e, 12 November 1975, *JCP* 1976.II.18479); Eva Steiner, *French Law – A Comparative Approach*, p.273.

[146] *See* Simon Whittaker, *Liability for Products*, pp.50-53 and p.208.

[147] Loi n°98-389 du 19 mai 1998 relative à la responsabilité du fait des produits défectueux (Law n. 98-389 of 19 May 1998 in relation to liability for defective products) (author's translation); *see* also Marie-Pierre Camproux-Duffrène, "La loi du 19 mai 1998 sur la responsabilité du fait des produits défectueux et la protection de l'environnement", 2 *Revue juridique de l'environnement* 189 (1999), pp.190-191 (commenting the integration of Law n.98-389 of 19 May 1998 into the French Civil Code).

between judicial and doctrinal interpretation of Napoleonic code[148]. As shown above, French law solved the product liability problem through dual routes – contract and tort – as other European legal systems did, yet with its own special features.

### 3.4 Italy

The Italian experience of product liability before transposing the Product Liability Directive resembles "a backwardness of code law models" [149]. There was incomplete legislation dealing with products liability, and the cases concerning the manufacturer's liability were rare. In theory, if a sale good had defects and was unfit for its indented purposes, a buyer could seek damage recovery from the seller based on Article 1490, para. 1[150] and Article 1494, para. 2[151] of the Italian Civil Code. This contractual mechanism is not different from the ones in place in France and Germany, since these countries share a common legal tradition. In Roman law, the sale of goods is a good faith contract. The parties – the seller and buyer – of a sale contract have to perform whatever good

[148] *See* John Bell, *French Legal Cultures*, Butterworths, 2001, p.79; *see* also André Tunc, "Methodology of the Civil Law in France", 50 *Tulane Law Review* 459 (1975), pp.469-472.

[149] *See* Guido Alpa and Vicenzo Zeno-Zencovich, *Italian Private Law*, Routledge – Cavendish, 2007, p.269; *see* also John Merryman, *The Loneliness of the Comparative Lawyer and Other Essays in Foreign and Comparative Law*, Kluwer Law International, 1999, pp.271-278.

[150] Article 1490, para. 1 of the Italian Civil Code provides that "[a] seller is bound to warranty that the thing sold is free of defects which render it unfit for the use for which it was intended or which appreciably diminish its value" (as translated by Mario Beltramo, Giovanni E. Longo, John H. Merryman, in *The Italian Civil Code and Complementary Legislation*, Book Four, Ocean Publications, Inc, 1991, p.74. The following English translations of Italian Civil Code are by the same authors cited here).

[151] *See* Article 1494, para. 2 of the Italian Civil Code (provides that "[t]he seller shall also compensate the buyer for damage caused by defects in the thing"); *see* Andrea Torrente and Piero Schlesinger, *Manuale di diritto privato*, 23rd edition, Giuffrè Editore, 2017, pp.747-750.

faith requires, in addition to the obligation of performing only what the contract expressed[152]. Thus, the warranty that there is "conformity of the goods sold"[153] is implied in every sale contract.

The rule provides certain benefits for the party injured by a product bought through a sale contract, particularly because it embraces a no-fault liability principle, and alleviates the burden of proof for the injured party as compared to tort liability. However, if the buyer knew of the defect in the time of the contract, or if the defect was obvious and could have been easily detected, then the seller was not liable for the defect under Italian contract law[154]. There were other limitations for the buyer to pursue his damage recovery. For example, according to Article 1495 of the Italian Civil Code, the buyer has a duty of notification in eight days after the discovery of the defect; otherwise, he forfeits his rights. Besides, the prescription period for claim compensation is one year after the delivery of goods. Provided that a buyer pursues his claims on time, Italian contract law allows him to pursue a range of remedies, ranging from dissolution of contracts, a reduction of price[155] to compensations for damages and foreseeable losses[156]. However, since contract law

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[152] *See* James Gordley, "In defense of Roman Contract Law", in Pier Giuseppe Monateri (ed.): *Comparative Contract Law*, Edward Elgar Publishing, 2017, pp.35-39; also *see* Giannetto Longo, *Diritto romano: Le obbligazioni*, Catania Vincenzo Muglia Editore, 1934, p.65; and Martin Josef Schermaier, "Bona fides in Roman Contract Law", in Reinhard Zimmermann and Simon Whittaker (eds.): *Good Faith in European Contract Law*, Cambridge University Press, 2000, pp.66-70 (on the good faith doctrine).

[153] The conformity of goods can be seen as an actualization of the principle of conformity, which obliges the supplier of commercial goods to ensure that the good conforms to parties agreed contractual specifications or implied contractual terms. This principle is recognized by the United Nations Convention on Contracts for the International Sale of Goods ("CISG") and applied exclusively to the sale of consumer goods as stipulated by Art.31.1 of the Directive 1999/44/EC on certain aspects of the sale of consumer goods and associated guarantees. For a discussion of the breadth of this principle, *see* Francisco De Elizalde, "Should the Implied Term Concerning Quality Be Generalized? Present and Future of the Principle of Conformity in Europe", 1 *European Review of Private Law* 71 (2017), pp.74-75.

[154] Article 1491 of the Italian Civil Code: "The warranty is not applicable if the buyer of defects in the thing at the time of the contract; likewise, it is not operative if the defects were easily detectible, unless, in this case, the seller declared that the thing was free of defects".

[155] Article 1492, para.1 of the Italian Civil Code: "In the case indicated in Article 1490, the buyer can at his choice demand dissolution of the contract or reduction of the price, unless, for certain defects, usage bars dissolution".

[156] Article 1225 of the Italian Civil Code: "If the non-performance or delay is not caused of the debtor, compensation is limited to the damages that could have been foreseen at the time the obligation arose".

rules adopt a strict interpretation of privity, and require the conformity of the goods under the good faith doctrine[157], they do not protect a consumer or a bystander against the producer of defective goods as long as there exists no collateral contract between them[158].

However, regarding the relationship between buyer and the producer, many earlier defective product cases were brought through invocation of Article 2043 of the Italian Civil Code[159]. The Article is the central pillar of Italian tort law. It provides a general clause of fault liability for delict. However, Italian courts had hard time in protecting the injured buyer under Article 2043. At the beginning, Italian courts barred the plaintiff's recovery by excluding the manufacturer's liability instead of creating new solutions as to supplement Italian legislation[160]. For instance, in a decision by the Court of Appeal of Turin in 1960, the Court excluded the tort liability of a constructor (FIAT company) for a defective vehicle that caused harm to the third party plaintiff[161]. According to this decision, the defective product remained a contractual issue between the purchaser and the manufacturer; as for the harm caused to the third party, since it is the owner or the operator who put the vehicle in circulation, this fact was thought to break the causal chain between the vehicle's defect and the damage[162]. In other words, the Court found that there existed no causation between the third party's damage and the vehicle defect. This reasoning was affirmed by the Supreme Court

[157] *See* Giovanni Comandé, "Product Liability in Italy", in Piotr Machnikowski (ed.): *European Product Liability. An Analysis of the State of the Art in the Era of New Technologies*, Intersentia, 2016, p.276.

[158] *See* Pietro Trimarchi, *La responsabilità civile: atti illeciti, rischio, danno*, Giuffrè Editore, 2017, p.406; and *see* Pierpaolo Bortone and Luca Buffoni, *La responsabilità per prodotto difettoso e la garanzia di conformità nel codice del consumo*, G. Giappichelli Editore, 2007, p.7; Guido Alpa and Mario Bessone, *Responsabilità del produttore*, 4th edition, Giuffrè Editore, 1999, pp.3-5.

[159] Article 2043 of the Italian Civil Code: "Any fraudulent, malicious, or negligent act that causes an unjustified injury to another obliges the person who has committed the act to pay damages".

[160] *See* Guido Alpa, "The Making of Consumer Law and Policy in Europe and Italy", 29 *European Business Law Review* 589 (2018), p.593; *see* App. Genova, 5 May 1964, in *Foro Padano*, 1964, I, 725 (a toy pistol producer was exempted from liability when a minor used the pistol incorrectly).

[161] *See* App. Torino, 30 January 1960, in *Foro it.*, 1960, I, 1026.

[162] *See* App. Torino, 30 January 1960, in *Foro it.*, 1960, I, 1026, at 1031.

of Italy in a similar decision on July 15th of the same year[163], wherein the Supreme Court treated Article 2054 of the Italian Civil Code (on liability for accidents caused by vehicles) as a rule giving rise to the "unconditional presumption of the liability for the operator and the owner of the vehicle in the event of damages provoked by construction defects"[164]. Such a strict presumption, according to the Court, "had taken away any efficient material causation nexus between the conduct of the constructor and the event, and excluded the constructor's responsibility towards the injured third party; had established an exception of the general rule [Article 2043] for the purpose to facilitate damage claim"[165].

An exemplary case that broke away from the pattern of liability exclusion was the Saiwa case[166] in 1964. A couple bought a box of biscuits made by Saiwa in a shop known as Candelotti firm in Rome. After they ate some biscuits, they suffered enterocolitis fever and abdominal pains, and needed to have medical care. The producer Saiwa accepted that the biscuits were defective, and was prepared to replace them with a new box of biscuits. The plaintiffs sued both the retailer – the Candelotti firm – and the producer Saiwa. The Supreme Court of Italy found that there was no fault by the part of retailer – such as "*cattiva conservazione*" (bad storage) of the goods – but also concluded that the producer was at fault because its production process was the only possible reason for the defect[167].

As the Court reasoned, "once any fault of the shopkeeper as to the alteration of the sold product is excluded (as in the case in the point), the trail judge, in exercising his or her discretionary powers, may well link the failure, through a logical process of assumption, to the faulty fabrication of said products, as its only possible cause, and that is to say, in practice, to a negligent conduct by the manufacturing company, which pursuant to *Lex Aquilia*, makes it liable for the claimed damages:

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[163] *See* Cass., 15 July 1960, n. 1929, in *Foro it.*, I, 1714 (the manufacturer of an automobile is not liable to the third party for the damages derived from manufacture defects, because the absence of cause-and-effect relationship between the fact of the construction and the vehicle's circulation).

[164] *See* Cass., 15 July 1960, n. 1929, in *Foro it.*, I, 1714, at 1715.

[165] *See* Cass., 15 July 1960, n. 1929, in *Foro it.*, I, 1714, at 1715.

[166] *See* Cass., 25 May 1964, n. 1270, in *Foro it.*, 1965, I, 2098.

[167] *See* Cass., 25 May 1964, n. 1270, in *Foro it.*, 1965, I, 2098, at 2100; *see* Vincenzo Zeno-Zencovich, "La responsabilità civile", in Guido Alpa, Michael Joachim Bonell et al. (eds.): *Diritto privato comparato: istituti e problemi*, Editori Laterza, 2004, p.310.

thus making (as in the concrete case) a proper de facto appreciation, which by its nature is not subject to review by this court"[168]. By a legal presumption of fact, the court presumed that the producer *Saiwa* was at fault, and therefore made him liable in tort. What is more, the court did not find the retailer jointly and severally liable despite the plaintiffs so requested[169], insofar as, according to the Court, the retailer sold the defective goods as he received them from the producer, and he was not at fault for their defective quality, which he could not detect. In principle, if the damage is attributable to both the producer and the seller, the latter are jointly and severally liable to the injured party, irrespective of their rights of recourse against other defendants[170].

In a case related to defective hook of a trailer caused death of a minor in a road accident[171], the Supreme Court of Italy overruled a previous decision – Judgement No.1929 of 1960[172] – which had exonerated the constructor from tort liability due to a lack of effective causation, and found that the constructor of the hook was joint and severally liable with the trailer driver. The Court justified this change by recognizing the fact that "it is the fault conduct of the one who made bad vehicle giving causes to a situation of danger, and whose dangerous effects were carried out in the occasion of circulation"[173]. These cases exhibited a clear pattern according to which Italian courts looked at product harm-related disputes from the tort law perspective. The obstacles barring recovery were many, because the plaintiffs had to prove not only the fault of the producer, but also the causation link between the latter's conduct and the harm.

In addition, Italian judges often framed product liability cases either by applying Article 2043 in conjunction with other relevant articles of the Italian Civil Code, or by referring to liability provisions other than Article 2043. For example, courts sometimes applied Article 2043 of the

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[168] *See* Cass., 25 May 1964, n. 1270, in *Foro it*., 1965, I, 2098, at 2101. The excerpt is translated by Professor Guido Alpa: *see* Guido Alpa, "The Making of Consumer Law and Policy in Europe and Italy", pp.593-594.

[169] *See* Cass., 25 May 1964, n. 1270, in *Foro it*., 1965, I, 2098, at 2101.

[170] *See* Andrea Torrente and Piero Schlesinger, *Manuale di Diritto Privato,* p.974; as to the notion of joint and several liability in Italian civil law, *see* Article 1292 of the Italian Civil Code, and Francesco Donato Busnelli, "Obbligazioni divisibili, indivisibili e solidali", *Enciclopedia Giuridica (Volume XXIV)*, Istituto della Enciclopedia Italiana fondata da Giovanni Treccani, 1990, pp.3-15; Giannetto Longo, *Diritto romano: Le obbligazioni*, pp.61-109.

[171] *See* Cass., 2 March 1973, n. 577, in *Foro it*., 1973, I, 2, 2126.

[172] *See* Cass., 15 July 1960, n. 1929, in *Foro it*., 1960, I, 1714.

[173] *See* Cass., 2 March 1973, n. 577, in *Foro it*., 1973, I, 2, 2126, at 2131.

Italian Civil Code in conjunction with Article 2048 and 2049 of the Italian Civil Code[174] (on the liability of parents and guardians, teachers, masters of apprentices, and employers), as to discern whether there existed concurrent liability upon persons other than the producer[175]. Other times, Italian courts replaced Article 2043 with Article 2050 of the Italian Civil Code (exercise of dangerous activity), as to link manufacturer's liability to the dangerousness of the activity[176]. The application of the latter article – made possible thanks to a generous interpretation of the notion of "*pericolosità*" (dangerousness) of things – was often adopted in cases of damages caused by defective medicines and drugs derived from blood-related product[177]. Finally, for cases of harm arising at the retailer's level, courts often applied the special liability for damage caused by things (chattels) under one's own control, governed by Article 2051 of the Italian Civil Code[178], so as to

[174] Article 2048 of the Italian Civil Code: "The father and mother, or the guardian, are liable for the damage occasioned by an unlawful act of their minor emancipated children, or of persons subject to their guardianship who reside with them. The same provision applies to a parent by affiliation. Teachers and others who teach an art, trade, or profession are liable for the damage occasioned by the unlawful act of their pupils or apprentices while they are under their supervision. The persons mentioned in the preceding paragraphs are only relieved of liability if they prove that they were unable to prevent the act"; and Article 2049 of the Italian Civil Code: "Masters and employers are liable for the damage caused by an unlawful act of their servants and employees in the exercise of the functions to which they are assigned"; *see* Cass., 21 October 1957, n. 4004, in *Foro it.*, 1958, I, 46 (with regard to the manufacturer's liability for a toy pistol that caused damages to a minor due to lacking of safety protection, the Supreme Court excluded the liability of parents for failure to supervise their child, for the reason that the lacking of safety protection was the only immediate cause of the damage, and the parents could have not foreseen the occurrence of the accident); Cass., 27 February 1980, n. 1376, in *Giur. It.*, 1980, I, 1, 1459; Cass., 28 October 1980, n. 5795, in *Resp. civ. prev.*, 1981, 392 (manufacturer's liability established for the explosion of a bottle of drink); T. Roma, 11 July 1979, in *Giur. It.*, 1980, I, 6, 611 (responsibility of a motorcar manufacturer affirmed for defects of the brake installation).

[175] Article 2050 of the Italian Civil Code: "Whoever causes injury to another in the performance of an activity dangerous per its nature or by reason of the instrumentalities employed, is liable for damages, unless he proves that he has taken all suitable measures to avoid the injury"; *see* Cass., 9 May 1967, n. 934, in *Foro it.*, 1967, I. 1487 (affirming a gas tank manufacturer's liability for exercising dangerous activities).

[176] *See* Alessandro Stoppa, "Responsabilità del Produttore", *Digesto delle Discipline Privatistiche: Sezione Civile XVII*, 4th edition, UTET, 1998, p.122.

[177] *See* Cass., 15 July 1987, n. 6241, in *Foro it.*, 1988, I, 144; T. Milano, 19 November 1987, in *Foro it.*, 1988, I, 144 (exercise of dangerous activities).

[178] Article 2051 of the Italian Civil Code: "Everyone is liable for injuries caused by things in his custody, unless he proves that the injuries were the result of a fortuitous event".

equate the manufacturer to a keeper and make him liable for any damage that was not caused by an act of god[179].

In general, Italian jurisprudence had not established a specific product liability regime before the introduction of Presidential Decree. No. 224 of 24 May 1988, which transposed the product liability directive in Italy. The decree was repealed by Article 146 of the Legislative Decree No. 206 of 6 September 2005 ("Consumer Code"). Now in Italian law, product liability provisions are contained under Title II, Part IV of the Consumer Code of 2005.

### 3.5 The Product Liability Directive: A Real Harmonization?

In the preamble of the product liability Directive 85/374/EEC, the European Economic Community (EEC – now European Union) Council makes it clear that the purpose of the text is the approximation or harmonization of the Member States laws, regulations and administrative provisions in relation to liability for defective products[180]. The legal basis for the Directive 85/374/EEC is to be found in Article 100, para.1 of Treaty establishing the European Economic Community (also known as the "Treaty of Rome") 1957 (nowadays Article 115 of Treaty on the Functioning of the European Union (TFEU)), which allows the Council to issue directives for the approximation of the laws of the Member States as to directly affect the establishment or functioning of the common market[181]. Moreover, the Directive is binding on Member States (in

[179] *See* App. Roma, 8 October 1986, in *Foro it.*, 1987, I 1589; T. Roma, 23 April 1984, in *Foro it.*, 1985, I, 588. On the contrary, Cass. Civ., 1 April 1987, n. 3129, in *Giust. civ. Mass.*, 1987, I, 906, considered there is no custody duties could be invoked, since the explosion happened when the bottle was already given to the buyer.

[180] *See* the Council Directive 85/374/EEC, official English text found at the EUR-lex website, at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31985L0374.

[181] *See* Article 100, para.1 of Treaty establishing the European Economic Community 1957: "The Council, acting by means of a unanimous vote on a proposal of the Commission, shall issue directives for the approximation of such legislative and administrative provisions of the Member States as have a direct incidence on the establishment or functioning of the Common Market". Article 100 of Treaty Establishing the European Economic Community of 1957 is now Article 115 of Treaty on the Functioning of the European Union (TFEU). On this provision, *see* also Luigi Daniele, *Diritto del mercato unico europeo: cittadinanza-libertà di circolazione-concorrenza-aiuti di Stato*, 2nd edition, Giuffrè Editore, 2012, pp.1-18 (highlighting that, when the Treaty of Lisbon was enforced in 2007, the words

the sense that Member States are obliged to transpose it into their national legislation) as a legal act of the former European Economic Community[182]. If a Member State refuses or delays to implement the Directive, state liability shall emerge according to Article 169 to Article 171 of Treaty of Rome[183]. Usually, it is the European Court of Justice (now called the Court of Justice of European Union) to check whether member states institutions obey the European Union directives[184].

Speaking of the background of the Directive 85/374/EEC, since the 50s several mass products disasters have happened in Europe, such as the thalidomide tragedy from late 1950s to early 1960s, which entailed a strong political will to unify product liability rules within the common market[185]. It is clear that the Directive received influence from the *Greenman* case in California which has introduced strict liability[186], and also from the Restatement (Second) of Torts which adopted the

"common market" were substituted by "internal market"); Fidelma White, "Directive 85/374/EEC concerning liability for defective products: in the name of harmonization, the internal market and consumer protection", in Paula Giliker (ed.): *Research Handbook on EU Tort Law,* Edward Elgar Publishing, 2017, p.130; Jane Stapleton, *Product Liability*, p.53.

[182] *See* Article 249 of Treaty Establishing European Community (now Article 288 of TFEU): "[a] directive shall be binding, as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods".

[183] Article 169 to Article 171 of Treaty of Rome. Nowadays, these articles are repealed and complemented by Article 258 (former Article 226 TEC), Article 259 (former Article 227 TEC), and Article 260 (former Article 228 TEC) of the TFEU (according to the latter provision, the Court of Justice of the European Union can impose state liability upon a Member state when it has failed to fulfil an obligation under the Treaties).

[184] *See* Roberto Mastroianni, "L'attuazione in Italia degli atti europei: le regole della legge 234 del 2012 alla prova della prassi recente", 1 *Contratto e impresa/Europa* 99 (2018), pp.99-101 (the author comments that integration of European laws is realized through two principal means: the founding treaties on the one hand, and the case-law of the Court of Justice of European Union on the other hand. Interestingly, the author finds that, despite Article 288 TFUE allows national authorities to choose forms and methods to transpose European directive, the Court of Justice does not trust very much Member of States, and tries to limit the function of national authorities' choices, in order to guarantee the uniform realization of the purposes of EU statutory acts' – in particular EU directives).

[185] *See* Duncan Fairgrieve, Geraint Howells, Piotr Machnikowski et al, "Product Liability Directive", in Piotr Machnikowski (ed.): *European Product Liability. An Analysis of the State of the Art in the Era of New Technologies*, Intersentia, 2016, p.19, fn.6 and p.25; Jane Stapleton, *Product Liability*, pp.42-46.

[186] *See* Ulrich Magnus, "Some Thoughts on Germany's Contribution to European and Comparative Law", p.93.

consumer expectation test in defining product defectiveness. This is made clear, for example, by recital 2 of the Directive embraces the principle of no-fault liability of the producer, and by Article 6, para.1 of the Directive provides that "a product is defective when it does not provide the safety which a person is entitled to expect, taking all circumstances into account".

In theory, the establishment of strict liability regime in the common market did not alter pre-existing legal regimes related to product liability in national legal systems. The Council explicitly states in the recital 13 of the Directive 85/374/EEC that it would tolerate the existence of national rules in the Member States insofar as their relevant provisions are aimed to protect consumers effectively[187]. In Article 13 of the Directive 85/374/EEC, the Council reiterates this attitude[188]. However, in reality, this is not the case, as the Commission and the Court of Justice of European Union have often taken actions to require the Member States to follow the wording of the Directive[189].

Then, our question is: how has the Directive 85/374/EEC harmonized national laws in relation to product liability? And has its transposition in the Member States attained a real harmonization of national laws? In order to answer these questions, we will first investigate the method of harmonization pursued by the Directive 85/374/EEC at first. Afterwards, we shall verify the changes (if any) that the adoption of the directive brought to pre-existing liability regimes in England, Germany, French and Italy respectively. Finally, we will evaluate the transposition of the

[187] Recital 13 of the preamble of the Directive 85/374/EEC: "Whereas under the legal systems of the Member States an injured party may have a claim for damages based on grounds of contractual liability or on grounds of non-contractual liability other than that provided for in this Directive; in so far as these provisions also serve to attain the objective of effective protection of consumers, they should remain unaffected by this Directive; whereas, in so far as effective protection of consumers in the sector of pharmaceutical products is already also attained in a Member State under a special liability system, claims based on this system should similarly remain possible".

[188] Article 13 of the Directive 85/374/EEC: "This Directive shall not affect any rights which an injured person may have according to the rules of the law of contractual or non-contractual liability or a special liability system existing at the moment when this Directive is notified".

[189] *See* Duncan Fairgrieve, Geraint Howells, Piotr Machnikowski et al, "Product Liability Directive", p.27; *see* Luc Grynbaum, "Vers la coexistence de la directive de 1985 avec des régimes de responsabilité du fait des produits de santé plus souples", *La Semaine Juridique – Édition Générale*, n°3, 19 Janvier 2015, pp.106-108.

Directive in England, Germany, France and Italy, therefore giving an answer to the question on whether the Directive attained a real harmonization in these legal systems.

The Directive 85/374/EEC is a "maximal harmonization"[190] directive, according to several important decisions from the Court of Justice of European Union[191]. This partially contradicts what, as said above, it is officially stated by the Directive itself, that on paper allows pre-existing national liability regimes to co-exist with the EU strict liability regime in tort. Further, the Directives leaves to Member States the discretion to regulate three optional matters relating to the notion of product, the notion of damage, and the development risk defense.

To begin with the notion of the product, Article 2 of The Directive 85/374/EEC excluded primary agricultural products and games from the definition of "product" under the Directive. However, Article 15 (1) (a) of the Directive allows Member States to derogate to Article 2, and to include them within the scope of EU-derived product liability laws. Later, the Directive 1999/34/EC[192] removed the exemption for primary agricultural products. Thus, this is no more an optional matter for Member States.

As to the notion of damage, Article 16, para.1 of the Directive 85/374 EEC provides that Member States "may provide that a producer's total liability for damage resulting from a death or personal injury and caused by identical items with the same defect shall be limited to an amount which may

[190] Maximal harmonization, in the sense that "deviation from the Directive is not allowed under any circumstances", while minimal harmonization means the national states have to take the Directive as a floor, and are allowed to issue much stricter rules than the Directive. *See* Cees van Dam, *European Tort Law*, p.424; *see* also Duncan Fairgrieve, Gerain Howells, Piotr Machnikowski et al, "Product Liability Directive", pp.27-28.

[191] In three important decisions (notably, *Commission v French Republic*, ECJ 25 April 2002 Case C-52/00, para.19 and 24; *Commission v Hellenic Republic*, ECJ 25 April 2002, Case C-154/00, ECR I-3879; *Maria Victoria Gonzárez Sánchez v Medicina Asturiana SA*, ECJ 25 April 2002, Case C-183/00, ECR 2002, I-3901), the Court of Justice of European Union pointed out that, apart from those matters for which the Directive provides an option or refers to national law, the Directive seeks to maximum harmonization.

[192] Directive 1999/34/EC of 10 May 1999, amending Council Directive 85/374/EEC on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products. OJ L 141, 4.6.1999, pp.20-21.

not be less than 70 million ECU". This ceiling is adopted by Germany, but not by Italy, France, and United Kingdom[193].

As to the development risk defense, Article 15, para.1 (b) of the Directive 85/374/EEC allows Member States to derogate Article 7 (e), and reject the development risk defense for the producer[194]. United Kingdom, Germany, France and Italy have adopted the development risk defense in their transpositions of the Directive 85/374/EEC; however, France and Germany do not allow this defense in medical area[195]. Germany excludes the defense for pharmaceuticals, according to §84 of its Medicinal Products Act (*Arzneimittelgesetz-AMG*) which stipulates absolute liability for pharmaceuticals entrepreneur[196]. France excludes the development risk defense for damage caused by an element of human body or by products derived from human body (such as blood products)[197].

There are a few other matters left to national laws. For example, Article 8, para. 1 of the Directive 85/374/EEC leaves to national law the regulation of the right of contribution or recourse among multiple tortfeasors – with the caveat that the producer's liability cannot be reduced when the damage is caused both by a product defect and also by the omission of the third party. The same Article also requires a rule of joint and several liability in case of multiple tortfeasors.

Further, the Directive 85/374/EEC does not affect national rules regarding suspension or interruption of limitation period for damage recovery (Article 10, para.2). Finally, the Directive leaves to Member States the decision about how to compensation non-material damage (Article 9, para.2).

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[193] *See* Jane Stapleton, *Product Liability*, pp.50-51.

[194] Article 15, para. 1 (b) of the Directive 85/374/EEC provides that "[Each Member States may] by way of derogation from Article 7 (e), maintain or, subject to the procedure set out in paragraph 2 of this Article, provide in this legislation that the producer shall be liable even if he proves that the state of scientific and technical knowledge at the time when he put the product into circulation was not such as to enable the existence of a defect to be discovered".

[195] *See* Cees van Dam, *European Tort Law*, p.423 and pp.434-435.

[196] § 84 of Medicinal Products Act (*Arzneimittelgesetz-AMG*), translated by the Language Service of the Federal Ministry of Health of Germany, at www.gesetze-im-internet.de/englisch_amg/englisch_amg.html#p1560.

[197] Article 1245-11 (former Article 1386-12) of the French Civil Code: "A producer may not invoke the exonerating circumstance [development risk defense] provided for in Article 1245-10, 4° [former Article 1386-11, 4°], when the damage was caused by an element of the human body or by products derived therefrom".

With regard to the question whether the Directive 85/374/EEC attained a real harmonization in Member states, there are those who argue that the Directive produced "no-harmonization"[198], and those who claim that the Directive gave rise to a substantial 'harmonization' of the field[199].

Those who side on the "no-harmonization" front first argue that the Directive had insufficient legal basis in the treaty of Rome[200]. As a matter of fact, Article 13 of the Directive 85/374/EEC did not attempt to substitute pre-existed liability regimes of the Member States – and it is clear to everybody that adding a parallel liability regime to the already existing liability regimes in the Member States was "an odd way to attempt harmonization"[201].

Besides, since the Directive is introduced into national laws by various legislations expressed in different legal languages, there existed varied deviations from the actual terms used by the Directive, and divergent interpretations among lawyers from different Member States. For example, regarding the notion of "product", the English version of the Directive included all movables which include electricity, but primary agricultural products and games were excluded[202]. The English notion also includes movables, which might be incorporated into another movable or into an immovable. When the Directive was transposed into United Kingdom, and become Title I of the Consumer Protection Act 1987, the Act defined "product" as any goods or electricity, and included within the notion any product which is comprised in another product, whether by virtue

[198] For more details about the "no-harmonization" argument, *see* Jane Stapleton, *Product Liability*, pp.53-55; also *see* Simon Whittaker, *Liability for Products*, pp.477-529; Simon Tylor, "Harmonisation or Divergence? A Comparison of French and English Product Liability Rules", 70 *Modern Law Review* 241 (2007), pp.241-242.

[199] *See* Christian von Bar, *The Common European Law of Torts*, volume 1, Clarendon Press, 1998, pp.367-410; Hans Claudis Taschner, "Harmonization of Product Liability Law in the European Community", 34 *Texas International Law Journal* 21 (1999), pp.21-43.

[200] *See* Jane Stapleton, *Product Liability*, p.54 (where the author argues that the Directive 85/374/EEC cannot either achieve harmonization, or resolve existing divergences in producer liability for defective products, because this would go against the instrumentality of directives set out in Article 100, para. 1 of Treaty of Rome, according to which the purpose of directives is to have "a direct incidence on the establishment and functioning of the common market").

[201] *See* Jane Stapleton, *Product Liability*, p.54.

[202] Article 2 of the Directive 85/374/EEC.

of being a component part or raw material or otherwise"[203] in Section 1 (2)(c). Between "goods" to "moveable" [204], is there any difference?

In traditional English law, good encompasses "a thing in possession and a thing in action"[205], and both of them fall under the broader concept of a personal chattel as pursuant to the Sale of Goods Act 1893 which however excluded a thing in action[206]. An English lawyer would naturally link the concept of "goods" with the Sale of Goods Act in England[207]. Because the Sale of Goods excludes a thing in action, things such as software will not be included. However, lawyers in Germany, France and Italy have no problem in accepting that a software can become a "movable"[208]. Perhaps

[203] Section 1 (2)(c) of Consumer Protection Act 1987.

[204] *See* Jane Stapleton, *Product Liability*, p.54. The author thinks the notion of "goods" is narrower under the Consumer Protection Act 1987. On the same lines, *see*, among the many, Simon Whittaker, *Liability for Products*, p.478.

[205] A thing in possession means a thing or thing of which one had possession, a thing in action is a right of bring an action or right to recover a debt of money. For a definition, *see Black Law Dictionary*, 9th edition, 2009; also *see* Ingeborg Schwenzer, Pascal Hachem, Christopher Kee, *Global Sales and Contract Law*, Oxford University Press, 2012, pp.96-107.

[206] *See* Ingeborg Schwenzer, Pascal Hachem, Christopher Kee, *Global Sales and Contract Law*, p.97. Goods are better understood as equating to French notion of 'les choses'. In common law, however, goods are necessarily tangible goods.

[207] *See* Jane Stapleton, *Product Liability*, p.87.

[208] *See* Title II: *Responsabilità per danno da prodotti difettosi*, D.lgs. 6 settembre 2005, n. 206 (Codice del Consumo). Article 115 of the Consumer Code used the concept "*bene mobile*" (movable property) to define the notion of product. Under Italian law, movable property is usually opposed to immovable property: immovables are the land and things permanently attached to the soil, either naturally or artificially, while movables are a residual category. *See* Article 812 of the Italian Civil Code (which defines immovable property as everything that is naturally or artificially annexed to the soil); *see* also Antonio Gambaro, *La proprietà: beni, proprietà, comunione*, Giuffrè Editore, 1990, pp.22-25; Andrea Torrente and Piero Schlesinger, *Manuale di diritto privato*, p.188. As to France, Article 1245-2 (former Art. 1386-3) of the French Civil Code (after introduction of *loi n°98-389 du 19 mai 1998*) defines a product as a "*bien meuble*", which means "moveable". For more information on the distinction between movable property and immovable property in French law, *see* Eva Steiner, *French Law- A Comparative Approach*, pp.284-285. As to Germany, § 2 of the Product Liability Act *(Produkthaftungsgesetz - ProdHaftG*), it defines a "product" (*produkt*) as a "*bewegliche Sache*", which means "movable" as well. An English version of the Act is accessible at www.gesetze-im-internet.de/englisch_prodhaftg/index.html, translated by Eileen Flügel. For a brief introduction of the Act, includes the definition of "product", *see* Heinz J. Dielmann, "The New German Product Liability Act", 13 *Hastings International Law & Comparative Law Review* 425 (1990), p.427.

this is because the distinction between movables and immovable comes directly from Roman law[209], and was straightly inherited by many major civil law countries in continental Europe.

There are other examples of possible patterns of divergences.

As to the notion "defect", Article 6 of the Directive 85/374/EEC provides that "[a] product is defective when it does not provide the safety which a person is entitled to expect". However, Article 6 does not lay a clear basis for the test of "defectiveness" for national judges. For an English lawyer, it is doctrinally confusing to distinguish product liability regime under the Directive – which is supposed to be a no-fault liability regime – from the tort of negligence. Since the tort of negligence requires a standard of conduct from a reasonable man to protect the victim against unreasonable risks, its test is objective as it does not care whether the defendant subjectively knows of the risks, or can avoid them[210] – and therefore seems very close to the "reasonable expectation" test embraced by the Directive.

Similar observations can be raised with regard to the test of defectiveness under the Directive. The test relies on the reasonable expectation of a person towards the safety of a product, which seems to be quite similar to the test under the law of negligence. For a French lawyer, who looks at the notion of 'defect" through the contractual concepts of '*vice*' and '*défaut de conformité*'[211], differentiating 'defects' from 'vices' and 'lacks of conformity' is a daunting task. Further, French jurists treat the test of legitimate expectation as an objective test, which should be based on 'general public' expectations rather than on those of the injured consumer[212]. But the reasonable man standard in English law does not coordinate in the same ways with the general public's expectations. So far, it appears that there are divergences between English and French lawyers' understandings of the same term in the Directive.

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[209] In Roman law, movable things include animals, transportable objects and also the slaves, while the notion of immovables covers immovable land and those things permanently inherent to it. *See* Matteo Marrone, *Istituzioni di Diritto romano*, p.282 ("*Si dice immobile il suolo insieme a ciò che vi inerice stabilmente; si dicono mobili gli animali e gli oggetti inanimati trasportabili o comunque amovibili: tra di esse, per diritto romano, anche gli schiavi*"); L.B. Curzon, *Roman Law*, Macdonald and Evans Ltd, 1966, p.74.

[210] *See* Cees van Dam, *European Tort Law*, p.231.

[211] *See* Simon Whittaker, *Liability for Products*, p.482.

[212] *See* Simon Whittaker, *Liability for Products*, p.482.

Last but not least, the product liability directive, although it was introduced into national laws through domestic acts, remains up to local judges to apply the domestic acts in real practice. Since the Directive does not affect doctrines in relation to topics such as causation, negligence, fault, standard of proof in national private law fields, naturally, it leaves a large room for local interpretation[213].

All these elements are downsized by those who adhere to the 'harmonization' argument. Under the light, the first point to be stressed is that, as a matter of fact, Member States have transposed the Directive 85/374/EEC into their national laws. Despite the fact that national courts judges still follow their national law provisions to adjudicate product liability related cases, the Directive has encouraged national courts to interpret their domestic tort laws in a pro-European version[214]. The application of European law by national courts gradually changes the landscape of private laws in Europe, and therefore help revive something close to the ancient *jus commune Europaeum*[215].

Second, those who adhere to this position point out that the Court of Justice of European Union has an increasing important role in harmonizing national laws of tort. As showed by many decisions[216], the Court tried to interpret the Directive, and to actively monitor whether Member States are obeying it. EU law also empowers private litigants against their Member State when the latter failed to transpose EU directive into national law[217], in addition to the actions of European

[213] *See* Jane Stapleton, *Product Liability*, p.55; Mauro Bussani, "Book Review: Gert Brüggemeier, Tort Law in the European Union (Kluwer, 2015)", 64 *The American Journal of Comparative Law* 1019 (2016), p.1021; *see* also Mauro Bussani, "EU Consumer Law and the Policy Paradox", in Barbara De Nonno, Federico Pernazza, Raffaele Torino, Gianluca Scarchillo and Domenico Benincasa (eds.): *Persona attività economica tra libertà e regola: Studi dedicati a Diego Corapi*, Editoriale Scientifica, 2006, pp.590-591; Simon Tylor, "The European Union and National Legal Languages : An Awkward Partnership?", 16 *Revue française de linguistique appliquée* 105 (2011), pp.113-114.

[214] *See* Christian von Bar, *The Common European Law of Torts*, p.389.

[215] *See* Tamar Herzog, *A Short History of European Law*, p.237; Basil S. Markesinis, "Bridging Legal Cultures", 27 *Israel Law Review* 363 (1993), pp.380-382.

[216] *Supra* note 191.

[217] *See Francovich and others v Italian Republic*, ECJ, 19 November 1991, joined Cases C-6/90, C-9/90, E.C.R.I - 5357, para.38-41 (the Council Directive 80/987 – on the protection of employees in the event of insolvency of their employer – was not been implemented by Italy within the time limit specified. The European Commission took actions against Italy for failure to fulfil its obligations, as decided in *Commission v. Italy*, ECJ, 2 February 1989, Case 22/87, E.C.R. 13. As to the private litigants' actions against the state for breach of community law, the Court of Justice found

Commission[218]. These mechanisms promote more integration of domestic laws in product liability field. Thus, the "harmonization" is an on-going process irrespective of the potential emergence of divergences.

Overall, the 'non-harmonization' and the 'harmonization' argument seem to focus upon different aspects of the complex interaction between the Directive and the domestic acts that transpose it. Certainly, the interaction is a lively one, since it works through the coercive actions of European institutions (such as the Commission and the Court of Justice of European Union) and through concrete adherence and disobedience by national courts, as well as by national governments. Hence, it seems appropriate to conclude that the Directive has achieved harmonization to a certain degree, as there are still great divergences existed among national laws.

## 3.6 The Product Liability Directive – Its Influence beyond the Borders European Union

Since the product liability directive enshrines the European model of product liability in the European Union, it might be seen as a "forced legal transplant"[219] from Brussels into the laws of

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that State liability is inherent in the Treaty scheme. There are some requirements for such action from private litigants: first, the directive must grant specific rights on private litigants; second, the breach should be sufficiently serious; third, there should be a causal link between the member state's failure to implement the directive, and the occurred loss and damage suffered by the injured parties). For a more detailed discussion of State liability under EU law, *see* Marie-Pierre F. Granger, "*Francovich* liability before national courts: 25 years on, has anything changed?", in Paula Giliker (ed.): *Research Handbook on EU Tort Law*, Edward Elgar Publishing, 2017, pp.94-98; *see* also Cass., 16 May 2003, n. 7630, in *Foro it.*, 2003, I, 2015; Cass., 17 April 2019, n. 9147, in *Foro it.*, 2009, I, 168 (the Italian Supreme Court re-affirmed the *Francovich* principle established by the Court of Justice).

[218] European Commission has the power to supervise compliance by the Member States, according to Article 258 and Article 259 of the TFUE (former Article 169 and 170 of the Treaty of Rome, complemented by Article 226 and Article 227 TEC, then Article 258 and Article 259 of the TFUE).

[219] *See* Simon Whittaker, "Product Liability Directive and Rome II Article 5: 'Full Harmonisation' and the Conflict of Laws", 13 *The Cambridge Yearbook of European Legal Studies* 435 (2011), p.450 (the author cited this expression from Bernard Rudden's article, "Forced Transplants", 10 *Electronic Journal of Comparative Law* 1 (2006)); also *see* Paula Giliker, "What Do We Mean By EU Tort Law", 9 *Journal of European Tort Law* 1 (2018), p.5 (the author views the EU tort law as a legal transplant where the donor (EU) retains control over the transplanted law in the Member States).

Member States. But the influence of the directive went well beyond the political borders of the European Union. Since the Directive was issued in 1985, many countries in Europe which did not belong to the E.U.[220], in the Far East[221], in Latin America[222] and in other parts of the world[223] have used it as a statute blueprint for making their own product liability regimes[224].

In order to understand the influence of the European model of product liability outside the E.U., we have to compare it with the U.S. model of product liability law, because clearly, it is U.S. first introduced strict liability in tort for defective products in *Greenman v. Yuba Power Products* of 1963[225], and it was the American Restatement (Second) of Torts of 1965 that had inspired the 1985 European Communities Directive[226]. For example, with regard to the definition of product defect,

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[220] This is the case in Norway, Switzerland, Bulgaria and other European countries which are not part of the European Union. For example, Norway enacted its Product Liability Act in 1988. It was adapted in line with the Product Liability Directive. For a detailed introduction of the Norwegian product liability, *see* Bjarte Askeland, "Product Liability in Norway", in Piotr Machnikowski (ed.): *European Product Liability. An Analysis of the State of the Art in the Era of New Technologies*, Intersentia, 2016, pp.359-376. As to Switzerland, it adopted a Product Liability Act in 1993, which was also in line with the Directive 85/374/EEC, *see* Bénédict Winiger, "Product Liability in Switzerland", in Piotr Machnikowski (ed.): *European Product Liability. An Analysis of the State of the Art in the Era of New Technologies*, Intersentia, 2016, pp.459-478.

[221] In the Far East, many Asia-pacific countries referred to the Directive for making their own product liability laws. This is the case in Japan, China, Taiwan, and Australia. For example, Japan enacted its Product Liability Act in 1994. The Act was "modelled closely" on the European Product Liability Directive, *see* Hideyuki Kobayashi and Youshimasa Furuta, "Product Liability Act and Transnational Litigation", 34 *Texas Law International Journal* 93 (1999), p.95.

[222] This is the case in Brazil, Peru, Chile as well. *See* Mathias Reimann, "Product Liability in a Global Context: The Hollow Victory of the European Model", 11 *European Review of Private Law* 128 (2003), p.136.

[223] For example, in Israel, the Defective Product (Liability) Law of 1980 was inspired by the first draft of the product liability Directive in 1976. For the text of the first draft, see it on the *Official Journal of European Communities*, C 241/19, 14 October 1976. *See* also Israel Gilead, "Product Liability in Israel", in Piotr Machnikowski (ed.): *European Product Liability. An Analysis of the State of the Art in the Era of New Technologies*, Intersentia, 2016, p.525.

[224] *See* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard", 51 *The American Journal of Comparative Law* 751 (2003), pp.761-762; Mathias Reimann, "Product Liability in a Global Context: The Hollow Victory of the European Model", p.136.

[225] *See* Ulrich Magnus, "Some Thoughts on Germany's Contribution to European and Comparative Law", p.93.

[226] *See* James A. Henderson, Jr. and Aaron D. Twerski, "What Europe, Japan, and other Countries Can Learn from the New American Restatement of Products Liability", p.11 (the authors made a prima facie conclusion that the European

the Directive committed itself to § 402 A of the Restatement (Second) of Torts of 1965 which adopted the consumer expectation test.

There are some similarities and differences between the two leading models. When it comes to the similarities, both of them hold manufacturers strictly liable for defective products caused damage[227]; and both allow roughly the same defenses[228] – for example, the development risk defense[229]. There are also major differences. First, the European model is statutory, and the U.S. one is not. Second, the European model does not distinguish defects into categories – manufacture defects, design defects and failure to warn – as the U.S. did. Instead, it looks at defect in general. Third, with regard to the test of defectiveness, the European model adopts a rational expectation test, which is in line with § 402 A of the Restatements (Second) of Tort. While the U.S. has developed other tests, notably the risk-utility tests in deciding product designing and warning defects. Last but not the least, the European model focuses upon the liability of producer which encompasses the manufacturer of a finished product, the producer of raw material or component, as well as own-brander and importers[230], but it does not focus upon the liability of suppliers of the product, for example, the liability the distributors or retailers. Under the Directive, the supplier has

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and Japanese product liability adopted a 1960s version of American products liability law, because these three models share similar definitions of defect, and they all adopt the consumer expectation test of defectiveness); Ulrich Magnus, "Some thoughts on Germany's Contribution to European and Comparative law", pp.93-94 (Professor Magnus held the view that the Directive received strong influence from the U.S regime of product liability that was encapsulated in § 402 A of the Restatement (Second) of Torts of 1965).

[227] § 402 A of Restatement (Second) of Torts; Article 6 of the Directive 85/374/EEC.

[228] *See* Mathias Reimann, "Product Liability in a Global Context: The Hollow Victory of the European Model", p.135.

[229] Article 7 (e) of the Directive 85/374/EEC, and also the § 17 (a) of Restatement (Third) of Torts in the U.S. The development risk defense (or "the state-of-the-art defense") allows a manufacturer to escape from liability if he proves that he has complied with "technological feasibility". The words "technological feasibility" is cited from Frank J. Vandall, *A History of Civil Litigation: Political and Economic Perspectives*, Oxford University Press, 2011, pp.75-76 (the author discusses "the state-of-the-art defense" in the United States); also *see* Jane Stapleton, *Product Liability*, pp.225-229 (the author discusses the development risk defense under the 1985 Product Liability Directive). In some cases, the U.S. courts rejected the development risk defense, for example, *Beshada v. Johns-Manville Products*, 90 N.J. 191 (1982).

[230] Article 3 (1), (2) of the Directive 85/374/EEC.

only a subsidiary liability[231]. He will be liable only when he cannot inform the victim, within a reasonable time, of the identity of either his own supplier or the producer of the defective product[232]. Under the U.S. model, the victim can sue any seller of the defective product in the chain of distribution[233]. This promotes consumer claims against not only the producers but also the commercial sellers and distributors.

Why the European model becomes much influential than the U.S. model in the world? One of the main reason is that the European model is statutory, and is therefore much easier for foreign countries to borrow[234]. In fact, many countries that have borrowed the E.U. model of product liability share a civil law tradition. Given this fact, it makes sense that they regard statutes as a much-welcomed form for codifying product liability rules. Another reason appears to be a policy choice, as these countries choose to channel the product liability claims towards to the producers rather than towards to all the participants in the distribution chain like the U.S. model does. Moreover, the development of the U.S. product liability law is mainly in the hands of judges, which makes the system very hard to transplant[235].

Yet, as Mathias Reimann commented, although the European model has conquered the law on books, it has very little impact on the law in action both inside and outside the European Union[236]. In the majority of those countries which adopted or emulated the European model, defective

[231] *See* Geraint Howells, "Product Liability", in Jan M. Smits (ed.): *Elgar Encyclopedia of Comparative Law*, Edward Elgar Publishing, 2006, p.581.

[232] Article 3(3) of the Directive 85/374/EEC.

[233] *See* comment (f), § 402 A of Restatement (Second) of Torts; § 1 Restatement (Third) of Torts.

[234] It is easier to borrow foreign law when it is "in a language that is well-understood". *See* Alan Watson, *Comparative Law: Law, Reality and Society*, Second enlarged edition, Vandeplas publishing, 2008, pp.5-11 (the author lists several factors for legal borrowing, among which there is the accessibility of foreign law); Mathias Reimann, "Product Liability in a Global Context: The Hollow Victory of the European Model", pp.142-143 (who argues that the American Model Uniform Product Liability Act was too lengthy and complex to be borrowed, and the § 402 A of U.S. Restatement (Second) of Tort was too rudimentary. As to the U.S. Restatement (Third) of Tort, it was published in 1997, twelve years after the 1985 Product Liability Directive).

[235] *See* Mathias Reimann, "Product Liability in a Global Context: The Hollow Victory of the European Model", p.136.

[236] *See* Mathias Reimann, "Product Liability in a Global Context: The Hollow Victory of the European Model", p.145 (who based his observations upon parameters such as litigation statistics, win-lose-ratios, and actual rewards. He then concluded that "the European Directive has not really made much a difference in practice").

product related lawsuits have been very rare[237]. One major explanation for such result is that many legal systems lacks institutional, social, and procedural setting that favors an effective product liability regime in action[238].

## 4. The Development of Defective Products Liability in China: Importing Rules from the West

In order to understand the historical development of Chinese product liability law, we need to go back in time, a little bit farther than the date in which the laws of People's Republic of China (PRC) on products liability law were promogulated after 1979. By presenting a brief account of Chinese law reforms from the near-end of Qing Empire up to present, our reader will understand why China chose a civil law model for its tort law development, and why the country's product liability law development, though it had a good theoretical basis, was interrupted and re-continued due to political changes in its over one hundred year's history of legal modernization. In the subsequent sections, we will first present an overview of Chinese law reforms from the last ten years of Qing Empire (from 1901 to 1911) until the promulgation of the Law of People's Republic of China on Product Quality (hereinafter "the Product Quality law 1993"[239]). We will then discuss the PRC's emulation of foreign product liability models – notably the U.S. model and the Council Directive 85/374/EEC – from the adoption of the Product Quality Law 1993 until today.

### 4.1 The History of Product Liability in China before Product Quality Law 1993

Since 1901, the Qing Empire began to draft the civil code. The Draft of Civil Code of Great Qing (hereinafter "Qing Civil Code draft") was finished in 1911. It contained five books – General Principles, Law of Obligations, Property Rights, Family and Succession – of which, the first three

[237] *See* Mathias Reimann, "Product Liability in a Global Context: The Hollow Victory of the European Model", p.148.

[238] *See* Mathias Reimann, "Product Liability in a Global Context: The Hollow Victory of the European Model", p.151; Mauro Bussani and Marta Infantino, "Tort Law and Legal Cultures", 63 *The American Journal of Comparative Law* 77 (2015), pp.78-83 and pp.87-90; Jane Stapleton, *Product Liability*, pp.70-75, and pp.82-84.

[239] The law was amended in 2000 and 2009.

books were drafted by Japanese jurists, while the latter two were drafted by Chinese jurists as to preserve Chinese customs[240]. Contemporary Chinese legal historians suppose this draft was a reception of Japanese Civil Code of 1898, and, through the latter, an indirect transplant from the German BGB of 1900, as Japanese drafters of the Civil Code of 1898 were strongly influenced by the Pandectist plan and German BGB drafts[241].

The Qing Civil Code Draft offered no specific tort law rules regarding defective products. However, it stipulated the duty of seller to guarantee the conformity of goods in Article 568 of the Draft in the Book of Obligations which had a single section dealing with purchase and sales contract. Further, Article 572 offered to the buyer, in case of non-conformity of the goods, the right to rescind contract and to ask for either compensation for the contract breach or for a reduction of the price. However, if the buyer knew there were flaws, the assumption of risk doctrine applied, and the buyer could not claim any rights but has to bear the risk of defects[242]. Apart from contractual stipulations, the draft also clarified that the basic principle that tort liability is based upon fault, and includes both intentional and negligent acts[243]. It also provided that the injurer was liable in tort if he intentionally or negligently protective statute (Article 946 of the Qing Civil Code Draft) or intentionally harmed others by acts against public morals and good customs (Article 947 of the Qing Civil Code Draft). Although the Qing Civil Code Draft has laid important theoretical bases for product liability development in China at the beginning of the

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[240] *See* Zhang Jinfan (张晋藩), *The Tradition and Modern Transformation of Chinese Law（中国法律的传统与近代转型)*, 法律出版社 (Law Press), 1997, p.450 (author's translation); also *see* Hao Jiang, "Chinese Tort Law", in Mauro Bussani and Anthony J. Sebok (eds.): *Comparative Tort Law: Global Perspectives*, Edward Elgar Publishing, 2015, p.392.

[241] *See* Zhang Jinfan (张晋藩), *The Tradition and Modern Transformation of Chinese Law（中国法律的传统与近代转型)*, pp.450-452; and Emi Matsumoto, "Tort Law in Japan", in Mauro Bussani and Anthony J. Sebok (eds.): *Comparative Tort Law: Global Perspectives*, Edward Elgar Publishing, 2015, p.359 (where the author states that Japanese Civil Code was also influenced by French law, as exampled in articles from Article 709 to 724 of Japanese Civil Code of 1898).

[242] Article 574 of the Qing Civil Code Draft.

[243] Article 945 of the Qing Civil Code Draft.

twentieth century, it was not implemented after its publication in 1911. The Qing Empire also ceased to exist at the same year.

Nonetheless, the legislative efforts in late Qing Dynasty led China onto a path that modelled Chinese laws upon civil law codifications. After the collapse of Qing Empire in 1911, the Republic of China (RoC) was established in Nanjing in 1912. By then, China was dominated by different warlords and foreign powers; and the new Republic did not unify the country until 1928. Between 1927 and 1937, the RoC that ruled by the Nationalist party issued "the Code of Six Laws"[244], including Criminal law, Civil law, Commercial law, Civil procedure law, Criminal procedure law, and Constitution (provisional version)[245]. The Civil Code of RoC, which was issued in 1929 and enacted in 1930, had the same general structure as the Qing Civil Code Draft. After the Nationalist party lost the Civil War to the Communist party in 1949, it moved the RoC regime to Taiwan. Meanwhile, it also took the Code of Six Laws to Taiwan[246].

In 1949, the PRC was established. It denounced "the Code of Six Laws" as a piece of "plain paper"[247] and a capitalistic product of the Nationalist Party. It, therefore, abolished all of the

[244] In Chinese, "the Code of Six Laws" is called as "*Liù Fǎ QuánShū*" (六法全书).

[245] The term "the Code of Six Laws" does not indicate six separate codes. It is used to mean the collective body of laws of the RoC regime. When the Nationalist party first started to compile laws, the Code of Six Laws includes criminal law. and so on. Later, the distinction between civil law and commercial law is abolished. For more historical detail about the Code of the Six Laws, *see* Jiafu Chen, *Chinese Law: Towards an Understanding of Chinese Law, Its Nature and Development*, Kluwer Law International, 1999, pp.23-24, fn.151.

[246] Legal historians in Taiwan argued that the reception date of "the Code of Six Laws" in the island, shall count from 1945 rather than 1949 when the Nationalist party moved the RoC regime away from Mainland China. The reason is that Taiwan was returned to China after Japan surrendered to the RoC regime in 1945. *See* Wang Taisheng (王泰升), *The Break and Continuity of Taiwanese Law (台湾法的断裂与连续)*, Angle publishing Co., Ltd., 2002, p.5 (author's translation of the book's title).

[247]The Community party leader Mao Zedong saw "the Code of Six Laws" of the Nationalist party as a piece of "plain paper" – a metaphor he used to describe the uselessness of these laws. *See* Mo Zhang, *Chinese Contract Law: Theory and Practice*, Martinus Nijhoff Publishers, 2006, pp.2-3.

existing laws in the new republic[248]. Since then, the PRC choose to borrow the Soviet Union law model. However, its civil law project was interrupted by the Anti-Rightist campaign in later 1950s, and by the Cultural Re*vol*ution between 1960s and 1970s[249]. Presumably, there was no legal development during the Cultural Revolution, as law faculties were all abolished, and virtually, there was no legal profession in this period[250].

After the end of Cultural Revolution, the PRC began to implement "open and reform" policy, and launched political, economic, and legal reforms for pre-existing planned economy in 1978. Since then, economic development was a primary goal, and industrial products became much more affluent in the country. Meanwhile, legal development, particularly the re-establishment of legal institutions, legal profession as well as legal education, was also called out by ongoing social-economical changes[251].

The first traceable formal legal rules that governed tort liability is the General Principles of Civil Law of 1987 (hereinafter "General Principles")[252]. The law laid out basic principles and rules for civil liability in general, as showed in Article 106, para. 2 of General Principles which supports 'fault' as an essential element of civil liability[253]. However, the law did not specify whether tort liability is mainly based upon fault, nor did it present a clear, logical structure to organize different types of tort liabilities[254]. As for product liability, Article 122 specially dealt with substandard

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[248] *See* Order of the Central Committee of Chinese Communist Party about Abolishing "the Code of Six Laws" of the Nationalist Party and Confirming Judicial Principles in Liberal Regions (*中共中央关于废除国民党《六法全书》和确定解放区司法原则的指示*) (author's translation).

[249] *See* Mo Zhang, *Chinese Contract Law: Theory and Practice*, pp.4-5.

[250] *See* Daniel C.K. Chow, *The Legal System of the People's Republic of China in a Nutshell*, West Academic Publishing, 2003, p.59.

[251] *See* Jedidiah J. Kroncke, *The Futility of Law and Development: China and the Dangers of Exporting American Law*, Oxford University Press, 2016, pp.228-232.

[252] Section III (Civil Liability for Infringement of Rights) Chapter VI (Civil Liability) of General Principles. The Section contains articles from Article 117 to Article 133. Article 122 specially deals with substandard products caused harm.

[253] Article 106, para. 2 of General Principles: "Citizens and legal persons who through their fault encroach upon state or collective property, or the property or personal rights of other people shall bear civil liability".

[254] *See* Hao Jiang, "Chinese Tort Law", p.397.

products that cause harm. It provided that, if the substandard product causes physical or property harm to others, the manufacturer or the seller shall be liable[255].

Before the General Principles were implemented in 1987, there were very few legislations nor recorded litigations for defective products in China. With regard to legislations, there were for instance the Law on Economic Contracts of 1981[256], and the Law on Economic Contracts Involving Foreign Interests of 1985[257]. The Law on Economic Contracts of 1981 provided contractual liability rules for non-conformity of goods by the supplier in sales contract but there were no tort law rules for defective products caused harm[258]. However, the Law on Economic Contracts of 1981 has a narrower definition of "economic contract", which excluded the possibility for a natural person to become a party of an economic contract and to base a claim upon the contractual liability rules provided by the Law on Economic Contracts[259]. Thus, a buyer who bought defective goods for his own consumption, cannot sue his direct seller of the goods for liability in economic contract[260].

[255] Article 122 of General Principles: "If a substandard product causes property damage or physical injury to others, the manufacturer or seller shall bear civil liability according to law. If the transporter or storekeeper is responsible for the matter, the manufacturer or seller shall have the right to demand compensation for its losses".

[256] The Law on Economic Contracts of 1981 was amended in 1993 and then abolished in 1999 when the current Chinese Contract Law was promulgated.

[257] Like the Law on Economic Contracts of 1981 (amended in 1993), the Law on Economic Contracts Involving Foreign Interests of 1985 was abolished in 1999 as well.

[258] Article 38 (1) (a) of Law on Economic Contract of 1981 (the same text as the Article 33 (1) (a) of Law on Economic Contract of 1993): "(1) Liability of the supplying party: (a) If the type, specifications, quantity, quality or packaging of the product does not conform to the provisions of the contract, or if delivery is not make on the date prescribed in the contract, it shall pay breach of contract damages and compensatory damages".

[259] Article 2 of Law on Economic Contract of 1981 provides that, "[E]conomic contracts are agreements between legal entities for the purpose of realizing certain economic goals and clarifying each other's rights and obligations".

[260] This remained true under the amended law on economic contracts of 1993. Article 2 of the law on economic contract of 1993 provided that "[T]his Law shall be applicable to contracts entered into between civil subjects of equal footing, that is, between legal persons or other economic organizations or self-employed industrial and commercial households or leaseholding farm households for the purpose of realizing certain economic goals and defining the rights and obligations of the parties".

As regard to the Law on Economic Contracts Involving Foreign Interest of 1985, it did not address sales contract specifically but it has provided liability rules for non-performance or imperfect performance of the contract[261]. Like the Law on Economic Contracts of 1981, the Law did not allow natural persons of PRC to become a party to an economic contract that involved foreign interest[262]. Although it did allow foreign individuals to become a contractual party, in case of defective products caused harm, it required the party who breached the contract to compensate only the losses that were foreseeable by him at the time of conclusion of the contract[263]. This rule, inevitably, more often than not limited the right of the injured foreign individual to claim compensation for personal injuries and pure economic losses. However, the Law allowed contractual parties to choose foreign law to solve contractual disputes[264].

In 1986, the State Council issued the Regulation on Quality Responsibility for Industrial Products (hereinafter "the Quality Responsibility Regulation"). The Regulation did not provide any tort liability rules for product quality disputes. Instead, it provided contractual and administrative liability rules. As to product quality disputes, Article 20 of the Regulation sets forth two paths: (1) if there was an economic contract between parties, the dispute should be governed by the Law on

[261] Article 18 of Law on Economic Contracts Involving Foreign Interests of 1985: "If a party fails to perform the contract or its performance of the contractual obligations does not conform to the agreed terms, which constitutes a breach of contract, the other party is entitled to claim damages or demand other reasonable remedial measures. If the losses suffered by the other party cannot be completely made up after the adoption of such remedial measures, the other party shall still have the right to claim damages".

[262] Article 2 of Law on Economic Contracts Involving Foreign Interests of 1985: "This Law shall apply to economic contracts concluded between enterprises or other economic organizations of the People's Republic of China and foreign enterprises, other economic organizations or individuals (hereinafter referred to as "contracts"). However, this provision shall not apply to international transport contracts".

[263] Article 19 of Law on Economic Contracts Involving Foreign Interests of 1985: "The liability of a party to pay compensation for the breach of a contract shall be equal to the loss suffered by the other party as a consequence of the breach. However, such compensation may not exceed the loss which the party responsible for the breach ought to have foreseen at the time of the conclusion of the contract as a possible consequence of a breach of contract".

[264] Article 5 of Law on Economic Contracts Involving Foreign Interests: "The parties to a contract may choose the proper law applicable to the settlement of contract disputes. In the absence of such a choice by the parties, the law of the country which has the closest connection with the contract shall apply".

Economic Contracts; (2) if there was no economic contract, the dispute had to be either mediated before the Quality Supervising Agency or litigated before a court.

With regard to litigation, the Chinese Legal Daily reported in 1986 that Shanghai High Court handed a final decision in a case related to defective products[265]. In the case, an engineer who worked for the plaintiff – Polyester Plant of Shanghai Petroleum and Chemical Corporation – was killed by a defected heat insulator produced by a heat insulation material factory in Wuxi. Later, the plaintiff corporation sued the producer for economic losses. The court reasoned that the product was not conforming to the defendant producer's advertisement, and therefore the defendant was liable for the plaintiff's economic loss[266]. This case shows that Chinese courts were not prepared to handle litigations over defective products caused harm, and that there was no positive tort law framework to protect the victims' rights in cases of defective products causing personal injuries. There were very few victims who went to court to claim compensation from retailers, and nobody tried to sue the manufacturer of the concerned products.

What happened after the General Principles were promogulated in 1987? In the late 1980s, legal scholars who looked to the European Union and the United States for inspiration, started to use the Chinese terms of 'defect' (in Chinese, *缺陷 -quéxiàn*) and 'vice' (*xiá cī 瑕疵*)[267] to deal with

[265] *See Shanghai Petroleum and Chemical Corporation -Polyester Plant v. Wuxi Heat Insulation Material Factory (上海石化总厂涤纶厂诉无锡保温材料厂一案)* (author's translation). Chinese Legal Daily published the case on 2 December 1986. However, the case cannot be retrieved today in any digital archives. Its basic facts are found in an article dated to 1988. *See* Li Shuangyuan (李双元), "Further Perfecting Chinese Product Liability Laws" (进一步完善我国产品责任法制度), 6 *Law Review(法学评论)* 7 (1988), p.10 (author's translation).

[266] *See* Li Shuangyuan (李双元), "Further Perfecting Chinese Product Liability Laws" (进一步完善我国产品责任法制度), p.10.

[267] *See* the definitions of "瑕疵" (xiá cī) and "缺陷" (quéxiàn) in Language Research Institute of Chinese Academy of Social Science(ed.): *Modern Chinese Dictionary (现代汉语词典)*, 1984, The Commercial Press, p.1239 and p.951 respectively; *see* Cui Jianyuan (崔建远), "On Product Liability" (论产品责任), 4 *Jilin University Journal Social Science Edition(吉林大学社会科学学报)* 29 (1987), pp.29-34; Guo Feng (郭峰), "An Opinion on Making Chinese

product defectiveness issues[268]. The concept of "vice" originates from the Roman law rule that a seller shall guarantee his buyer that the sale good is free from flaws. Its Chinese translation could be traced back to the sale contract rules in the Qing Civil Code Draft (1901-1911), the Civil Code Draft of RoC (1925), and also the Civil Code of RoC (1929). The Chinese term for "defect" was newer, and was not formally used as a legal concept until the Product Quality Law 1993 which differentiated the two legal terms, and adopted "defect" as the essential element for product liability[269].

Despite academic diffusion of the two legal notions – "defect" and "vice", Chinese courts stick to the concept "substandard" as the founding element for product liability in legal decisions[270]. For example, in a model case published by Gazette of Supreme People's Court[271] in 1989, the plaintiff, a supply and marketing cooperative which sold groceries, bought a refrigerator from a retailer in Baotou city, Inner Mongolia Autonomous region. The refrigerator was produced by a factory in northern Jiangsu Province. The Jiangsu Standard Institute had issued a product quality certificate for that product. When the plaintiff's employee tried to open and take food from the refrigerator,

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Product Liability Law" (制定我国产品责任法刍议), 05 *Hebei Law Science (河北法学)* 5 (1985), pp.5-8 (author's translation).

[268] *See* Li Shuangyuan (李双元), "Further Perfecting Chinese Product Liability Laws" (进一步完善我国产品责任法制度), p.10.

[269] Article 28 (vice, and non-conformity of goods), and Article 29 to Article 34 of Product Quality Law 1993 (liability for defective products).

[270] For a representative view for the approach of Chinese courts at that time, *see*, for example, Zhang Zhengxin (张正新), "Reflection upon a Few Problems in Adjudicating Product Liability Litigation" (浅谈审理产品责任案件应明确的几个问题), 6 *The People's Judicature (人民司法)* 22 (1988), pp.22-23 (author's translation). The People's Judicature is a journal run by the Supreme People's Court of China, where judges publish their law articles.

[271] *See Houyingzi Supply and Marketing Cooperative v. Food container retailer of The Third Railway Middle School (dispute over product liability) (后营子供销社诉铁三中冷冻食品机械经销部产品责任纠纷案)*, decided on 24 February 1989, by Donghe District Court of Baotou City in Inner Mongolia Autonomous Region. The case was collected in Volume 2 of the Gazette of Supreme People's Court of 1989, *see* this case at the Gazette's official archive website at http://gongbao.court.gov.cn/Details/3c9ae7c1fdfec0f33d6d6aa75f9652.html.

he was injured to death by the refrigerator electricity. The plaintiff sued the retailer before the district court of Baotou city. The plaintiff contended that the defendant has supplied a substandard product, which has killed its employee. The plaintiff claimed that the defendant should be liable for the loss by the interruption of its business and also for the compensation fees it paid to the family's victim. In addition, the defendant should restitute the substandard refrigerator and refund the plaintiff's cost. The defendant argued that the refrigerator was a standard product, that it functioned well for first twenty-three days after it was installed, and that it was thus the plaintiff's fault that caused the victim's death.

The Court found that the refrigerator was substandard based upon the report from Inner Mongolia Standard Institute which qualified the refrigerator as substandard, despite that the product was certified as standard by Jiangsu Standard Institute. Finally, the Court decided that the defendant should be liable for the substandard product caused death injury to the victim, according to Article 122 of General Principles. Further, according to Article 119 of General Principles[272], and Article 15 of the Quality Responsibility Regulation of 1986[273], the defendant shall refund the plaintiff's payment for the refrigerator, and transportation fees that needed for the refrigerator restitution, as well as the plaintiff's loss due to the interruption of business. The defendant also had to pay an amount of compensation fees that the plaintiff paid for funeral expenses, necessary living expenses of the victim's dependents, as well as death compensation fees. In addition, the Court awarded damages to the victim's relatives (who were not a party in the proceedings) for their loss of earnings and transportation costs. From today's view, this case would be wrong in terms of applying law, because the court awarded tort damages to a non-litigation party, and because it

[272] Article 119 of General Principles: "Anyone who infringes upon a citizen's person and causes him physical injury shall pay his medical expenses and his loss in income due to missed working time and shall pay him living subsidies if he is disabled; if the victim dies, the infringer shall also pay the funeral expenses, the necessary living expenses of the deceased's dependents and other such expenses".

[273] Article 15 of State Council's Regulations on Quality Responsibility For Industrial Product of 1986: "In case the product sold by the marketing firm is found not up to the conditions stipulated in Article 2 [defines the notions – "quality of product" and "quality responsibility for products"] within the period of guarantee, the marketing firm shall be responsible for guaranteed repairing, replacement, taking back the product and refunding, and undertaking the responsibility of compensating for the actual economic loss" (translated by the Bureau of Legislative Affairs of the State Council of the People's Republic of China, published in *Laws and Regulations of The People's Republic of China Governing Foreign-Related Matters*, China Legal System Publishing House, 1991).

adjudicated the litigation between parties based upon tort rather upon the contract rules of General Principles.

In theory, under General Principles, a victim who suffered harm from defective products had to prove that the product was "substandard" (in circumstances when a product was not subject to any standard) or that the product was legally certified as "standard" but was de-facto "sub-standard" (in circumstances in which a certification existed). Besides, Article 136 of General Principles provided a one-year limitation period for the plaintiff's action, both in cases of bodily injuries and in case of sales of substandard products without proper notice[274]. The limitation period started to run from the day in which the victim knew or should have known that his civil right had been infringed[275]; more specifically, for personal injuries, it was counted from the date of injury, or from the date in which the injury was not only diagnosed but was also proved to be the result of the tortfeasor's conduct[276]. There rules however did not directly address defective products causing harm. Considering that, until 1991 and 2001 respectively, no formal civil procedure rules were enacted[277] and no comprehensive civil litigation evidence rules[278] were enacted, Chinese plaintiffs had a very difficult journey to seek remedies from Chinese courts before the adoption of the Product Quality Law 1993.

## 4.2 The Chinese Reception of European Union's Model

In 1993, the Standing Committee of People's Congress promogulated the Product Quality Law. The law represented a significant step towards a formally codified framework regarding product

[274] Article 136 (1)-(2) of General Principles.

[275] Article 137 of General Principles.

[276] Article 168 of Opinions of the Supreme People's Court on Certain Issues Concerning the Implementation of the "General Principles of the Civil Law of the People's Republic of China" (Trial), promulgated on 26 January 1988.

[277] The Chinese Civil Procedure Law was first promulgated in 1991.

[278] Provisions of the Supreme People's Court on Evidence in Civil Proceedings was promulgated on 21 December 2001. Article 4 (6) of Provisions of the Supreme People's Court on Evidence in Civil Proceedings states that: "In case of a tort action resulting from damage caused by a defective product, the manufacturer of said product shall bear the burden of proof for the existence of the grounds of exemption from liability as provided for by law".

safety. Notwithstanding that most of the provisions were related to administrative controls of product safety, the Product Quality Law 1993 laid down an important basis for the product liability system China has today[279]. As we will see, there are several areas in which the Product Quality Law 1993 received influences from the Directive 85/374/EEC.

First, as to the definition of "defect", Article 34 of Product Quality Law 1993 defines the "defect" as an "unreasonable danger existing in a product which endangers the safety of human life or another person's property". The test embraces the consumer expectation test adopted by Article 6 of the Directive 85/374/EEC (which defines a product is defective when it does not provide the safety which a person is entitled to expect); in addition, it also provides that defectiveness is a failure to meet national or sectoral standards[280]. The term "unreasonable danger" is not a helpful concept when it comes to determines which level of safety a product should reasonably have. Its ambiguity parallels the vagueness of the Directive 85/374/EEC.

Second, as regard to the basis of liability, Article 3 of the Product Quality Law 1993 provides that "Producers and sellers shall be liable for product quality". However, Article 3 is a proclamatory provision, because it implies civil liability in general and it does not provide any specification about the circumstances in which civil liability might arise. It is Article 29 of the Product Quality Law 1993 that clearly states that a producer is liable for defective products caused harm other than to the product itself. The Article does not require fault as a requirement for a tort liability action for defective products. It appears that Article 29 PQL corresponds to recital 2 in the preamble of the Directive 85/374/EEC, according to which "liability without fault on the part of the producer is the sole means of adequately solving the problem", as well as to Article 1 of the Directive, which requires the producer to be liable for damage caused by product defect. Moreover, Article 29 PQL is in line with Article 9, para.1 (b) of the Directive 85/374/EEC, which excludes compensation for any damage caused to the product itself.

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[279] *See* Kristie Thomas, "The Product Liability System in China: Recent Changes and Prospects", 63 *International & Comparative Law Quarterly* 755 (2014), p.759.

[280] Article 34 of Product Quality Law 1993 provides that: "'[D]efect' referred to in this Law means the unreasonable danger existing in a product which endangers the safety of human life or another person's property; where there are national or trade standards safeguarding the health or safety of human life and property, "defect" means inconformity to such standards".

Under Article 3, para. 3 of the Directive, if the producer cannot be identified, each supplier of the product will be treat as producer and therefore bears the strict liability, unless the supplier informs the injured person within a reasonable time. The Product Quality Law 1993 imported this rule from the EU directive, but mentioned no reasonable time limit for the identification of the producer. Under the PQL, a seller is liable to the victim if he cannot identify neither the producer nor the supplier of the defective products[281]. The seller is also liable if his fault caused the defectiveness of the product, and therefore, caused harm to the victim. Seller's liability is however a fault-based one. This is a novelty of the PQL, insofar as seller's liability is not covered by the European Directive. Nevertheless, the Directive does not seem to impose a strict liability regime on the supplier, because he responds only if he cannot identify the real producer of the product, or the supplier of the upper chain who distributed the product to him[282].

Finally, as regard to the defenses for the defendant producer, Article 29 of the Product Quality Law 1993 lists three defenses: (1) the product was not put in circulation; (2) the defect causing the damage did not exist at the time when the product was put in circulation; (3) the state of science and technology at the time the product was put in circulation was at a level incapable of detecting the defect ("development risk defense")[283]. The three defenses are identical with Article 7 (a), (b), (e) of the Directive. Besides, Article 7 (c) of the Directive[284] allows the producer to exonerate his liability if he proves that he is not manufacture for sale or for any economic or business purpose. This defense seems close to the function of Article 2 of Product Quality Law 1993, which provides that the notion of "product" is referred to a product "which is processed or manufactured for the

[281] Article 30 of Product Quality Law 1993.

[282] *See* Duncan Fairgrieve, Geraint Howells, Piotr Machnikowski et al, "Product Liability Directive", pp.69-70.

[283] Article 29 of Product Quality Law 1993.

[284] Article 7 (c) of the Directive provides that, "[the producer will not be liable if he proves that] the product was neither manufactured by him for sale or any form of distribution for economic purpose nor manufactured or distributed by him in the course of his business".

purpose of sale". Hence, it will exclude products which are not for economic or business purpose, and exempt the producer from bearing tort liability[285].

### 4.3 U.S. Influences in Chinese Product Liability Rules

Apart from the influence Chinese Product Liability rules received from the European Union model, it also transplanted rules and concepts from the United States. One example of American influence is the categorization of defects. Despite the fact that Chinese product liability laws do not formally distinguish product defects into three categories – manufacture defects, design defect and failure to warn – as the American Restatement (Third) of Tort did, the categorization is widely accepted among Chinese scholars[286] and courts[287].

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[285] This view was shared by a few scholar papers in 1990s: *see*, for example, Hou Huaixia (侯怀霞) and Wang Yuanzhi (汪渊智), "Product Liability Defenses" (产品责任之抗辩), 4 *Science of Law (法律科学)* 73 (1998), p.74 (author's translation).

[286] *See* Yang Lixin (杨立新) and Yang Zhen (杨震), "Application of Chinese Law to Product Liability Cases: Report of Chinese Law in the First Symposium for the Inaugural Meeting of the Global Academy for Tort Law" (有关产品责任案例的中国法适用 — 世界侵权法学会成立大会暨第一届学术研讨会的中国法报告), 5 *Northern Legal Science (北方法学)* 5 (2013), pp.5-17 (the authors mention that there exist two views regarding categorization of defects. One view embraces the American category of defects; another view, influenced by German private law, added a fourth defect for not "tracking and observing" the product. According to the authors, the latter is the mainstream view. However, such an assertion seems to lack any jurisprudential evidence).

[287] For example, in *Jiepao Electronic Technology Co., Ltd. v. Qingdao Hisense Import & Export Co., Ltd. (dispute over contract for international sale of goods)* (*捷跑电子科技有限公司诉青岛海信进出口有限公司国际货物买卖合同纠纷案*), the Intermediate Court of Qingdao City, Shangdong Province cited the U.S. categorization of defects. This case was collected in Volume 11 of the Gazette of Supreme People's Court of 2013. *See* this case at the Gazette's official archive website at http://gongbao.court.gov.cn/Details/003ac03d045dfee68d48e90a342bec.html?sw=. It was decided on 24 August 2012.

Another notable example is punitive damages. A punitive damages award is not an option available under European Union law, for the reason that many European countries like Italy, Germany, and France share a common Roman law basis which holds that the only consequence of delict is the obligation to compensate damages[288]. Although the Chinese legal system follows civil law tradition[289], it transplanted punitive damage rules from the U.S.[290] and allowed Chinese courts to award punitive damages for the plaintiffs in a few circumstances specified by consumer and product liability laws.

Punitive damages were first brought into China by Article 49 of the Consumer Rights and Interest Protection Law of 1993. The Article punishes the seller or service provider who engages in fraudulent behavior, and intentionally sell non-conformity goods, by requiring them to compensate the consumers with damage awards equal to twice price of the goods he sold[291]. It is widely read as a liability for breach of contract rather than based upon tort[292].

The initial purpose of transplanting this punitive damage rule into Chinese consumer laws was to punish fraudulent business activities, and encourage injured consumers to pursue protection of their own rights, as well as to deter illegal economic and business activities from disrupting market order[293]. Now, in relation to fraudulent activities in providing goods or service, punitive damage

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[288] *See* Gianluca Scarchillo, "La natura polifunzionale della responsabilità civile: dai punitive damges ai risarcimenti punitivi. Origini, evoluzioni giurisprudenziali e prospettive di diritto comprato", 1 *Contratto e impresa* 289 (2018), p.299.

[289] *See* Yan Zhu, "The Bases of Liability in Chinese Tort Liability Law—Historical and Comparative Perspectives", in Lei Chen and C.H. (Remco) van Rhee (eds.): *Towards a Chinese Civil Code, Comparative and Historical Perspectives*, Martinus Nijhoff Publishers, 2012, pp.335-341.

[290] *See* Zhang Baohong (张保红), "Integration between Punitive Damage Rule and Chinese Tort Law" (论惩罚性赔偿制度与我国侵权法的融合), 2 *Science of Law* (法律科学) 132 (2015), p.137.

[291] Article 49 of the Consumer Rights and Interest Protection Law of 1993.

[292] *See* Bai Jiang (白江), "Enlarging the Scope of Use of Punitive Damage in Chinese Tort Liability Law" (我国应扩大惩罚性赔偿在侵权责任法中的适用范围) 9 *Tsinghua University Law Journal (清华法学)* 11 (2015), p.14.

[293] *See* Yang Lixin （杨立新）, "The New Development of Punitive Damages for Consumer Protection in China" (我国消费者保护惩罚性赔偿的新发展), 2 *The Jurist （法学家）* 78 (2014), p.80; *see* also Ken Oliphant,

awards are raised to equal to triple price of the goods, according to Article 55 para. 1 of the Consumer Rights and Interest Protection Law of 2013[294] (which amended the previous consumer law of 1993). In addition, Article 55, para. 2 of the Consumer Rights and Interest Protection Law of 2013 adopted punitive damages for business operators "who knowingly provide defective goods or services for consumers, causing the death of, or serious health damage to, the consumers or other victims"[295]. The punitive damages award is up to twice the losses suffered by the victim. Moreover, according to Article 55, para. 2, the punitive damage awards can be extended to bystander victims as well.

Punitive damages awards are also possible in cases of defective food products. For example, punitive damages can be awarded up to ten times the price where the seller who sells food products with prior knowledge of non-conformance[296]. Article 47 of Tort Liability Law enlarged the scope of punitive damages awards by allowing them in all products liability cases, provided that the intentional tortious conduct of the producer or the seller has caused the victim (including the bystander victim) death or serious health damages [297]. To conclude, punitive damages awards make

"Uncertain Causes: China's Tort Law in Comparative Perspective", in Lei Chen and C.H. (Remco) van Rhee (eds.): *Towards a Chinese Civil Code, Comparative and Historical Perspectives*, Martinus Nijhoff Publishers, 2012, p.389.

[294] Article 55, para. 1, of the Consumer Rights and Interest Protection Law of 2013.

[295] Article 55, para. 2, of the Consumer Rights and Interest Protection Law of 2013.

[296] *See* Article 96 of Food Safety Law of 2009; and Wei Zhang, "The Evolution of the Law of Torts in China", in Yun-chien Wang, Wei Shen and Wen-yeu Wang (eds.): *Private Law in China and Taiwan: Legal and Economic Analysis*, Cambridge University Press, 2017, p.140.

[297] Article 47 of Tort Liability Law: "In the event of death or serious damage to health arising from a product that is manufactured or sold when it is known to be defective, the infringee shall be entitled to claim corresponding punitive compensation". China is currently drafting its own civil code. Article 982 of the 3rd draft of the Tort Book of the Chinese Civil Code (September 2019) continues the approach of applying punitive damage to all product liability case. It provides that "[w]here, despite the manufacturer or the seller's knowledge that a product is defective, they continue to produce or sell the product, or take no remedial measures [such as stopping selling, providing warning, recalling the product, and etc] as provided in the preceding article [Article 981], and consequently, the product defect causes death or serious damage to the health of others, the victim has the right to claim punitive damages accordingly"(translated by Professor Zhang Lihong, East China University of Political Science and Law. The following English translations of the 3rd draft of the Tort Book of the Chinese Civil Code are by the same author cited here). Apparently, Article 982 adds that taking no remedial measures can also trigger the appliance of punitive damage.

Chinese product liability law acquires a "public law" face[298]; meanwhile, Chinese scholars labor in this tort law filed also become much more opened to law and economic approach that fashioned by American counterparts[299].

[298] *See* Jacques Delisle, "A Common Law-like Civil Law and a Public Face for Private Law: China's Tort Law in Comparative Perspective", in Lei Chen and C.H. (Remco) van Rhee (eds.): *Towards a Chinese Civil Code, Comparative and Historical Perspectives*, Martinus Nijhoff Publishers, 2012, p.372.

[299] *See* Ken Oliphant, "Uncertain Causes: China's Tort Law in Comparative Perspective", p.389; Saul Levmore, "Legal Evolution in China and Taiwan", in Yun-chien Wang, Wei Shen and Wen-yeu Wang (eds.): *Private Law in China and Taiwan: Legal and Economic Analysis*, Cambridge University Press, 2017, p.19.

## Chapter II. Current Liability Rules for Component and Raw Material Suppliers of a Defective Product in the United States, the European Union, and China

### 1. Suppliers' Liability: An Introduction

The first chapter outlined the historical development of legal doctrines in product liability in the United States, the European Union, and China. It was suggested that different legal systems, though they remain distinct from each other, have arrived at substantially similar positions in dealing with harms caused by defective products that are commercially supplied[300].

In fact, before the rise of product liability as a special regime of tort, almost all the legal systems under examination treated harm cause by defective products primarily as a contract issue[301]. In England, the implied warranty of merchantability was a nineteenth-century creation by judges that allowed the buyer to recover the economic loss arising from defective goods[302], and that imposed strict liability upon the seller who provided them. The doctrine was codified by the Sale of Goods Act of 1893 in England, and was borrowed by U.S. legal scholar Robert Williston in the draft of

[300] *See* John Bell and David Ibbetson, *European Legal Development: The Case of Tort*, p.74.

[301] *See* John Bell and David Ibbetson, *European Legal Development: The Case of Tort*, p.74; Simon Whittaker, *Liability for Products*, p.482.

[302] In addition to economic losses, English judges in the nineteenth century also treated property damage and personal injuries caused to the buyer by defects as recoverable under the implied warranty. The rule found support from a series of English decisions, such as *Brown v Edgington* (1841) 2 Man & G 279, *Randall v. Raper* (1858) EI BI & EI 84, *Smith v. Green* (1875) 1 CPD 92, *Randall v. Newson* (1877) 2 QBD 102 (CA). For a brief historical introduction of the implied warranty of merchantability, *see* William L. Prosser, "The Implied Warranty of Merchantable Quality", 21 *Canadian Bar Review* 446 (1943), pp.447-451; Stephen Waddams, *Dimensions of Private Law: Categories and Concepts in Anglo-American Legal Reasoning*, Cambridge University Press, 2003, pp.97-98.

the Uniform Sales Act of 1906[303]. Despite the fact that the Uniform Sales Act of 1906 was adopted by only a limited number of States in the U.S., the implied warranty of merchantability was already an established common law rule in American jurisprudence[304]. In those systems whose roots lay in Roman law, a disappointed purchaser of the defective goods had three remedies: rescinding the contract and asking for the restitution of price with the return of the property; reducing the price; obtaining damages reflecting the diminished value of the goods[305].

The problem with contractual remedies is that they were inadequate in dealing with harms caused by commercially supplied defective products[306]. There are mainly three reasons. First, the implied warranty of merchantability or the non-conformity of goods was limited by the privity doctrine. Thus, it was difficult to recover damages for a person who was not privy to the contract. Second, according to the principle of parties' autonomy in contract law, the seller could disclaim his warranty obligation in the contract, and even limit the remedy for warranty obligations[307]. Third,

[303] *See* § 15(1) and (2) of the Uniform Sales Act of 1906.

[304] *See* William L. Prosser, "The Implied Warranty of Merchantable Quality", pp.446-447.

[305] *See* John Bell and David Ibbetson, *European Legal Development: The Case of Tort*, p.75; Simon Whittaker, *Liability for Products*, p.79; also *see* Cass., ord. 26 September 2018, n.23015, in *Foro it.*, 2019, I, 1358, at 1366 (where the Supreme Court of Italy opined that "[t]he protection of the buyer of defective product, therefore, is in three distinct actions: resolution, reduction of price, and damage compensation. The first two remedies are actionable alternatively between them. They can cumulate with the third, but the third can be also practiced in an autonomous way". Translated by the author. The original text is "*La tutela del compratore del viziato si articola, dunque, in tre distinte azioni: risoluzione, riduzione del prezzo e risarcimento del danno; i primi due rimedi, azionabili alternativamente tra loro, sono cumulabili con il terzo, il quale a sua volta può essere esercitato in via autonoma*"); Mo Zhang, *Chinese Contract Law: Theory and Practice*, pp.303-305.

[306] As explained in the first chapter, France is an exception. French judges made rules that impose contractual liability upon all commercial distributors include manufacturer, retailer, and wholesalers. For more discussion upon this topic, *see* Hugh G. Beale, Bénédicte Fauvarque-Cosson, Jacobien Rutgers, and Stefan Vogenauer, *Cases, Materials and Text on Contract Law*, 3rd edition, Hart Publishing, 2019, pp.765-784.

[307] *See* Werdner. P. Keeton, "The Meaning of Defect in Products Liability Law – A Review of Basic Principles", 45 *Missouri Law Review* 579 (1980), p.584; David G. Owen, *Product Liability in a Nutshell*, p.111; William L. Prosser, *Handbook of the Law of Torts*, p.666 (disclaimers will defeat warranty); Vincenzo Zeno Zencovich, "La responsabilità civile", in Guido Alpa, Michael Joachim Bonell, Diego Corapi, Luigi Moccia, Vincenzo Zeno-Zencovich, Andrea Zoppini (eds.): *Diritto privato comparato: Istituti e problem*i, Editori Laterza, 2012, p.409; UCC § 2-136 (disclaimer of warranties); Article 1229 of the Italian Civil Code.

there were procedural obstacles for contractual remedies; for example, the disappointed buyer forfeited his rights if he failed to notify the seller within a short period after the discovery of defects[308].

Now, this remark upon contractual remedies does not hold anymore completely true. It is important to add that there have been some changes in the functions of warranties in both English and American law. In the United Kingdom, according to S.1 of the Rights of Third Parties Act, it is possible for a seller's liability under a sale contract to extend contractual rights to any third party whom the parties wish to benefit, but only if the parties of a sale contract clearly intended so in their contract[309]. English law requires such intention to be clearly expressed. Presumably, under English law, the final user may be a third party beneficiary if the supplier of components or raw materials clearly intended so. In the United States, § 2-318 of the Uniform Commercial Code presents three alternatives to overcome the doctrine of privity, and all these alternatives would make the seller liable for the injuries suffered by a third party who may be reasonably expected to use the goods[310]. Since § 2-103 (1) (d) of the Uniform Commercial Code defines the seller as "a person who sell or contracts to sell goods"[311], the supplier of raw materials and components is liable for harm caused by manufacture defects according to the warranty doctrine under the Uniform Commercial Code[312]. Indeed, in the U.S., actions against the manufacturer under the implied warranty of merchantability is still a viable road to recovery for the victim[313]. However,

[308] *See* Article 1495 of the Italian Civil Code, Article 158 of Chinese Contract Law, and UCC § 2-607 (3) (a) (all these articles are about the duty to notify the seller within a reasonable time after the buyer discovers or should have discovered any breach. In the Italian case, it is eight days after the discovery of defects according to Article 1495 of the Italian Civil Code. The Chinese Contract Law and UCC set no specific date limit for the notification). The French Civil Code and German BGB do not mention the duty to notify within a reasonable time. However, Article 1648 of the French Civil Code and § 438 BGB set a prescription period for the contractual claim after the defect has been discovered.

[309] For a comparative study upon the topic of contracts for benefits of the third parties, *see* Hugh G. Beale, Bénédicte Fauvarque-Cosson, Jacobien Rutgers, and Stefan Vogenauer, *Cases, Materials and Text on Contract Law*, pp.1268-1269.

[310] *See* § 2-318 of the Uniform Commercial Code (third party beneficiaries of warranties express or implied).

[311] *See* § 2-103 (1) (d) of the Uniform Commercial Code (definitions and index of definitions).

[312] *See* J. Stanley Edwards, *Tort Law*, 6th edition, Cengage Learning, 2016, p.321.

[313] *See* David G. Owen, *Products Liability in a Nutshell*, p.107.

many U.S. scholars disagree that the implied warranty of merchantability should apply between the supplier of components or raw material and the user, for the reason that it would be a wasteful protection, although they agree that the express warranties should apply in favor of the user[314]. In the United States, some courts agree with this view[315], while others do not[316].

Another road to recover the victim's loss is through tort law remedies. Although the development of tort liability for defective products causing harm was not exactly the same among different legal systems, the pattern of legal development appears to be homogenous in the tort law field too. In common law, judges followed negligence theory to approach defective product cases; in civil law,

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[314] *See* William K. Jones, "Product Defects Causing Commercial Loss: The Ascendency of Contract over Tort", 44 *University of Miami Law Review* 731 (1990), pp.791-793 (the author argues that it would be wasteful to impose warranty obligations upon component manufacturer, but he does not reject an express warranty running to the final user); Curtis R. Reitz, "Manufacturers' Warranties of Consumer Goods", 75 *Washington University Law Review* 367 (1997), p.392 (the author opines that "components suppliers and other upstream sellers do not have that kind of contractual relationship with downstream consumer buyers; these remote parties do not have the contractual context from which to construct an implication in fact of the quality of the goods". However, with regard to express warranties, it is valid, because the freedom of contract); Donald F. Clifford, "Express Warranty Liability of Remote Sellers: One Purchase, Two Relationships", 75 *Washington University Law Review* 413 (1997), p.446 (the author shares the same view as previously quoted authors).

[315] *See Hininger v. Case Corp*, 23 F.3d 124 (5th Cir. 1994), at 128-129 (in which the court also concluded that a merchantability claim should not be available against the component manufacturer, because the component manufacturer's inability to effectively disclaim, as well as a lack of expectation from the finished product user that the component manufacturer would fix any defect in the finished product); in an earlier decision – *Goldberg v. Kollsman Instrument Corp*. 12 N.Y.2d 432 (1963), a New York Court rejected the application of the implied warranty to the component manufacturer, because making the manufacturer liable would already provide adequate protection for the airline passengers; *see* also the comment to the case "Airline Passenger's Lack of Privity Bars Implied Warranty Action Against Manufacturer of Defective Component Part But Not Against Assembler of Complete Airplane", 63 *Columbia Law Review* 1522 (1963), p.1526 (the Review did not indicate the author's name).

[316] *See Berg v. Johnson & Johnson*, 2013 U.S. Dist. LEXIS 41029 (the plaintiff Berg was diagnosed with ovarian cancer due to the use of Johnson & Johnson's product Baby Powder and Shower to Shower on a daily basis. She sued Johnson & Johnson, as well as Luzenac, which is the component supplier of talc to Johnson & Johnson. Talc is a raw material mined from ground, and used in various applications. It is one of the main ingredients of Johnson & Johnson's aforementioned products. The court recognized that Berg can sue the component supplier based upon implied merchantability warranty. However, because the component supplier made a clear disclaimer of implied warranty, as it was allowed to do under South Dakota law, the plaintiff's warranty action against the component supplier failed).

it was the doctrine of fault-based liability that dictated tort solutions for defective products causing harm[317]. Of course, the notions of negligence liability and fault-based liability in these legal systems are not entirely overlapping[318]. Yet, given the fact that product liability has spread throughout the world, and is received as a special field with its own principles and rules by judges, scholars, and practitioners in different jurisdictions[319], the difference between negligence liability and fault liability in transatlantic legal systems will be largely ignored in the following pages.

The problem with negligence theory and with the doctrine of fault-based liability is the high bar of proof that they both impose to the plaintiff, who has to prove the fault of a producer[320]. In England and the United States, the use of "*res ipsa loquitur*" was adopted in court decisions to ease the plaintiff's burden of proving negligence in product liability cases, and to create a factual presumption that, under the circumstances, the injuries were caused by the producer's

[317] This conclusion does not apply to France. As early as in 1930, the French Court of Cassation already refashioned Article 1242, para.1 (former Article 1384, para. 1) of the French Civil Code, and imposed strict liability for things in treating defective products causing injury.

[318] For a critical assessment of the two tenets – negligence and fault – in transatlantic negligence law, *see* Mauro Bussani, "Negligence and Fault: Understanding the Veil", in Research Institute of Procedural Studies, Faculty of Law, National and Kapodistrian University of Athens (eds.): *Essays in honor of Konstantinos D. Kerameus*, Ant. N. Sakkoulas, 2009, pp.183-201 (the author assesses the "modular" approach – which tends to represent each elements as separate, independent variables – in civilian jurisdictions, and the "person without qualities rule" – which means that a person's behavior should conform to the standard of care expected of the "reasonable person" – in common law jurisdictions); also *see* Cees van Dam, *European Tort Law*, pp.136-139 (the author introduces a variety of diverging requirements for liability based on negligent actions in England, Germany, and France).

[319] *See* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty – First Century: Emergence of a Worldwide Standard", pp.756-757.

[320] For a critical comment, *see* John F. Clerk, *Clerk & Lindsell on Torts*, pp.717-718 (where the author agrees that the most obvious shortcoming of negligence liability is the higher bar of proof for fault; however, he opines that this fact cannot be overplayed, because in many product liability cases, the difficulty is not much proof of fault as proof of causation. The latter is necessary even under a product liability regime. Nevertheless, in cases concerns imports, the importer of a defective product will be not held liable under negligence liability in English law, as he has no chance to check the quality of goods that are distributed. A plaintiff would have difficulty to against the inaccessible defendant under the law of law of negligence).

negligence[321]. In Germany and Italy, courts since the 1960s consistently reverted the burden of proof to hold the manufacturers liable[322]. On another hand, these creative solutions seem to prove that courts act within the limits available to them in different legal systems when the legislature fails to respond to harm caused by industrial products[323]. In China, facing the rise of injuries from industrial products after economic reform in late 1970s, the legal system builders looked to Western legal systems for solutions, for the reason that China lacked legal experience, institutional framework, and legislative technique in product liability field.

This is the big picture of the development of product liability in different legal systems. However, such a picture should be looked at with a caveat, as it would certainly leave out many details in different legal systems. The same caveat applies to this chapter, which will focus on current product liability rules for the supplier of raw materials and components that are integrated into a finished product in the U.S., the E.U., and China. In other words, the chapter will present how different legal systems faced the problem of determining the liability of the supplier, when the raw materials and components he supplied were integrated into a finished product and caused damage to someone other than the product's direct purchaser.

## 2. Definitions and Caveats

To begin with, there are a few questions to clarify, especially regarding the meaning of notions such as "suppliers", "components" and "raw materials", as well as the precise focus of this chapter.

First, who are the component and raw materials suppliers? It is generally accepted that the suppliers of component and raw materials are usually the manufacturer distributors who are at the top of

[321] *See* Edward G. White, *Tort Law in America*, p.171; William L. Prosser, "The Assault upon the Citadel (Strict Liability to the Consumer)", pp.1117-1118 (*see* the author's comments on the deficiency of "*Res Ipsa Loquitur*" doctrine in protecting the injured plaintiff in product liability cases).

[322] *See* Cass., 25 May 1964, n. 1270, in *Foro it*., 1965, I, 2098 (the Saiwa case of 1964), and BGHZ 91,53 (chicken pest). Also *see* Joachim Zekoll, "The German Product Liability Act", 37 *The American Journal of Comparative Law* 809 (1989), p.810.

[323] *See* John Bell and David Ibbetson, *European Legal Development: The Case of Tort*, p.74.

production chain, and whose products are incorporated into the final product by manufacturers-assemblers[324]. Almost all the legal systems under examination treat the suppliers of component and raw materials as subject to liability for the harms caused by their defective products. In the United States, §402 A of the Restatement (Second) of Torts of 1965 expresses no opinion whether the notion "seller" includes the supplier of component or raw materials who engage in the business of selling a defective product[325]. But according to § 5 of the Restatement (Third) of Torts: Products Liability (1998), the suppliers of components and raw materials are recognized as producers who shall be liable for product defects that caused harm, but not for "what comes after" – in the sense that they are not liable for conduct of the final product manufacturer in processing the components and raw materials[326]. However, it should be mentioned that the restatements are no legally binding

[324] The supplier here indicates the producer in the production chain of a product, not the supplier of a product in distribution chain. For a more detailed definition, *see* David Owen, *Product Liability in a Nutshell*, p.451. In the European Union, the term 'supplier' only implies distributors rather than producers in the distribution chain: *see* Christopher Hodges, "Product Liability of suppliers: the notification trap", 27 *European Law Review* 758 (2002), pp.758-764.

[325] *See* Caveat (2) and (3), § 402 A of The Restatement (Second) of Torts of 1965:

"The Institute expresses no opinion as to whether the rules stated in this Section may not apply […]

(2) to the seller of a product expected to be processed or otherwise substantially changed before it reaches the user or consumer; or

(3) to the seller of a component part of a product to be assembled".

[326] *See* § 5 of the Restatement (Third) of Torts: Products Liability (1998):

One engaged in the business of selling or otherwise distributing product components who sells or distributes a component is subject to liability for harm to persons or property caused by a product into which the component is integrated if:

(a) the component is defective in itself... and the defect causes the harm; or

(b)(1) the seller or distributor of the component substantially participates in the integration of the component into the design of the product; and

(2) the integration of the component causes the product to be defective [...]; and

(3) the defect in the product causes the harm".

for American courts, and are only meant to promote general consensus among the courts, scholars, and also practitioners[327].

In the European Union, Article 3(1) of the Directive 85/374/EEC defines producer as "the manufacturer of a finished product, the producer of any raw material or the manufacturer of a component part and any person who, by putting his name, trade mark or other distinguishing feature on the product presents himself as its producer"[328]. Under the Directive, suppliers of components or raw materials are liable for product defects causing harm.

In China, Article 41 of Tort Liability Law of 2010 does not specify who is the producer like Article 3 (1) of the Directive 85/374/EEC does, as it only provides that, "[a] producer shall bear tort liability if its product causes damage to others due to a defect"[329]. However, Chinese scholars and legal practitioners generally accept that the suppliers of components and raw materials are subject to tort liability stipulated by Article 41 of Tort Liability Law[330].

Our second question concerns the terms 'component' and 'raw material'. Are they 'products' within the meaning of products liability? In the U.S., the notion of product components generally includes raw materials[331]. Moreover, the commentary of the Restatement (Third) of Torts:

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[327] For an assessment of the influence of the restatements in the United States, *see* Mathias Reimann, "American Private Law and European Legal Unification – Can the United States be a Model", 3 *Maastricht Journal of European & Comparative Law* 217 (1996), pp.224-225.

[328] Article 3 (1) of the Directive 85/374/EEC.

[329] Article 41 of Tort Liability Law of 2010.

[330] *See* Ran Keping, "Liability Subjects in Products Liability" (论产品责任的责任主体), 105 *Science Technology and Law (科技与法律)* 60 (2013), pp.61-63 (author's translation); for a case report about a component producer of car tyre was held liable for the defects of tyre caused injury in 1999, *see* "*An exploded car tyre caused accident, the tyre producer bears liability*" *(汽车炸胎惹事故 轮胎厂家担责任)*, at the official site of China Court (https://www.chinacourt.org/article/detail/2002/07/id/7583.shtml).

[331] § 10, comment (c) of the Tentative draft No. 3 of the Restatement (Third) of Torts: Products Liability (1996) (hereinafter, "Tentative draft No.3 of the Restatement (Third)"), in which reporters commented that "product components include raw materials". Later, § 5, comment (a) of the Restatement (Third) of Torts: Products Liability (1998) re-affirmed that "product components include raw materials, bulk products, and other constituent products sold for integration into other products").

Products Liability (1998) classifies components based upon their functional capabilities, as some have no functional capabilities unless being integrated into other products, while other components have single or multi-functional capabilities[332].

About the term 'raw material', there is no definitions provided by the Restatement (Third) of Torts: Products Liability (1998). By describing the use of 'raw material', legal scholar M. Stuart Madden noted that, "[the term raw material] is used to describe materials sold in bulk that is transformed in the course of the production of the completed product"[333]. Under this definition, raw materials include both "naturally occurring and synthetic or processed substances". In addition, § 5, comment (a) of the Restatement (Third) of Torts: Products Liability (1998) supposes that raw materials have no functional capabilities unless it is integrated into the end products[334]. Yet, with regard to raw material, some U.S. courts do not think that raw material can be defined as a "product"[335], because "[the] material not reduced to consumable form is not a product within the meaning of products liability law"[336]. In China, since Article 2 of Product Quality Law implies product must be processed, and manufactured, therefore, raw materials might not be recognized as a product under the law.

Third, which situation is our primary focus in this chapter? The answer is that the chapter will focus on cases in which raw materials or components that have been already integrated or processed into finished products cause harm. This situation, however, has two aspects: (1) the component or the raw material itself is defective before putting into circulation, and is integrated

[332] § 5, comment (a) of the Restatement (Third) of Torts: Products Liability (1998) says that "[S]ome components, such as raw materials, valves or switches, have no functional capabilities unless integrated into other products. Other components, such as a track chassis or a multifunctional machine, function on their own but still may be utilized in a variety of ways by assemblers of other products".

[333] *See* M. Stuart Madden, "Liability of Suppliers of Natural Raw Materials and the Restatement (Third) of Torts: Products Liability – A First Step towards Sound Public Policy", 30 *University of Michigan Journal of Law Reform* 281 (1997), p.282.

[334] § 5, comment (a) of the Restatement (Third) of Torts: Products Liability (1998).

[335] *See Wyrulec Co V. Schutt*, 866 P.2d 756 (Wyo.1993), at 760 (electricity is recognized as a product. The strict liability doctrine is inapplicable); *Kennedy v. Vacation Internationale, Ltd.*, 841 F.Supp.986 (D.Haw.1994), at 989 (tile used in resort's flooring was not a product under Hawaii law because it became a building fixture when laid).

[336] *See* M. Stuart Madden, "Liability of Suppliers of Natural Raw Materials and the Restatement (Third) of Torts: Products Liability – A First Step towards Sound Public Policy", p.283.

into the final product; (2) the component or the raw material itself is not defective before putting into circulation, but the defect arises from the manner in which the manufacturer/assembler integrated into the finished product[337]. With regard to the first aspect, whether the supplier is liable depends upon the causation link between defective component or defective raw material with the harm caused to someone other than the purchaser. With regard the second aspect, although the component or the raw material is not defective, the supplier can be held liable if his conduct caused the finished product defective.

For situations like harms caused by components or raw materials which are *to be* used in the production of finished products, or which are used at the moment of processing the integration – e.g., cases in which a worker who was integrating the component into the finished product was harmed by the component, this chapter will not consider them. In addition, raw materials, like gas, chemicals which are supplied with repackage, but are not integrated into the finished products, are also not included in the study.

In order to present a picture of current liability rules for the suppliers of components and raw materials in different legal systems, the chapter will discuss a few general liability standards that applied to the supplier of components and raw materials in product liability field, such as the test defectiveness, categories of defects, damage and defenses. Since the liability for the suppliers of components and raw materials is determined by the concept of defect[338], paragraph 3 will introduce the different tests of defectiveness that have been employed (or proposed) in different legal systems.

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[337] 63 Am. Jur. 2d Products Liability § 149:

"There is a distinction between components that directly contribute to the dangerousness of the whole product and components that become dangerous only as a result of their incorporation into the whole. Generally, only in the former case is the seller of the component subject to liability. In order for a component manufacturer to be held liable for injuries proximately caused by its component, it must be shown that the component was defective or unreasonably dangerous when it left the component supplier's control. Thus, when component manufacturers introduce defective components into the stream of commerce, they may be held liable for the resulting injuries under the particular circumstances of the case. If the component part is subject to further processing or substantial change, or where the cause of injury is not directly attributable to the defective construction of the component part, liability may not be imposed on the component manufacturer".

[338] *See* Werdner P. Keeton, "Products Liability and the Meaning of Defect", *5 Saint Mary's Law Journal* 30 (1973), p.32.

As to the categories of defects, since the American tripartition of defects – manufacture defects, design defects, and failure to warn – is widely accepted in other legal systems, the chapter will adopt it as the lens to examine its reception and rejection in other legal systems.

Finally, the chapter will focus upon the damages that a plaintiff can recover from the supplier of component and raw materials, and also the defenses the latter can employ to escape from tort liability. In the course of these efforts, this chapter will endeavor to achieve an understanding of the commonalities and divergences between different legal systems in setting the scopes of strict liability for component and raw material producers in defective products cases.

## 3. The Definition of "Defectiveness"

The definition of "defectiveness" lies at the core of product liability law. Virtually speaking, both contractual and tort claims in product liability require that the product is defective, however the test of "defectiveness" differs in contract and tort[339]. For contract-based warranty claims, the test of "defectiveness" in England and the United States is whether a product was of merchantable quality or fit for its purpose. A breach of the implied warranty signifies that the product is "defective"[340]. In the civil law systems studied here, the test of "defectiveness" is whether the seller fulfils his obligation of conformity of goods in contract law[341].

[339] *See* Alistair M. Clark, *Product Liability*, p.27.

[340] *See* David Owen, *Product Liability in a Nutshell*, p.194.

[341] *See* Geoffrey Samuel, *Understanding Contractual and Tortious obligations*, p.28. In German contract law, the notion of defects is governed by § 433 BGB, § 434 BGB, and § 442 BGB. In Italian contract law, the notion of defectiveness means "imperfection or alteration of a good due to its production or conservation", and the use of this notion is codified in the Italian Civil Code from Article 1494 to Article 1512; also *see* Pier Giuseppe Monateri, *La responsabilità civile*, UTET, 1998, p.717; Andrea Torrente and Piero Schlesinger, *Manuale di diritto privato*, pp.747-749. In France, see Article 1641 of the French Civil Code with regard to "*la garantie des vices cachés*" (*latent defects guarantee*); also *see* Paul -Henri Antonmattei, Jacques Raynard, *Droit civil. Contrats Spéciaux*, 10th edition, Litec, 2000, pp.180-187. For a statutory recognition from the European Union level, *see* the Directive 1999/44/EC of the European Parliament and of the Council of 25 May 1999 on certain aspects of the sale of consumer goods and associated guarantees, O J L 171/1999 ('The Directive 99/44/EC"), which requires the seller must deliver goods to

For tort claims, both negligence and strict liability regimes in tort are predicted upon the defectiveness of a product, and require the plaintiff to prove that the product is defective, and it has caused harm[342]. Compares to the contractual claims, negligence and strict liability regimes are more concerned with the recovery of losses from the producer rather than from the retailer/seller of a product, who merely acts as a distributor of goods and usually has no skilled knowledge of the goods. In fact, even if the retailer/seller has knowledge of the goods, in many cases it is in practice impossible to ask him to examine the goods[343]. The major difference between negligence and strict liability for defect products is that the law of negligence asks whether the producer is at fault in causing the product defective, and therefore caused the injury, while the strict liability eliminates the condition of fault, and, instead, focuses upon the defective condition of the product[344].

Reckoning the centrality of the notion of defectiveness, legal scholars and judges have spilled inks in developing tests to define defectiveness. No doubt that American judges and scholars are the frontrunners in proposing new tests for defectiveness in product liability field, such as consumer expectation test, risk-utility test, the *Barker v Lull Engineering Co.*[345] test (also known as "two-pronged" test), negligence with imputed knowledge, absolute liability, the cheapest cost avoider, the communicative tort[346]. Among them, the consumer expectation test and the risk-utility test have had a worldwide influence. The remaining part of the paragraph will be devoted to reviewing such standard.

More in detail, the paragraph first will introduce the following tests in the United States: (1) consumer expectation test; (2) risk-utility test; (3) the *Barker v. Lull Engineering Co.* test; (4) the test of 'negligence with imputed knowledge'; (5) the notion of communicative tort; (6) the doctrine

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the consumer which are in conformity with the contract of sale in the Member States. The Directive 99/44/EC amended special regimes with regard to the defectiveness test in contract. In China, *see* Article 153 and Article 155 of Chinese Contract Law of 1999, which require the quality conformity of the goods.

[342] *See* David Owen, *Product Liability in a Nutshell*, p.194.

[343] *See* Peter Cane, *Atiyah's Accidents, Compensation and the Law*, 7th edition, Cambridge University Press, 2006, p.99.

[344] *See* Peter Cane, *Atiyah's Accidents, Compensation and the Law*, p.92.

[345] 573 P.2d 443 (1978).

[346] *See* Frank J. Vandall, *The History of Civil Litigation: Political and Economic Perspectives*, pp.30-38.

of the cheapest cost avoider; and (7) theories of absolute liability. Then it will discuss the "legitimate expectation test" adopted in the European Union, and whether and to what extent the latter overlaps with the "consumer expectation test" in the U.S. Moreover, the paragraph will also analyze the reception of risk utility test in the European Union. Finally, the paragraph will introduce the test of defectiveness under Chinese law and the reception of risk-utility test in China.

To begin with the U.S., the "consumer expectation" test is attributed to comment (i) of § 402 A of the Restatement (Second) of Torts of 1965 which denotes that a product is defective if "the article sold must be dangerous to an extent beyond the which would be contemplated by the ordinary consumer who purchases it, with the ordinary knowledge common to the community as to its characteristics"[347]. Originally, the text of § 402 A did not embody a clear inclination of consumer expectation test. The American Law Instituted reporter, William Prosser, who drafted § 402 A (1), wrote: "one who sells any product in a defective condition unreasonably dangerous to the user or consumer […] is subject to liability for physical harm thereby caused to the ultimate user or consumer"[348]. The gloss "unreasonably dangerous" alone is as a tort-like concept[349], but comment (i) of § 402 A appended and explained the gloss from a contract or warranty perspective[350] which is deeply connected to the doctrine of the implied warranty of merchantability. The theory behind the implied warranty of merchantability is that a merchant, in offering his goods for sale, is making an implied representation that his goods are fit for the ordinary purposes for which they were intended[351]. Since implied warranty contained the purchaser-consumer's expectation that the good is fit for use, the expectation of a consumer that the good is safe rather than fit for use, is deeply connected to the theory of implied warranty[352]. The consumer expectation test, however, is not a

[347] *See* comment (i), § 402 A of the Restatement (Second) of Torts of 1965.

[348] *See* § 402 A (1) of the Restatement (Second) of Torts of 1965.

[349] *See* Dix W. Noel, "Manufacturer's Negligence of Design or Directions for Use of a Product", 71 *Yale Law Journal* 816 (1962), p.818.

[350] *See* Gary Schwartz, "Foreword: Understanding Strict Liability", 67 *California Law Review* 435 (1979), p.438; John Wade, "Strict Products Liability", 19 *The Brief* 8 (1989), p.57 (Professor Wade opined that the comment (i) of §402 A is written in the language of implied warranty rather than the language of tort liability. True tort language, according to Professor Wade, "would speak in terms of what a reasonable prudent person would do when aware of the dangerous condition of the product").

[351] *See* Werdner P. Keeton, "The Meeting of Defect in Products Liability Law – A Review of Basic Principles", p.589.

[352] *See* Jane Stapleton, *Product Liability*, pp.10-15.

subjective test. It is based on average, ordinary expectations of a reasonable person. Therefore, the test's reference point must not be the expectation of a single consumer[353].

The risk-utility test came out as an increased dissatisfaction with the consumer expectation test in design defect causing harm in the U.S. The risk-utility test for design defects is summarized by § 2 b of the Restatement (Third) of Torts: Products Liability (1998). Before § 2 b of the Restatement (Third) of Torts: Products Liability (1998) was published, Professor Werdner P. Keeton and Professor John Wade were two leading advocates of the risk-utility test[354]. To elucidate the meaning of the test, Professor Keeton noted that, "[a] product is defective as designed in some aspect if a reasonable person would conclude that the danger-in-fact in the product outweighs the utility of the product"[355]. Professor Wade proposed that the judge should provide a list of factors in design defect cases, as to consider "the extent of the danger involved in the present design and the possibility of adopting an alternative, safer design"[356]. Scholars like David G. Owen criticized the Keeton-Wade version of defectiveness tests, as it was expressed in global terms proposing a "macro-balance" test that compares all the risks and utilities of either the chosen or the alternative design. Instead, Professor Owen suggest adopting a micro-balance test which focuses upon risks and utilities of adopting the particular alternative design feature proposed by the plaintiff[357].

In *Barker v. Lull Engineering Co.* of 1978, the plaintiff Mr. Barker was seriously injured at a construction site while he was operating a high-lift loader. The loader was manufactured by the defendant Lull Engineering Co. and leased to the plaintiff's employer George M. Philpott Co., Inc. At trail, Mr. Barker claimed that his injuries were proximately caused by alleged defective design of the loader. The trial judge instructed the jury that "strict liability for defect in design of a product is based on a finding that the product was unreasonably dangerous for its intended use"[358]. The

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[353] *See* David G. Owen, *Product Liability in a Nutshell*, p.158.

[354] *See* Frank J. Vandall, *A History of Civil Litigation: Political and Economic Perspectives*, p.33.

[355] *See* Werdner P. Keeton, "Product Liability and the Meaning of Defect", pp.37-39; Werdner P. Keeton, "The Meaning of Defect in Product Liability Law – A Review of Basic Principles", p.592.

[356] *See* John Wade, "On Product Design Defects and Their Actionability", 33 *Vanderbilt Law Review* 551 (1980), pp.572-573.

[357] *See* David G. Owen, "Toward a Proper Test for Design Defectiveness: Micro-Balancing Costs and Benefits", 75 *Texas Law Journal* 1661 (1996-1997), p.1664.

[358] 573 P.2d 443 (1978), at 449.

jury returned a verdict for the defendant manufacturer. The plaintiff appealed, and contended that the trail court judge was erring in instructing jury, as he ignored the California Supreme Court's earlier decision in *Cronin v. J.B.E. Olson Corp* of 1972[359], which stated that "the unreasonable dangerous" element within section 402 A of the Restatement (Second) of Torts "should not be incorporated into a plaintiff's burden of proof in a product liability action in this state [California]"[360]. The *Cronin* decision rejected the gloss of "unreasonably dangerous" under §402A of the Restatement (Second) of Torts of 1965 on defect, irrespective of the fact that it accepted defect as a prerequisite for strict liability[361].

The California Supreme Court ruled in favor of Mr. Barker, and re-affirmed that the gloss "unreasonably dangerous" finds no place in California. Further, it developed a two-prolonged test of defectiveness in design defects as following: "[A] product maybe found defective in design, so as to subject a manufacturer to strict liability for resulting injures, under either of two alternative tests. First, a product may be found defective in design if the plaintiff establishes that the product failed to perform as safely as an ordinary consumer would expect when used in an intended or reasonably foreseeable manner. Second, a product may alternatively be found defective in design if the plaintiff demonstrates that the product's design proximately caused his injury and the defendant fails to establish, in light of the relevant factors, that, on balance, the benefits of the challenged design outweigh the risk of danger inherent in such design"[362].

The first prolong of the *Barker v. Lull Engineering Co.* test rejected the gross "unreasonably dangerous" of § 402 A of the Restatement (second) of Torts, because it is restrictive, nefarious and had unfairly "burdened the injured plaintiff with an element that rings of negligence"[363]. Besides, the court agreed with legal scholar John Wade's criticism upon § 402 A's language "unreasonable dangerous", as it "may suggest an idea like ultra-hazardous, or abnormally dangerous, and thus give rise to the impression that the plaintiff must prove that the product was unusually or extremely

[359] 501 P.2d 1153 (1972).

[360] 573 P.2d 443 (1978), at 446.

[361] *See* Gary Schwartz, "Foreword: Understanding Strict Liability", 67 *California Law Review* 435 (1979), p.435.

[362] 573 P.2d 443 (1978), at 455-456.

[363] 573 P. 2d 443 (1978), at 456; also see *Cronin v. J.B.E. Olson Corp*, 501 P.2d 1153 (1972), at 132.

dangerous"[364]. In addition, the *Barker v. Lull Engineering Co.* test eliminated the language "intended use" of § 402 A in evaluating defectiveness of product, as it recognizes "the adequacy of a product must be determined in light of its reasonable foreseeable use"[365] instead.

As to the second prolong of the *Barker v. Lull Engineering Co*. test, it does not reject the appliance of cost-benefit analysis (or the risk-utility test) in design defects, since "[in] many situations […] consumer would not know what to expect, because he would have no idea how safe the product could be made"[366]. Hence, according to the court, "the expectation of ordinary consumer cannot be viewed as the exclusive yard stick for evaluating design defectiveness"[367]. However, the use of "proximate cause" in the second prolong of the test created confusion, because, in order to prove the injury was proximately caused by the product's design, the plaintiff needs to prove the defective condition of the product design is a proximate cause for the injury. Therefore, the Cronin's argument turned out to be a circular reasoning. As a commentator noted, the phrase last quoted ignores the fact that policy considerations were already in play at the beginning[368].

In *Philips v. Kimwood Mach. Co.* of 1974[369], the plaintiff was injured while feeding fiberboard into a sanding machine. The sanding machine was purchased by the plaintiff's employer Pope and Talbot. from the defendant Kimwood Mach. Co. The plaintiff sued the defendant, and contended that the sanding machine was unreasonably dangerous as a result of defective design. The trail court offered a "direct verdict"[370] for the defendant in the case. The plaintiff appealed. The Oregon Supreme Court reversed the direct verdict, and remanded for a new trial because a jury could find

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[364] *See* John Wade, "On the Nature of Strict Tort Liability for Products", 44 *Mississippi Law Journal* 825 (1973), p.832.

[365] 573 P.2d 443 (1978), at 452.

[366] *See* John Wade, "On the Nature of Strict Tort Liability for Products", p.829; *Baker v. Lull*, 573 P.2d 443 (1978), at 454.

[367] 573 P.2d 443 (1978), at 454.

[368] *See* Frank J. Vandall, *A History of Civil Litigation: Political and Economic Perspectives*, p.34.

[369] 269 Ore. 485 (1974).

[370] In the U.S., a directed verdict is a ruling by a trail judge after determining that there is no legal sufficiency of the evidence to take the case to the jury. Now, it is largely replaced by "the judgment as a matter of law" under the Federal Rules of Civil Procedure. For more information, *see* 75A Am. Jur. 2d Trial § 770 (exercise of discretion on directed verdict motion); and 75A Am. Jur. 2d Trial § 771 (determination of question of law on directed verdict motion).

the machine was dangerously defective, and it was up to the jury to decide whether the injury resulted from a design defect or misuse.

More importantly, the Oregon Supreme Court developed a test of defectiveness for strict liability which is known as "negligence with imputed knowledge"[371]. According to the Court, "[a] dangerously defective article would be one which a reasonable person would not put into the stream of commerce if *he had knowledge of its harmful character*. The test, therefore, is whether the seller would be negligent if he sold the article *knowing of the risk* involved. Strict liability imposes what amounts to constructive knowledge of the condition of the product"[372]. Further, the court opined that this test is nothing different from the consumer protection test in light of comment (i) of §402A of the Restatement (second) of Torts, because "a manufacturer who would be negligent in marketing a given product, considering its risks, would necessarily be marketing a product which fell below the reasonable expectations of consumers who purchase it"[373].

Since the test embraced negligence rather than strict liability in product liability, the court had to liberalize the use of "*res ipsa loquitur*" doctrine, and rely on circumstantial evidence, so as to permit a factual presumption that the manufacturer had knowledge of the defect, unless the latter has evidence to rebut such presumption[374]. But still the test required the plaintiff to prove that the manufacturer is negligent. The test adopted by Oregon Supreme Court, as tort law scholar Frank J. Vandall commented, lied against the general wave of American court cases which support strict liability[375].

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[371] *See* Frank J. Vandall, *A History of Civil Litigation: Political and Economic Perspectives*, p.34.

[372] 269 Ore .485 (1974), at 492.

[373] 269 Ore. 485 (1974), at 493.

[374] *See* Frank J. Vandall, *A History of Civil Litigation: Political and Economic Perspectives*, p.35; William L. Prosser, "The Fall of the Citadel (Strict Liability to the Consumer)", pp.840-845.

[375] *See* Frank J. Vandall, *A History of Civil Litigation: Political and Economic Perspectives*, p.35. For arguments against the use of strict liability in product – caused injuries, *see* Peter Cane, *Atiyah's Accidents, Compensation and the Law*, pp.92-94 and pp.103-105 (the author supposes the strict liability principle is mere rhetorical than practical. The strict liability merely eliminate fault as a necessary condition of liability, but it does not add anything else new. Moreover, the author thinks the strict liability approach for product-caused injuries exhibits a prejudice towards victims who were injured in other ways, as it chooses to treat the victim of product-caused injuries better, "let alone the vast majority of injury victims who receive nothing from the tort system" (in line quotation cite at page 105)); also

The "cheapest cost avoider" test for defects was proposed by Judge Guido Calabresi and Jon Hirchoff. It is also known as the "strict liability test". According to Judge Calabresi and Jon Hirchoff, "[t]he strict liability test […] does not require that a government institution make such a cost-benefit analysis. It requires of such an institution only a decision as to which of the parties to the accident is in the best position to make the cost-benefit analysis between accident costs and accident avoidance costs and to act on that decision once it is made. The question for the court reduces to a search for the cheap cost avoider"[376]. In products liability cases, "[t]he producer is often in a position to compare the existing accident costs with the costs of avoiding the type of accident by developing either a new product or a test which would serve to identify the risky .001 per cent"[377], while the relatively unsophisticated consumer cannot make such cost-benefit comparison. Thus, in such cases, the producer often is the cheapest cost avoider[378]. Clearly, the authors advocate that the party who is best suited to make a cost-benefit analysis should generally be held liable. However, this does not necessarily mean they presume the producer is always liable. In fact, in searching for the cheapest cost avoider, according to the authors, judges would need to be equipped with realism and think practical when taking account implicit factors such as considerations of knowledge, alternatives, and category levels[379].

Absolute liability was first brought out by Californian Supreme Court Justice Traynor's concurring opinion in *Escola v. Coca-Cola Bottling Co.* of 1944, in which he wrote that, "[i]n my opinion it should now be recognized that a manufacturer incurs an absolute liability when an article that he

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*see* Richard Posner, "Strict Liability a Comment", 2 *The Journal of Legal Studies* 205 (1973), pp.205-221 (the author argues that the strict liability standard is not better than negligence in terms of its economic consequences. The choice between strict liability or negligence should be reasoned upon the efficient use of resources, in other words, the maximization of wealth. Judge Posner supposes that strict liability will raise the level of safety higher and shift the cost to the consumer, therefore, it is not optimum in the economic sense. This view attracts critiques from law and economics scholar Guido Calabresi who argues that corporations are better suited to manage risks. *See* Guido Calabresi, "Products Liability: Curse or Bulwark of Free Enterprise", 27 *Cleveland State Law Review* 313 (1973), p.321).

[376] *See* Guido Calabresi and Joh T. Hirschoff, "Toward a Test for Strict Liability in Torts", 81 *Yale Law Journal* 1055 (1972), p.1060.

[377] *See* Guido Calabresi and Joh T. Hirschoff, "Toward a Test for Strict Liability in Torts", p.1062.

[378] *See* Guido Calabresi and Joh T. Hirschoff, "Toward a Test for Strict Liability in Torts", pp.1069-1071.

[379] *See* Guido Calabresi and Joh T. Hirschoff, "Toward a Test for Strict Liability in Torts", pp.1067-1074.

has placed on the market, knowing that it is to be used without inspection, proves to have a defect that causes injury to human beings" [380]. However, Traynor was not a tenacious proponent of absolute liability in defective products cases[381]. In *Greenman v. Yuba Power Products Inc.*[382], decided in 1963, Traynor wrote that "[a] manufacturer is strictly liable in tort when an article he places on the market, knowing that it is to be used without inspection for defects, proves to have a defect that causes injury to a human being" [383]. The *Greenman* decision ruled that the manufacturer is subject to strict liability rather than absolute liability. Besides, the tendency of imposing absolute liability was rejected by the courts and legal scholars for its "far-reaching and unknowable scope"[384].

The "communicative tort" is a test proposed by tort scholar Leon Green. According to Professor Green, "a communicative tort action based on the duty to inform or to give reliable information, set off distinctly from the … negligence action based on the duty of care"[385]. The reason for such liability is that "corporate seller's command of all the media of communications to support his aggressive [ad] campaigns" [386]. Professor Leon Green's communicative tort theory made a significant contribution to product liability litigation based upon the failure to warn[387]. However, his theory is not widely accepted by American courts, in part because it is drafted in unfamiliar language, and in part also because it overlooks the fact that there may exist very little

[380] 150 P.2d 436(1944), at 440.

[381] For a critical view of Justice Traynor's theoretical contribution in product liability law, *see* Edward G. White, *Tort Law in America*, pp.180-210; and John Wade, "Chief Justice Traynor and Strict Tort Liability for Products", 2 *Hofstra Law Review* 455 (1974), pp.455-467.

[382] 59 Cal.2d 57 (1963).

[383] 59 Cal.2d 57 (1963), at 63.

[384] *See* Frank J. Vandall, *A History of Civil Litigation: Political and Economic Perspectives*, p.38.

[385] *See* Leon Green, "Strict Liability Under 402A+402B: A Decade of Litigation", 54 *Texas Law Review* 1185 (1976), p.1188.

[386] *See* Leon Green, "Strict Liability Under 402A+402B: A Decade of Litigation", p.1191.

[387] In some cases, the nature of warning or instruction is determinative, *see Borel v. Fibreboard Paper Tool Corp*., 493 F.2d 1076 (1973); *Burch v. Amsterdam Corp.*, 366 A.2d 1079 (1976); *Michael v. Warner/Chilcott*, 579 P.2d 183 (1978).

communications between the manufacturer/seller and the bystander [388] . Regardless, the communicative tort test of defectiveness has been adopted in the field of pharmaceutical litigation – for example, in Norplant litigation[389] – on the basis that drug manufactures must communicate the warning of drug's negative effects directly to the consumer[390].

Turning now to the European Union, the Directive 85/374/EEC provides strict liability for manufacturing defects and for an objective negligence liability for design defects[391]. As to the definition of "defectiveness", Article 6 (1) of Directive 85/374/EEC provides that, "[a] product is defective when it does not provide the safety which a person is entitled to expect". Article 6 (1) of the Directive does not use the same text as comment (i) of § 402A of the Restatement (Second) of Torts did. It speaks of "a person" instead of "ordinary consumer" as adopted in §402A; more importantly, it views a defective product as failed to meet the safety a person is entitled to expect. The English expression – "entitled to expect" – was translated into different national languages of the Member States in the European Union, such as "*légitimement s'attendre*" [392] in France, "*legittimamente attendere*"[393] in Italy, and "entitled to expect"[394] in the United Kingdom, and

[388] *See* Frank J Vandall, *A History of Litigation: Political and Economic Perspectives*, p.36; *Elmore v. American Motors Corp*., 451 P.2d 84 (1969).

[389] *See Saray Perez, et al. v. Wyeth Laboratories, Inc., et al.*, 734 A.2d 1245 (1999) (Norplant is a birth control contraceptive prevents pregnancy up to five years. The defendant Wyeth, a manufacturer-distributor of Norplant in the U.S., began a massive advertising campaign of Norplant in 1991, targeting at women users. None of the advertisements warned of any dangers or side effects of Norplant. In this case, the Supreme Court of New Jersey overruled the learned intermediary doctrine which makes the physician responsible for the warning, and allows the defendant Wyeth used to evite the liability. The majority of the court decided that the drug manufacturer cannot engage freely in deceptive advertising to its consumers).

[390] *See* Frank J Vandall, *A History of Litigation: Political and Economic Perspectives*, p.36; *see Niemiera v. Schneider*, 114 N.J. 550 (1989), at 559; *Saray Perez, et al. v. Wyeth Laboratories, Inc., et al.*, 734 A.2d 1245 (1999), at 1265-1266.

[391] *See* Cees van Dam, *European Tort Law*, p.403.

[392] *See* Article 1245-3 of the French Civil Code: "*Un produit est défectueux au sens du présent chapitre lorsqu'il n'offre pas la sécurité à laquelle on peut légitimement s'attendre*…".

[393] *See* Article 117, para. 1 of the Italian Consumer Code: "*Un prodotto è difettoso quando non offre la sicurezza che ci si può legittimamente attendere tenuto conto di tutte le circostanze tra cui*...".

[394] *See* § 3 (1) of the Consumer Protection Act 1987: "… there is a defect in a product for the purposes of this Part if the safety of the product is not such as persons generally are entitled to expect".

"*berechtigterweise erwartet werden kann*"[395] in Germany. Literally, all these translations mean "entitled to expect". However, scholars and judges disagree with each other upon whether the European Union borrowed the consumer protection test from the Restatement (Second) of Torts of 1965.

Some scholars answer in the negative. They prefer to call Article 6 (1) a stipulation of "legitimated expectation" test rather than the consumer expectation test. They argue that the wording "consumer expectation" is not entirely accurate, because "the test [ stated by Article 6 of the Directive 85/374/EEC] should be objective and independent of the interests of both consumers and producers"[396], and, moreover, "the test of defectiveness should be assessed on the legitimate expectations of the public (*in abstracto*) and thus not be based on the subjective expectations of someone"[397]. This view seems to be in accordance with recital 6 of the Directive 85/374/EEC, which provides that "[t]he defectiveness of the product should be determined by reference not to its fitness for use but to the lack of safety which the public at large is entitled to expect; whereas the safety is assessed by excluding any misuse of the product not reasonable under the circumstances"[398].

American tort law scholar Michael D. Green has a similar observation. He opines that the consumer expectation test in Europe is different from the consumer expectation test in the United States in two ways: first, the European model of consumer protection test is determined by the expectation of an abstract person, while the American one bears the legacy of warranty is determined by the consumer-purchaser; second, the European test is more a standard of safety that a person can expect rather than a measure that depends upon the empirical and realistic expectation

[395] *See* § 3 (1) of the German Product Liability Act (*ProdHaftG*) of 1989: "*Ein Produkt hat einen Fehler, wenn es nicht die Sicherheit bietet, die unter Berücksichtigung aller Umstände, insbesondere* [...] *berechtigterweise erwartet werden kann*".

[396] *See* Duncan Fairgrieve, Geraint Howells, Piotr Machnikowski et al, "Product Liability Directive", p.51

[397] *See* Duncan Fairgrieve, Geraint Howells, Piotr Machnikowski et al, "Product Liability Directive", p.51.

[398] *See* Recital 6 of the Directive 85/374/EEC.

of consumers. Thus, at least in theory, the judges in Europe have more leeway in determining the expectation while their American counterparts often have to rely on jury[399].

Other commentators find Article 6 (1) influenced by § 402 A of the Restatement (Second) of Torts of 1965, particularly comment (i) of § 402A of the Restatement[400]. Moreover, they interpreted the legitimate expectation test from the view of consumers collectively rather than from the point of view of a single consumer, and the collectivity of consumers shall be referred to the group of consumers that the product is destined to rather than the collectivity in general[401].

The first view is accepted in France. Although the French texts remain loyal to the Directive 85/374/EEC with regard to the translation of Article 6 of the Directive, French jurists viewed the Directive's "legitimate expectation" test as based upon the expectations of "*le grand public*"[402] rather than on the consumer or the injured party, and a product's defectiveness must be assessed from the perspective of safety rather than from the perfective of conformity[403]. This view appears to be appertained to the recital 6 of the Directive 85/374/EEC which requires the expectation to be determined by the public at large[404].

In England, though judges and legal scholars use the wording of legitimate expectation test, they did not deal with the question whether the test depends upon the expectation of the public at large or of the concerned consumers. Instead, English lawyers were busy with differentiating the legitimated expectation test from the common-law test of negligence[405]. Many English commentators criticize the legitimated expectation test, on the ground that the test in its essence is

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[399] *See* Michael D. Green, "Product Liability: Comparative Remarks from a North American Perspective" (产品责任：北美视角的比较法评论), 4 *Northern Legal Science (北方法学)* 11 (2014), p.14 (translated by Wang Zhu, and Shao Sheng, published in Chinese).

[400] *See* Rebecca Korzec, "Dashing Consumer Hopes: Strict Products Liability and the Demise of the Consumer Expectations Test", 20 *Boston College International and Comparative Law Review* 227 (1997), p.234.

[401] *See* Pier G. Monateri, *La responsabilità civile*, p.717; Sabrina Praduroux, "Il danno dal prodotto difettoso", in Paolo Cendon and Critina Poncibò (eds.): *Il risarcimento del danno al consumatore*, Giuffrè Editore, 2014, p.254.

[402] *See* François Terré, Phillippe Simler, Yves Lequette, *Droit civil: les obligations*, 7th edition, Dalloz, 1999, p.866

[403] *See* Simon Whittaker, *Liability for Products*, p.482; Jean- Sebastien Borghetti, "Product Liability in France", p.216.

[404] *See* Recital 6, the Directive 85/374 EEC.

[405] *See* Simon Whittaker, *Liability for Products*, p.485.

little different from the common law test of negligence, as both of them require the court to conduct a cost-benefit law analysis[406]. Nonetheless, English judges tend to be in line with recital 6, and require the safety to be expected by the public. For example, in *A and others v. National Blood Authority and another*[407], Burden J opined that the general public was entitled to expect the product is safe[408]. He moreover criticized the commentators who opined that the legitimated expectation test was little different from the common law test of negligence on the basis that such view contradicts the strict, non-fault liability regime established by the Directive 85/374/EEC[409]. Burden J's argument is not unanimously accepted, and in fact, the debate is still ongoing among English jurists[410].

In Germany, § 3 of the German Product Liability Act of 1989 repeats almost the same wording of Article 6 of the Directive 85/374/EEC. However, the German courts take the consumer protection test view of the defectiveness. For example, in a case decided by the German Federal Supreme Court where the claimant suffered damage when a mineral water bottle exploded[411], the court decided that, "[a]s the court rightly held, a product is defective…. if it does not afford the safety which in all circumstances can justifiably expected, and consumers expect soda water bottles to be free from faults such as hairline splits and micro fissures which could make them explode. The consumer's expectation that the bottle be free from faults would not be diminished even if it were technically impossible to identify and remove such faults"[412].

In Italy, the second view is accepted. Italian scholars comment that the test of defectiveness is depended upon the consumer's safety expectation[413]. Courts also refer to the standard "normal condition of use of the product itself", and to "the reasonable expectation of consumer safety" to

[406] *See* Peter Cane, *Atiyah's Accidents, Compensation and the Law*, p.103.

[407] [2001] 3 All ER 289.

[408] [2001] 3 All ER 289, at [39].

[409] [2001] 3 All ER 289, at [45], and [63].

[410] For a critical analysis of Burden J's opinion, *see* Simon Whittaker, *Liability for Products*, pp.487-492.

[411] BGH 9 May 1995, BGHZ 129, 553 = NJW 1995, 1060, case translation founded in Basil S. Markesinis and Hannes Unberath, *The German Law of Torts*, pp.584-589.

[412] BGH 9 May 1995, BGHZ 129, 553 = NJW 1995, 1060, case translation found in Basil S. Markesinis and Hannes Unberath, *The German Law of Torts*, pp.584-589.

[413] *See* Pier G. Monateri, *La responsabilità civile*, pp.716-722.

decide on whether the product is defective[414]. Moreover, Italian courts decisions also refine the criterion of reasonableness and predictability, as they must be understood by not referring to an abstract user but rather to the actual characteristics of the potential recipients of the given product[415].

With regard to the legitimated expectation test in Europe, tort law scholar Jane Stapleton offered her critical insight. She argues that the main flaw of the legitimated expectation test is that it concerns only with obvious cases, such as in the ginger bottle snail case of *Donoghue v. Stevenson*, or malfunction of a car brake system as in *MacPherson* – where the legitimated expectation test would be appropriate[416]. Further, Jane Stapleton notes that, but the legitimated expectation test is not adequate in "those more complex situations where modern tort liability operates- e.g. cases of foreseeable misuse or complex design systems where the standard is neither agreed nor obvious"[417]. This opinion is in line with tort law scholar Michael D. Green, who also pointed out that the two expectation tests in Europe and in the United States both are ambiguous and inadequate in complex situations[418]. In order to overcome the inadequacies of the expectation test, Stapleton suggests the test of defectiveness must begin with the perspective of the bystander first, and then from that of the buyer[419].

In general, the debate between legitimated expectation test and the consumer protection test seem to be only in terms of the language use. Since both legitimated expectation test and the consumer protection test are objective, the difference between the abstract public's expectation and the average consumer's expectation might be minimal in practice.

Another important concept implied by the European directive is the standard of safety. However, the concept of safety under the Directive 85/374/EEC does not mean that a product is free from

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[414] *See* Giovanni Comandé, "Product Liability in Italy", p.287.

[415] *See* Cass. Civ., 29 September 1995, n.10274, in *Foro it.*, 1996, I, 954.

[416] See Jane Stapleton, *Product Liability*, p.235.

[417] *See* Jane Stapleton, *Product Liability*, p.235.

[418] *See* Michael D. Green, "Product Liability: Comparative Remarks from a North American Perspective" (产品责任：北美视角的比较法评论), p.14.

[419] *See* Jane Stapleton, *Product Liability*, p.235.

risks. In fact, many products may be dangerous without being defective[420]. The concept of 'safety' in the directive has to be distinguished from the "safety" concept in Article 2 (b) of the Council Directive 92/59/EEC of 29 June 1992 on general product safety (hereafter "the Directive 92/59/EEC")[421]. Article 2 (b) of the Directive 92/59/EEC requires a safe product to be free of risks or has only minimum risks[422]. The concept of safety given in the Directive 92/59/EEC is parallel to the concept of a non-defective product. It is applicable in the context of Directive 85/374/EEC, although not exclusively. In fact, Article 13 of the Directive 92/59/EEC provides that the Directive "shall be without prejudice to the Directive 85/374 EEC"[423]. The difference between two Directives is obvious. The Directive 85/374/EEC aims to achieve a fair apportionment of risks between interest of manufacturer and victim[424], while the Directive 92/59/EEC focuses upon the prevention of damage from products, as to balance the risks between the individual manufacturer and the public at large[425]. Later, the Directive 92/59/EEC was repealed by the Directive 2001/59/EC of 3 December on general product safety[426]. The Directive 2001/59/EC remains the

[420] *See* Pier G. Monateri, *La responsabilità civile*, p.717; Giovanni Stella, "La responsabilità del produttore per danno da prodotto difettoso: nozione di difetto e onere della prova a carico del danneggiato", in Carlo Granelli (ed.): *I nuovi orientamenti della cassazione civile*, Giuffrè Editore, 2017, p.479; Cees van Dam, *European Tort Law*, p.422.

[421] O J L 228, 11.8.1992., pp.24-32. This Directive is integrated into Italian law by the Italian Presidential Decree of 17 March 1995, No. 115.

[422] *See* Article 2 (b) of the Directive 92/59/EEC, "[s]afe product shall mean any product which, under normal or reasonably foreseeable conditions of use, including duration, does not present any risk or only the minimum risks compatible with the product's use, considered as acceptable and consistent with a high level of protection for the safety and health of persons"

[423] *See* Article 13 of the Directive 92/59/EEC: "This Directive shall be without prejudice to Directive 85/374/EEC".

[424] *See* Recital 2 of the Directive 85/374/EEC: "Whereas liability without fault on the part of the producer is the sole means of adequately solving the problem, peculiar to our age of increasing technicality, of a fair apportionment of the risks inherent in modern technological production".

[425] *See* Cees van Dam, *European Tort Law*, p.423.

[426] Directive 2001/95/EC of the European Parliament and of the Council of 3 December 2001 on general product safety, O J L 11/4, 15.01.2002.

same line with the Directive 92 /59/EEC as regard to the notion of "safety product"[427], and its relation to the Directive 85/374/EEC[428].

In order to find a product defective, Article 6 of the Directive 85/374/EEC also provides three relevant circumstances for consideration. The first one is the presentation of the product (Article 6 (1) (a)). This element is linked to the (in)completeness of information with which a product is marketed, advertised, packaged, instructed or warned about its use[429]. The second element is the use to which it could reasonably be expected that the product would be put (Article 6 (1) (b)). As several commentators noted, "[t]he reasonable expected use of the consumer is not restricted the normal or anticipated destination of the product"[430]. In other words, the producer has to anticipate that the user may use the product intensively than the product is originally intended, for example, a child may try to eat a toy[431]. Here, the difficulty lies in finding a test to distinguish reasonable misuse and unreasonable misuse[432]. Third, the court has to take account the time when the product was put into circulation (Article 6 (1) (c)), which means the assessment of safety shall be conducted on the date when the product left the control of its producer[433]. This is different from negligence, as the issue of defectiveness under negligence are judged on the date of the alleged act of negligence[434].

These considerations have been integrated into national legal systems in product liability field. However, there are some particularities in national legal systems. For example, in Italy, Article 117 of Italian Consumer Code adopts the same wording as Article 6 of the Directive 85/374/EEC.

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[427] For the concept of safety product, see Article 2 (b) of the Directive 2001/95/EC.

[428] For the relation between the Directive 2001/95/EC with the Directive 85/374/EEC, *see* Article 17 of the Directive 2001/95/EC, which remains the same as Article 13 of the Directive 92/59/EEC.

[429] *See* Duncan Fairgrieve, Geraint Howells, Piotr Machnikowski et al, "Product Liability Directive", pp.56-57; Cees van Dam, *European Tort Law*, p.428.

[430] *See* Duncan Fairgrieve, Geraint Howells, Piotr Machnikowski et al, "Product Liability Directive", pp.56-57; Cees van Dam, *European Tort Law*, pp.428-429.

[431] *See* Cees van Dam, *European Tort Law*, p.429.

[432] *See* Duncan Fairgrieve, Geraint Howells, Piotr Machnikowski et al, "Product Liability Directive", p.59. This chapter will discuss reasonable misuse and unreasonable misuse in detail in the 'defense' part.

[433] *See* Duncan Fairgrieve, Geraint Howells, Piotr Machnikowski et al, "Product Liability Directive", p.60; Cees van Dam, *European Tort Law*, p.429.

[434] *See* Cees van Dam, *European Tort Law*, p.429; Peter Cane, *Atiyah's Accidents, Compensation and the Law*, p.104.

Moreover, it adds a new paragraph which states that "[a] product is defective when it does not provide the safety which other items of the same line would normally offer"[435]. This paragraph provides an interesting criterion to apply the consumer expectation test. It relies upon a comparison between the safety of the product concerned with the safety that other products of identical series are expected to offer.

In China, since Article 46 of Product Quality Law 2000 (former Article 34 of Product Quality Law 1993) is modelled upon Article 6 of the Directive 85/374/EEC. It is suggested that China legal system has embraced the same test for defective products as the Directive 85/374/EEC[436]. It is clear that Article 46 offers two criteria in deciding the defectiveness of product: (1) unreasonable danger; and (2) mandatory standards. The criterion "unreasonable danger" denotes that Chinese Product Quality Law takes a consumer protection test approach in determining whether a product is defective[437]. It means the product must have reached an acceptable safety level contemplated by the average reasonable consumers. The mandatory standard means the products have to comply with the standards provided by the State or specific trade sector; otherwise, the products would be treated as defective. In practice, even when a product complies with mandatory standards, Chinese courts might still decide that the product is defective if it is unreasonably dangerous to the health or property of others[438]. For example, in *Ma Shuifa v. Shaan'xi Heavy Duty Truck Co. Ltd et al.*[439],

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[435] Translated by the author, *see* the original text of paragraph 3, Article 117 of the Italian Consumer Code: "*Un prodotto è difettoso se non offre la sicurezza offerta normalmente dagli altri esemplari della medesima serie*".

[436] *See* Article 46 of Product Quality Law 2000 (former Article 34 of Product Quality Law 1993). Before the Product Quality Law 1993, the test of defectiveness is whether the product is substandard according to Article 122 of General Principles of Civil Law 1987.

[437] *See* Chen Yunliang (陈云良), "Warning Defects in Product Liability" (产品警示缺陷的产品责任问题研究), 12 *Financial Economic Law Review (月旦财经法杂志)* 75 (2008), p.78 (author's translation).

[438] *See* supra note 271, *Houyingzi Supply and Marketing Cooperative v. Food container retailer of The Third Railway Middle School（dispute over product liability）(后营子供销社诉铁三中冷冻食品机械经销部产品责任纠纷案)*, decided on 24 February 1989, by Donghe District Court of Baotou City in Inner Mongolia Autonomous Region.

[439] See *Ma Shuifa v. Shaan' xi Heavy Duty Truck Co. Ltd (dispute over the right of health) (马水法诉陕西重型汽车有限公司等健康权纠纷案)* (the plaintiff was a repairman. He was injured by a defective lampstand of the truck produced by the defendant Shaan'xi Heavy Duty Truck Co. Ltd.), appeal case decided on 16 April 2015, by

the Intermediate Court of Nanjing interpreted mandatory standards as "the minimum standards which a product shall comply with". However, "even a product that complies with the standards [might be defined as defective if] it is likely it might cause unreasonable danger [to others]"[440]. So far, Chinese courts have not yet reached a majority view on this matter[441]. For example, in a case involving death caused by addiction to high degrees of alcohol drink, the plaintiff (the victim's wife) sued the producer for failure to warn consumers about the danger to health associated with alcohol drinking; the court ruled in favor of the producer, because the alcohol has fulfilled national standards, and was not per se defective[442].

As the above makes clear, both Europe and China subscribed the legitimated expectation test. What about the reception of the risk-utility test in Europe and in China? In fact, it is debatable whether in the European Union there is the role of risk-utility test in the context of legitimated expectation test[443]. Scholars commented that, the opportunities for using risk-utility test is very limited. Moreover, recital 7 of the Directive 85/374/EEC, the Directive suggests a notion of "fair apportionment of risks"[444] rather that the calculus function of risk-utility test in the United States. In addition, the American experience showed that the adoption of risk-utility test displays a return to negligence that would contradict the European choice for a no-fault liability system. However,

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Intermediate Court of Nanjing City, Jiangsu Province. The case is published as a guiding case in No. 12 of *Supreme People's Court Gazette* (2015). Accessed on the official site of Supreme People's Court Gazette (http://gongbao.court.gov.cn/Details/06b0a96345e33756bc961d4f6a7928.html).

[440] *See Ma Shuifa v. Shaan' xi Heavy Duty Truck Co. Ltd (dispute over the right of health) (马水法诉陕西重型汽车有限公司等健康权纠纷案).*

[441] *See* Yang Lixin and Yang Zhen, "Product Liability in China", in Helmut Koziol, Michael D. Green, Mark Lunney, Ken Oliphant and Yang Lixin (eds.): *Product Liability: Fundamental Questions in a Comparative Perspective*, De Gruyter, 2017, p.39.

[442].Case reported in Chen Yunliang (陈云良), "Warning Defects in Product Liability" (产品警示缺陷的产品责任问题研究), pp.79-80 (author's translation).

[443] *See* Duncan Fairgrieve, Geraint Howells and Marcus Pilgerstorfer, "The Product Liability Directive: Time to get soft", 4 *Journal of European Tort Law* 1 (2013), p.7.

[444] Recital 2 and Recital 7 of the Directive 85/374/EEC.

it should not be forgotten that, under English law, the test of negligence does contain cost-benefit analysis element[445].

In Germany, the risk-utility test is not completely excluded by German courts' consideration. In particular with regard to pharmaceuticals, German courts have taken the approach of risk-utility test in the notion of defect[446]. In a 2009 decision, the German Federal Supreme Court mentioned the American test, but without explicitly adopted it[447]. Similar considerations can be seen in another case where the German Federal Supreme Court decided it would be disproportionate to expect a producer of cherry cakes to do everything possible to ensure that no pieces of cherry stone remain in the cherry cake. Thus, what remains in the cherry cake is considered as a small risk to health[448]. In France, in pharmaceutical products, the appellate courts in Versailles and in Paris had applied risk-utility test in several decisions[449], but the French Court of Cassation has decided that a vaccine's defectiveness cannot be ruled out by merely the reasoning of risk-benefit balance test[450].

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[445] *See* Peter Cane, *Atiyah's Accidents, Compensation and the Law*, pp.92-94 and pp.103-105; Lord Griffiths, Peter De Val, R.J. Dormer, "Developments in English Product Liability Law: A Comparison with the American System", 62 *Tulane Law Review* 353 (1987-1988), pp.381-382 (the authors argue that English judges are used to apply the risk-benefit test in negligence. They however would not take a risk-utility test overtly in product liability as to be consistent with the Directive 85/374/EEC. Rather, they would undertake a balancing exercise of analogous kind, as the Directive requires to consider all the circumstances in applying the legitimated safety expectation test).

[446] *See* Eleonora Rajneri, "The Ambiguous Test of Defectiveness and the Business Risk: Different Approaches of European and U.S. Courts Comparing Producer and User's Behavior", 11 *Global Jurist* 1 (2011), p.25.

[447] *See* BGH 16.6.2009, case VI ZR 107/08, NJW 2009, 2952 (airbag).

[448] *See Cherry Stone* NJW 2009, 1669 (BGH), against the lower instance court. The German Federal Supreme Court decided that it would be disproportionate to expect a producer of cherry cakes to do everything possible to ensure that no cherry stone or bits of it remain in the cherry cake, giving the little risk to health connected to the issue.

[449] *See* CA Versailles, 17 March 2016, no 04/08435; CA Versailles, 16 March 2007, no 05/09523; CA Versailles, 29 March 2007, no. 06/00496; CA Versailles, 5 November 2007, no 06/ 06435; CA Paris, 19 June 2009, no.06/13741 (cases cited in Jean-Sébastien Borghetti, "Product Liability in France", p.216).

[450] *See* Cass. 1st civ., 26 September 2012, D.2012, 2304, obs. I Gallmeister, ibid 2853, note Jean-Sébastien Borghetti, ibid 2013, 40, obs. Ph Brun; Cass. 1st civ., 10 July 2013, D.2013, 2306 avis Mellottée, ibid 2312, note Ph. Brun, ibid 2315, note Jean-Sébastien Borghetti (cases cited in Jean-Sébastien Borghetti, "Product Liability in France", p.216).

In Italy, scholars who have introduced law and economics notions in Italian scholarship[451], often discuss the risk-utility test in product liability[452]. Yet, Italian courts seem to adhere to the statutory consumer expectation test[453]. To conclude, the adoption of risk-utility test in Europe is not certain. The legitimated expectation test is still the dominated test.

As to China, although Chinese legal scholars continue introducing American jurisprudence, it can be fairly stated that Chinese legal practice did not transplant the risk-utility test of defectiveness[454].

## 4. Type of Defects

In 1998, the American Law Institute published the Product Liability provisions of the Restatement (Third) of Torts. The Restatement (Third) of Torts: Products Liability (1998) classifies defects into three categories: manufacture defects, design defects, and the failure to warn. The American Law Institute, however did not invent this classification. Before the Restatement (Third) of Torts, judges already tried to distinguish different defects in their legal decisions, and scholars have frequently used this category in their academic scholarships[455].

[451] For further details about the reception of law and economics approach in Italy, *see* Rodolfo Sacco, Piercarlo Rossi, *Introduzione al diritto comparato*, 7th edition, UTET, 2019, p.221 (the authors opined that, in Italy, the economic analysis school was not created, despite favorable circumstances); Roberto Pardolesi, "Analisi economica del diritto", in *Digesto delle discipline privatistiche, Sezione Civile I*, UTET, 1987, pp.309-320.

[452] *See* Pietro Trimarchi, *La responsabilità civile: atti illeciti, rischio, danno*, p.414.

[453] *See* Alessandro Stoppa, "Responsabilità del Produttore", pp.130-132; Giovanni Stella, "La responsabilità del produttore per danno da prodotto difettoso: nozione di difetto e onere della prova a carico del danneggiato", pp.478-480; also *see* the decision of the Supreme Court of Italy, Cass., 19 February 2016, n. 3258, which is enclosed in Carlo Granelli (ed.): *I nuovi orientamenti della cassazione civile*, Giuffrè Editore 2017, pp.473-477.

[454] *See* Kristie Thomas, "The Product Liability System in China: Recent Changes and Prospects", p.764 and p.771.

[455] For example, in *Barker v. Lull Engineering Co*., 573 P.2d 443 (1978), the court already classified product defects into three classes: manufacture defects, design defects, and defects involving inadequate warnings or instructions.

As to Europe, the Directive 85/374/EEC does not distinguish different types of defects; however, in the practice of European legal systems, a distinction is frequently made between manufacture defects with design and instruction defects[456].

In Italy, the Italian Consumer Code that transposed the Directive did not distinguish the defects. However, the evidence of the reception of the American category of defects in Italian legal system could be found in academic scholarships[457]. Like the Directive 85/374/EEC, the French Civil Code does not distinguish different defects. It is suggested that French courts do apply the distinction of different defects, but there is little case law to support this proposition[458].

Like France and Italy, there is no statutory categorization of defects in Germany. However, in Germany, it is usual to distinguish defects into four types: (1) fabrication defects (*Fabrikationsfehler*); (2) design defects (*Konstruktionsfehler*); (3) instruction defects (*Instruktionsfehler*); and (4) development risks (*Entwicklungsfehler*)[459]. The first three categories of defects are essentially the same as the American tripartition of defects. The fourth category of defects means that "the product develops dangers which were unknown and could not be discovered at the time of marketing the product"[460]. With regard to this category, German courts' decisions developed the idea that producers have a duty to observe the development of the product (*Produktbeobachtungspflicht*) and to warn or take other preventive measures if dangers become

[456] *See* Cees van Dam, *European Tort Law*, p.428; Franz Werro and Erric Mittereder, "Products Liability in the European Union: A Story of Unity or Plurality", pp.157-159.

[457] For the reception of American categorization in Italy, *see* Sabrina Paduroux,"Il danno da prodotto difettoso", pp.254-256; Andrea Torrente and Piero Schlesinger, *Manuale di diritto privato,* p.972 ("*Il difetto può dipendere dalla ideazione o concezione del prodotto, o dal processo di fabbricazione, ovvero ancora dalla carenza di informazioni fornite all'utente in ordine all'utilizzo del prodotto*"); Pier G. Monateri, *La responsabilità civile*, pp.716-718 (the author uses concepts like "*difetto di fabbricazione*", "*difetto di progettazione*", and also the defect origins from "*la presentazione del prodotto*". The use of these concepts shows an reception of American categorization of defects); Pierpaolo Bortone and Luca Buffoni, *La responsabilità per prodotto difettoso e la garanzia di conformità nel codice del consumo*, p.26 (the authors also use above concepts like "*difetti di fabbricazione*", "*difetti di progettazione*", and "*mancanza di informazioni*").

[458] *See* Jean-Sébastien Borghetti, "Product Liability in France", p.216.

[459] *See* Ulrich Magnus, "Product Liability in Germany", p.247.

[460] *See* Ulrich Magnus, "Product Liability in Germany", p.247.

apparent (*Gefahrabwendungspflicht*)[461]. However, this approach was not accepted in other European jurisdictions, and was rejected the Directive drafters[462].

In United Kingdom, although the distinction of different defects is accepted among scholars[463], the Consumer Protection Act 1987 mentions no distinction of defects. In the leading case *A. and others v. National Blood Authority and another*[464], Burton J rejected the American categorization of defects for the reason that there is no place for them in the Directive 85/374/EEC[465]. Burton J distinguished products into two categories – standard product and non-standard product. For him, "a *standard* product is one which is and performs as the producer intends. A *non-standard* product is one which is different, obviously because it is deficient or inferior in terms of safety, from the standard product"[466]. As to decide whether the standard product or non-standard product are defective, Burton J did not offer a clear test, but rather pointed out a two-layer comparison: for non-standard products, the comparison should be made with standard products; and for standard products, it is to made with other products on the market[467]. The distinction between standard products and non-standard products is, however, problematic because it assumes the perspective from the producer, but neglects the fact that producers may not able to detect whether some of their products are deficient[468]. On another hand, the distinction is absent from the Directive 85/374/EEC, and cannot be used as a legal category, as compare to the American categorization of defects[469].

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[461] *See* Ulrich Magnus, "Product Liability in Germany", p.248; and the German Federal Supreme Court's decision, BGH NJW 1990, 2560, and BGH VersR 2009, 272.

[462] *See* Duncan Fairgrieve, Geraint Howells and Marcus Pilgerstorfer, "The Product Liability Directive: Time to get soft", p.6 (citing the article of the Directive drafter, Hans Claudius Taschner, "Product Liability: Basic Problems in a Comparative Law Perspective", in Duncan Fairgrieve (ed.): *Product Liability in Comparative Perspective*, Cambridge University Press, 2005, p.161).

[463] *See* Peter Cane, *Atiyah's Accidents, Compensation and the Law*, pp.50-53 and pp.99-100; John F. Clerk, *Clerk & Lindsell on Torts*, pp.708-712.

[464] [2001] 3 All ER 289.

[465] [2001] 3 All ER 289, at [39].

[466] [2001] 3 All ER 289, at [36].

[467] [2001] 3 All ER 289, at [41].

[468] *See* Simon Whittaker, *Liability for Products*, p.491

[469] *See* Simon Whittaker, *Liability for Products*, p.491.

In China, although the Product Quality Law 1993, and its later amended version did not use the categories, the American tripartition of defects is well-received among many Chinese legal scholars. There are also scholars pioneering the establishment of a fourth category – that of tracking defects (or defects occurred in development)[470]. This is often seen as a proof of German legal scholarship's influence among Chinese scholars in China. As to Chinese courts, they rarely use the three or four categories for court reasoning[471].

This section will start by investigating how the U.S. legal system currently treats these defects. It will then go on to discuss how English German, French and Italian legal systems treat defects after the enactment of Directive 85/374/EEC. Finally, it will examine the Chinese legal approach to the issue, which was influenced by both the U.S. and the European Union law.

## 4.1. Manufacture Defects

In the legal systems under examination, many early product liability cases were in relation to manufacture defects. There is a broad consensus that a manufacture defect concerns products which depart from the manufacturer's specifications for the product line, and become unintentionally dangerous as compared to other examples of the same product line[472]. This

[470] *See* Yang Lixin and Yang Zhen, "Product Liability in China", p.34.

[471] In *Jabon Elektronik Teknoloji Ticaret Limited Sirketti v Qingdao Haixin Import & Export Co. Ltd. (disputes over international sales of goods) (捷跑电子科技有限公司诉青岛海信进出口有限公司国际货物买卖合同纠纷案)*, the Intermediate Court of Qingdao city mentioned the four categories of defects opinion by scholars in brackets, but the court did not used it for legal reasoning. The case is a guiding case published on No. 11 of *Supreme Court's Gazette* (2013).

[472] The consensus is well received in the U.S., in China, and a few European legal systems such as Italy, Germany, and the United Kingdom. For the U.S., *see* Michael D Green and Jonathan Cardi, "Product Liability in United States of America", in Piotr Machnikowski (ed.): *European Product Liability: An Analysis of the State of the Art in the Era of New Technologies*, 2016, p.586. For China, *see* Yang Lixin and Yang Zhen, "Product Liability in China", pp.33-34. Within the European Union, for Italy, *see* Pier G. Monateri, *La responsabilità civile*, p.716 (the author writes that "*per difetto di fabbricazione si intende il difetto che riguarda singoli esemplari di una serie prodotta*"); Giulio Ponzanelli, "Dal biscotto alla «mountain bike»: la responsabilità da prodotto difettoso in Italia", in *Foro it.*, 1994, I, 252, at p.257 (the author notes that "*i difetti di fabbricazione [sono] quelli che riguardano solo singolo esemplare di*

definition is framed under the theme of "*departure from design*", and is enshrined in § 2 (a) of the Restatement (Third) of Torts: Products Liability (1998) which states that "a product contains a manufacturing defect when the product departs from its intended design even though all possible care was exercised in the preparation and marking of the product"[473].

Moreover, comment (b) of § 2 of the Restatement further explains that a manufacture defect arises when a product differs from other products on the assembly line[474]. Last but not the least, in the area of manufacture defects, the Restatement (Third) of Torts: Products liability (1998) holds that, if the plaintiff can prove that it is probably that the product failed to comport reasonable consumer's expectations, he can invoke strict liability. This is the same as §402 A of the Restatement (Second) of Torts that applies the consumer expectation test and strict liability to manufacture defects. Since the American Institute's Restatement exerts eminent influence upon scholars in other jurisdictions, the U.S. idea of "manufacture defects" is accepted in other legal systems through the dissemination of scholarly exchange[475]. In fact, before the Restatement, many courts and commentators in the U.S. have viewed manufacture defects as a self-evident concept, and they did not define manufacture defects from the "*departure from design*" frame[476].

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*una produzione per il resto esenti da difetti o da altre anomalie*"); for Germany, *see* Ulrich Magnus, "Product Liability in Germany", p.247; for the United Kingdom, *see* John F. Clerk, *Clerk & Lindsell on Torts*, p.709.

[473] § 2 of the Restatement (Third) of Torts: Products Liability (1998).

[474] Comment (b), § 2 of the Restatement (Third) of Torts: Products Liability (1998).

[475] *See* John Bell, "The Relevance of Foreign Examples to Legal Development", 21 *Duke Journal of Comparative and International Law* 431 (2010), pp.438-445 (the author discusses how legal ideas from the United States in product liability field, shaped the development of civilian legal systems in Europe. As in the Italian case, eminent Italian scholars like Gino Gorla looked first to France for solutions in product liability in later 1930s, then to the United States between1940s and 1950s.); more specifically, for the Italian case of borrowing American Ideas in relation to product liability, *see* Nadia Coggiola, "The Development of Product liability in Italy", in Simon Whittaker (ed.): *The Development of Product Liability, volume I,* Cambridge University Press, 2014, pp.213-215; for the German case of borrowing American ideas in relation to product liability, *see* Gerhard Wagner, "The Development of Product Liability in Germany", in Simon Whittaker (ed.): *The Development of Product Liability*, volume I, Cambridge University Press, 2014, p.121. For some general remarks on legal borrowings, *see* Alan Watson, *Legal Transplants*, pp.95-101.

[476] *See* David Owen, *Product Liability in a Nutshell*, pp.229-230.

As regard to manufacture defects of components and raw materials in the U.S., *MacPherson v. Buick Motor Co.*[477] is an early example. In *MacPherson*, a defective wood component caused physical harm to the plaintiff. Despite that the plaintiff did not sue the component manufacturer in the case, Judge Cardozo offered some clues about the difficulty to find the manufacturer of component part liable. The reason, according to him, was that the chain of causation between the negligence of the manufacturer of defective component and the harm that the ultimate user suffered would be broken by the failure of the manufacturer of the finished product to inspect the component[478]. Whether the defective component should be relieved of liability due to the intervening cause that happened at a time subsequent to the supplier's conduct[479], went unanswered in Judge Cardozo's reasoning.

[477] 111 N.E. 1050 (1916).

[478] 111 N.E. 1050 (1916), at 390 (Judge Cardozo wrote: "[w]e are not required at this time to say that it is legitimate to go back of the manufacturer of the finished products and hold the manufacturers of the component parts. To make their negligence a cause of imminent danger, an independent cause must often intervene; the manufacturer of the finished product must also fail in *his* duty of inspection. It may be that in those circumstances the negligence of the earlier members of the series is too remote to constitute, as to the ultimate user, an actionable wrong [quotes omitted]. We leave that question open. We shall have to deal with it when it arises. The difficulty which it suggests is not present in this case. There is here no break in the chain of cause and effect").

[479] *See* William L. Prosser, *Handbook of the Law of Torts,* pp.249-250.

The causation issue was resolved by § 5 of the Restatement (Third) of Torts: Products Liability of 1998[480], which in principle would find the supplier of raw materials or components liable for their defective products causing harm[481].

Further, in deciding manufacture defects cases, American courts generally adopt the "malfunction doctrine"[482]. Under this doctrine, a plaintiff may establish a prima facie case of product defect by proving that the product failed in normal use under circumstances suggesting a product defect[483]. The circumstantial evidence such as, the malfunction occurred during proper uses; the product has not been altered or misused by the user or some third party in a manner that probably caused the malfunction[484]. From a theoretical view, applying the "malfunction doctrine" in harm caused by defective components and raw materials that were integrated into final product, presents a problem of proof for the plaintiff, as it is difficult to prove that the integrated component or raw material is defective, and has proximately caused him harm[485].

Nevertheless, according to § 5, comment (a), illustration 1 (b) of the Restatement of Torts (Third): Products Liability, "a commercial seller or other distributor the supplier of a product component is subject to liability for harm caused by a defect in the component"[486]. The same commentary also

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[480] *See* § 5 of the Restatement (Third) of Torts: Products Liability (1998):

One engaged in the business of selling or otherwise distributing product components who sells or distributes a component is subject to liability for harm to persons or property caused by a product into which the component is integrated if:

(a) the component is defective in itself... and the defect causes the harm; or

(b)(1) the seller or distributor of the component substantially participates in the integration of the component into the design of the product; and

(2) the integration of the component causes the product to be defective [...]; and

(3) the defect in the product causes the harm.

[481] However, this does not mean the intervening cause will not block the liability. American courts have developed "raw material supplier doctrine" or "bulk sales/sophisticated intermediate buyer" doctrines alternatively as to exclude the supplier's liability. We will discuss them in the section upon "defense".

[482] *See* David G. Owen, *Products Liability in a Nutshell*, pp.228-229.

[483] *See* David G. Owen, *Products Liability in a Nutshell*, pp.228-229.

[484] *See* David G. Owen, *Products Liability in a Nutshell*, p.233.

[485] *See* John F. Clerk, *Clerk & Lindsell on Torts*, p.728.

[486] §5, comment (a). illustration 1 (b) of the Restatement (Third) of Torts: Products Liability (1998).

supports that a product component is defective if it departs from intended design specifications which is the definition of manufacture defects under § 2(a) of the Restatement (Third) of Torts: Products Liability[487]. Thus, it seems that the malfunction doctrine applies to components[488].

Raw materials are recognized as components that have no functional capabilities unless they are integrated into other products. According to § 5, comment (a) of the Restatement (Third) of Torts: Products Liability, the supplier of raw materials is subject to liability "when raw materials are contaminated or otherwise defective within the meaning of § 2 (a) [of the Restatement (Third) of Torts: Products Liability]"[489]. To present a historic detail, § 5, comment (c), embraces the Reporters' tendency in comment (p) of § 402 A to find raw material supplier liable[490]. It appears

[487] §5, comment (a). illustration 1 (b) of the Restatement (Third) of Torts: Products Liability (1998): "For example, if a cut-off switch is sold in defective condition due to loosely connected wiring, the seller of the switch is subject to liability for harm to persons or property caused by the improper wiring after the switch is integrated into another product. Similarly, if aluminum that departs from the aluminum manufacturer's specifications due to the presence of foreign particles is utilized in the manufacture of airplane engines, the seller of the defective aluminum is subject to liability for harm to persons or property caused by the defects in the aluminum. Both the switches in the first instance and the aluminum in the second are defective as defined in § 2 (a) [of the Restatement (Third) of Torts: Products Liability (1998)]".

[488] *See Bradford v. Bendix –Westinghouse Automotive Airbrake Co.,* 517 P.2d 406 (Colo.Ct. App.1973) (truck brake pedal assembly); *Kaneko v. Hilo Coast Processing*, 654 P.2d 343 (Haw.1982) (service platform); *Suvada v. White Moto Co.*, 210 N.E.2D (Ill.1965) (trust brake); *Burbage v. Boiler Eng'g & Supply Co.*, 249 A.2d 563 (Pa.1969) (defective replacement valve in boiler); *Jones v. Aero-Chen Corp.*, 680 F. Supp.338 (D. Mont.1987) (tear gas canister valve).

[489] § 5, comment (a). illustrations 4 (c) of the Restatement (Third) of Torts: Products Liability (1998).

[490] *See* comment (p) of § 402 A of the Restatement (Second) of Torts of 1965, which provides that: "It seems reasonably clear that the mere fact that the product is to undergo processing, or other substantial damage, will not in all cases relieve the seller of liability under the rule stated in this Section[§ 402 A]. If, for example, raw coffee beans are sold to a buyer who roasts and packs them for sale to the ultimate consumer, it cannot be supposed that the seller will be relieved of all liability when the raw beans are contaminated with arsenic, or some other poison…On the other hand, the manufacturer of pigiron [pigiron is also known crude iron. By melting the iron ore in a blast furnace, the supplier can get pigiron], which is capable of a wide variety of uses, is not so likely to be held to strict liability when it turns out to be unsuitable for the child's tricycle into which it is finally made by a remote buyer. The question is essentially one of whether the responsibility for discovery and prevention of the dangerous defects is shifted to the intermediate party who is to make the changes. No doubt there will be some situations, and some defects, as to which the responsibility will be shifted, and others in which it will not. The existing decisions as yet through no light upon

that malfunction doctrine of manufacture defects can apply to raw materials[491]. As said before, there are however, some U.S. courts do not think raw material is a "product"[492] within the meaning of product liability, because it is not reduced to consumable form[493].

In the European Union, according to the Directive 85/374/EEC, whether a product is defective depends upon whether that it offers the safely normally a person can expect. There is no mention of manufacture defects in the Directive or in the national laws of Member States that have transposed the Directive. In order to obtain a much-detailed understanding in relation to particularly manufacture defects in the case of component and raw materials, we have to look at the case law or the doctrines existed in the national legal systems. However, there are scarce cases against the supplier of components or raw materials in the national legal systems.

In English law, at the statutory text level, suppliers of components, or raw materials would fall within the meaning of "producers" under § 1 (2) of the Consumer Protection Act 1987[494], and would be liable for defects causing harm. In *A and others v. National Blood Authority and another*[495], Burdon J rejected the American boxes of defects, and made a distinction between "standard" and "non-standard" products. The decision followed the Directive closely, and set up the test of defectiveness based upon the public's legitimated expectation of safety. With regard to

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the questions, and the Institute therefore expresses neither approval nor disapproval of the seller's strict liability in such a case".

[491] § 5, comment (a) of the Restatement (Third) of Torts: Products Liability (1998).

[492] *See Wyrulec Co V. Schutt*, 866 P.2d 756 (Wyo.1993), at 760 (electricity is not recognized as a product. The strict liability doctrine is inapplicable); *Kennedy v. Vacation Internationale, Ltd.*, 841 F.Supp.986 (D.Haw.1994), at 989 (tile used in resort's flooring was not a product under the Hawaii law because it became a building fixture when laid).

[493] *See* M. Stuart Madden, "Liability of Suppliers of Natural Raw Materials and the Restatement (Third) of Torts: Products Liability – A First Step towards Sound Public Policy", p.283.

[494] § 1 (2) of the Consumer Protection Act 1987 defines "producer" as to include "the person who manufactured [the product]", the person who won or abstracted a substance which is not manufactured (for example, mineral, or chemical suppliers, or sea-salt distiller), and the person who carried out an industrial or other process for a product whose essential characteristics are attributed to, but such product has not been manufactured, won or abstracted (for example, in relation to agricultural produce). Besides, §1 (2) (c) of the Consumer Protection Act 1987 says product "means any goods or electricity and […] includes a product which is comprised in another product, whether by virtue of being a component part or raw material or otherwise".

[495] [2001] 3 All ER 289.

manufacture defects, many English law commentators opined that, even under a negligence theory of liability, the English courts have showed a strong tendency to impose liability[496]. In France, components and raw materials suppliers are recognized as "producer" under Article 1245-5 of the French Civil Code. However, in practice, there is no evidence that French law has imported the American categories of defects and their related doctrines, include the tests of defectiveness[497], nor did there any cases with regard to manufacture defects of the supplier of components or raw materials. In Germany, the courts distinguished defects into manufacturing, design, and warning defects as found under U.S. law[498]. This approach has been adopted under § 823 BGB and also under the Product Liability Act, with the consequences that various provisions will be applied to different categories of defects. For example, the development risks defense cannot be applied to manufacturing defects[499].

In Italy, in respect of manufacture defects for producers in general, the analysis of court often will verify whether there exists a gap between the safety level of the questionable product and the other examples of product of the same line, in accordance with Article 117, para. 3 of the Italian Consumer Code[500]. This analysis shares some similarities with the Restatement (Third)'s definition of 'manufacture defects' which embodies the theme of 'departure from design'. Generally, Italian courts considered the manufacture defects from the perspective of consumer expectation, or the legitimate expectation as to follow the codified laws strictly. There are cases that the component producer was held liable under the previous liability law before the directive, wherein the component producer was verifiable in an explosion of a bottle cap which was caused

[496] *See* Jane Stapleton, "Product Liability in United Kingdom: The Myth of Reform", 34 *Texas Law Journal* 45 (1999), p.53.

[497] *See* Jean-Sébastien Borghetti, "Product Liability in France", p.216.

[498] *See* Ulrich Magnus, "Product Liability in Germany", p.247.

[499] *See* Ulrich Magnus, "Product Liability in Germany", p.263.

[500] *See* Guido Alpa and Mario Bessone, *La responsabilità del produttore*, p.340; Alessandro Stoppa, "Responsabilità del Produttore", p.131; with regard to manufacture defect, *see* a mountain bike defect case decided by Monza Tribunal: Trib. Monza, 20 July 1993, in *Foro it.*, 1994, I, 251; and note at the same page by Giulio Ponzanelli, "Dal biscotto alla «mountain bike»: la responsabilità da prodotto difettoso in Italia", in *Foro it.*, 1994, I, 251.

by the juice inside. The juice component caused the explosion[501]. In general, joint and several liability of the various parts that involved in the production process, has been confirmed by Italian scholars and judges under even the pre-existing regime[502].

In China, both Tort Liability Law and Product Quality Law subject producers and retailers to an 'unreal' joint liability. Under this liability system, the plaintiff can sue either the seller or the producers. As to the notion of producer, scholars agree that Chinese product liability should encompasses component or raw material supplier; however, this is not made clear at the statutory text level. Moreover, there is scholarship that suggested to subject the component or raw material supplier to tort liability based upon fault liability as the third party like the transporting party or the party who did storage in Article 44 of Tort Liability Law[503]. There is no consensus upon this. In addition, there is no case law that subjecting the supplier of components or raw material to tort liability. On another side, since the Product Quality Law requires that the product must have undergone processing and must be for sale, without define the meaning of "processing", it is possible that Chinese courts would refuse to recognize raw materials as product within the meaning of product liability law in China.

In fact, in many situations that involves automobiles causing harm such as harm caused by brake system defect, tyre, or explosion of oil tank, the ultimate consumer usually sues the automobile

[501] *See* App. Roma, 30 July 1992; Cass, 20 April 1995, No.4473, in *RCP*, 1996, p.672, note by A. De Berardinis (the explosion of a bottle cap caused injuries to a consumer. It was possible to examine the bottle and its content, and discover that the blueberry juice in the bottle was defective and caused the explosion).

[502] *See* Diana Dankers-Hagenaars and Valentina Jacometti, "Tribunal Supremo (No.151/2003), 21.02.2003 [product liability]", 13 *European Review of Private Law* 171 (2005), p.183.

[503] *See* Yang Lixin (杨立新), " Twenty Questions That Worth-Researching in the Draft of Tort Liability Law" (《侵权责任法草案》应该重点研究的 20 个问题), 2 *Hebei Law Science（河北法学）*2 (2009), p.9 (author's translation); *see* Article 44 of Tort Liability Law: "If a product defect is caused through the fault of a third party, including, inter alia, the transporter or the party providing storage, and results in damage to others, the manufacturer or seller of the said product shall be entitled to seek reimbursement from the third party upon compensation".

producer or the retailer instead of the components or raw material supplier[504]. However, in situations in which consumers buy directly components from the supplier, they would probably sue the supplier for product liability[505]. In current Chinese cases laws, it is rare that the raw material or components supplier is subject to either criminal or civil liability[506]. An example might be the *Qi'er Yao* Counterfeit Medicine case[507] of 2006, wherein the supplier of counterfeit raw material – propylene glycol – did not bear any liability, despite the fact that the counterfeit propylene glycol causes the end-product Amillarisin A injection fluid to be defective, and resulted in the deaths of thirteen patients, and kidney failure of about 65 persons in Guangdong Province.

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[504] *See* Dong Chunhua (董春华), "Comparative Study on the Product Liability of Component Manufacturer in China and in the United States" (中美零部件生产商产品责任比较研究), 6 *Study and Practice(学习与实践)* 28（2010）, p.31 (author's translation).

[505] *See* "*An exploded car tyre caused accident, the tyre producer bears liability (汽车炸胎惹事故 轮胎厂家担责任)*", at the official site of China Court (https://www.chinacourt.org/article/detail/2002/07/id/7583.shtml).

[506] *See* Song Minxian (宋民宪) and Li Ting (李婷), "On the Responsibility for the Raw Materials Supplier in the Drug Infringement Liability System" (原辅料供应者在药品侵权责任体系中的责任), 4 *Medicine & Jurisprudence* (*医学与法学*) 31 (2012), p.32.

[507] *See Qi'er Yao* Counterfeit Medicine *case*, reported on 29 April 2008 in "Qi'er Yao Counterfait Medicine Case Trail Judgment today, major criminal suspects are sentenced to 7 years in prison" (齐二药假药今日一审宣判，主犯被判刑 7 年), *Yangcheng Evening News (羊城晚报)*. The case fact is as following: on April 13 2016, the Third Affiliated Hospital of Sun Yat-Sen University procured "Armillarisin A" injection fluid from the defendant Qiqihar No. 2 Pharmaceutical Co., Ltd. The use of injection fluid causes kidney failure to 65 persons, and among them, 13 persons died in Guangdong Province. The reason was that the employee of the pharmaceutical negligently bought counterfeit raw material- Propylene glycol – for the Amillarisin A productition. Guangzhou City Tianhe District Court held the managers, laboratory director as well as a medicine procurer of the pharmaceutical company criminally liable for major liability accident under Chinese criminal law. Although a civil procedure was started against the hospital, the Amillarisim A retailer and the producer, the compensation was settled between the plaintiffs and the pharmaceutical companies as well as the retailers of the medicine. There was no litigation against the raw material supplier.

## 4.2. Design Defects

Design defects involve products which lack of conformity with regard to those enforceable concrete standards for the producer[508]. This section will discuss design defects claims against the supplier of components and raw materials which are integrated into final products, as well as the application of consumer expectation tests and risk-utility tests in this area. Understanding that these notions are basically based on US law and terminology, one has to bear in mind that scholars and, particularly, judges in other legal systems may not buy into these terminologies, nor use them as guides for legal practice.

In the U.S., in case of design defects, commentators argued that there is no substantial difference between strict liability and negligence actions[509]. In a negligent action, the defendant manufacturer has a duty to use reasonable care to make sure the product is designed safely. As to the proof of fault, the factfinder can rely upon the "*res ipsa loquitur*" doctrine to infer the negligence unless the defendant proves otherwise; the element of duty of care is present also in strict liability actions, since proper design should be proved by the manufacturer[510]. Therefore, the test of defectiveness becomes a primary focus of liability action, no matter whether the latter is based upon strict liability or negligence[511].

As to components and raw materials, if a design defects becomes visible in the finished product, the supplier of raw materials is not liable unless that he "substantially participate"[512] the design of

[508] *See* Giulio Ponzanelli, "Dal biscotto alla «mountain bike»: la responsabilità da prodotto difettoso in Italia", p.257; also *see* comment (c) of § 2 of the Restatement (Third) of Torts: Product Liability (1998) ("A product asserted to have a defective design meets the manufacturer's specifications but raises the question whether the specifications themselves create unreasonable risk").

[509] *See* Michael Hoenig, "Product Designs and Strict Tort Liability: Is There a Better Approach?", 8 *Southwestern University Law Review* 109 (1976), p.131.

[510] *See* William L. Prosser, *Handbook of the Law of Torts*, p.659.

[511] *See* John Wade, "On the Effect in Product Liability of Knowledge Unavailable Prior to Marketing", 58 *New York University Law Review* 734 (1983), pp.748-749 (the author thinks this rule applies to warning defects cases as well).

[512] For a discussion on "substantially participate", *see* § 5, comment (a)-(e), of the Restatement (Third) of Torts: Product Liability (1998). The commentary emphasizes the substantial role in deciding, or participating in the design

final product. If a design defect is present in the components and raw materials before their integration into the final product, the supplier is liable. One should however consider that there are some basic raw materials, which, thanks to their characteristics, cannot be defectively designed. In these cases, the supplier will not be liable for design defects causing harm.

In the European Union, Article 6 of the Directive 85/374/EEC speaks of "the reasonable expectation of the use of product". This implies that the producer must not only adequately warn consumers, but must also design a product in the safest way, considering the uses of the product he already anticipated[513]. Contrary to the U.S., a component producer is subject to joint and several liability with the manufacturer of a finished product if the injury is caused by a defect of a component part or a raw material. In such cases, the victim can claim damages from both the manufacturer or the component part or raw material[514]. If the final producer is held liable because of the mere fact of having put into circulation a defective product, he has a right of recourse against the producer of the defective part.

As to design defects claims against the supplier of raw material and producers, there are very few cases at both the European Union and the national law level. The duty to design a product safely and meet the legitimate safety expectations of consumers is contained in the Directive. However, there are some reception of risk-utility tests in the legal systems of Germany, France, and United Kingdom that will be introduced later[515].

In China, there are no design defect claims against the supplier of components or raw materials that are integrated into final products. China imported the legitimated safety expectation test from the Directive 85/374/EEC. As to the idea of risk-utility test, it is well received among legal scholar, yet, in practice it is not adopted.

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of the integrated product. Merely providing advice, or merely conforms with the design specification provided by the end-product manufacturer, cannot be seen as performing a substantial participation.

[513] *See* Duncan Fairgrieve, Geraint Howells, Piotr Machnikowski et al, "Product Liability Directive", p.59.

[514] See Diana Dankers-Hagenaars and Valentina Jacometti, "Tribunal Supremo (No.151/2003), 21.02.2003 [product liability]", p.182.

[515] *See* Duncan Fairgrieve, Geraint Howells, Marcus Pilgerstorfer, "The Product Liability Directive: Time to Get Soft?", p.7.

### 4.2.1. Consumer Expectation Test

In the U.S., with regard to design defects, it is often stressed that one of the pitfalls of the consumer expectation test lies in its difficulty to reconcile it with the logic of "obvious danger" rule. The obvious danger rule denotes that a product's hazards were obvious to the consumer; it thus implies that the consumer's expectation cannot exceed the level which is apparent to him as he knows of the danger in the product[516]. In *Jarke v. Jackson Products*[517], the trial court adopted the patent danger rule, and ruled against the plaintiff who alleged that a welding mask was defectively designed, and caused some molten metal spilling into his ear. The trail court found that the danger to the plaintiff's ears was obvious, and granted summary judgement for the defendant – the manufacturer of the welding mask. The appellate court agreed that the obvious danger precluded a finding of design defectiveness under the consumer expectation test, but reversed and remanded on the issue whether an ordinary person can predict that the mask's design itself can create obvious danger[518]. Presumably, in cases of defective components or raw materials, if the danger of components or raw materials is obvious to the ultimate consumer, the consumer expectation test may not do justice to the consumers. Although the Restatement (Third) adjusts risk-utility test to design defect cases, there are still states embracing the consumer expectation test of defectiveness, and following strict liability standards under the Restatement (Second)[519]. There is little case law involves consumer expectation test in design defects of components or raw materials.

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[516] *See* Alessandro Stoppa, "The Concept of Defectiveness in the Consumer Protection Act 1987: A Critical Analysis", 12 *Legal Studies* 210 (1992), pp.213-214.

[517] 631 N.E.2d 233(Ill.App.Ct.1994).

[518] 631 N.E.2d 233(Ill.App.Ct.1994); David G. Owen, *Product Liability in a Nutshell*, p.245.

[519] *See* Michael D. Green and Jonathan Cardi, "Product Liability in United States of America", in Piotr Machnikowski (ed.): *European Product Liability. An Analysis of the State of the Art in the Era of New Technologies*, Intersentia, 2016, p.582; David G. Owen, *Product Liability in a Nutshell*, p.245. For a much detailed empirical survey about the reception of § 2 (b) and risk-utility test for design defects in the U.S., *see* John F. Vargo, "The Emperor's New Clothes: The American Law Institute Adorns a "New Cloth" for Section 402 A Product Liability Design Defects – A Survey of the States Reveals a Different Weave", 26 *The University of Memphis Law Review* 493 (1995-1996), pp.536-537 (the author concludes that only the common law of Alabama, Maine and Michigan supported the Reporters over the

In the European Union, the central test remains what "persons generally are entitled to expect", as provided in the Directive. China also imported the test from the European Union Directive. Whether these tests are the same as the consumer expectation test as in the U.S. is debatable. However, it would be fair to say that this test is very close to the consumer expectation test. When it comes to design defects relate to components or raw materials, the application of this test implies consideration not only for the consumer's expectation, but also for the other circumstances mentioned in the Directive. Under Chinese law, for design defects relate to components or raw materials, the test of defectiveness provided by Article 46 of Product Quality Law follows closely at the European version of legitimated safety expectation test[520]. It seems however there is no case law on this point to verify the law in action.

### 4.2.2. Risk-Utility Test

In U.S, § 2 (b) of the Restatement (Third) of Torts: Products Liability (1998)[521] summarizes the risk-utility test. Under this test, it is up to the plaintiff to prove the existence a reasonable alternative design using expert testimony, and to prove that the product is defective. Further, § 5, comment (b) of the Restatement (Third) of Torts: Products Liability suggests applying the risk-utility test (§ 2 (b)) to design defects, and states that the plaintiff should prove that there exist other reasonable alternative designs that would have prevented foreseeable failures from occurring[522]. § 5, comment (b) did not explain whether the risk-utility test is a "macro-balance" test that compares all the risks and utilities of either the chosen or the alternative design, or a "micro-balance test" which focuses upon risks and utilities of adopting the particular alternative design feature proposed

risk-utility test, while other four states – Illinois, Mississippi, Ohio, and Texas – have enacted statutes imposing the alternative design requirement).

[520] *See* Kristie Thomas, "The Product Liability System in China: Recent Changes and Prospects", p.764.

[521] §2 (b) of the Restatement (Third) of Torts: Products Liability (1998): a product is defective in design when the foreseeable risks of harm posed by the product could have been reduced or avoided by the adoption of a reasonable alternative design by the seller or other distributor, or a predecessor in the commercial chain of distribution, and the omission of the alternative design renders the product not reasonably safe.

[522] § 5, comment (b), of the Restatement (Third) of Torts: Products Liability (1998).

by the plaintiff[523]. As to case law, American courts that applied the risk-utility test to component that is defectively designed for its designated use[524], usually adopted the macro-balance version of risk-utility test[525]. However, components producers who followed the specifications provided by the final producer, have no duty to adopt a safer design for the ultimate consumer[526], unless that the specification is obviously dangerous (in the latter case, the components producer may have a duty to act in a prudent manner)[527].

There are, however, courts that rejected applying § 2 (b) of the Restatement of Torts: Product Liability. For example, in *Potter v Chicago Pneumatic Tool Co.*[528], a case involving a pneumatic hand tool, the defendant relied on the Restatement (Third) of Torts, and argued that the plaintiff had to prove using expert testimony that a reasonable alternative design existed and that the product was defective. However, the court rejected this request[529], and opined that, with regard to

[523] *See* David G. Owen, "Toward a Proper Test for Design Defectiveness: Micro-Balancing Costs and Benefits", p.1664.

[524] *See Fleck v. KDI Sylvan Pools*, 981 F.2d 107 (3rd Cir.1992) (replacement liner for swimming pool which lacked depth markers); *Dougherty v. Edward Meloney, Inc*., 661 A. 2d 375 (Pa. Super. Ct.1995) (defectively designed shut-off valve designed for use in boilers); *Parkins v. Van Doren Sales, Inc*., 724 P.2d 389 (Wash. Ct. App. 1986) (components of conveyor were defectively designed in that they always presented a risk to users) (cases cited in § 5, comment (b) of the Restatement (Third) of Torts: Products Liability (1998)).

[525] *See* David G. Owen, "Toward a Proper Test for Design Defectiveness: Micro-Balancing Costs and Benefits", p.1671.

[526] *See Zara v. Marques & Nell, Inc.,* 675 A.2d 620 (N.J.1996), at 634-635 (the defendant a sheet metal fabricator built a quench tank to specifications provided by the plaintiff's employer. The specifications did not require that the fabricator prepare or install or any safety device. The plaintiff was injured while working to repair the tank, which was already integrated into a working generation system by his employer. The court ruled that the quench tank was not defectively designed, and it was not feasible for the component manufacturer to attach a safety device).

[527] 675 A.2d 620 (N.J.1996), at 629-631.

[528] 64 A.2d 1319 (1997).

[529] *See* Victor E. Schwartz, "The "Restatement (Third) of Torts: Products Liability": A Guide to its Highlights", 34 *Tort & Insurance Law Journal* 88 (1998), p.90 (the author served as an advisory member to *the Restatement (Third) of Torts: Products Liability*. He criticized the *Potter* court for not understanding the Statement well, as well as criticized the "anti-Restatement" journals cited by the court, which failed to appreciate the alternative reasonable design as thorough and sound).

an obvious defect, the plaintiff does not need to prove an alternative design using expert testimony. Some American legal scholars also argue that § 2 (b) does not reflect the law[530].

The reception of risk-utility test in the European Union and China was already discussed in a previous section. There are few cases against the supplier whose raw material or components are integrated into final products. In the European Union, there are some considerations of the test in national legal systems[531], while in China the test is not in operation in legal practice.

### 4.3. Failure to Warn

Warnings might be divided into two types: warning that instruct on how to use the product safety; and warnings that focus on risks which may arise in intended use[532]. But, with regard to the duty to warn for the supplier of components or raw materials, the question is: to whom he owes such a duty? Has the supplier a duty to warn the ultimate consumer of the risks associated with its products – components or raw materials – which are integrated into end product?

In the U.S., as § 5, comment (a) of the Restatement (Third) of Torts: Products Liability notes, "the supplier of components or raw materials is required to provide instructions and warnings regarding risks associated with the use of the components product"[533]. However, it is generally rejected that the supplier needs to warm the sophisticated, immediate buyer who integrated the components into another product, and the ultimate consumer. As comment (a), illustration 1 (b) states, "the supplier

[530] *See* Frank J. Vandall, *A History of Civil Litigation: Economic and Political Perspectives*, p.97; John F. Vargo, "The Emperor's New Clothes: The American Law Institute Adorns a "New Cloth" for Section 402 A Product Liability Design Defects – A Survey of the States Reveals a Different Weave", pp.536-537.

[531] *See* Duncan Fairgrieve, Geraint Howells and Marcus Pilgerstorfer, "The Product Liability Directive: Time to get soft", pp.7-9.

[532] *See* Jane Stapleton, *Product Liability*, p.252.

[533] *See* §5, comment (a) of the Restatement (Third) of Torts: Products Liability (1998). *See* also *Hill v. Wilmington Chem. Corp.*, 156 N.W.2d 898 (Minn. 1968).

owes no duty to warn either the immediate buyer or the ultimate consumer of dangers arising because the components are unsuited for the special purpose to which the buyer puts it"[534].

If the law were to impose a duty to warn to the sophisticate, immediate buyer who integrate products, or the ultimate consumer in such circumstances, the components sellers would need to monitor the developments of products and systems into which their components are to be integrated[535]. Many scholars opined that this is inefficient, and to levy such a severe burden on the supplier of components or raw materials, would be against public policy, as only the supplier may avert to sell components or raw materials. In fact, American courts also refuse to impose such an onerous duty upon the supplier to warn the ultimate user[536]. A classical illustration of such a refusal is *In Re: TMJ Implants Prod.Liab.Litig.*[537]. In this case, plaintiffs alleged injuries resulting from implantation of the Proplast (R) TMJ Implant which contained raw materials supplied by Dupont. The court granted summary judgment to Dupont, because the raw materials it supplied were not inherently dangerous. Further, the court opined that, "[w]hen the machine or device [produced by the final manufacturer] operates in a defective manner, the question arises of whether the manufacturer of the components had a duty to warn the ultimate user or to prevent the defect in some way. Many courts have concluded that, in those circumstances, the manufacturer of the components did not have such a duty"[538].

Generally, the duty to warn is thought to be applicable only to foreseeable risks[539]. But this is not completely true in the U.S.[540]. A famous example to refuse recognizing that waring duty is

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[534] *See* § 5, comment (a). illustration 1 (b) of the Restatement (Third) of Torts: Products Liability (1998).

[535] *See* § 5, comment (b) of the Restatement (Third) of Torts: Products Liability (1998).

[536] *See Smith v. Walter C. Best, Inc*., 927 F.2d 736 (3rd Cir. 1990); *Goodbar v. Whitehead Bros*., 591 F. Supp.522 (W.D.Val.1984); *Jones v. Hittle Serv.Inc.*, 549 P.2d 1383 (Kan. 1976); *In Re TMJ Implants Prod.Liab.Litig.*, 872 F. Supp.1019 (D. Minn.1995).

[537] 872 F. Supp.1019 (D. Minn.1995).

[538] 872 F. Supp.1019 (D. Minn.1995), at 1025.

[539] A few cases ruled on this basis, *see Karjala v. Johns-Manville Prods. Corp*., 523 F.2d 155, (8th Cir. 1975) *Bristol-Myers v. Gonzales*, 561 S.W.2d 801 (Tex. 1978); *Crocker v. Winthrop Labs*., 514 S.W.2d 429 (Tex. 1974).

[540] Some cases rejected this criterion: *see Turner v. General Motors Corp*., 584 S.W.2d 844 (Tex. 1979), holding that liability may be imposed even though the danger from the product was "not [...] even reasonably knowable" at the time of the manufacture or sale.

applicable only to foreseeable risks comes from asbestos cases[541]. Many courts held the asbestos manufacturer strictly liable, because the defendant should or should have known the inherent danger posed by the asbestos. Besides, if a component or raw material is inherently dangerous, the use of warning, even with adequate information, will not make no difference (as to exempt the supplier from liability). In other words, in such cases, the product should not be put into the market at all[542].

In the European Union, Article 6 of the Directive 85/374/EEC lists three criteria to determine the defectiveness of a product: the presentation of the product; the reasonable expected use of the product; and the time when the product was put into circulation. Among these criteria, the first two criteria are relevant to warning defects. In the event that the presentation of the product is inaccurate, incomplete, or missing information, a product may be seen as defective if such lacking of information would make the product fail to meet the public's legitimate expectations of its safety[543]. As to the question whether giving adequate information about an initially defective product would make the product "not defective", the Directive does not give an answer. Certainly, the answer is not uniform in national legal systems of the Member States, but the crucial element appears to be whether the safety expectation is satisfied[544]. Since this question involves not only the operation of legitimated expectation test, but also the application of defenses such as "assumption of risks", and "contributory negligence", it exceeds the purposes of the inquiry here.

As to the second criteria – the reasonable expected use of the product –, it is important to note that this assessment would influence the scope of warning, in the sense that the producer has to anticipate the reasonable conduct of the user[545]. However, such anticipation does not solely depend

[541] *See Bashada v. Johns-Mansville Products Corp.*, 90 N.J. 191, 447 A.2d 539 (1982) (the Court strikes down the state of art defense that alleged the danger was undiscovered and scientifically unknowable at the time of injury).

[542] *See* John Wade, "On the Effect in Product Liability of Knowledge Unavailable Prior to Marketing", p.746. For a discussion of unavoidably unsafe products, and the uselessness of fulfill warning duty, *see* generally Restatement (Second) of Torts § 402 A comment (k) (1965); Sidney H. Willig, "The Comment k Character: A Conceptual Barrier to Strict Liability", 29 *Mercer Law Review* 545 (1978).

[543] *See* Duncan Fairgrieve, Geraint Howells, Piotr Machnikowski et al, "Product Liability Directive", p.57; Cees van Dam, *European Tort Law*, p.428.

[544] *See* Duncan Fairgrieve, Geraint Howells, Piotr Machnikowski et al, "Product Liability Directive", p.57

[545] *See* Duncan Fairgrieve, Geraint Howells, Piotr Machnikowski et al, "Product Liability Directive", p.58.

upon the producer. Instead, when evaluating the anticipation, one has to balance the interests of consumer safety on the one hand and the need of not overburdening producers in a given legal system. Since different legal systems may operate such balance with either pro-consumer or pro-producer or even neutral attitude, the details of their approaches might vary. Nevertheless, it is alleged that the European Directive gives more weight on protecting the consumers rather than the producers[546].

With regard to warning defects for those components or raw materials which are integrated into finished products, there is very little case law reported in the European Union, and also in the national legal systems[547]. The following will thus focus mainly upon general rules on the subject.

In the United Kingdom, S.3 (2) (a) of the Consumer Protection Act gives the meaning of "defect" and mentions that "any instructions for, or warnings with respect to, doing or refraining from doing, anything within or in relation to the product". This presents an implication that failure to have adequate warning or instructions would subject the producer to tort liability[548]. However, under English law, there is no duty for the producer to warn against obvious danger[549]. As to components or raw materials that are integrated into final products, commentators have opined that a warning to the intermediary would already be sufficient, and that there is no duty for the supplier to warn the ultimate user[550].

In France, Article 1245-3 of the French Civil Code follows Article 6 of the Directive closely. Undeniably, failure to warn could render a product defective under Article 1245-3. As to the test of defectiveness, scholars generally agree that it should be determined by the expectations of general public[551].

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[546] *See* Duncan Fairgrieve, Geraint Howells, Piotr Machnikowski et al, "Product Liability Directive", p.59.

[547] *See* Jean-Sébastien Borghetti, "Product Liability in France", pp.216-217.

[548] *See* S.3 (2) (a) of Consumer Protection Act 1987.

[549] *See B (A Child) v. McDonald's Restaurants Ltd*, [2002] EWHC (QB) 490 (no duty to warn hot coffee).

[550] *See* John F. Clerk, *Clerk & Lindell on Torts*, p.725 (the author lists a chemical example, as well as an example in pharmaceuticals, where a warning to the prescribing physician would be enough).

[551] *See* Jean-Sébastien Borghetti, "Product Liability in France", p.216.

In Germany, the term of "defects" is closely linked to the duty of care that the producer owes with respect to the specific product and with respect to the specific phrase in the life of the product[552]. German courts have held that the producer has a duty of care to warn, and give advice or take other measures if the product has no effect but the user justifiably relies on promised effects[553].

In Italy, as to failure to warn or the information defect ("*difetto di informazione*") in general, the rule is contained in Article 117 (a) of the Italian Consumer Code (former Article 5 (a) of the Presidential Decree No. 224/1988). As an Italian court decision stated, "the rationale for Article 5 (a) of the Presidential Decree No. 224/1988 [now Article 117 (a) of the Italian Consumer Code] (for which the absence of instructions constitutes a hypothesis of missing safety conditions) is based upon the assumption that a correct and complete information can neutralize the intrinsic danger of the product, or that the danger only relates to defined possibilities of use of the product"[554]. Indeed, in Italy, failure to warn relates to the correct use of product at the part of consumer. In fact, in the case of lacking adequate information, the court would consider a few aspects such as whether the product risk is foreseeable, whether there is an evident informative element about the product, whether those warnings and instructions for the product are clear and efficient[555].

In China, the consumer expectation test is the dominant test in determining whether there exists a warning defect for a product, including for components or raw materials. There is, however, very little case law in relation to the supplier of components or raw materials. As mentioned earlier, in an alcohol caused harm, the court rejected to use consumer expectation test to find the producer liable for warning defects, and instead found the product not defective as it fulfilled national

[552] *See* BGH 80, 186; BGHZ 80, 199; BGH NJW 1985, 194 (cited in Ulrich Magnus, "Product Liability in Germany", p.248).

[553] *See* Ulrich Magnus, "Product Liability in Germany", p.248.

[554] *See* Trib. Vercelli. 7 April 2003, in 10 *Danno e responsabilità* 1001 (2003), at 1002 ("*la ratio della previsione contenuta nell'art.5 d.p.r.224/1988 (per cui l'assenza o carenza di istruzioni costituisce un'ipotesi di mancato rispetto delle condizioni di sicurezza) si fonda sulla convinzione che una corretta e completa informazione sia in grado di neutralizzare la pericolosità intrinseca del prodotto e quella legata a determinate possibilità d'uso dello stesso*").

[555] *See* Alessando Stoppa, "Responsabilità del Produttore", p.131; Giulio Ponzanelli, "Dal biscotto alla «mountain bike»: la responsabilità da prodotto difettoso in Italia", p.257.

standards[556]. There is no general rule on this from the Court. Chinese scholars who are influenced by American Restatements and legal jurisprudence, are trying to introduce doctrines and technical rules from U.S.[557] However, so far, there is no significant impact upon legal practice.

## 5. Damages

Damage is a necessary element of tort liability for either negligence, or intentional conduct, or non-fault. Generally, it means recoverable losses. In fact, the word "recoverable" implies that plaintiffs have the right to get compensation for harm they suffered due to the defendants' tortious act[558]. However, in situations relating merely to a threat of harm, usually injunction will lie rather than damages[559]. Since it is rather very difficult to survey all the national provisions of the law of damages, and master all rules from legal system to legal system in relation to harm caused by

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[556] Case reported in Chen Yunliang (陈云良), "Warning Defects in Product Liability" (产品警示缺陷的产品责任问题研究), pp.79-80 (author's translation).

[557] *See* Liang Ya (梁亚), "Warning Defects – Focusing on American Products Liability Law" (产品警示责任缺陷若干问题研究 ——以美国产品责任法为背景), 3 *Presentday Law Science (时代法学)* 54 (2007), pp.54-61; Dong Chunhua (董春华) and Gao Hancheng (高汉成), "Warning Defects in American Products Liability Law" (论美国产品责任法中的"警示缺陷"), 3 *Eastern Forum (东方论坛)* 120 (2004), pp.120-126.

[558] *See* Cees van Dam, *European Tort Law*, pp.346-347.

[559] *See* John G. Fleming, *The Law of Torts*, 8th edition, The Law Book Company Limited, 1992, p.191. For example, in nuisance, many legal systems use injunction as a form of reparation to prevent an ongoing infringement of the plaintiff's rights. The English legal system provides prohibitive injunction. In French Law, the injunction is called as '*supprimer la situation illicite*'. In German Law, it is "*Unterlassunsklage*" or "*Beseitungskage*", as specified in § 1004 of German BGB. In China, both Article 15 of Tort Liability Law and Article 179 of General Provisions of Chinese Civil Law of 2018 provide injunction as one of the main remedial form of tort liability. In nuisance case, injunction is used to prevent the defendants' activities that endangering the plaintiff's property or personality rights. *See* Cees van Dam, *European Tort Law*, p.348. For the use of injunction action in nuisance case in Italy, *see* Guido Alpa and Vincenzo Zeno-Zencovich, *Italian Private Law*, p.141 and p.262. For the U.S., *see* William L. Prosser, *Handbook of the Law of Torts*, p.603.

commercially supplied defective components and raw materials, this paragraph will focus on some general features of the law of damages between different legal systems.

To begin with, almost all the legal systems draw a distinction between damages to the person and damages to the property. Almost all the legal systems, despite many linguistic differences and technical rules, accept compensation of non-material damages or non-pecuniary losses, such as emotional distress. However, legal systems like the Italian, French and German ones, tend to emphasize reparation and the compensatory function of damages. For example, the basic rule under French law for recovery of damages is that plaintiffs may sue the defendant for the entire loss suffered so that they are returned to the position that they were in prior to the act causing injury[560]. This rule is better known as principle of "*réparation intégrale du prejudice*" (or full compensation principle). In these systems, punitive damages are generally not allowed[561]. Some other legal systems, like the U.S., the English and the Chinese ones, embrace the aim of restoring the injured party to the position he would be without the tort action has happened, but also recognize the punitive and preventive function of damages, as it happens when punitive damages (in the US and China) or exemplary damages (as called in English law) are awarded.

As to the categories of damages, it seems that all legal systems adopt a categorization of recoverable damages.

In the United States, § 402 A of the Restatement (Second) of Torts of 1965 only mentioned the liability for physical harm caused by products[562]. The physical harm was understood as personal injury and tangible property damage[563]. Then, §§ 1 and 21 of the Restatement (Third) of Torts: Products Liability (1998) made the seller of a defective product liable for any "harm to persons or property caused by defect"[564].

[560] *See* Eva Steiner, *French Law: A Comparative Approach*, p.259.

[561] Through recognition of foreign judgments, punitive damage may can enter into function of above legal system, as happened in Italy.

[562] § 402 A of the Restatement (Second) of Torts of 1965.

[563] *See* Michael D. Green and Jonathan Cardi, "Product Liability in United States of America", p.582.

[564] §§ 1 and 21 of the Restatement (Third) of Torts: Products Liability (1998).

In the European Union, Article 9 of the Directive 85/374/EEC refers to the compensation for damage to death, personal injuries, and private property. As regards personal injury, in *Boston Scientific Medizintechnik GmbH v AOK Sachsen-Anhalt and RWE*[565], the European Union Court of Justice gave an affirmative answer and held further that surgery undergone by the victim to fend off risks associated with a potentially defective medical device qualifies as personal injury for which damages are recoverable under the European regime. However, the Directive also recognizes the existence of non-material damages, notwithstanding that they are not included within its text. European legal systems, however, are not entirely aligned as to the recoverable damages.

Under English law, damages recoverable under the Consumer Protection Act 1987 are "death or personal injury", or any loss of damage to any property (including land)"[566]. As regard to the English law of damage in general comparative lawyers have observed that this field is "patchy and hard to master"[567], since the English law of damages provides for "a broad spectrum of damages", including "pecuniary and non-pecuniary, general and special, nominal and substantial, compensatory and punitive [exemplary]"[568].

Under French Law, legal scholars and judges usually distinguish between (a) damage to property which results in economic loss known as *prejudice material*; (b) emotional harm giving rises *prejudice moral* and (c) physical injury which engenders *prejudice corporel*[569]. However, the French Civil Code does not provide this tripartite classification, but closely follows the Product Liability Directive in terms of recoverable damages.

Under Italian Law, it is accepted that there is generally a bipolar system of damages in tort law, which classifies damages into two categories: (a) patrimonial damage (*danno patrimoniale*), which intends the concrete economic losses of the victim; (b) non-patrimonial damage (*danno non patrimoniale*), which indicates the infringement of personality rights, that is characterized as no

[565] European Union Court of Justice (ECJ) 05.03.2015, C-503/13 and C-504/13.

[566] S. 5(1) of the Consumer Protection Act 1987.

[567] *See* Cees van Dam, *European Tort Law*, p.357.

[568] *See* Cees van Dam, *European Tort Law*, p.357. For a more comprehensive introduction on the English law of damages, *see* John F. Clerk, *Clerk & Lindsell on Torts*, pp.1799-1894.

[569] *See* Eva Steiner, *French Law: A Comparative Approach*, pp.259-260.

economic relevance[570]. However, under Italian law, in terms of non-patrimonial damage, there exists a distinction between moral damage (*danno morale*), biological loss (*danno biologico*), and existential damage (*danno esistenziale*)[571].

Under German tort law, according to § 249 (1) and (2) sentence (1) BGB, the plaintiff can claim damages in restoration in kind, or the sum of money that is necessary for such restoration. Moreover, § 253 BGB permits the plaintiff to claim for the compensation for pain and suffering.

In China, Tort Liability Law clearly distinct two types of damages: damages to property and damages to person[572]. Legal scholars also distinguish two categories of damages: material damages and immaterial damages[573]. In practice, with regard to material damages, legal scholars and judges generally divide this type of damages into two categories: (1) direct losses which denote the losses that are directly caused by the tortious conduct; and (2) indirect losses, which imply the losses that are caused by external causes other than the tortious conduct[574] – a distinction that is based upon the more or less direct causal link between the loss and the defendant's conduct. In Chinese legal practice, the indirect losses usually are not recoverable[575]. Since Chinese judges strictly follow the scattered itemizations of damages that are provided directly from statutory codes and the code-like

[570] *See* Andrea Torrente and Piero Schlesinger, *Manuale di diritto privato*, p.954.

[571] *See* Andrea Torrente and Piero Schlesinger, *Manuale di diritto privato*, pp.963-964.

[572] *See* Article 16, Article 19-21 of Tort Liability Law.

[573] *See* Li Xintian (李新天) and Xu Yuxiang (许玉祥), "Research on the Conception of Damage in Torts Law" (侵权行为法上的损害概念研究), 1 *Presentday Law Science (时代法学)* 21 (2005), p.27

[574] *See* Yao Hui (姚辉) and Qiu Peng (邱鹏), "The Concept of Damage in Tort Law" (侵权行为法上损害概念的梳理与抉择), in Chen Xiaojun (陈小君) (ed.): *Research on Private Law (私法研究)*, vol. 7（第 7 卷）, Law Press (法律出版社), 2009, p.35.

[575] *See* Li Xintian (李新天) and Xu Yuxiang (许玉祥), "Research on the Conception of Damage in Torts Law" (侵权行为法上的损害概念研究), p.28.

interpretations of Chinese Supreme Court, there is hardly any case law that mention judicial categories of damages[576].

With regard to the scope of damages, it is important to note that, in the European Union, the Directive 85/374/EEC provides a threshold for damage compensation claims, which excludes small claims involve item of property worth less than 500 ECU. These kinds of small claims depend upon national law[577]. It also sets a ceiling of compensation: as provided in Article 16, para.1 of the Directive 85/374 EEC, Member States "may provide that a producer's total liability for damage resulting from a death or personal injury and caused by identical items with the same defect shall be limited to an amount which may not be less than 70 million ECU". This ceiling is adopted by Germany, but not by Italy, France, and United Kingdom[578]. In China, and the U.S., there is no such ceiling with regard to damages in general in product liability field. In this section, we will pay our attention primarily to emotional distress and punitive damages.

### 5.1. Damage to the person

Damage to a person can result in death or personal injuries. Death can cause material (pecuniary) losses to the relatives who depend on the deceased financially, as well as non-material losses to the same relatives. Under some legal systems, sometimes, if the deceased suffered pain and suffering before his death, he can also claim for non-material losses[579]. Personal injuries too might

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[576] *See* Li Hao (李昊), "The Transition of Damage Concept and Its Categorization: a Perspective Based on the Codification of the Book on Tort Liability in Chinese Civil Law" (损害概念的变迁及类型建构——以民法典侵权责任编的编纂为视角), 2 *Law Review (法学)* 72(2019), pp.75-76 (author's translation).

[577] *See Commission v French Republic*, ECJ 25 April 2002, Case C-52/00; *Commission v Hellenic Republic*, ECJ 25 April 2002, Case C-154/00, ECR I-3879.

[578] *See* Jane Stapleton, *Product Liability*, pp.50-51.

[579] Under Italian law, consciousness is a required element for the deceased victim as to claim for the moral damage, *see* Cass., 13 December 2018, n. 32372; and Cass., 23 October 2018, n. 26727, in *Foro it.*, 2019, I, 114. Under English law, the deceased victim who experienced pain and suffering before death, even he was conscious of them, the plaintiffs who administrate his estate cannot sue recovery for such damage, *see Hicks v Chief Constable of South*

result in both material and non-material losses to the victim, and sometimes, in losses to the latter's relatives. In product liability field, a defective component or raw material may cause death or personal injuries to the victim.

With regard to the question about which head of damages are compensable, legal systems offer different answers. The following sections will deal with emotional distress suffered by the victim or the victim's relatives, and with the punitive damages awards that are available in only a few legal systems – namely China, the United States, and England.

### 5.1.1. Emotional Distress

Personal injury plaintiffs often raise emotional distress claims. This is often the situation when emotional distress accompanies a physical injury caused by defective products. Generally, legal systems provide for compensation of emotional distress[580]. As to the meaning of "emotional distress", it can be roughly defined as "the antithesis of happiness or enjoyment of life which everyone pursues"[581]. It is worth to add that emotional distress is not a formalized item provided in all legal systems. It is American tort law that usually distinguishes emotional distress (or its interchanged concept: emotional harm, mental harm) from physical harm[582].

In fact, American tort law recognizes two separate actions: (1) intentional infliction of emotional distress and (2) negligent infliction of emotional distress[583]. In strict liability actions, such as in manufacture defect claims, emotional distress is not applicable. Since the suppliers of components

*Yorkshire Police*, [1992] 2 All ER 65 (deceased dying from traumatic asphyxia caused by crushing in crowd disaster at football stadium).

[580] Pearson Royal Commission, Cmnd.7054, 1978, para.360.

[581] *See* Dan B. Dobbs, *The Law of Torts*, West Publishing Co., 2011, p.54; also see comparative perspective at Stephen D. Sugarman, "Tort Damages for Non-Economic Losses", in Mauro Bussani and Anthony J. Sebok (eds.): *Comparative Tort Law*, Cheltenham, 2015.

[582] *See* Paola Monaco, *La Toxic Tort Litigation. Analisi e comparazione dell'esperienza statunitense*, Edizioni Scientifiche Italiane, 2016, p.110.

[583] *See* John G. Sprankling, Gregory S. Weber, *The Law of Hazardous Wastes and Toxic Substances*, 2nd edition, Thompson West, 2007, p.479.

or raw materials usually do not know who is the final user of the product which integrated their components or raw materials, and usually they have no intention to inflict emotional distress of the plaintiff, the latter's actions against them are often based upon negligence or strict liability. Traditionally, in product liability, in order to recover for negligent infliction of emotional distress in the U.S., the plaintiff has to establish physical injury[584]. As to the claim for compensation of emotional distress, it is viewed as "[an] impairment or injury to a person's emotional tranquility"[585]. Recently, some courts have recognized a right to an award of money damages for emotional distress without physical injury[586]. But there are still court decisions following the traditional view[587]. However, nowadays, most courts grant emotional distress awards, irrespective of whether the plaintiff's action is based on negligence, strict liability or warranty[588].

In the European Union, emotional distress is not included in the Directive 85/374/EEC[589]. According to the European Court of Justice's decision in *Henning Veedfald v Århus Amtskommune*, compensation for emotional distress, therefore, depends solely on the applicable national law[590].

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[584] *See Payton v. Abbott Labs*, 386 Mass. 540 (1982), at 545-554 (physical harm requirement for negligent infliction of emotional harm is necessary).

[585] *See* § 45, Chapter 8, the Restatement (Third) of Torts, Liability for Physical & Emotional Harm.

[586] *See* 22 Am. Jur. 2d Damages § 224 (general rule governing compensation for psychological consequences of injuries); see *Lester v. Exxon Mobil Corp.*, 2013 WL 3215702 (La. Ct. App. 4th Cir. 2013); *Folz v. State*, 797 P.2d 246 (1990); *Bylsma v. Burger King Corp.*, 293 P.3d 1168 (2013), *Brown v. First Federal Bank*, 95 So. 3d 803 (Ala. Civ. App. 2012).

[587] *See Dickerson v. St. Louis Southwestern Ry. Co*., 674 S.W.2d 165 (Mo. Ct. App. E.D. 1984). Under Florida law, the so-called "impact rule" generally requires that before a plaintiff can recover damages for emotional distress caused by the negligence of another, the emotional distress suffered must flow from physical injuries the plaintiff sustained in an impact. *Tello v. Royal Caribbean Cruises, Ltd.*, 2013 WL 1500573 (S.D. Fla. 2013). *See* also *Martinez v. Teague*, 96 N.M. 446 (Ct. App. 1981); *Brantner v. Jenson*, 120 Wis. 2d 63 (Ct. App. 1984), decision aff'd, 121 Wis. 2d 658, 360 N.W.2d 529 (1985).

[588] *See* Michael D. Green and Jonathan Cardi, "Product Liability in United States of America", p.598. Also *see Kately v. Wilkinson*, 148 Cal. App.3d 576 (Ct.App.1983); *Pasquale v. Speed Products Eng'g*, 654 N.E.2d 1365 (1995); *Walker v. Clark Equipment Co*, 320 N.W.2d 561 (Iowa 1982)) (cited by Michael D. Green and Jonathan Cardi at the same page).

[589] Article 9 of the Directive 85/374/EEC.

[590] *See Henning Veedfald v Århus Amtskommune*, ECJ 10 May 2001, Case C-203/99, para.27 ("Although it is left to national legislatures to determine the precise content of those two heads of damages [death and personal injury; and

In *Veedfald*, the Court of Justice required that the "[a]pplication of national rules [in a Member State] may not impair the effectiveness of the Directive […] and [that] the national court must interpret its national law in the light of the wording and the purpose of the Directive"[591].

There is very few, if any, case law with regard to emotional distress as harm caused by the supplier of raw materials or components in the Member States of European Union. Therefore, one has to turn to general rules of national legal systems.

Under English law, mental distress can be recoverable in certain contractual situations[592]. However, there is no item of damage called "emotional distress" in English tort law. There exists a head of damages known as 'pain and suffering'[593]. In English law, damages for pain and suffering are awarded only to the extent that the plaintiff is aware of his suffering. Pain and suffering are assessed subjectively. The pain refers to the physical hurt and discomfort caused by a personal injury and its reasonable treatment; this heading of compensation will then be increased by the mental suffering the plaintiff experienced because of his injuries: feeling of dependence, distress at his ability, anxiety, and so on and so forth[594]. However, if the plaintiff lost his consciousness of pain and suffering, he cannot claim for the damages of them[595].

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damage to private property], nevertheless, save for non-material damages whose reparation is governed solely by national law, full and proper compensation for personal injured by a defective product must be available in the case of those two heads of damage").

[591] *See Henning Veedfald v Århus Amtskommune*, ECJ 10 May 2001, Case C-203/99, para.27.

[592] *See* Geoffrey Samuel, *Understanding Contractual and Tortious Obligations*, p.164.

[593] *See* Pearson Law Commission Report, 1978, pp.103-104 (the main function of the tort system is not to provide for the future of income and care needs of those seriously disabled by accident or disease. Such especially needy claimants are relatively rare. Instead, the damages system overwhelmingly deals with small claims, the great majority leading to damages less than £5,000…This means that in few cases the damage claim, in effect, is being made only for non-pecuniary loss. In settlements in general the largest component by far is the payment for pain and suffering").

[594] *See* Donald Harris, David Campbell, and Roger Halson, *Remedies in Contract & Tort*, 2nd edition, Cambridge University Press, 2005, pp.377-378.

[595] *Hicks v Chief Constable of South Yorkshire Police* [1992] 2 All ER 65 (in Hillsborough football stadium disaster, the plaintiff had no claim for pre-death pain and suffering when he lost consciousness only a few seconds after the crushing began and died within five minutes).

In France, compensation for non-pecuniary loss may be granted in cases of a personal injury[596], for the death or serious injuries of a love one, and even for the death of a beloved animal. It also covers harm to feelings, especially in cases concerning personality and privacy protection.

In Germany, § 253 BGB permits the plaintiff to claim for the compensation for pain and suffering to a limited extent, that is to say, only in cases of "infringement of the claimant [the plaintiff]'s right to bodily integrity, freedom, health, or sexual self-determination"[597].

In Italy, emotional distress belongs to the part of non-patrimonial loss. The Italian Civil Code adopts a restrictive approach to non-patrimonial losses. According to Article 2059 of the Italian Civil Code, non-patrimonial losses can be awarded only in case provided by law. In relation to defective products caused death or personal injuries, especially in the past, some Italian courts refused to award moral damages (including emotional distress damages) in product liability cases, arguing that these damages are not available in cases of strict liability and presumed fault, and that product liability under the former Presidential Decree No. 224/1988 was a strict form of liability[598]. Other courts however awarded moral damages, maintaining that the Decree did not exclude moral damage awards[599]. Now, as affirmed by recent case laws of the Supreme Court of Italy, non-patrimonial losses are recoverable also under the strict liability[600].

In China, as to emotional distress, Article 22 of Tort Liability Law only provides that, "[f]or tortious acts that infringe on personal rights and interests and resulting in serious mental distress,

[596] Civ. 22 October 1946, JCP 1946, II. 3365.

[597] *See* Cees van Dam, *European Tort Law*, p.356.

[598] *See* Diana Dankers-Hagenaars and Valentina Jacometti, "Tribunal Supremo (No.151/2003), 21.02.2003 [product liability]", p.187; see Trib. Rome, 11 May 1998, in *Foro it.*, 1998, I, 3661, note by Alessandro Palmieri (harm caused by the explosion of a mineral water bottle), and *see* Trib. Milan, 31 January 2003, in 6 *Danno e responsabilità* 634 (2003), pp.634-638, note by Annalisa Bitetto.

[599] *See* Trib. Vercelli. 7 April 2003, in 10 *Danno e responsabilità* 1001 (2003), pp.1001-1006, note by Giulio Ponzanelli.

[600] *See* Giovanni Comandé, "Product Liability in Italy", p.280 and p.297 (the author cites the Italian Supreme Court's decision Cass., 11 November 2008, n. 26972, in *Responsabilità civile e previdenza* 38 (2009)); for more detailed introduction on the recoverability of non-patrimonial losses, *see* Andrea Torrente and Piero Schlesinger, *Manuale di diritto privato*, pp.959-967.

the infringee may seek compensation for mental damage"[601]. The Article requires the mental damage must be serious, and must be a result of infringement of personality rights. But Tort Liability Law did not offer any guideline indicating what should be considered serious. Yet, before the enactment of Tort Liability Law, the Chinese Supreme Court issued a series of interpretations concerning mental distress. Among them, the most important one is the Interpretation of the Supreme People's Court on Certain Issues Concerning the Determination of Compensation Liability for Mental Distress in Civil Torts of 2001 (hereafter "Interpretation on Mental Distress 2001"). Article 1 of the Interpretation on Mental Distress 2001 provides that emotional harm caused by the infringement of a set of personality rights is recoverable. These personality rights are: life, health, body, name, portrait, reputation, honor, personal dignity, and liberty[602]. Article 4, however, adds an exception to Article 1, as it provides that, in the event that tortious action destroys a memorial thing (property), the owner can sue the defendant for emotional distress[603]. In case of that the victim died due to the tortious action, the victim's relatives can sue the defendant for emotional distress. Since this Interpretation applies to all tort actions involves personality rights infringement, it covers product liability caused emotional harm as well.

### 5.1.2. Punitive Damages

In US tort law, juries may play a significant role in awarding punitive damages in either strict liability or negligence cases, and had often been extremely generous in quantifying these damages for claimants[604]. This does not mean that U.S. tort law has no limitations upon punitive damages: through a series of decisions, the U.S. Supreme Court has imposed due process restraints on

[601] Article 22 of Tort Liability Law.

[602] Article 1 of the Interpretation on Mental Distress 2001.

[603] Article 4 of the Interpretation on Mental Distress 2001.

[604] *See BMW of North America Inc v. Gore*, 517 S. 559 (1996); *Liebeck v. McDonalds Restaurants, P.T.S. Inc*. No.CV 93 02419, 1995WL360309 (1994).

punitive damage awards[605]. In general, a plaintiff who can prove that the defendant acted maliciously, can collect punitive damages based on tort actions[606].

In the European Union, it is suggested that the Directive 85/374/EEC does not allow punitive damage awards, as it refers only to "damage caused by death or by personal injuries", and "damage to, or destruction of, any item of property"[607]. In fact, civilian jurisdictions like Italy, France and Germany, have long rejected the idea of transplanting punitive damages into their legal orders because of the former's alleged incompatibility with the latter[608]. Under English law, punitive damages are called as "exemplary damages". There is no agreed definition of this concept, but it can be said that exemplary damages "are an award that goes beyond the amount necessary to compensate C [Claimant] for his loss in the normal way and therefore effectively punishes D [Defendant] for serious misconduct"[609]. In fact, exemplary damages are often used by judges to punish the defendant's exceptionally bad conduct. In the 1964 decision *Rookes v Barnard*[610], English judges held that exemplary damages may be awarded only in three categories: (1) a statute expressly provided such award; (2) where governmental officials had acted oppressively; (3) where defendant's conduct was calculated to make a profit for himself which may well exceeded the compensation payable to the claimant[611]. The first category is rare, and the second has no

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[605] *See Pacific Mutual Life Insurance Co. v. Haslip et al*. 499 U.S.1 (1991); *Exxon Shipping Co., et al., Petitioners v. Grant Baker, et al*. 554 U.S. 471 (2008). These decisions require that trial courts to properly instruct juries, and that juries' determinations of punitive damage awards are reviewed by trial and appellate courts, so as to ensure that determinations are reasonable, and not in contrast with the due process clause of the U.S. Constitution.

[606] *See* Michael D. Green and Jonathan Cardi, "Product Liability inUnited States of America", p.598.

[607] Article 9 (a), (b) of the Directive 85/374/EEC.

[608] *See* Carlo Castronovo, "Diritto privato e realtà sociale. Sui rapporti tra legge e giurisdizione a proposito di giustizia", 3 *Europa e diritto privato* 765 (2017), pp.789-793; also *see* Ulrich Magnus, "Product Liability in Germany", p.265 (the author says that punitive damage in principle is rejected in Germany. Only in certain situations, such as violation of general personality rights, the Federal Supreme Court accepts a special preventive function of damages, and allows a higher damage award that the actual loss. As a proof, the author cites the German Federal Supreme Court decisions BGH 15 November 1994 (Caroline von Monaco I) in *BGHZ* 128, p.1; BGH 5. 12. 1995, in *NJW* 1996, p.984).

[609] *See* Donald Harris, David Campbell, and Roger Halson, *Remedies in Contract & Tort*, p.579.

[610] *Rookes v Barnard* [1964] AC 1129.

[611] *Rookes v Barnard* [1964] AC 1129, at 1126. Also *see* Donald Harris, David Campbell, and Roger Halson, *Remedies in Contract & Tort*, pp.585-586.

connection with product liability litigation. By contrast, the third category is more often engaged by product liability cases. However, there are very few product liability cases granting exemplary damages to the plaintiff in English law. In *Broome v Cassell & Co Ltd*[612] of 1972, the House of Lords found that an award of exemplary damages has to be based on a recognized cause of action before *Rookes*. In *A.B. v South West Water Services Ltd*[613] of 1993, the Court of Appeal affirmed that the scope of exemplary damages award is limited by the categories set by *Rookes*, but is also restricted to the cause of actions wherein such an award had been made already prior to the *Rookes* of 1964[614]. However, in the decision *Kuddus v Chief Constable of Licestershire* of 2001, the House of Lords rejected the cause of actions limit set by *Broome v Cassell* and *A.B. v South Wester Water Services* on exemplary damages[615]. Before this decision, the exemplary damages awards belonged most of the time to the second category mentioned in the *Rookes* case, which concerned actions against public officials such as against police for assault, false imprisonment and malicious prosecution[616]. After the decision, the scope of exemplary damages was broadened. Yet, according to the European Union Court of Justice's decision in *Commission v French Republic*, Member States are not allowed to grant recovery greater than the Directive 85/374/EEC provides in product liability area[617], and thus, exemplary damages seem not to be available in product liability cases under the Consumer Protection Act 1987. Nonetheless, the plaintiff may sue the defendant in cases of personal injuries caused by product defects, as they may involve negligence, and, under the negligence cause of action, exemplary damages might be awarded[618]. However, this holds true only in theory; there is yet no case law confirming the rule in practice.

In China, punitive damages were first introduced into Chinese legal system through Article 49 of the Consumer Rights and Interests Protection Law of 1993. Article 49 deals with fraudulent practices in consumer contracts, and imposes a damage award equals the double price of the

[612] [1972] AC 1027.

[613] [1993] QB 507.

[614] *See* Duncan Fairgrieve, *State Liability in Tort*, Oxford University Press, 2003, pp.189-190.

[615] [2002] AC 122, [2001] UKHL 29.

[616] *See* Duncan Fairgrieve, *State Liability in Tort*, p.190.

[617] *Commission v. French Republic*, ECJ 25 April 2002, Case C-52/00, para.19, 24.

[618] *See* John F. Clerk, *Clerk & Lindsell on Torts*, p.735.

product or service[619]. Since then, China has extended the use of punitive damages beyond the field of consumer contracts to deter fraudulent practices in commodity house sales[620], unsafe food[621], and defective products[622]. The reason for this broadened use of punitive damages is in fact a response to an increased public anger towards counterfeiting, fraud, false advertising, and particularly defective products in Chinese retailing environment.

It is claimed that the Chinese adoption of punitive damages is a legal borrowing from the U.S. tort law. Such claim is true in the sense that (1) Chinese court judges did not develop punitive damages through their judicial decisions, and (2) in many states of the U.S., punitive damages are recoverable both in strict liability torts and in fraud cases[623]. Nevertheless, the Chinese borrowed "punitive damages" rule is different from the U.S. one, as Chinese punitive damages award are meant to serve the country's social-economic needs, and have to be contextualized in the country's local environment. For example, despite that Chinese judges have discretionary power to evaluate both patrimonial and non-patrimonial losses, the maximum amount of punitive damages awards is strictly controlled by the law – be it consumer laws, contract laws or product liability laws.

### 5.2. Damage to the property

[619] The law was amended in 2013. Article 55 of the 'new' Consumer Rights and Interests Protection Law raised the damage award up to triple price of the product or service in the case that business operator conduced fraudulent practices. Moreover, the article allows punitive damages awards for no more than double the loss suffered by defective products caused death or personal injuries.

[620] Article 9 of the Interpretation of the Supreme People's Court on the Relevant Issues concerning the Application of Law for Trying Cases on Dispute over Contract for the Sale of Commodity Houses.

[621] Article 148 of the 2015 Food Safety Law (contemplating awards of up to ten times the value of the unsafe food purchased or three times of the damages for the harm inflicted).

[622] Article 47 of Tort Liability Law (providing that, in case of death or severe harm to the consumer's health, courts may award punitive damages against the manufacturer and/or the seller who was aware of the defectiveness of the product before she put it into circulation).

[623] *See* David G. Owen, *Product Liability in a Nutshell*, p.146.

Damage to property seems much easier to quantify, and more easily available than damage to the person. It is not always easy to assess though[624]. In the United States, with regard to property damage, § 402 A of the Restatement (Second) of Torts limits damage to tangible property[625]. The Restatement (Third) of Torts: Products Liability makes it more explicit, and encompasses the damage to property caused by the defect[626].

In the European Union, the Directive 85/374/EEC includes damage to private property, but it excludes the damage to product itself, and the compensation of such damage would depend upon the contract law in the national legal systems of Member States. As mentioned above, the Directive also provides a threshold for damage compensation claims, which excludes small claims involve item of property worth less than 500 ECU.

In the United Kingdom, Section 5(4) of the Consumer Protection Act 1987 excludes claims for property damage less than £ 275. This provision contains a threshold, which is consistent with the English language version of Article 9 (b) of the 1985 Directive. Section 5(2) of the Consumer Protection Act 1987 also excludes damage to the product itself and damage to the component part, which is not the same as Article 9 (b) of the Directive, allowing claims for "damage to, or destruction of, any item of property other than the defective product itself"[627].

In France, according to Article 1245-1 of the French Civil Code, any damage to property is recoverable, provided it was not caused to the defective product itself and its value is over € 500. This is different from Article 9 of the Directive that restricts compensable damage to property "of a type ordinarily intended for private use or consumption, and used by the injured person mainly for his own private use or consumption". The ECJ ruled that this departure from the Directive is not a breach of the latter, since damage to an item of property intended for professional use and employed for that purpose lies outside the scope of application of the Directive[628].

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[624] *See* Geoffrey Samuel, *Understanding Contractual and Tortious Obligations*, p.164.

[625] § 402 A of the Restatement (Second) of Torts of 1965.

[626] §§ 1 and 21 of the Restatement (Third) of Torts: Products Liability (1998).

[627] Article 9 (b) of the Directive 85/374/EEC.

[628] *See Moteurs Leroy Somer v Dalkia France and Ace Europe*, ECJ 4 June 2009, C-285/08.

In Germany, under the Product Liability Act, liability for property damage remains limited, as required under Article 9 (b) of the Directive. § 11 of Product Liability Act provides that victims must put up with property damage up to an amount of € 500. If damage amounts to less than € 500, there will be no claim for compensation at all, if damage exceeds this sum, the threshold applies in the form of a deductible according to § 11, para. 3 of the Act.

In Italy, Article 123 of the Italian Consumer Code (former Article 11 of the Presidential Decree No. 224/1988) allows damage to property other than the defective product. Moreover, recovery for damages to property other than the defective product is allowed only if they are intended for private use or consumption and were principally used in this manner[629]. Since the damage to product itself cannot be recovered under the Consumer Code, the recovery of this property damage has to be referred to the general principles of Italian tort law. Besides, Article 123 of the Italian Consumer Code also adopts the threshold provided by the Directive, which means property damages are recoverable if the damages exceed € 387.

In China, damage to property other than the defective product itself is recoverable under Article 41 of Chinese Product Quality Law 2000[630]. As to the damage to the defective product itself, Article 40 of Product Quality Law 2000 separates it from tort law action, and treats it as a recoverable damage under contractual claim instead [631]. However, this approach is rejected by Article 41 of Tort Liability Law that treats the harm caused by the defective product, including the damage to defective product itself, as compensable[632]. Chinese legislators and scholars believe this approach would make litigation procedures much more convenient for the victim than taking separate damage claims into two actions (tort and contractual)[633].

6. Defenses

[629] Article 123 of the Italian Consumer Code.

[630] Article 41 of Product Quality Law 2000.

[631] Article 40 of Product Quality Law 2000.

[632] Article 41 of Tort Liability Law.

[633] *See* Yang Lixin and Yang Zhen, "Product Liability in China", p.37.

Almost all legal systems under examination offer exits for the producer, including the supplier of raw materials or components to escape from liability, although the scope and requirements of such defenses might vary from system to system.

In the U.S., as American legal scholars Michael D. Green and Jonathan Cardi noted, "there are six general types of defenses, arising both from common law and statute: (i) contributory or comparative fault, and assumption of risk; (ii) unforeseeable misuse, alteration and modification; (iii) disclaimers and contractual limitations on liability, (iv) statutory defense, (v) compliance with statute and pre-emption, and (vi) state of the art [so called "development risk defense"][634]. However, for the supplier of components and raw materials, there are other defenses derived from common law. The supplier of components and raw materials is not liability, for instance, when (1) the components or raw materials are not defective, and components and raw materials only become defective when are integrated into the final product; (2) the final product was produced in accordance with a design or specification instructed by the final producers; (3) there was a large number of potential users (the so-called bulk sales defense); (4) the user of the defective product was a sophisticated person, who could have easily anticipated the danger embedded in the product (the so-called sophisticated purchaser defense)[635].

In the European Union, Article 7 of the Directive 85/374/EEC lists six defenses for the producer to escape the liability, namely that: he did not put the product into circulation (Article 7 (a)); having regard to the circumstances, it is probable that the defect which caused the damage did not exist at the time when the product was put into circulation by him or that this defect came into being afterwards (Article 7 (b)); the product was neither manufactured by him for sale or any form of distribution for economic purpose nor manufactured or distributed by him in the course of his business (Article 7 (c))[636]; the defect was due to compliance of the product with mandatory

[634] *See* Michael D. Green and Jonathan Cardi, "Product Liability in United States of America", p.603.

[635] *See* James A. Henderson, Jr. and Aaron D. Twerski, "The Products Liability Restatement in the Courts: An Initial Assessment", 27 *William Mitchell Law Review* 7 (2000), pp.23-25; M. Stuart Madden, "Liability of Supplies of Natural Raw Materials and The Statement (Third) of Torts: Toward Sound Public Policy", pp.291-295 and pp.302-307.

[636] See *Henning Veedfald v. Århus Amtskommune*, ECJ 10 May 2001, Case C-203/99 (where the ECJ provides a proper interpretation of Article 7 (c) of the Directive. This decision rejects the public body to rely on Article 7 (c) and allege that it is not in the course of business, therefore, not liable to a person. The Court, instead, finds a public financed

regulations issued by the public authorities; the state of scientific and technical knowledge at the time when he put the product into circulation did not allow him to discover the existence of the defect (Article 7 (e)) (also known as "development risk defense"); and, as an added defense for the component manufacturer, that the defect is attributable to the design of the product in which the component has been fitted or to the instructions given by the manufacturer of the product (Article 7(f)). In addition, Article 8 (d) provides that the producer may also invoke the victim's contributory negligence.

In China, Article 41 of the Product Quality Law 2000 listed three defenses. The producer is not liable if: (1) the product has not been put into circulation; (2) the defect causing damage does not exist at the time when the product is put into circulation; (3) the science and technology at the time the product is put into circulation does not allow detecting the defect[637]. In addition, contributory negligence and the victim's intention are mentioned separately by Article 26[638] and Article 27[639]

hospital is in the course of business. In the decision, Advocate General Ruiz-Jerabo Colomer pointed out that Article 7 (c) is based upon two conditions: one that the product is not manufacture for economic gain, another is that the product is not distributed by the producer in the course of his business. The Court agreed, and held that "the fact that products are manufactured for a specific medical service for which the patient does not pay directly but which financed from public funds maintained out taxpayers' contributions cannot detract from the economic and business character of that manufacture. The activity in question is not a charitable one which could therefore be covered by the exemption from liability provided for in Article 7 (c) of the Directive. Besides, the Amtskommune [defendant hospital] itself admitted at the hearing that, in similar circumstances, a private hospital would undoubtedly be liable for the defectiveness of the product pursuant to the provisions of the Directive").

[637] *See* Article 41 of Tort Liability Law.

[638] Article 26 of Tort Liability Law: "The liability of the tortfeasor may be mitigated if the infringee is also at fault for the damage". The defense is also kept in the Tort Book of the Chinese Civil Code draft: *see* Article 952 of the 3rd draft of the Tort Book of the Chinese Civil Code (September 2019). It provides that, "[i]f the victim is also at fault for the occurrence of a single damage or its extension, the tortfeasor's liability may be mitigated".

[639] Article 27 of Tort Liability Law: "The tortfeasor shall not be liable for any damage caused by the intentional act of the victim". Article 953 of the 3rd draft of the Tort Book of the Chinese Civil Code (September 2019) keeps this defense. It provides that: "[i]f the damage is caused intentionally by the victim, the wrongdoer shall not bear liability". Moreover, the draft added a defense related to assumption of risks, as Article 954-1 of the draft providing that, "[t]he victim who voluntarily participates in a significantly dangerous activity and suffers damage from other participants is not entitled to request the wrongdoer to bear tort liability, unless other participants has caused the damage with gross negligence or intentionally".

of Tort Liability Law. Since Article 2 of Product Quality Law 2000 defines "product" as "something that is processed or manufactured for sale", the producer can also escape from liability by proving that his product was not commercially supplied. In addition, with regard the test of defectiveness, Article 46 of Product Quality Law 2000 provides that a product is defective when it fails to comply with the mandatory standards. It therefore appears that the producer can defend himself by proving that he complied with the mandatory standards, but in reality, as discussed earlier, it is a defense of minimal value. What should be finally noted is that Chinese tort law does not provide a specific set of statutory defenses for component producers and raw materials suppliers as the Restatement (Third) of Torts: Products Liability and the Directive 85/374/EEC.

Due to the limit of space and the need of comprehensibility, the following pages will focus only upon the most recurrent and important defenses available to the supplier of components or raw materials, that is the development risk defense, the victim's contributory negligence or comparative fault defense, the defense of compliance with relevant laws on manufacturing and safety standards, the bulk sales defense and the defense of compliance with designs or specifications required by the final producers. By comparing these defenses into detail, we hope to unravel some differences and similarities between the different legal systems.

### 6.1. Development Risk

In the U.S., development risk is usually referred as the "state of the art". However, the expression "state of the art" can have quite different meanings under U.S. law[640]. Sometimes, it means whether the product's risk was foreseeable at the time of manufacture; other times, it is used to mean the highest safety technology that has been developed[641]. In some states, the issue is meditated by the common law; in others, statutes set the standard[642]. Virtually, every jurisdiction holds that defendants are not liable for "unknowable risks" or for designs that were not technologically knowable or feasible at the time of manufacture[643]. The majority approach is to define the state of

[640] *See* Michael D. Green and Jonathan Cardi, "Product Liability in United States of America", p.604.

[641] *See* Michael D. Green and Jonathan Cardi, "Product Liability in United States of America", p.604.

[642] *See* Michael D. Green and Jonathan Cardi, "Product Liability in United States of America", p.605.

[643] *See* Michael D. Green and Jonathan Cardi, "Product Liability in United States of America", p.605.

art as "the level of scientific, technological, and safety knowledge existing and reasonably feasible at the time of design"[644].

In the U.S., the state of art defense is not only applicable to design defect case. In some U.S. jurisdictions, it is also applicable to both warning defects and manufacture defect cases. In warning defect cases, the defense is a complete defense because it means that the product risk was unknown and could not be reasonably discovered[645]. In comparison to design defects cases, the issue here is different, because the defense focuses on the foreseeability of the risk, rather than on the feasibility of an alternative design. As to manufacturer defect claims, American courts are not unanimous about whether the state of the art defense applies to manufacture defects[646].

In the European Union, the place of the development risk defense is a very controversial defense. From the perspective of the victims, the inclusion of development risk defense in the Directive would prevent victims of unforeseeable disasters from recovering damages; while, from the perspective of manufacturers, holding them liable for defects that they could not possibly have

[644] *See Potter v. Chicago Pneumatic Tool Co*, 694 A.2d 1319 (1997), at 1346.

[645] *See* Ariz. Rev. Stat § 12-683 (1); Mo. Ann. State. § 537.764 (defining state of the art to mean the 'dangerous nature of the product was not known and could not reasonably be discovered at the time the product was placed into the stream of commerce' and providing that it is a complete defense to a failure to warn claim).

[646] *See* Michael D. Green and Jonathan Cardi, "Product Liability in United States of America", pp.605-606, at fn.138, the authors compare cases which excluded the defense – such as *Reed v. Tiffin Motor Homes, Inc.*, 697 F.2d 1192 (1982), at 1196 ("In manufacturing defect cases courts have exclude evidence of the state of the art because the plaintiff need only show the product does not conform to the manufacturer's specifications to prove it is defective"), *Sturm, Ruger & Co, Inc v. Day*, 594 P.2d 38 (1979), at 44 ('state-of-the-art evidence could have no bearing on the issue of whether a product had a manufacture defect, i.e., that it deviated from the manufacturer's intended result'), and *Cunningham v. MacNeal Memorial Hospital*, 266 N.E.2d 897(Ill.1970), at 902 ("To allow a defense to strict liability on the ground that there is no way, either practical or theoretical, for a defendant to ascertain the existence of impurities in his product would be to emasculate the doctrine and in a very real sense would signal a return to a negligence theory") –, with cases accepts the defense in manufacture defects – *see*, for instance, *Indianapolis Athletic Club, Inc. v. Alco Standard Corp*, 709 N.E.2d 1070 (1999) (statutory state-of-the-art defense covered manufacturing defects as well defects in warning and design) and *McGuire v. Davidson Mfg Cor*p, 258 F. Supp.2d 945 (N.D. Iowa, 2003), aff'd, 398 F.3d 1005 (Iowa's state-of-the-art defense explicitly applies to manufacturing as well as warning and design defect).

foreseen would raise insurance costs and frustrate innovation[647]. Nevertheless, the defense is stated in Article 7 (e) of the Directive 85/374/EEC, which allows a producer to escape tort liability if he proves that "the state of scientific and technical knowledge at the relevant time when he put the product into circulation was not such as to enable the existence of the defect to be discovered"[648]. Although Recital 16 and Article 15 (1) (b) of the Directive allow Member States to exclude the defense[649], many Member States – for example, United Kingdom, Italy, Denmark, France and Germany – have adopted the defense in their national laws of transposition of the Directive[650].

In *Commission v. United Kingdom*[651], the Commission took action against United Kingdom, because § 4 (1) (e) of the Consumer Protection Act 1987 did not transpose Article 7 (e) of the Directive (that is to say, the development risk defense) correctly. The Commission alleged that the wording of § 4 (1) (e) – "a producer of products of the same description as the product in question [who] might be expected to have discovered the defect" [652] – broadened the development risk defense under Article 7 (e) of the Directive and converted the strict liability imposed by Article 1 of the Directive into mere liability for negligence. The Court of Justice ruled in favor of United Kingdom, for the reason that the Commission did not demonstrate that "the general legal context of the provision [§ 4 (1) (e) of the Act] at issue fails effectively to secure full application of the Directive" [653]. Nevertheless, commentators do find that the Court of Justice thinks too optimistically that § 4 (1) (e) of the Act did not fail to transpose Article 7 (e) of the Directive, because § 4 (1) (e) substantially introduces an element of foreseeability in the defense and has the effect of playing down the idea of strict liability in the Directive by encouraging producers to

[647] *See* Guido Alpa, "Manufacturer, Importer and Supplier Liability in Italy before and after the Implementation of the E.E.C. Directive on Damages for Defective Products", 6 *Tulane Civil Law Forum* 233 (1991-1992), p.240.

[648] Article 7 (e) of the Directive 85/374/EEC.

[649] *See* Recital 16, and Article 15 (1) (b) of the Directive 85/374/EEC.

[650] For a detailed list of which Member States adopted the development risk defense, *see* Jane Stapleton, *Product Liability*, p.51.

[651] *See Commission v. United Kingdom*, ECJ 29 May 1997, Case C-300/95.

[652] § 4 (1) (e) of the Consumer Protection Act 1987: "… that the state of scientific and technical knowledge at the relevant time was not such that a producer of products of the same description as the product in question might be expected to have discovered the defect if had existed in his products while they were under his control".

[653] *See Commission v United Kingdom*, ECJ 29 May 1997, Case C-300/95, para.34.

submit evidence that the state of technology at the time of production did not permit the discovery of defect [654].

The decision is important because the Court gave some clarifications upon the development risk defense. First, the Court agreed with the Advocate General that "Article 7 (e) is not specifically directed at the practices and safety standards in use in the industrial sector in which the producer is operating, but, unreservedly, at the state of scientific and technical knowledge, including the most advanced level of such knowledge, at the time when the product in question was put into circulation"[655]. Second, the defense clause "does not contemplate the state of knowledge of which the producer in question actually or subjectively was or could have been apprised, but the objective state of scientific and technical knowledge of which the producer is presumed to have been informed"[656]. Moreover, the Court points out the difficulty to interpret the clause because "the knowledge must have been accessible at the time when the product in question was put into circulation"[657].

In *A. and others v. National Blood Authority and another*[658], 114 claimants sued the National Blood Authority for the damages they suffered as a result of their infection with Hepatis C virus from blood or blood products through transfusion. Prior to 1993, regional blood transfusion centres (RTCs) in England and Northern Wales, collected the blood from voluntary donors, afterwards, they processed, and tested the blood donations, and supply blood and blood products to hospitals with their area. In 1993, the National Blood Authority was established and with responsibility for the RTCs and for central blood laboratories. Claimants sued the Authority under the Consumer Protection Act 1987. One of the main issues in this case concerned the applicability the development risk of defense. The question was whether the defendants had the available means of detecting or preventing the Hepatitis C virus in particular blood products at relevant time[659]. Judge Burdon J. decided in favor of the claimants, as he adopted the expert witnesses' evidence that

[654] *See* John F. Clerk, *Clerk & Lindsell on Torts*, pp.728-729; Simon Whittaker, *Liability for Products*, p.496; Jane Stapleton, *Product Liability*, pp.236-242.

[655] *Commission v United Kingdom*, ECJ 29 May 1997, Case C-300/95, para.26.

[656] *Commission v United Kingdom*, ECJ 29 May 1997, Case C-300/95, para.27.

[657] *Commission v United Kingdom*, ECJ 29 May 1997, Case C-300/95, para.30.

[658] [2001] 3 All ER 289.

[659] *See* Simon Whittaker, *Liability for Products*, p.487.

proved Hepatitis C virus was easily discoverable by at the relevant time[660]. Moreover, he shared the scholarly view that the development risks defense has a very strict nature[661], and opined that "a producer who has taken all possible precautions […] remains liable unless that producer can show that 'state of scientific and technical knowledge […] was not such as to enable the existence of the defect to be discovered"[662]. Further, according to the judge, the existing knowledge should be considered inaccessible only when it exists in form of "an unpublished document or unpublished research not available to the general public, retained within the laboratory or research department of a particular company"[663].

How does France approach the development risk defense? At the statutory text level, Article 1245-10, 4° of the French Civil Code follows Article 7 (e) of the Directive. However, the French legislator added an exception to Article 1245-11 of the French Civil Code, excluding the application of the development risk defense "when the damage was caused by an element of the human body or by products derived therefrom"[664].

There is hardly any case law on the development risk defense in France[665]. Although French courts have to follow the European Court of Justice's clarifications on the defense in *Commission v United Kingdom*, it is noted by that "French judges are usually eager to foster victim compensation"[666]. On another hand, the tendency of French judges to provide victims with compensation, seems to be in contrast with French legislator's guideline that the defense is in favor

[660] [2001] 3 All ER 289, at [84].

[661] *See* Christopher Newdick, "The Development Risk Defence of the Consumer Protection Act 1987", 47 *Cambridge Law Journal* 455 (1988).

[662] [2001] 3 All ER 289, at [64].

[663] [2001] 3 All ER 289, at [49]

[664] Article 1245-11 of the French Civil Code: "A producer may not invoke the exonerating circumstance [development risk defense] provided for in Article 1245-10, 4° [former Article 1386-11, 4°], when the damage was caused by an element of the human body or by products derived therefrom".

[665] A French appellate court allowed the defense, and held a pharmaceutical producer not liable for failed to warn an uncertain risk, *see* CA Paris, 23 September 2004, no 02/16172, *D.*2005, 1012, cited in Jean-Sébastien Borghetti, "Product Liability in France", p.226, fn.87.

[666] *See* Jean-Sébastien Borghetti, "Product Liability in France", p.226.

of the producer[667]. At the academic level, French jurists like Geneviève Viney and Patrice Jourdain maintain that the transposition of the defense into French Law indirectly draw the new product liability close to a presumption of fault[668]; other jurists like Jean-Luc Aubert, Jacques Flour and Eric Savaux prefer to view the provision as a limitation on the risk imposed upon producers[669].

In Germany, according to §84 of its Medicinal Products Act (*Arzneimittelgesetz-AMG*), a pharmaceuticals entrepreneur bears absolute liability for defects causing harm, and the development defense is not applicable for pharmaceuticals[670]. For defects cases falling outside the medical area, the German Federal Supreme Court made a refinement to the application of the defense in "German Bottle case" of 1995[671]. The case involved a nine-year-old girl who was injured by an exploded mineral water bottle. The explosion was caused by a hairline crack in the glass. According to the experts, the risks had been known for a long time, however, it was technically impossible to detect and remove the risks caused by hairline cracks[672].

In this case, the Court held the manufacture liable because the case was a manufacture defect case, and Article 7 (e) of the Directive applies only to design defects[673]. As the Court opined, "[t]he only

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[667] *See* Michael Duneau, "Le médicament et «les risques de développement» après la loi 19 mai 1998", 34 *Médecine et Droit* 23 (1999), pp.24-25; Simon Taylor*, L'harmonisation communautaire de la responsabilité du fait des produits défectueux : étude comparative du droit anglais et du droit français*, L.G.D.J, 1999, p.74 (the authors mention the French parliamentary debate with regard to the inclusion of the development risk defense. Advocates of the defense considered it a significant protection for the competitiveness of French industry and for scientific research, while opponents saw in it a menace for the indemnification of victim's damage. In the end, the French legislator chose to protect the producer).

[668] *See* Geneviève Viney and Patrice Jourdain, *Les conditions de la responsabilité*, 2nd edition, L.G.D.J, 1998, p.777 ("*En outre, ils on fait remarquer que l'exonération pour risque de développement est une manière indirecte de revenir à un système proche de la responsabilité pour faute présumée*").

[669] *See* Jean-Luc Aubert, Jacques Flour and Eric Savaux, *Le fait juridique: quasi contrats, responsabilité délictuelle*, 14th edition, L.G.D.J, 2011, p.313, cited in Simon Whittaker, *Liability for Products*, p.494.

[670] §84 of Medicinal Products Act (*Arzneimittelgesetz-AMG*), translated by the Language Service of the Federal Ministry of Health of Germany, at www.gesetze-im-internet.de/englisch_amg/englisch_amg.html#p1560.

[671] *See* BGH 9 May 1995, BGHZ 129, 353, 359 = NJW 1995, 2162= JZ 1995, 106.

[672] *See* Basil. S. Markesinis and Hannes Unberath, *The German Law of Torts: A Comparative Treatise*, p.585; Cees van Dam, *European Tort Law*, p.435.

[673] This observation was given by Judge Burton J in *A and others v. National Blood Authority and another* [2001] 3 All ER 289, at [53] iii.

dangers to be treated as development risks are dangers inherent in the design and construction of the product, which in the current state of technology could not be avoided, not those that were inevitable at the stage of production. When the EC Directive on product liability was being fashioned it was agreed that the defense under Article. 7 (e) should apply not to manufacturing defects, but only to defects of design and construction, and the only dangers emanating from a product which the German legislator wished to exempt from the scope of the Product Liability Law were dangers, undetectable even with the exercise of all possible care, arising at the stage of design and construction"[674]. Thus, according to this decision, the development risk defense is not applicable in litigation involves harm caused by manufacture defects in Germany.

In Italy, the development risk defense is transposed in Article 118 (e) of the Italian Consumer Code (former Article 6 (e) of the Presidential Decree No. 224/1988) [675]. Italian scholars generally agreed that the doctrine in relation to the development risk defense shall be established mainly upon the level of risk predictability[676]. It also agreed that the defense shall to both the design defects and the warning defects, however, not to the manufacture defects[677]. Italian scholars like Alessandro Stoppa further explained that "[t]he concept of development risk in fact appears to concern only the risks which are absolute unknown and unpredictable and not even those defects of which whose potential presence is known but they cannot be totally eliminated based on the actual production processes"[678].

[674] The translation can be found in Basil S. Markesinis and Hannes Unberath, *The German Law of Torts: A Comparative Treastise*, p.586.

[675] Article 118 (e) of the Italian Consumer Code states that: "*la responsabilità è esclusa […] se lo stato delle conoscenze scientifiche e tecniche, al momento in cui il produttore ha messo in circolazione il prodotto, non permetteva ancora di considerare il prodotto difettoso*".

[676] *See* Alessandro Stoppa, "Responsabilità del Produttore", pp.134-135; Giovanni Comandé, "Product Liability in Italy", p.301.

[677] *See* Giovanni Comandé, "Product Liability in Italy", p.301; Guido Alpa and Alessandro Stoppa, "L'application de la directive communautaire sur la responsabilité du fait des produits en droit italien", in Monique Goyens (ed.): *La directive 85/374/CEE relative à la responsabilité du fait des produits: dix ans après*, Louvain-la-Neuve: Centre de droit de la consommation, 1996, p.78; Alessandro Stoppa, "Responsabilità del Produttore", p.135.

[678] *See* Alessandro Stoppa, "Responsabilità del Produttore", p.135 ("*Il concetto di rischio da sviluppo appare infatti riguardare solo i rischi assolutamente sconosciuti ed imprevedibili e non anche quei difetti di cui è nota la presenza*

In an appeal case involves infected gamma globulins caused injury that was decided by the Court of Appeal in Rome in 1990[679], the gamma globulins were already infected by the dangerous virus antigen AU from the beginning, before they were incorporated into the serum of plasma products. The plaintiff suffered injury due to the infected product. Since producing pharmaceutical products is conceived as an "ultrahazardous activity" under Italian tort law, the case was solved by applying Article 2050 of the Italian Civil Code, according to which the person who carries out an ultrahazardous activity is strictly liable for the ensuing damages, unless he can prove that "he has taken all measures to avoid the injury"[680]. The Court of Appeal in Rome ruled against the plaintiff because it found the defendant producer of plasma products have adopted all measures to avoid the injury. The reason was the RIA method that can discover the virus was not precise, and it did not allow to identify the virus that contained in blood products[681]. The plaintiff appealed to the Supreme Court of Italy[682]. The Supreme Court of Italy found that the infection could be discovered by the RIA method which was already in operation from 1971 to 1972. Even if the method was not perfect, the Supreme Court of Italy retained that the imperfection of the method did not justify the lack of its adoption by the producer, because, even so, the producer might have been able to detect the presence of the dangerous virus[683].

In China, the development risk defense is provided by Article 41, para.2 of Product Quality Law 2000. Like France, there is no cases law in respect of the use of development risk defense, and

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*potenziale ma che non riescono ad essere totalmente eliminati in base agli attuali processi produttivi*") (author's translation).

[679] *See* App. Roma, 17 October 1990, *Giurisprudenza italiana*, 1991, I, 2, 816 (gamma globulins infected by virus).

[680] *See* Article 2050 of the Italian Civil Code: Whoever causes injury to another in the performance of an activity dangerous by its nature or by reason of the instrumentalities employed, is liable for damages, unless he proves that he has taken all measures to avoid the injury.

[681] *See* App. Roma, 17 October 1990, *Giurisprudenza italiana*,1991, I, 2, 816, at 824.

[682] *See* Cass. 20 July 1993, n. 8069, in *Foro it.*, 1994, I, 455.

[683] *See* Cass. 20 July 1993, n. 8069, in *Foro it.*, 1994, I, 455, at 460. ("*Come è stato esattamente notato dai giudici di primo grado e rimarcato dal ricorrente, il metodo RIA era già operante dal 1971/1972, la sua esistenza era nota l'ambiente della ricerca scientifica mondiale, e venne volontariamente non effettuato dalle tre società convenute, in quando ritenuto non affidabile per calcolo di probabilità di rilevamento. Ma l'imperfezione del metodo (poi invece rivelatosi pienamente efficiente) non giustificava la sua mancata adozione, proprio perché era comunque in grado, in una ampia casistica, di rivelare la presenza del pericoloso antigene AU*").

even litigation against the supplier of components and raw materials is rare. Yet, since Chinese scholars usually look to Germany for inspirations, they generally agree that the development risk defense should apply only to design defects and the failure to warn rather than manufacture defects, because the latter is merely a departure from design specification, and is unrelated to the knowledge of science and technology[684].

## 6.2. Contributory Negligence

At common law, a victim would forfeit his rights to recovery if it was his own negligence had contributed the damage[685]. The rule of contributory negligence as an absolute defense was established by the case *Butterfield v Forrester* of 1809[686]. In the case, the plaintiff rode horse into a pole left by the defendant across the part of the highway. The plaintiff did not notice the pole beforehand. He was thrown by the horse and injured. Lord Ellenborough disposed this matter briefly, and opined that "[a] party is not to cast himself upon an obstruction which has been made by the fault of another, and avail himself of it, if he did not himself use common and ordinary

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[684] *See* Zhou Youjun (周友军), "Improving Product Liability Rules in the codification of Civil Law" (民法典编纂中产品责任制度的完善), 2 *Law Review (法学评论)* 138 (2018), p.144 (author's translation). There are scholars who propose the exclusion the development risk defense from Product Quality Law in China, for the reason that the defense is not pro-consumer: *see* Zhang Zaizhi (张再芝) and Xie Liping (谢丽萍), "The Exclusion of Development Risk Defense in Product Liability" (论产品责任的发展缺陷抗辩排除), 2 *Political Science and Law (政治与法律)* 75 (2007), pp.75-80.

[685] *See* Stephen Waddams, *Dimensions of Private Law: Categories and Concepts in Anglo – American Legal Reasoning*, 2003, p.202. For a more theoretic discussion on contributory negligence, see G. Edward White, *Tort Law in America*, pp.164-165 (the author opined that contributory negligence as an absolute defense was consistent with pristine nineteenth-century negligence theory. The theory assumed that risk-creating conduct should not attach unless the person creating the risk has been at fault. Fault here, means blameworthy. So the party at fault was forced to pay injuries. It followed this logic that a party who is at fault should not be able to recover for his injuries, even if the risk is created by another blameworthy person. The injured party who had 'last clear chance' to avoid the injury, and failed to exercise it, would make him a new blameworthy party).

[686] (1809) 11 East 60.

caution to be in the right"[687]. The rule has its origin from the Roman law concept of *novus actus interveniens* barring the defendant's liability and was widely shared among European legal systems until the twentieth century[688]. Currently, the defense of contributory negligence is no longer a complete defense in many transatlantic legal systems, and the victim's negligence would not amount to a total exoneration of defendant's liability. Rather, courts might reduce the amount of damages awarded proportionately, according to the victim's fault[689].

In the U.S., the picture is much complicated. Before 1978, under the doctrine of negligence, the plaintiff would not recover any damages if he was negligent to any degree[690]. Since the 1970s and 1980s, the theory of "comparative fault" has gained a strong foothold, as American courts and scholars increasingly recognize that it is obvious unjust to exonerate the defendant from liability by requiring the victim alone to bear the entire losses caused by the fault of two parties[691]. Under the doctrine of comparative fault, the plaintiff would still able to recover even if he is negligent to some extent. In the U.S., it is the jury to weigh the wrongful act of plaintiff against the wrongful act in determining damages[692]. Although the doctrine of comparative fault is widely accepted among American courts, there are still many jurisdictions that embrace the all-or-nothing rule of contributory negligence, despite the advent of the theory of "comparative fault"[693]. From a comparative perspective, the doctrine of comparative fault in the U.S. works in similar way as

[687] (1809) 11 East 60, at 61.

[688] *See* Cees van Dam, *European Tort Law*, p.375.

[689] *See* Cees van Dam, *European Tort Law*, p.375. However, in traffic accidents case, French courts will not allow contributory negligence as a defense to reduce the defendant's compensation, on that reason that the victim is at fault, unless the victim's conduct is intentional or his fault is excusable ('*faute inexcusable*'), *see* Cees van Dam, *European Tort Law*, p.408, and Loi no.85-677 of 5 July 1985, S.7584 (*La loi Badinter sur la protection des victimes d'accidents de la circulation*).

[690] *See* Frank J. Vandall, *A History of Civil Litigation: Political and Economic Perspectives*, p.38. The Uniform Comparative Fault Act was drafted in 1977, and, contemporaneously, several state supreme courts applied the doctrine in strict liability actions, e.g. *Daly v. General Motors Corp.*, 575 P.2d 1162 (Cal. 1962). Also *see* John Wade, "Products Liability and Plaintiff's Fault -The Uniform Comparative Fault Act", 29 *Mercer Law Review* 373 (1978).

[691] *See* William L. Prosser; "Comparative Negligence", 41 *California Law Review* 1 (1953), p.4.

[692] *See* Frank J. Vandall, *A History of Civil Litigation: Political and Economic Perspectives*, p.38; also *see Daly v. General Motors Corp.*, 575 P.2d 1162 (Cal. 1962).

[693] *See* David G. Owen, *Product Liability in a Nutshell*, p.401.

doctrine of 'contributory negligence' in Europe and China, as they both prefer to reduce a plaintiff's damage compensation due to his fault rather than offers no compensation[694].

Another issue that is worth of consideration is whether the victim's characteristics, which render the damage more severe than it can normally be expected, are considered as a "factor" to reduce compensation. This will be examined in the following pages, while discussing the application of contributory negligence to product liability claims.

In product liability settings, contributory negligence implies that the victim made an unreasonable use of the product, that is, a use contrary to adequate warning and instructions, or an unreasonable use of a product known to be defective, or a use of a product in an unreasonable manner[695].

In the U.S., historically, contributory negligence was not a defense to a strict liability claim[696]. As William Prosser noted, "if the plaintiff's negligence consists only in a failure to discover the danger involved in the product or to take precautions against the possibility of its existence…it is quite clear that it is no defense to the strict liability. Thus if the plaintiff drinks a beverage without discovering that it is full of broken glass, his failure to exercise due care in doing so does not relieve the defendant"[697]. Subsequently, the application of the comparative fault rule was denied in strict liability actions, on the one hand because strict liability does not rest upon negligence[698], and, on the other hand, because it was thought that the rule reduces the incentive for manufacturers to produce safe products[699]. The objections were overcome in 1962 by the California Supreme

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[694] *See* Willem H. van Boom, Jean-Sébastien Borghetti, Andreas Bloch Ehlers, Ernst Karner, Donal Nolan, Ken Oliphant, Alessandro Scarso, Vibe Ulfbeck and Gerhard Wagner, "Product Liability in Europe", in Helmut Koziol, Michael D. Green, Mark Lunney, Ken Oliphant and Yang Lixin (eds.): *Product Liability: Fundamental Questions in a Comparative Perspective*, De Gruyter, 2017, p.256; Xinbao Zhang, *Legislation of Tort Liability Law in China*, Springer, 2018, pp.239-242.

[695] *See* David G. Owen, *Product Liability in a Nutshell*, p.399.

[696] § 402 A, comment (a) of the Restatement (Second) of Torts; § 17 of the Restatement (Third) of Torts (1998); also see *Devaney v. Sarno*, 311 A. 2d 208 (N.J. Super. Ct. App.Div.1973) (contribute negligence is not applicable in strict liability actions because it is not rest upon negligence).

[697] *See* William L. Prosser, "Strict Liability to the Consumer in California", 50 *Hastings Law Journal* 813 (1999) p.851.

[698] *Daly v. General Motors Corp.*, 575 P.2d 1162 (Cal. 1962).

[699] *Daly v. General Motors Corp.*, 575 P.2d 1162 (Cal. 1962), at 1169.

Court in *Daly v. General Motors Corp.*[700]. Then the Uniform Comparative Fault Act of 1977 takes the position that comparative fault should apply whether the actions is based on negligence or strict tort liability[701]. In the case that a victim suffered more damage because his own characteristics, American law generally recognize that the victim must be compensated. This rule is expressed by the phrase that "one takes one's victim as one finds him" (also known as the "thin skull" doctrine or the "eggshell skull" doctrine) [702], which means that the defendant is answerable for the full extent of injury that a victim suffered due to his pre-existing hypersensitivity[703].

In the European Union, contributory negligence is stated in Article 8 (2) of the Directive 85/374/EEC. Article 8 (2) provides that "[t]he liability of the producer may be reduced or disallowed when, having regard to all the circumstances, the damage is caused both by a defect in the product and by the fault of the injured person or any person for whom the injured person is responsible"[704].

In English Law, before 1945, if the claimant had causally contributed to his own damage, this was regarded as a *novus actus interveniens* isolating the defendant from liability. Contributory negligence was once a matter of factual causation[705]. In 1945, the law changed. Section 1(1) of the Law Reform (Contributory Negligence) Act 1945 removed the complete bar on claims and provided apportionment of the loss according to comparative fault, or comparative negligence of the victim[706]. Section 4 of the Act 1945 defines the victim's fault as "negligence, breach of

[700] 575 P.2d 1162 (Cal. 1962).

[701] *See* John Wade, "Products Liability and Plaintiff's Fault -The Uniform Comparative Fault Act", p.379 (fairness is substantial reason). Compare with Aaron D. Twerski, "The Use and Abuse of Comparative Negligence in Products Liability", 10 *Indiana Law Review* 797 (1977), p.806.

[702] *See* Guido Calabresi, *Ideals, Beliefs, Attitudes, and the Law: Private Law Perspectives on a Public Law Problem*, pp.24-25, pp.47-48, and pp.140-141 (Judge Calabresi noted that the thin-skull doctrine entails some tension with the doctrine adopted in some jurisdictions that injurers are not responsible for "unforeseeable" consequences of their negligence. For more information on this, see the author's footnote 100, at page 141).

[703] *See* John. F. Clerk, *Clerk & Lindsell on Torts*, p.130.

[704] Article 8 (2) of the Directive 85/374/EEC.

[705] *See* Geoffrey Samuel, *Understanding Contractual and Tortious Obligations*, p.161.

[706] *See* S 1 (1) of the Law Reform (Contributory Negligence) Act 1945: "Where any person suffers damage as the result party of his own fault and partly of the fault of any other person or persons, a claim in respect of that damage shall not be defeated by reason of the fault of the person suffering the damage, but the damages recoverable in respect

statutory duty or other act or omission that give rise to liability in tort or would, apart from this Act, give rise to the defence of contributory negligence"[707]. Under the Act, the victim has a duty of care for his own interests. This is not different from the reasonable man standard for the producers in the test of negligence. In the product liability field, the Act of 1945 applies to all tort actions under the Consumer Protection Act 1987, as Section 6 (4) of the Consumer Protection Act 1987 also provides for a "contributory negligence" defense[708]. According to Geoffrey Samuel, contributory negligence in English law has mostly become a question of damages, and the courts use causation to apportion responsibility between the plaintiff and the defendant. In product liability cases, contributory negligence denotes the circumstance that a consumer acted negligently, as specified by Section 5(7) of Consumer Protection Act 1987. Section 5(7) requires the knowledge of the victim-plaintiff, that is, that the victim was reasonably able to know, or could reasonably expect that what has been acquired could contribute to a foreseeable harm. What matters is the reasonable conduct of the average consumer rather than of the concrete victim in question[709]. The English law also recognize the principle that the defendant has to take the victim as he finds him[710]. In fact, the principle is said to have originated from Kennedy, J.'s dictum in *Dulieu v. White &Sons*[711] of 1901, where he says that "[i]f a man is negligently run over or otherwise negligently injured in his body, it is no answer to the sufferer's claim for damages that he would have suffered less injury, or no injury at all, if he had not had an unusually thin skull or an unusually weak heart"[712].

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thereof shall be reduced to such extent as the court thinks just and equitable having regard to the claimant's share in the responsibility for the damage… ".

[707] S 4 of the Law Reform (Contributory Negligence) Act 1945.

[708] *See* Simon Taylor*, L'harmonisation communautaire de la responsabilité du fait des produits défectueux: étude comparative du droit anglais et du droit français*, pp.144-145; John F. Clerk, *Clerk & Lindsell on Torts*, p.177.

[709] *See* Guido Alpa and Mario Bessone, *La responsabilità del produttore*, p.344.

[710] For an in-depth discussion of the rule in English law, *see* John F. Clerk, *Clerk & Lindsell on Torts*, pp.130-133; also *see* Ken Oliphant's national report for England in "Case 14 Fragile Victims I: A Stroke of Misfortune", in Marta Infantino and Eleni Zervogianni (eds.): *Causation in European Tort Law*, Cambridge University Press, 2017, pp.492-493.

[711] [1901] 2 KB 669.

[712] [1901] 2 KB 669, at 679.

In France, contributory negligence is called as "*fait de la victime*". As to the application of contributory negligence in product liability law, the French legislature transposed Article 8 (2) of the Directive 85/374/EEC closely at Article 1245-12 of the French Civil Code[713]. In the case that a victim suffered much severe harm due to his own weakness or other characteristics, there are few French cases that addressed the issue whether his damage compensation should be reduced or even disallowed[714]. However, legal scholars like Geneviève Viney and Patrice Jourdain think the victim's "pathological predispositions" should not be seen as the victim's fault that aggravates the damages[715].

In Germany, contributory negligence as provided in § 254 BGB (*Mitverschulden*) can be established if the victim acted negligently as regards his own interests. In these cases, the negligence test of § 276 BGB (*Fahrlässigkeit*) should apply. § 276 BGB implies an objective test of the victim's conduct: what is decisive is the conduct of a careful person of average circumspection and capability (*ein sorgfältiger Mensch von durchschnittlicher Umsicht und Tüchtigkeit*)[716]. In the case that a victim suffered much severe harm due to his predispositions such his physical, or psychological weakness, hereditary anomaly or other characteristics that make him much susceptible to the harm, the general principle of German law, like the English and the American legal systems, is that the defendant must take the victim as he finds him[717].

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[713] Article 1245-12 of the French Civil Code: "*la responsabilité du producteur peut être réduite ou supprimée, compte tenu de toutes les circonstances, lorsque le dommage est causé conjointement par un défaut du produit et par la faute de la victime ou d'une personne dont la victime est responsable*".

[714] *See* Jean-Sébastien Borghetti, "Product Liability in France", p.225.

[715] *See* Geneviève Viney and Patrice Jourdain, *Les conditions de la responsabilité*, p.775 ("*En effet, l'article 8-2 ne permet d'assigner un effet exonératoire qu'à la « faute » proprement dite de la victime, ce qui empêche de retenir, à ce titre, le « fait non fautif», eût-il même été imprévisibile e irrésistible pour le producteur, ainsi que les «prédispositions pathologiques» de la personne lésée*"). Also *see* Christophe Quéz-Ambrunaz's national report for France in "Case 14 Fragile Victims I: A Stroke of Misfortune", in Marta Infantino and Eleni Zervogianni (eds.): *Causation in European Tort Law*, Cambridge University Press, 2017, pp.492-493.

[716] *See* Cees van Dam, *European Tort Law*, p.376, and also fn.160 at the same page.

[717] For more discussion on the German law's treatment of the victim's predispositions, *see* Basil S. Markesinis and Hannes Unberath, *The German Law of Torts*, pp.111-112 (the authors cite a few cases wherein the German courts adopted the "thin skull" rule. For case references, *see* BGH NJW 1982, 168, and BGH NJW 1958, 1579). Also *see* Nils Jansen, David Kästle-Lamparter, Lukas Rademacher's national report for Germany in "Case 14 Fragile Victims

In Italy, contributory negligence is called as "*concorso del fatto colposo del danneggiato*". As to the transposition of Article 8 (2) of the Directive 85/374/EEC into Italian legal system, Article 122 of the Italian Consumer Code (former Article 10 of the Presidential Decree No. 224/1988) did not reproduce Article 8 (2) of the Directive. In fact, Article 122 (1) of the Italian Consumer Code provides that in the event of contributory negligence on the part of the victim, compensation should be determined according to Article 1227 of the Italian Civil Code[718]. Contributory negligence has the effect of reducing or disallowing the compensation of damages. According to Article 1227 of the Italian Civil Code, the reduction of compensation depends upon the gravity of victim's fault and the causal contribution it played on the final harm. If, after the fact, the victim could have reduced the damage he suffered by using ordinary diligence, compensation for such damage would not be awarded. In the case that a victim suffered much severe harm due to his predispositions,

I: A Stroke of Misfortune", in Marta Infantino and Eleni Zervogianni (eds.): *Causation in European Tort Law*, Cambridge University Press, 2017, pp.492-493.

[718] *See* Article 122 (1) of the Italian Consumer Code: "*Nelle ipotesi di concorso del fatto colposo del danneggiato il risarcimento si valuta secondo le diposizioni dell'art.1227 del codice civile*"; and *see* Article 1227 of the Italian Civil Code: "*Se il fatto colposo del creditore ha concorso a cagionare il danno, il risarcimento è diminuito secondo la gravità della colpa e l'entità delle conseguenze che ne sono derivate. Il risarcimento non è dovuto per i danni che il creditore avrebbe potuto evitare usando l'ordinaria diligenza*".

Italian courts silently adopt the eggshell skull rule as to the victim's pre-existing physical weakness[719], but not for his psychological frailty[720].

In China, Article 26 of Tort Liability Law provides a contribute negligence defense, according to which the defendant's liability is reduced if the victim was also at fault and contributed to causing the damage[721]. In addition, Article 27 provides that the defendant is not liable if the damage is

[719] *See* Eleonora Rajneri's national report for Italy in "Case 14 Fragile Victims I: A Stroke of Misfortune", in Marta Infantino and Eleni Zervogianni (eds.): *Causation in European Tort Law*, Cambridge University Press, 2017, pp.493-495. However, the application of the rule that the defendant should take the victim as he finds him is complex in Italian law. In case of that a human factor from the tortfeasor part, and a natural factor, such as health condition, from the victim part, the Supreme Court of Italy offered two solutions: (a) "if the environmental conditions or the natural factors that characterize the physical reality affected by human behavior are sufficient to cause the harmful event regardless of the human behavior, then the author of the action or omission is exempted from every liability for the event" (Cass., 23 December 2003, n. 19682, in *Archivio civile*, 2004, 601); (b) if those conditions cannot cause the harmful event without a human input, then the author of the conduct is responsible for all the consequences (Cass., 16 January 2009, n. 975, in *Giustizia civile*, 2010, I, 292). For whether and also how the Eggshell Skull Rule is applied other European countries, see generally, the national reports for case studies in "Case 14 Fragile Victims I: A Stroke of Misfortune", in Marta Infantino and Eleni Zervogianni (eds.): *Causation in European Tort Law*, Cambridge University Press, 2017, pp.492-514 (covering countries including Spain, Poland, Bulgaria, Czech Republic, Greece, Portugal, Denmark, Sweden, Austria, The Netherlands, Lithuania, Ireland).

[720] *See* also a decision by the Court of Appeal in Milan: App. Milan, 14 February 2003, in *Giurisprudenza Milanese*, 2003, 305 (a plaintiff who attempted suicide due to psychological stress caused by the intolerable noise from the factory next to her house. The liability is excluded based there is a lacking of adequate cause between the injury and the noise). Also *see* Eleonora Rajneri's national report for Italy in "Case 15 Fragile Victims II: Teenage Anxiety", in Marta Infantino and Eleni Zervogianni (eds.): *Causation in European Tort Law*, Cambridge University Press, 2017, pp.516-517. The reporter discussed a hypothetical case wherein a teenager girl who has pre-existing eating disorders, has committed suicide because of the tortfeasor's nasty messages. The victim was rescued but the suicide attempt left her permanently disable. According to the reporter, under Italian law, the tortfeasor will not be liable for the victim's injury unless it is proved that she was aware of the victim's psychological frailty. Moreover, it is introduced that Italian courts would base such conclusion on two arguments: (1) the tortfeasor was not at fault regarding the victim's unpredictable reaction – suicide attempt; (2) the causation chain was broken by the victim's abnormal and unpredictable reaction, based on the theory of 'adequate cause' (*causalità adeguata*).

[721] Article 26 of Tort Liability Law: "The liability of the tortfeasor may be mitigated if the infringee is also at fault for the damage".

caused by the victim's intentional conduct[722]. However, readers do not take Article 27 literally. Many scholars have cautioned the fact that the intentional act of the victim in Chinese law must be subjective, and only if the victim voluntarily creates the harm for himself, the defendant will not be liable[723]. One of the consideration for this interpretation is that, if the criterion for "intentional conduct" becomes objective, it would be difficult to distinguish intentional acts from grossly negligent one. There is however very little case with regard to this matter, as the victim very rarely hurt himself with intention. Chinese courts are also very reluctant to exempt the defendant from liability due to the victim's fault, even in situations in which the victim knew or should have known that his conduct would have resulted in harm for him. To offer an example, in 2012, the Chinese Supreme Court issued an interpretation on the application of law in road traffic accident – related cases[724]. It mentions a hypothetical scenario: if a pedestrian enters into highway, and was injured in an accident, he can sue the highway managing company under Article 76 of Tort Liability Law which deals with liability for ultra-hazardous activity[725]. The managing company could bear no or diminished liability if it proves that it adopted adequate safety measures

[722] Article 27 of Tort Liability Law: "The tortfeasor shall not be liable for any damage caused by the intentional act of the victim".

[723] *See* Cheng Xiao (程啸)，*Tort Liability Law(侵权责任法)*, City University of Hong Kong Press (香港城市大学出版社), 2019, p.167; Wang Zhu (王竹), "Study on Application of Comparative Fault in Special Tortious Acts — Based on Stipulations from Chapter Six to Ten of Tort Liability Law" (特殊侵权行为中受害人过错制度的适用研究—以《侵权责任法》第六章到第十章为中心), 01 *Journal of Henan University of Economics and Law (河南财经政法大学学报)* 79 (2012), pp.79-87.

[724] Interpretations of the Supreme People's Court on Several Issues on the Application of Law in Hearing the Cases of Compensation for Road Traffic Accident Damages (2012) (hereinafter, "Interpretations on Compensation for Road Traffic Damages 2012").

[725] *See* Article 9, para. 2 of the Interpretations on Compensation for Road Traffic Damages 2012: "Where any vehicle or pedestrian that is prohibited from being driven or walking on the expressway is driven or walks on the expressway, causes damages to itself or himself/herself, and the party concerned requires the manager of the expressway to be liable for compensating for the damages, Article 76 of Tort Liability Law shall apply to the case". And *see* Article 76 of Tort Liability Law: "If damage occurs from unauthorized entry into an ultra-hazardous activity area or a storage area for ultra-hazardous materials, the liability of the manager may be diminished or no liability shall be assumed if he or she has taken safety precautions and has fulfilled his or her obligation in giving warnings.

and offered warnings. This scenario shows that the intention act must be voluntary. If not, it will likely to treated as (gross) negligence, then the doctrine of comparative fault will apply. In case that a victim suffered much severe harm due to his own weakness or other characteristics, there is no statutory rules upon the issue whether his injury is compensable in Chinese law. However, in traffic accidents caused harm, the "eggshell skull" doctrine is well received in Chinese legal practice, as Chinese courts think the victim's health and other particular characteristics have no legal causation link with the traffic accident-resulted damage[726].

6.3. Abiding by the relevant laws on manufacturing and safety standards

In the U.S., it would be incorrect to say that compliance with relevantly laws on manufacturing and safety standards is a complete defense to product liability all states jurisdictions. In a few jurisdictions, even in presence of full compliance with relevant statutes or regulations on standards, manufacturers are still likely to be held liable[727]. However, according to state statutes, compliance sometimes is seen as an admissible evidence to show that the product is not defective[728]; sometimes, it is treated as a persuasive proof in proving reasonableness or knowledge of defectiveness[729]; other

[726] *See Rong Baoying v. Wang Yang, and Alltrust Property Insurance Co. Ltd.(Jiang Yin Branch) (Disputes over traffic accidents caused harm) (荣宝英诉王阳、永诚财产保险股份有限公司江阴支公司机动车交通事故责任纠纷案)*, decided by the Intermediate Court of Wuxi City on 21 June 2013, the case decision is selected and published by Chinese Supreme Court as its No.24 Guiding Case (accessible at Supreme Court's official site: www.court.gov.cn/shenpan-xiangqing-13327.html). In the case, the victim's old age and her osteoporosis had no causation link with the aggravated harm caused by traffic accidents. The Guiding Case project is an initiative by Chinese Supreme Court to uniform the appliance of legal rules applying in judicial practice.

[727] *See* Michael D. Green and Jonathan Cardi, "Product Liability in United States of America", p.606.

[728] *See* Michael D. Green and Jonathan Cardi, "Product Liability in United States of America", p.606, fn.142 (where the authors mention that Colorado and Washington state statutes – Colo. Rev. Stat. Ann. § 16-116-105; Rev. Code Wash § 7.72.050 (1) – provide a complete defence where the defendant was in compliance with "a specific mandatory government contract specification").

[729] *See* Michael D. Green and Jonathan Cardi, "Product Liability in United States of America", p.606.

times, it is used as a proof for the court to find that the product is presumably free from defects[730]. Therefore, it is rather difficult to assess the role of compliance with relevant laws on mandatory and safety standards as a defense in the U.S. The situation is overall too complex to describe it in detail in this section.

In the European Union, according to Article 7 (d) of the Directive 85/374/EEC, if the producer has complied with the relevant laws on manufacturing and safety standards issued by public authorities, he could be exonerated from liability. This defense applies to all producers, including components and raw material suppliers. It is thought that the defense is useful to the producer when the latter was obliged by the standards to produce in a specific way, and such imposed standards contributed to the defective condition of product[731]. However, such situation is unlikely to happen, and, even if it happens, it would require making State authorities liable for the imposing of 'defective' standards. As it is easy to guess, affirming State authorities' liability is not an easy in many legal systems. Therefore, the defense is of very little value for the defendant producers[732].

In China, as said before, even if a producer has abided by mandatory standards, courts may find him liable if his product is defective[733]. Therefore, this defense is not of great value for the supplier of components or raw materials.

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[730] *See* Michael D. Green and Jonathan Cardi, "Product Liability in United States of America", p.606, at fn.143 (the authors cite *Wright v Ford Motor Co*., 508 F.3d 263 (5th Cir.2007), which applied Tex. Civ. Prac. & Rem. Code § 82.008, and treated the compliance as a proof to show that the product is presumably non-defective).

[731] *See* Cees van Dam, *European Tort Law*, p.434.

[732] *See* Alistair M. Clark, *Product Liability*, p.188; Simon Whittaker, *Liability for Products*, p.483; John F. Clerk, *Clerk & Lindsell on Torts*, p.726 (most safety requirements merely set minimum requirements which manufacturers can surpass. Compliance with them cannot prevent the claimant's allegation that the safety standards are too low); the argument was also appreciated in a few English decisions; see *Bux v. Slough Metals Ltd* [1973] 1 WLR 1358, *Best v Wellcome Foundation* [1983] 3 IR 21.

[733] *See Houyingzi Supply and Marketing Cooperative v. Food container retailer of The Third Railway Middle School (dispute over product liability )(后营子供销社诉铁三中冷冻食品机械经销部产品责任纠纷案)*, decided on 24 February 1989, by Donghe District Court of Baotou City in Inner Mongolia Autonomous Region.

### 6.4. Large number of potential users

In the United States, the existence of a large number of potential users is a defense also known as "bulk sales defense". It implies that the supplier of non-defective raw materials or components could not be liable if he sold goods in bulk sales, which were destined to a wide range of end users that are beyond his control[734]. In fact, many court decisions supported that a bulk supplier of non-defective components or raw materials has a duty to warn product risks to the immediate vendee, but not to the ultimate user[735]. Since the supplier is "remote from the knowledge of the end use of components or raw materials in a finished product"[736], he should not be imposed with liability. Moreover, commentators opine that imposing liability upon bulk suppliers would not be efficient, because it is the manufacturer of the finished product who possesses information about the end-use of a product, and the latter could make much more effective cost-benefit decisions with regarding potential harms to the end user[737]. Besides, commentators suppose imposing liability would discourage the supplier of components or raw materials from selling his products, which would hurt numerous industries as components or raw materials are often necessary for the production of the end-products.

In the European Union, the Directive 85/374/ EEC does not mention any defense related to the large number of potential users. In fact, a decade before the Directive was published in 1988, the Scottish Law Commission had advanced the arguments that the components producers should be liable because their components have many potential users, and it is hard for components producers

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[734] *See* Edward M. Mansfield, "Reflections on Current Limits on Component and Raw Material Supplier Liability and the Proposed Third Restatement", 84 *Kentucky Law Journal* 221 (1995-1996), p.222; M. Stuart Madden, "Liability of Suppliers of Natural Raw Materials and the Restatement (Third) of Torts: Products Liability – A First Step Towards Sound Public Policy", p.305.

[735] *See House v. Armour of Am., Inc.*, 886 P.2d 542 (1994) (a bulk supplier of raw materials that are not inherently dangerous has no duty to warn ultimate users); *Werckenthein v. Bucher Petrochemical Co.*, 618 N.E.2d 902 (1993) (the supplier of raw materials has adequately warned of product dangers to the plaintiff's employer. He is not obliged to warn employees of an employer's particular use of the materials).

[736] *See* M. Stuart Madden, "Liability of Suppliers of Natural Raw Materials and the Restatement (Third) of Torts: Products Liability – A First Step towards Sound Public Policy", p.284.

[737] *See* M. Stuart Madden, "Liability of Suppliers of Natural Raw Materials and the Restatement (Third) of Torts: Products Liability – A First Step towards Sound Public Policy", p.303.

to know the extent of risk at the time of manufacture[738]. But this defense was not adopted by the Directive 85/374/EEC, nor does it appear in the national laws that transposed the Directive in the United Kingdom, Germany, Italy, and France.

Chinese tort law does not adopt this defense as well in statutory texts. The only available defenses are specified in Article 41 of Product Quality Law, and also in Tort Liability Law. It is hard to foresee that Chinese courts would embrace judicial activism, and adopt a "foreign" defense like "large number of potential users"[739]. In practice, the defense was rarely, if ever, mentioned by courts.

### 6.5. Components or raw materials produced in accordance with a design or specification instructed by the final producers

This defense is well accepted in the decisions of U.S. courts. In fact, there are a series of decisions in the U.S. embracing this defense to exempt the defendant supplier of components and raw materials that are integrated into the final product[740]. As the First Federal Circuit Court opined in *Hatch v. Trail King Indus., Inc.*[741] of 2011, "[a] growing majority of courts have [held] that even in strict liability a manufacturer who merely fabricates a product according to the purchaser's design is not responsible, in the absence of an obvious defect, if the design proves bad…Accordingly, the soundness of a contract specifications defense to design defect claims does not depend on the underlying theory of liability"[742]. However, this defense is not absolute, in the

[738] *See* Alistair M. Clark, *Product Liability*, p.50; Cmnd.6831 (1977), para.77-82; Alessandro Stoppa, "Responsabilità del Produttore", p.134.

[739] *See* Dong Chunhua（董春华）, "Comparative Study on the Product Liability of Component Manufacturer in China and in the United States" (中美零部件生产商产品责任比较研究), p.32.

[740] *See Leininger v. Stearns-Roger Manufacturing Co.,* 17 Utah 2d 37 (1965).

[741] *See Hatch v. Trail King Indus., Inc.*, 656 F.3d 59 (1st Cir. 2011).

[742] *See Hatch v. Trail King Indus., Inc.*, 656 F.3d 59 (1st Cir. 2011), at 69.

sense that if the design or specification is obviously dangerous, the supplier of components and raw materials does have a duty to follow how the components are utilized by end-manufacturers[743].

In the European Union, the supplier of components or raw materials would be exempted from liability, if the defect is entirely attributable to the design of the product in which the components or the raw materials had been fitted or to its conformity to the instructions of the producer has used it, as specified in Article 7 (f) of the Directive 85/374/EEC. The rationale for Article 7 (f) seems to allow every producer to respond to liability conditions within the limits of its specific roles in the scope of production cycle[744]. Commentators have noted that the burden of proof is troublesome for the plaintiff in the situation provided by Article 7 (f), because the plaintiff is not able to show the component was defective at all, and, even if the component is defective, the defendant does not need to prove anything[745].

This defense is not enshrined into statutory texts in Chinese law. In product liability settings, Chinese scholars frequently cited this defense from both U.S. and the European Union[746], but there are very few case law involve this defense in practice.

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[743] *See Spangler v. Kranco, Inc.*,481 F.2d 373 (4th Cir. 1973), at 374-375 (holding that manufacturer of crane produced to owner's specifications was not liable for injury which might have been prevented if crane had been equipped with alarm which sounded when backing up, so long as specifications provided were not so obviously dangerous that they should not reasonably have been followed); *Lesnefsky v. Fischer & Porter Co*.,527 F. Supp. 951, (E.D.Pa.1981), at 955 (manufacturer of component parts is not liable for the defective design of component parts that are in accordance with specification, unless he has or should have knowledge that the product is unsafe for intended use); *Mayberry v. Akron Rubber Machinery Corp.*,483 F. Supp. 407 (N.D.Okla.1979), at 413 (holding that where "a supplier furnishes a component part free of defects and without knowledge of the design of the end product, strict liability should not be imposed on the supplier for injury resulting from the end product design"); *Castaldo v. Pittsburgh-Des Moines Steel Company*, 376 A.2d 88 (Del.1977), at 90 (holding manufacturer of product (storage tank), built in accordance with plans and specifications of employer, not liable for damage occasioned by defect in specifications, unless plans are so obviously dangerous that no reasonable person would follow them).

[744] *See* Alessandro Stoppa, "Responsabilità del produttore", p.134.

[745] *See* John F. Clerk, *Clerk & Lindsell on Torts*, p.728, fn.77.

[746] *See* Dong Chunhua (董春华), "Comparative Study on the Product Liability of Component Manufacturer in China and in the United States" (中美零部件生产商产品责任比较研究), p.32; Zhou Youjun (周友军), "Improving Product Liability Rules in the Codification of Civil Law" (民法典编撰中的产品责任制度完善), p.145.

## Chapter III. Law in Action: The 'Lives' of Product Liability Claims Against the Supplier of Raw Materials or Components Integrated into a Finished Product in the U.S., the E.U., and China

### 1. Beyond the Law in the Books. An Introduction

The focus of the second chapter was to inquiry into the liability standards that the supplier of components or raw material that are integrated into final products should abide by. Such a study inescapably depends upon statutory texts, legal decisions, and scholar writings. For the reason that the resources just mentioned are largely from authoritative voices, the study of similarities and differences between different legal systems is naturally determined by "official" legal actors (i.e., legislator, judges, and legal scholars)[747]. The limit of such focus is that it relies upon a State-centric concept of law, which views law "as a complex set of rules set up by the State and its organs"[748]. As a result, the emphasis on the State as "the centerpiece of any legal systems" [749] misdirects the observers' attention from the realm of tort law in the textures of social lives[750].

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[747] *See* Mauro Bussani, "'Integrative' Comparative Law Enterprises and the Inner Stratification of Legal Systems", 8 *European Review of Private Law* 85 (2000), p.94.

[748] *See* Mauro Bussani, "Comparative Law beyond the Trap of Western Positivism", in Tong-Io Cheng and Salvatore Mancuso (eds.): *New Frontiers of Comparative Law*, LexisNexis, 2013, pp.1-9; Mauro Bussani and Marta Infantino, "The Many Cultures of Tort Liability" in Mauro Bussani and Anthony J. Sebok (eds.): *Comparative Tort Law: Global Perspectives*, Edward Elgar Publishing, 2015, pp.15-16.

[749] *See* William M. Reisman, *Law in Brief Encounters*, Yale University Press, 1999, pp.3-7 (the author criticizes legal positivists' narrow conception of law, and relates the persist inability to focus on *micro-law* – which sees real law is found in all human relations, from the simplest, briefest encounter between two people to the most inclusive and permanent type of interaction – as a result of the continuing tyranny of conceptions of law that relate law to the formal structures and apparatus of state).

[750] *See* Mauro Bussani, "Comparative law beyond the trap of Western positivism", p.2; Laura Nader, *The Life of the Law: Anthropological Projects*, University of California Press, 2002, pp.169-201 (seeing the life of law from the perspectives of the users of the law).

Indeed, it is well-known that there exists a discrepancy between the law in books and the law in action[751], and that many legal scholars are still more occupied with the 'State-centered' perspective of law rather than the law in action. So far, the issue of how various kinds of unofficial law affect the birth, the management and the resolution of disputes is often a special concern only of legal sociologists and legal anthologists[752]. Contrary to the State-centered normative jurisprudence, this chapter will pay attention to the lives of product liability claims against the supplier of components or raw materials in the United States, the European Union, and China. Its aim, however, is not to compare the lives of product liability claims in different jurisdictions, but rather to trace out the factors that, in all of the legal systems under examination, may affect the lives of product liability claims. To be sure, comparing the lives of product liability claims against the suppliers of components or raw materials in different jurisdictions, would prove to be a very difficult task, because there is a lacking of sufficient and reliable data about how law really works in different countries[753]. This is why the present chapter will present the factors that might impinge on the real life of tort law in general terms, and will not aim to provide a complete and general picture of the enormous diversity of both official and unofficial law in the jurisdictions herein examined.

In order to trace out the above-mentioned factors and their role into the multi-layered framework of legal systems, this chapter will rely on two analytic tools: on the one hand the perspective of

[751] *See* Roscoe Pound, "Law in Books and Law in Action", 44 *American Law Review* 12 (1910), p.15.

[752] There are numerous studies that contributing to show how unofficial law to solve disputes in addition to the formal circuit of adjudication that running by the state: *see*, e.g., Robert Ellickson, *Order Without Law*: *How Neighbors Settle Disputes*, Harvard University Press, 1991, p.50, 87, 185, 209 (the author observes a close community in Shasta, California, despite courts, police, and the whole apparatus of a modern legal system are available to local residents, yet members of the community involved in disputes in the neighborhood preferred to deal with each other without recourse to the formal legal system); Laura Nader, "Whose comparative law? A global perspective", in James A. R. Nafziger (ed.): *Comparative Law and Anthropology*, Edward Elgar publishing, 2017, p.31, and Julio L. Ruffini, "Disputing over Livestock in Sardinia", in Laura Nader and Harry F. Todd JR. (eds.): *The Disputing Process – Law in Ten Societies*, Columbia University Press, 1978, pp.209-246 (holding that, in Sardinia, Italy, although there is a State law, there is also an official law of the Sardinian shepherds, who deem state law as foreign, unresponsive, arbitrary, and time-consuming).

[753] The problem with lacking reliable data about the law in action is well described by many scholars. For an illustration, *see* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", p.836.

legal pluralism, that is informed by the doctrine of legal stratification, and on the other hand the metaphor of the dispute pyramid.

### 1.1. Legal Pluralism

To begin with legal pluralism, the term denotes that in a societal setting there may exist more than one legal order and multiple sources of authoritative rules[754]. As such, it relies upon the doctrine of legal stratification, which emphasizes that legal systems are inevitably multi-layered. In the tort law field, legal pluralism and legal stratification mean that, in addition to the official tort law, there are other legal orders in any legal system[755]. These legal orders may possess rules and procedural devices that are not recognized as authoritative by the official tort law, but that might nevertheless be more effective and prominent than official mechanisms in handling and solving tort law disputes[756].

Legal stratification exists in both Western and non-Western jurisdictions[757]. To start with the Western jurisdictions, commentators noted that there are usually four legal layers of rules in Western legal systems: (1) the official formal layer, where social activities, entitlements and

[754] This has become a general consensus among scholars. *See* Roger Cotterrell, "Comparative Law and Legal Culture", in Mathias Reimann and Reinhard Zimmermann (eds.): *The Oxford Handbook of Comparative Law*, Oxford University Press, 2019, p.276; Sally Falk Moore, "Law and anthropology: research traditions", in James A. R. Nafziger (ed.): *Comparative Law and Anthropology*, Edward Elgar Publishing, 2017, p.20 (the author opines that legal pluralism was first used to describe the colonial law and the indigenous law); Brian Z. Tamanaha, "Understanding Legal Pluralism: Past to Present, Local to Global", 30 *Sydney Law Review* 375 (2008), p.375; Rodolfo Sacco, *Antropologia giuridica*, il Mulino, 2007, pp.75-90; Sally Engle Merry, "Legal Pluralism", 22 *Law & Society Review* 869 (1988), pp.870-871.

[755] In fact, as legal sociologist Sally Engle Merry opined the concept "legal system" should include the system of court and judges supported by the State, and also the non-legal forms of normative ordering. *See* Sally Engle Merry, "Legal Pluralism", p.870.

[756] *See* Mauro Bussani and Marta Infantino, "Tort Law and Legal Cultures", p.83.

[757] For a brief survey of stratification in different legal systems, *see* Mauro Bussani, *Il diritto dell'Occidente: Geopolitica delle regole globali*, Einaudi, 2010, pp.25-28.

disputes are controlled by "the formal circuit of adjudication"[758]; (2) the layer that is controlled by customary rules and customary devices of adjudication, and inspired by the principle of 'personal authority', as applied in most family and kinship relationships; (3) the layer that is also controlled by customary rules and customary devices of adjudication, which are however grounded on different sources, such as traditional law, peacekeeping opportunism, trust in other's compliance with social rules; (4) the layer of formal rules and informal customs governing international commerce and business-to-business trade[759].

As to non-Western jurisdictions, many works have showed that legal stratification is an obvious phenomenon both in post-colonial and non-colonial legal systems[760]. Illustrations on this point are countless. In Namibia, Africa, there are several sources of law for Namibian legal systems, including Roman law, the fusion of Roman law and Roman-Dutch customary law (as a result of Dutch colonization at the cape of Good Hope), English law (as a result of English colonization from the early nineteenth century onwards), as well as indigenous customary law[761]. In Sub-Saharan Africa, "traditional rules coexist with prescriptions about compensation and redress that are imposed by the other legal layers such as sacred law, the laws of colonizers and the laws

[758] The formal circuit of adjudication here refers to "the circuit which goes from authority-based rule to an enforced legal solution through the legal actors". For this definition, *see* Mauro Bussani, "'Integrative' Comparative Law Enterprises and the Inner Stratification of Legal Systems", p.95.

[759] *See* Mauro Bussani, "'Integrative' Comparative Law Enterprises and the Inner Stratification of Legal Systems", pp.93-99; Mauro Bussani and Marta Infantino, "Tort Law and Legal Cultures", pp.84-85.

[760] For a brief introduction about the stratification in non-Western jurisdictions, *see* Mauro Bussani, *Il diritto dell'Occidente: Geopolitica delle regole globali*, pp.31-39; and Mauro Bussani, "A Pluralistic approach to Mixed Jurisdictions", 6 *Journal of Comparative Law* 161 (2011), pp.161-163. There are many works expounded upon legal stratification in post-colonial jurisdictions that belong to non-Western legal family. The list could go very long. In addition to the examples given in the text, the one may take the following examples. For the presence of stratification in Ethiopia and Eritrea, *see* Mauro Bussani, "Tort Law and Development: Insights into the Case of Ethiopia and Eritrea", 40 *Journal of African Law* 43 (1996), pp.43-52; for post-colonial India, see Michele Graziadei, "Comparative Law, Legal Transplants, and Receptions", in Mathias Reimann and Reinhard Zimmermann (eds.): *The Oxford Handbook of Comparative Law*, 2nd edition, Oxford University Press, 2019, pp.451-452; and Werner Menski, *Hindu Law beyond Tradition and Modernity*, Oxford University Press, 2003, p.131 (impact of English rule on Hindu Law).

[761] *See* Oliver C. Ruppel and Katherina Ruppel-Schlichting, "The hybridity of law in Namibia and the role of community law in the Southern African Development Community (SADC)", in James A.R. Nafziger (ed.): *Comparative Law and Anthropology*, Edward Elgar publishing, 2017, pp.87-88.

adopted by modern independent States"[762]. In India, there existed a diffusion of the common law when Indian was a British-ruled colonial territory, but that diffusion has never erased the immense diversity of Indian local customary laws, including those of religious origins[763]. In non-colonial legal systems like China and Japan, "the role that State law and dispute settlement system play in Western jurisdictions is often absorbed and performed by layers that have no relationship with the State"[764]. Speaking more in detail about China, now there exists a State-operated official formal layer available to cope with victims' grievances like in Western jurisdictions, which is based upon many ideas and rules transplanted from Western legal systems[765]. Yet, customary rules that have no relationship with the State, still take the role of solving disputes in day-to-day life of tort law.

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[762] *See* Mauro Bussani and Marta Infantino, "Tort Law and Legal Cultures", p.84.

[763] *See* Martin Lau, "The Reception of Common Law in India", in Michel Doucet and Jacques Vanderlinden (eds.): *La réception des systèmes juridiques : implantation et destin*, Bruylant, 1994, p.266; Michele Graziadei, "Comparative Law, Legal Transplants, and Receptions", pp.451-452; and Werner Menski, *Hindu Law: beyond Tradition and Modernity*, Oxford University Press, 2003.

[764] *See* Mauro Bussani and Marta Infantino, "Tort Law and Legal Cultures", p.83.

[765] Numerous works have covered the topic of legal transplant in China, *see* Yun Zhao and Michael NG, "The Law, China and the World", Yun Zhao and Michael Ng (eds.): *Chinese Legal Reform and the Global Legal Order: Adoption and Adaption*, Cambridge University Press, 2018, p.1; Taisu Zhang, "The Development of Comparative Law in Modern China", in Mathias Reimann and Reinhard Zimmermann (eds.): *The Oxford Handbook of Comparative Law*, Oxford University Press, 2019, pp.229-251 (the author opines that there are two competing camps of legal ideas imports from the West: (1) German-trained Chinese legal scholars adopt functional and doctrinal analysis of law, and helped transplant German doctrines and rules into Chinese legal system. They dominate fields like criminal law, torts, contracts; (2) American trained legal scholars who embrace social scientific and normative analysis of law, they dominate fields such as business and financial law. However, it is also the proponents of latter camp who started empirical research of Chinese law, and became skeptical of legal transplants); Teemu Ruskola, *Legal Orientalism: China, the United States, and Modern Law*, Harvard University Press, 2013, pp.200-203 (the author sketches the historical fact that China imported legal ideas from Europe and the United States. According to the author, despite that the PRC legal system is still based formally on a more or less Sinified version of the civil law model, with socialist adaptations, the United States is today the chief source of transplanted substantive law, especially in the area of economic law); Marina Timoteo, "Of Old and New Codes: Chinese Law in the Mirror of Western Laws", in Guido Abbattista (ed.): *Law, Justice, and Codification in Qing China: European and Chinese Perspectives: Essays in History and Comparative Law*, Edizioni Università di Trieste, 2017, pp.179-189 (introducing the legal transplants in Chinese civil law field); Hao Jiang, "Chinese Tort Law: Between Traditions and Transplants", pp.392-411 (introducing legal transplants in tort law field).

Moreover, customary rules in China have deep roots in Confucianism. As a legal historian opined, in a traditional or Confucianism village, "the legal dimension of its life is wholly subordinated to the non-legal, the fa to the li"[766]. Last but not the least, even the official formal legal layer of Chinese tort law system also incorporates and legalizes the existing customs. An example would be apology. The Chinese expression for "apology" is "*Péi Lǐ Dào Qiàn*" *(赔礼道歉)*. Literally, the words means "compensate for the damage to *Li (礼)* and apologize". An interesting reader would soon glean an embodiment of "*Li*" in this expression. In traditional China, when "*Li*" is damaged, it is necessary to restore "*Li*" by performing the rite of "*Li*" and apologize to the victim[767]. Apology first became an official civil liability remedy through Article 134 of General Principles of 1987, and nowadays is enshrined also in Article 179 of General Provisions of 2017. In addition, Article 15 of Tort Liability Law provides that tort liability could be assumed through 'apology', the remedy could be used jointly with other tort liability measures (e.g. cession of infringement or restitution of property)[768]. As to the use of "apology", many Chinese legal scholars believe that "apology" could be only used as a satisfactory tort law remedy in the case of infringement of personality rights and could not be extended to property rights cases[769]. Following this line of the reasoning, apology, which has deep roots in customary law, could be applied as a tort law remedy for product liability as well.

In sum, the lives of product liability claims, do not lie merely in the layer of official tort law. For a victim who wants to obtain a remedy from the injurer in either Western-jurisdictions or many

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[766] *See* Harold J. Berman, *Law and Revolution: The Formation of the Western Legal Tradition*, Harvard University Press, 1983, p.81; Zhang Lihong and Dong Neng, "The Great Qing Code in Comparative and Historical Perspective", in Guido Abbattista (ed.): *Law, Justice, and Codification in Qing China: European and Chinese Perspectives: Essays in History and Comparative Law*, Edizioni Università di Trieste, 2017, p.176.

[767] *See* Huang Zhong (黄忠), "A Forgotten "Oriental Experience": Further Discussion on the Legalization of Apology" (一个被遗忘的"东方经验" ——再论赔礼道歉的法律化) 33 *Tribune of Political Science and Law (政法论坛)* 115 (2015), p.115; for a comparative perspective, *see* Nicola Brutti, *Law & Apologies: profilo comparatistico delle scuse riparatorie*, G. Giappichelli Editore, 2017.

[768] *See* Article 15 of Tort Liability Law.

[769] *See* Ge Yunsong (葛云松), "Apology and Compulsory Enforcement in Civil Law" (民法上的赔礼道歉责任及其强制执行), 2 *Chinese Journal of Law (法学研究)* 113 (2011), p.114.

non-Western jurisdictions, he may need to turn for help to different legal layers which can either be the layer of local customary rules, or the layer of formal adjudication usually run by the State[770].

## 1.2. The Dispute Pyramid

Another important analytic tool to understand tort law as it really lives is "the dispute pyramid". The tool "traces potential pathways from perceived injurious experiences to remedies, via grievances, claims, disputes, and remedial institutions like lawyers and courts"[771]. The dispute pyramid begins with the occurrence of an injurious experience. When a victim who perceived an injurious experience starts to blame somebody else for his damage and to claim for redress, then a dispute begins to emerge, and transform itself[772]. However, for a dispute to emerge, an injurious experience must be perceived[773]. There are, however, significant conceptual and methodological difficulties in studying the transformation of unperceived injurious experience into perceived injurious experience[774]. Hence, the chapter will focus on the perceived injurious experience.

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[770] *See* Mauro Bussani, "'Integrative' Comparative Law Enterprises and the Inner Stratification of Legal Systems", pp.94-96.

[771] *See* Marc Galanter, "The Dialectic of Injury and Remedy", 44 *Loyola of Los Angeles Law Review* 1 (2010), p.1.

[772] This process is described by William L.F. Felstiner, Richard L. Abel, and Austin Sarat's 1980 paper on *Naming, Blaming and Claiming*, wherein the authors describe three stages of the transformation of disputes: (1) *naming* means saying to oneself that a particular experience has been injurious, in other words, the injurious experience is perceived; (2) *blaming* means the transformation of a perceived injurious experience into a grievance, which occurs when a person attributes an injury to the fault of another individual or social entity; (3) *claiming* is the third transformation when someone with a grievance voices it to the person or entity believed to be responsible and asks for some remedy, *see* William L.F. Felstiner, Richard L. Abel and Austin Sarat, "The Emergence and Transformation of Disputes: Naming, Blaming, Claiming…", 15 *Law & Society Review* 631 (1980), pp.633-637.

[773] *See* William L.F. Felstiner, Richard L. Abel and Austin Sarat, "The Emergence and Transformation of Disputes: Naming, Blaming, Claiming…", p.633.

[774] For an elaborative discussion upon the conceptual and methodological difficulties in studying the transformation of unperceived injurious experience into perceived injurious experience, *see* William L.F. Felstiner, Richard L. Abel and Austin Sarat, "The Emergence and Transformation of Disputes: Naming, Blaming, Claiming…", pp.634-635 (the authors opine that the conceptual difficulty is that the unperceived injurious experience is not inchoate. In addition, whether an injurious experience is perceived or not perceived, depends upon the values of persons. There, however,

Naturally, even when an injurious experience is perceived, for the future remedies to ensue, the victim must claim. Sometimes, the victim may simply lump his claims due to the influence of other members of the same community, or due to other reasons, such as the availability of an insurance coverage and difficulties in accessing justice. Here, it becomes important to define two sociological concepts – "lumping" and "claiming". "Lumping", as defined by sociologists, implies that "the victim does not confront the injurer in any significant way to seek redress"[775]. Clearly, "lumping" denotes that the costs of the wrong are not shifted upon the injurers. Instead, the victim bears the cost himself, relying on his own financial, psychological and even spiritual resources. This often happens when the victim might make the damage good by drawing on her own health insurance, or government benefits program plans. "Claiming" means the victims make an effort to force the injurer of provide a remedy[776]. The effort may involve use of the law or extra-legal contacts with the injurer, either directly or through the third parties[777]. Under such a definition, filing a claim on the basis of a worker compensation scheme or of the victim's own health insurance is not a form of claiming, as both forms of compensation do not involve the injurers to provide a remedy to the victims.

In the following paragraphs, the chapter will introduce the factors that are most likely to affect the life of a product liability claim, and evaluate their impact on the operation of product liability and the payment of compensation by the supplier of components or raw materials.

## 2. Factors Affecting the Lives of Product Liability Claims Against the Supplier of Raw Materials or Components Integrated into a Finished Product

does not exist a consensus upon such values. As to the methodological obstacle, it is the difficulty of establishing who, in a given population, has experienced an unperceived injurious experience).

[775] *See* David M. Engel, *The Myth of the Litigious Society: Why We Don't Sue*, University of Chicago Press, 2016, p.20.

[776] *See* David M. Engel, *The Myth of the Litigious Society: Why We Don't Sue*, p.21.

[777] *See* David M. Engel, *The Myth of the Litigious Society: Why We Don't Sue*, p.21.

There are many factors that might affect the lives of product liability claims against the supplier of raw materials or components integrated into a finished product. Usually, the impacts of those factors are exerted in two opposite directions. They either (1) hinder the victim from confronting the injurer, and encourage the victim to lump claims against the injurer; or they (2) support the victim to seek remedy from the injurer.

Let us begin with the first direction. Factors hindering the victim from confronting the injurer might be linked to the uncertainties surrounding the victim's right to claim against the injurer under the official law, such as problems relating to the doctrine of privity or to the need of proving causation or fault in tort law proceedings. But many other factors are of different nature. They might stem, for instance, from community values under which the injuries should be accepted as normal. Because the influence of other members in the community, the victim may choose to lump his claims[778]. Sometimes, the factor that discourages the victim from claiming might be the economic roadblocks associated with the official formal layer. For example, the plaintiff, although willing to seek a tort remedy through the official judicial procedure, might be shunned by the complexity of civil proceedings, or by the high costs of litigation that he simply might not be able to afford. Other times, if there exists an insurance coverage or other compensation schemes such as worker compensation, social security, disability fund and so on, the victim might have already got compensation. Under these circumstances, the victim has no reason to have extralegal contacts with the injurer, nor to pay a lawyer's fee and go to court. Be it as it might, all such factors result in the victim's lumping his claims. In addition, factors related to the injurer's behavior, like the injurer's recall of the defective products, would nip a number of potential injurious experiences in the bud. In an ideal situation of products recall, there would be no lumping or claiming, since the recall prevents consumers from suffering the injury.

There might also be factors that may make the lives of product liability claims against the supplier of components or raw materials much easier to flourish. For example, the existence of collective actions and of small claims court might allow the victim to sue the injurer at a very low cost. Another example is the existence of contingency fee agreement in legal systems (like in the U.S.), under which lawyers advance all the litigation costs in consideration for the right to keep a large

[778] *See* David M. Engel, *The Myth of the Litigious Society: Why We Don't Sue*, pp.146-168.

part of the victim's damage awards in case of victory, thus effectively allowing lawyers to finance the tort litigation.

In the following paragraphs, the chapter will select a few among these factors and analyze them in some details. These factors are: (1) lumping claims in a community; (2) insurance and other compensation schemes; (3) defective product recall; (4) civil procedure; (5) litigation costs and litigation funding.

## 3. Lumping Claims in a Community

A majority of potential tort claims do not end up before courts[779]. People may be unaware of their injuries, that is, the injuries went unperceived, or people might be influenced by other members of the community, and accept the injury as normal part of their community life. These circumstances might stop a potential claim from entering into the realm of tort law.

A first point to be observed that might explain the low rate of claims against supplies of components and raw materials that integrated into finished products, is that the latter are often in the upper chain of production[780]. They are often unknown to consumers. In fact, most of the claims against suppliers might actually end up being contractual claims brought against them by the producers, as a consequence (or not) of the claims brought by consumer against the latter[781].

In addition to that, there are many other factors that might determine the victims' lumping their claims, due to the fact that that people might be influenced by other members of the community, or the contacts with formal legal system are often unsatisfactory.

It is impossible to survey the values of all communities co-existing within the U.S, the European Union, and Chinese legal systems, as well as their impact on the emergence and transformation of

[779] *See* Mauro Bussani and Marta Infantino, "Tort Law and Legal Cultures", p.87.

[780] *See* David G. Owen, *Product Liability in a Nutshell*, p.451.

[781] *See* John R.F. Baer, Veronica Chen, Andrew P. Lowinger, and Sonke Lund, "Product Recall- International Sales, Franchising and Product Liability Perspectives in the United States, Canada, Europe, Singapore and China", 5 *International Journal of Franchising Law* 5 (2007), p.17.

tort law claims. This section will therefore only provide some selected illustrations, relying upon authoritative legal sociologists' studies, about how a given community might give rise to the lumping of potential tort law claims.

One of the most important studies in this regard is David M. Engel's analysis of litigants' behavior in Sandy Country, Illinois. Engel, who is a legal sociologist, found that the exposure to the risk of physical injury was simply an accepted part of life for many of the residents in the county[782]. Moreover, the traditional value associated with personal injuries in Sandy County was of individualistic character, in the sense that they emphasized self-sufficiency and personal responsibility, rather than a "rights-oriented individualism" consistent "with an aggressive demand for compensation (or other remedies) when important interests are perceived to have been violated"[783]. Under the traditional value embraced by members of the Sandy County community, the transformation of a personal injury into a claim would be an escape from one's own responsibility, and was therefore rejected by residents[784].

In another study on American legal culture, sociologist Austin Sarat opined that people without contacts with the formal legal systems are much satisfied than those with firsthand contact, either because "the performance of the formal legal system is so unsatisfactory in an absolute sense that it disappoints even those with relatively realistic expectations"[785] or because "contacts with the police and other legal institutions…frequently occur in the time of personal crisis, [and] are inevitably traumatic no matter how well they are handled"[786]. For them pursuing claims in the

[782] *See* David M. Engel, "The Oven Bird's Song: Insiders, Outsiders and Personal Injuries in an American Community", in Mary Nell Trautner (ed.): *Insiders, Outsiders, Injuries, & Law: Revisiting "The Oven Bird's Song"*, Cambridge University Press, 2018, p.15.

[783] *See* David M. Engel, "The Oven Bird's Song: Insiders, Outsiders and Personal Injuries in an American Community", p.15.

[784] *See* David M. Engel, "The Oven Bird's Song: Insiders, Outsiders and Personal Injuries in an American Community", p.16 (the author finds that there are only a few cases involving personal injury in which the victims sought to negotiate compensatory payments from the liability insurance of the party responsible for their harm).

[785] See Austin Sarat, "Study American Legal Culture: An Assessment of Survey Evidence", 11 *Law and Society Review* 427 (1977), p.441.

[786] *See* Austin Sarat, "Study American Legal Culture: An Assessment of Survey Evidence", p.441.

formal legal system is perceived as a time-consuming, complicated, and uncertain process[787]. Avoiding the formal legal system does not, however, mean the victim will necessarily lump his claims, as the victim may settle his dispute with the injurer through customary rules.

Moving to Europe, a study from Harry F. Todd found out that in Gottfrieding, a small village in Bavarian Forest of Germany, there was a general preference of the local community toward avoidance of conflicts. For example, between 1960 and 1969, of the 59 'economic rights actions' (civil claims involve debt, eviction, personal injury, property damage) involving Gottfriedingers that were heard before the district court (*Amtsgericht*) that jurisdiction over the region in which Gottfrieding is located, there were 21 debt cases, 9 cases involved rent and eviction, 5 cases involved cease and desist orders, 2 cases involves recovery of goods, but only 2 cases involved personal injury and 4 cases concerned property damage[788]. There were 27 cases of villager-villager type, 20 cases of outsider-villager, and only 12 cases brought against outsiders of the community[789].

The same holds even truer in China. Traditional Chinese society is fundamentally rural[790], and is usually seen by scholars as an "acquaintance society", in which most members of a village have been part of the same community for many generations, and know each other intimately[791]. In this kind of society, the Confucian ideal of no litigation is deeply embedded in the layer of customary rules and custom devices of adjudication. Therefore, the disputes between community members involving injury are particularly prone to lumping or unofficial. As to the claim against outsiders (such as manufacturers of product, and suppliers of components or raw materials), the lack of formal legal consciousness of the villager victim is one of the main roadblocks preventing the

[787] See Sally Engle Merry, "Everyday Understandings of the Law in Working-Class America", 13 *American Ethnologis*t 253 (1986), p.266.

[788] *See* Harry F. Todd, JR. "Disputing in a Bavarian Village", in Laura Nader and Harry F. Todd JR. (eds.): *The Disputing Process – Law in Ten Societies*, Columbia University Press, 1978, pp.112-113.

[789] *See* Harry F. Todd, JR. "Disputing in a Bavarian Village", p.113.

[790] *See* Fei Xiaotong, *From the Soil: The Foundations of Rural Society*, University of California Press, 1992, p.37.

[791] *See* Victor H. Li, *Law Without Lawyers: A Comparative View of Law in China and the United States*, Routledge, 1978, pp.56-57; for a similar opinion, *see* Su Li (苏力), *Rule of Law and Local Resources* (*法治及其本土资源*), 中国政法大学出版社 (China University of Political Science and Law Press), 1996, p.29 (author's translation).

emergence and the transformation of a claim for compensation[792]. One should however consider that a recent study about disputes in rural area of the Western part of China showed that most of the legal aid case in rural area was related to grievances generated by traffic accidents and defective products[793]. The occurrence of these type of disputes can be read as an imprint of China's economic change upon traditional rural communities[794].

4. Insurance and Other Compensation Schemes

In modern societies, tort law is only one among the many forms of legal response to misfortunes that might fall upon an individual provided by the official legal layer[795]. In addition to tort law, as scholar Jane Stapleton noted, there are two other main responses to misfortunes offered by official law. The first one relates to state-arranged compensation schemes that involve a collectivization of risks, wherein "the selection of which misfortunes are to be covered by the arrangement is a choice by the state, as is the level to which the victim is financially supported and neither need be linked to the question of what the victim would have chosen against"[796]. The second one is grounded upon the widespread existence of insurance, which pools "the risks by those exposed to the same likelihood of risk of the relevant misfortune, be it of loss (first-party insurance) or legal liability (liability insurance)"[797]. Let us see them separately.

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[792] *See* Su Li (苏力), *Read the Order (阅读秩序)*, Shandong Educational Press (山东教育出版社), 1999, p.111 (introducing the lack of knowledge about legal rights and remedies among villagers in rural China).

[793] *See* Su Li (苏力), *How is an Institution Evolved (制度是如何形成的)*, Peking University Press (北京大学出版社), 2007, p.112 (the author cites a study provided in an unpublished paper by Fu Hualing, "Structuring the Weiquan Movement: Legal Aid and the Rule of Law in China", Hongkong University Law School).

[794] *See* Su Li (苏力), *How is an Institution Evolved (制度是如何形成的)*, pp.112-113.

[795] *See* Henry Ussing, "The Scandinavian Law of Torts - Impact of Insurance on Tort Law, 29 *North Dakota Law Review* 132 (1953), p.136; Peter Cane, *Atiyah's Accidents, Compensation and the Law*, p.222.

[796] *See* Jane Stapleton, "Tort, Insurance and Ideology", 58 *Modern Law Review* 820 (1995), p.821.

[797] *See* Jane Stapleton, "Tort, Insurance and Ideology", p.821.

State-arranged compensation schemes largely vary across different jurisdictions. It is for instance well known that such schemes are exceptionally developed in Northern Europe, where social security, welfare, and health expenditures occupy a higher percent of Gross Domestic Product (GDP) than southern European countries such as Greece, Portugal[798]. It is worth to note that, the Scandinavian model of State-arranged compensation schemes, has a public coverage for almost every accident[799]. By contrast, other countries – most notably the U.S. – provide only a few compensation schemes that tort law victims might resort to[800].

For such reason, this section will not delve in detail into the variety of state-arranged compensation schemes [801]. Nevertheless, it is worth to emphasize that the existence of State-arranged compensation schemes, no matter what their size and shape, has an impact on product liability claims[802]. For example, in situation like working place accidents caused by defective raw materials

[798] For more details, *see* Peter Baldwin, "Can We Define a European Welfare State Model", in Bent Greve (ed.): *Comparative Welfare Systems: The Scandinavian Model in a Period of Change*, Macmillan Press Ltd, 1996, pp.31-33, and pp.40-43 (introducing, for example, that social security and welfare expenditures in Demark takes a higher percentage of GDP than Greece. For health, Iceland spends three times as much (6.9 percent) as Greece (2.3 percent)). For a table showing social expenditure (social welfare including public social insurance, security, health and social services; fiscal welfare and tax policies; and occupational welfare that concerns insurance and welfare service associated with workplace employment) as a proportion of GDP in 1985 and 1990 in European Countries, see Rune Ervik and Stein Kuhnle, "The Nordic Welfare Model and the EU", in Bent Greve (ed.): *Comparative Welfare Systems: The Scandinavian Model in a Period of Change*, Macmillan Press Ltd, 1996, p.91 (showing that Northern European countries spend more than southern European countries in social expenditure).

[799] For a detailed introduction, s*ee* Anders Vinding Kruse, "The Scandinavian Law of Torts: Theory and Practice in the Twentieth Century", 18 *The American Journal of Comparative Law* 58 (1970), pp.74-79 (the author concentrates on the function of these compensation schemes for personal injuries in Scandinavian countries).

[800] For example, there are only a few compensation plans in the U.S. after 1979, including black lung compensation, childhood Vaccine-related injury compensation, birth-related neurological injury compensation, and September 11 victim compensation, *see* Robert L. Rabin, "The Renaissance of Accident Law Plans Revisited", 64 *Maryland Law Review* 699 (2005), pp.703-713.

[801] *See* Ina Ebert, "Tort law and insurance", in Mauro Bussani and Anthony J. Sebok (eds.): *Comparative Tort Law: Global Perspectives*, Edward Elgar Publishing, 2015, pp.144-150.

[802] This statement could find proof at § 389 of the Pearson Report (Report of the Royal Commission on Civil Liability and Compensation for Personal Injury, Cmd 7054) (1978). Also *see* James Jr. Fleming, "The Pearson Report: Its "Strategy", 42 *Modern Law Review* 249 (1979), p.257. For more recent empirical investigations, *see* Donald Harris,

or components of a finished product, the injured employee who gets compensation through a workers' compensation scheme, may not pursue his claim against the supplier of raw materials or components that were integrated in the finished product that caused his injury. Generally speaking, worker compensation schemes oblige the employer to pay premiums for the purchase of accidental insurance for his employees. Such compulsory participation of entrepreneur-employer in the public schemes is required by statutes and has everywhere been established as a social response to the sharp increase of personal injuries in working environments[803]. One can find this kind of scheme in many parts of the world, including the United States, the European Union and China[804] (with the caveat that usually poorer countries have less comprehensive and less efficient systems. In this light, State-arranged schemes can be seen as largely a feature of rich countries; looking across boundaries, it is apparent that "poor and emerging countries do not have the luxury of wondering how broadly to extend their social security net"[805]). The same observations might apply to the function of social welfare provided by State-run health care plans, which, although with different degrees, offer to sick and injured people free medical care and assistance[806]. The availability of public health care system may stimulate the victim of personal injuries to lump his claims[807].

Although product liability claims usually involve corporations who are deep pocket defendants, it is clear that the victim who might get compensation through a State-arranged compensation

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David Campell and Roger Halson, *Remedies in Contract & Tort in Remedies*, pp.405-461(which investigates the damage system in practice); Peter Cane, *Atiyah's Accidents, Compensation and the Law*, pp.291-373. Yet, these studies are centered upon the United Kingdom.

[803] *See* Wolfgang Friedman, *Law in a Changing Society*, University of California Berkeley Press, 1959, pp.131-133

[804] *See* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", p.828 (in the United States, all States have enacted workers compensation schemes, but the compensation they offer is very low, and often insufficient to make the ends meet).

[805] *See* Daniel Jutras, "Alternative compensation schemes from a comparative perspective", in Mauro Bussani and Anthony J. Sebok (eds.): *Comparative Tort Law: Global Perspectives*, Edward Elgar Publishing, 2015, p.157.

[806] *See* Gerhard Wagner, "Comparative Tort Law", in Mathias Reimann and Reinhard Zimmermann (eds.): *The Oxford Handbook of Comparative Law*, Oxford University Press, 2019, p.1024.

[807] Commentators observe that since the roll back of the welfare states in Europe continues, compensation through civil liability may become more important. *See* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", p.830.

schemes would often have no need to start a claim against producers, paying lawyer's fees and starting a court process that might last years. Similar observations might apply to the availability of an insurance coverage. Many forms of insurance might be of relevance in the lives of product liability claims, but this is especially the case for first-party insurance and liability insurance, either as product liability insurance or as liability insurance for road traffic accidents.

Generally speaking, first-party insurance concerns the victims, while the liability insurance concerns the injurer. Under a first-party insurance policy, "the policy holder or the first-party is insured against the risk of suffering loss specified in the policy by causes defined therein"[808], such as, for example, life insurance, health insurance and property insurance.

Liability insurance does not differ greatly from first-party insurance, except for the fact that it aims to cover against a specific loss – that associated with legal liability[809]. From a legal perspective, liability insurance is a private contract of indemnity between the defendant and an outsider-insurance company, by which the latter undertakes to protect the insured from losses stemming out from his individual legal liability[810]. For example, product liability insurance "usually includes the coverage of defense costs" and therefore "it is usually product liability insurer who pays litigation expenses of the tortfeasor"[811].

As to the injured person, the liability insurance is 'none of his business', as the contract is governed by the doctrine of privity[812]. However, despite the doctrine of privity, do national legislations or legal decisions allow the victim to claim compensation from the insurer directly? For many Scandinavian jurisdictions (such as Finland and Sweden), the direct claim by the victim against

[808] *See* Peter Cane, *Atiyah's Accidents, Compensation and the Law*, p.291.

[809] *See* Peter Cane, *Atiyah's Accidents, Compensation and the Law*, p.234.

[810] *See* James Jr. Fleming, "Accidental Liability Reconsidered: The Impact Liability Insurance", 57 *Yale Law Journal* 549 (1948), p.551.

[811] *See* Ina Ebert, "Tort law and insurance", p.145.

[812] *See* James Jr. Fleming, "Accidental Liability Reconsidered: The Impact Liability Insurance", p.551; also see *Bain v. Atkins*, 181 Mass. 240, 63 N.E. 414 (1902).

the liability insurer is a statutory right[813]. Other jurisdictions, like France[814] and Spain[815], allow the victim to sue the liability insurer directly, and some State jurisdictions of the U.S (i.e., Louisiana and Puerto Rico) have enacted statutes allowing direct action against liability insurer in all tort litigation[816]. However, in China, in most jurisdictions of the European Union (including England, Germany, and Italy), as well as in many State jurisdictions of the United States, the victim usually cannot sue the insurer directly[817]. There are some exceptions: for example, in the field of motor accident insurance, many European jurisdictions allows the victim to assert his claim directly against the insurance company through the direct action[818]. This exception will be discussed in detail later.

First-party insurance and liability insurance may create opposite effects: "to the extent victims have their losses covered by first-party insurance, they are less likely to sue; but to the extent the

[813] For Finland, *see* Janna Norio-Timonen, "Prerequisites for the Victim's Direct Claim against a Liability Insurer according to the Finnish Insurance Contract Act", 64 *Scandinavian Studies in Law* 115 (2018), pp.115-130; *see* also § 67 of the Finnish Insurance Contract Act of 1995 (establishing the injured party's entitlement to compensation under general liability insurance). For Sweden, Johanna Hjalmarsson, "The Swedish Insurance Contract Act 2005 – An Overview", 1 *Scandinavian Insurance Quarterly* 85 (2008), p.90; *see* § 54 of the Swedish Insurance Contract Act 2005 (third parties were entitled to claim, provided they possessed a direct interest in the subject matter insured).

[814] For example, the direct action can apply in construction-related liability in France. *See* Simon Whittaker, *Liability for Products*, p.104 (the author opines that French law has "an elaborate system of liabilities for a range of those responsible for the construction of buildings, including builders, architects, specialist advisers , manufacturers of certain prefabricated parts", and "all those who bear liabilities under this regime have a legal obligation to insure themselves and where liability insurance is taken out by a builder, the employer has a 'direct action' against the insurer to escape that builder's insolvency").

[815] *See* Article 76 of the Law 50/1980 of 8 October, the Spanish Insurance Contracts Act (*Ley de Contratto de Seguro*) (direct claim against the insurer).

[816] *See* Howard R. Marsee, "Direct Action against the Liability Insurer: A Legislative Approach for Florida", 23 *University of Florida Law Review* 304 (1971), p.307.

[817] *See* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", p.831 (this is the case in Germany, Italy, and England); Rob Merkkin and Jenny Steele, *Insurance and the Law of Obligations*, Oxford University Press, 2013, p.395 (England).

[818] *See* Gerhard Wagner, "Comparative Tort Law", p.1023. In England, the victim can take a direct action against insurers in case of compulsory liability insurance for accidents arising not only from motor vehicle accidents, but also from cargo oil pollution, bunker oil pollution, and violations of maritime passengers' safety: *see* Rob Merkkin and Jenny Steele, *Insurance and the Law of Obligations*, p.258.

wrongdoer [the injurer] have their liability covered by third-party insurance, they are more likely to be sued"[819].

Applying such reasoning to the case of product liability would imply that, if first-party insurance is widespread among consumers, but manufacturer or sellers are barely insured by the third-party insurance, there will be fewer product liability actions[820]. By contrast, when first-party insurance by consumers is not common, but third-party insurance by producers is widespread, there will be many tort law claims pursued in courts. Three main reasons explain this: first, victim will see the producers as more willing to pay since the money comes from someone else; second, third-party liability insurance makes producers worth the value of their own assets plus the policy limit; third, in cases of a defendant covered by a third-party liability insurance, the chances for the plaintiff to win in court may be higher, because the court, and especially a jury, will be more inclined to hold the defendant liable if the latter is not the one who will foot the bill[821].

In the United States, there is a relatively low coverage of first-party insurance. Consequently, victims have an incentive to sue the manufacturer of finished products, as well as the supplier of components or raw materials. The situation is different in Western European countries, where there exist not only stronger welfare systems, but also a more widespread recourse by victims to private first-party insurance[822]. In these countries, therefore, there is often no need for victims to sue the producers or the supplier of components or raw materials. For instance, in Germany, a person who suffers bodily injuries will often first approach his (social or) private health insurance, and then it

[819] *See* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", p.827.

[820] *See* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", p.827.

[821] *See* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", p.830 (this is the case in Australia, and in the U.S. It is true that American law forbids informing a civil jury about the existence of liability insurance. Nevertheless, the presence of an insurance may still influence the jury's decision: for more detailed discussion on this topic, *see* David H. Kaye, "Chapter 19 Insurance against Liability", in Kenneth S. Broun (ed.): *McCormick on Evidence*, vol. 1, Thomson Reuters, 2013, pp.1120-1129).

[822] *See* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", p.830.

will be the latter that will try to seek redress from the liable tortfeasor[823]. As to the rate of recourse of first-party insurance in China, there are no available data or statistics on the subject matter, which makes it impossible to appreciate the impact of this form of insurance on the victims of defective products causing harm.

As to the availability and coverage of product liability insurance in the United States, the European Union, as well as in China, the situation seems to be different.

In the United States, product liability insurance is widely available[824]. The amount of product liability insurance coverage is one of the few aspects that both the plaintiff and the plaintiff's lawyer would consider before they decide upon the matters like whom to sue and what amount to ask for[825]. In other words, the higher and wider coverage of liability insurance, the more likely the plaintiff or the plaintiff's lawyer would file a lawsuit against a manufacturer or a supplier of components or raw materials. Moreover, exactly because American insures usually face large litigation claims, they may become less willing to pay, thus forcing more victims to start a litigation before the courts[826]. In the European Union, there is no general compulsory product liability insurance (with the exception for pharmaceutical products) and recourse of such form of insurance does not seem to be widespread[827]. Product liability insurance is also not compulsory in China[828].

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[823] *See* Ulrich Magnus, "Product Liability in Germany", p.271; Ina Ebert, "Tort law and insurance", p.149.

[824] *See* Ina Ebert, "Tort law and insurance", p.147; Peter M. Stevens, "Alternative Ways to Reduce Exposure to Liability Risks", in Martin Kurer, Stefano Codoni, Klaus Gunter, Jorges Santiago Neves, Lawrence Teh (eds.): *The Warranties and Disclaimers: Limitations of Liability in Consumer-Related Transactions*, Kluwer Law International, 2002, pp.42-43.

[825] *See* Ina Ebert, "Tort law and insurance", p.145.

[826] *See* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", p.832.

[827] *See* Peter M. Stevens, "Alternative Ways to Reduce Exposure to Liability Risks", p.42.

[828] However, under recently enacted Vaccine Administration Law of 2019, China will adopt compulsory liability insurance for vaccines products caused harm (Article 29). The law is not yet effective until 1 December 2019. Besides, since 2014, Chinese government tries to conduct experiments of installing compulsory food product liability insurance in a few cities, yet very few producers are willing to buy the insurance unless they are forced by local government. For more details, *see* Notice of the General Office of the State Council on Work Arrangement of Food Safety in 2014 (2014); Guiding Opinion of Food Safety Committee of the State Council, State Food and Drug Administration and China Insurance Regulatory Commission on Experimenting Food Safety Liability insurance (2015). *See* Chen Ling

Similarly to what happens in Europe, most Chinese producers generally do not buy product liability insurance, except for big companies depending upon exports[829].

Since in the European Union and China there are not many product liability claims against the producers, the risk of legal liability is relatively to be low, as insurance premiums are. It is therefore hard to expect most producers to have strong motives to insuring against product safety risk[830]. It is even harder to imagine that components producers or raw materials suppliers will have an interest in buying liability insurance, considering that, in the E.U. and in China, but also in the U.S., victims rarely bring lawsuits against them (as it is shown in the second chapter). Taking the side of the insurance companies, because liability insurance premiums are generally based on "an estimate of the likely number and size of claims, plus the administrative costs of selling insurance, collecting premiums and processing claims, plus an allowance for the insurer's profit; on the other side, allowance is made for income which the insurer expects to earn an investment"[831], the insurance premiums are likely to be lower for the supplier of raw materials or components, as a result of low volume of lawsuits, and also the need for the insurer to cover his costs and risks.

A special case is that of motor accident insurance. Motor accident insurance can be a type of first-party insurance, but can also take the form of a third-party compulsory automobile insurance as to

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(陈玲), "Study on the Problems of Chinese Product Liability Insurance Practice" (我国产品责任保险实践中的相关问题研究), 7 *Shanghai Insurance (上海保险)* 7 (2015), pp.9-10.

[829] *See* Liu Bin (刘彬), "The Protective Function of Product Liability Insurance in China Product Quality System and its Development Strategy" (试论产品责任保险在我国质量体系建设中的保障作用及发展对策), 2 *China Insurance (中国保险)* 42 (2014), p.42 (author's translation); Chen Ling (陈玲), "Study on the Problems of Chinese Product Liability Insurance Practice" (我国产品责任保险实践中的相关问题研究), p.7 (both the authors introduce that only 6 percent of Chinese companies buying product liability insurance. And most of these companies are either big Chinese companies, or foreign-controlled companies, or Chinese companies that rely on exports. Middle-sized and small companies generally do not buy product liability insurance) (author's translation).

[830] *See* Ina Ebert, "Tort law and insurance", pp.145-148; Chen Ling (陈玲), "Study on the Problems of Chinese Product Liability Insurance Practice" (我国产品责任保险实践中的相关问题研究), p.7.

[831] *See* Peter Cane, *Atiyah's Accidents, Compensation and the Law*, p.239.

against the risk of liability for road-traffic accidents[832]. The difficulty to characterize motor accident insurance as a mere first-party insurance lies in the fact that "the levy paid by the owner or driver cover themselves and any other person in the automobile or pedestrian or cyclist injured by it"[833]. For example, a person may have a comprehensive insurance on a car that covers both against the risk of incurring legal liability and against the risk of any damage to the car arising from the events specified in the policy[834].

In the case of a pedestrian injured by an automobile accident, the motor accident insurance functions like a liability insurance. It is clear that in situations that involve harm caused by automobile components to the driver himself or to other persons, the higher coverage the motor accident insurance has, the less probable is that the victim (either the driver or the injured third party) will claim against the supplier of components or raw materials.

Since motor accidents insurance is nowadays mandatory in many parts of the world, as a way to insure against the risk of harm suffered by a person other than the driver or the owner who bought the insurance himself[835], the following part will overview more in detail the impact of compulsory liability insurance for motor accidents on product liability.

As said above, motor accidents insurance is compulsory almost everywhere. In the United States, the compulsory liability coverage for car drivers is very low[836]. For example, in California, the minimum auto insurance coverage is: 15,000 U.S. dollars for a single death or injury; 30,000 U.S. dollars for death or injury to more than one person; 5,000 U.S. dollars for property damage[837]. Since it is clear that such amounts provide victims with minimal amounts for compensation, the presence of compulsory auto-insurance does not reduce the litigation rate against car

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[832] *See* John F. Keeler, "The Crises of Liability Insurance" 1 *Insurance Law Journal* 182 (1988), pp.239-250

[833] *See* John F. Keeler, "Social Insurance, Disability, and Personal Injury: A Retrospective View", 44 *The University of Toronto Law Journal* 275 (1994), p.290.

[834] *See* Peter Cane, *Atiyah's Accidents, Compensation and the Law*, p.234.

[835] *See* Gerhard Wagner, "Comparative Tort Law", p.1023.

[836] *See* Ina Ebert, "Tort law and insurance", in Mauro Bussani and Anthony J. Sebok (eds.): *Comparative Tort Law: Global Perspectives*, Edward Elgar Publishing, 2015, p.145.

[837] *See California Driver Handbook* 2019, at p.108, accessible at the official site of State of California Department of Motor Vehicles (https://www.dmv.ca.gov/web/eng_pdf/dl600.pdf).

manufacturers, that is actually high. Moreover, one should consider that most American states do not allow the victims a direct right of action against the defendant's motor accident insurance[838].

In the European Union, liability insurance has become compulsory in the area of road traffic accidents since 1970s[839]. The Directive 2009/103/EC of The European Parliament and the Council of 16 September 2009 relating to insurance against civil liability in respect of the use of motor vehicles (hereinafter, "the Directive 2009/103/EC") grants a direct right of action to the injured party against the insurance[840]. Besides, compared to previous Directives[841], the insurance coverage for car drivers under the Directive 2009/103/EC has become higher, as the minimum amount of coverage in the case of personal injury is 1,000,000 EUR per victim or 5,000, 000 EUR per claim irrespective of the number of victims, while 1,000,000 EUR per claim in the case of damage to property, regardless of the number of victims[842]. One should add that, under the Directive, the insurance cover liability for "personal injuries and damage to property suffered by pedestrians,

[838] *See* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", pp.830-831 (the author opines that there are only a small minority of American States allow direct actions against the insurer).

[839] In the European Union, liability insurance became compulsory in the area of road traffic accidents since the Directive 72/166 of 24 April 1972. Subsequent Directives 84/5 of 30 December 1983, and 90/232/ 14 May 1990 defined the form of losses and drivers covered, as well as the insurance coverage. *See* Franz Werro, Vernon Valentine Palmer and Anne-Catherine Hahn, "Strict Liability in European Tort Law: An Introduction", in Franz Werro and Vernon Valentine Palmer (eds.): *The Boundaries of Strict Liability in European Tort Law*, Carolina Academic Press, Stämpfli Publishers Ltd, Bruylant, 2004, p.25, fn.71. Later, the Directive 2005/14/EC amended the Council Directives 72/166/EEC, 84/5/EEC, 88/357/EEC and 90/232/EEC and Directive 2000/26/EC relating to insurance against civil liability in respect of the use of motor vehicles. The Directive 2005/14/EC was repealed by the Directive 2009/103/EC.

[840] *See* recital 36 of Directive 2009/103/EC (providing that "[t]he existence of a direct right of action for the injured party against the insurance undertaking is a logical supplement to the appointment of such representatives and moreover improves the legal position of parties injured as a result of motor vehicle accidents occurring outside their Member State of residence").

[841] For example, Article 1 (2) of the Directive 84/5 of 30 December 1983 sets the minimum insurance coverage for personal injury at 350000 ECU per victim. Where more than one victim is involved in a single claim, this amount shall be multiplied by the number of victims. In the case of damage to property, the coverage is 100.000 ECU per claim, regardless of the number of victims. Article 1 of the Directive 2005/14/EC first raised up the minimum coverage, and was maintained by the later Directive 2009/103/EC.

[842] Article 9 (1) of the Directive 2009/103/EC.

cyclists and other non-motorized users of the roads who, as a consequence of an accident in which a motor vehicle is involved, are entitled to compensation in accordance with national civil law"[843]. The higher insurance coverage of motor accident insurance might be a cause for the fact that there are very few product liability claims against car manufacturers in Europe[844].

In China, the compulsory motor insurance is required by the Road Traffic Safety Law of 2003[845]. However, it is the State Council's Regulation on Compulsory Auto Liability Insurance of 2019 (hereinafter, "Regulation on Compulsory Auto Insurance of 2019")[846] that provides concrete rules upon the operation of motor accident insurance scheme. Under the regulation, the insurance covers liability for personal injuries or property losses to the third party, rather than the driver or the vehicle owner[847]. Generally, the compulsory motor accident insurance coverage for liability in China is around 110,000 CNY (approximately 15.338 U.S. dollars) for death and bodily injuries, 10,000 CNY (approximately 1.399 U.S. dollars) for medical fees, and 2000 CNY (approximately 280 U.S. dollars) for property damage[848]. Moreover, the Regulation does not grant the third-party victim a direct action against the insurance[849], but allows the insurer to pay either the victim or the

[843] Article 12 (3) of the Directive 2009/103/EC.

[844] *See* Mathias Reimann, "Product Liability", in Mauro Bussani and Anthony J. Sebok (eds.): *Comparative Tort Law: Global Perspectives*, Edward Elgar Publishing, 2015, p.260 (the author opines that in most of Western Europe, product liability remains a minor field which generates fewer cases, and more modest wards, and rarely makes it into newspaper headlines as like the U.S.).

[845] The law was amended in 2005 and in 2011. Article 17 of Road Traffic Safety Law of 2003 (currently Article 17 of Road Traffic Safety Law of 2011) provides that, "[t]he State applies a compulsory third party liability insurance system to motor vehicles, and establishes social assistance funds for road traffic accidents. The specific measures shall be formulated by the State Council".

[846] The State Council Regulation on Compulsory Auto Insurance was first issued in 2006. By far, it has been revised three times: first in 2012, then in 2016, and the recent one in 2019.

[847] Article 21 of the Regulation on Compulsory Auto Insurance of 2019.

[848] The calculation is based on current currency exchange rates between Chinese Yuan (CNY) and U.S. dollars. Data sourced from Sinosafe Insurance Company (https://www.sinosafe.com.cn/shop/khfw/bxbk/), applied to compulsory auto insurance after 2008.

[849] *See* Article 28 of the Regulation on Compulsory Auto Insurance of 2019 which provides that, "[i]f the insured vehicle is involved in traffic accident, the insured person can claim compensation from the insurance company".

"insured person" [850]. Many commentators observe the motor accident insurance has less attractiveness for the third-party victims to give up claims for compensation in general. The reasons are that the coverage is not only too low, and insurance companies often apply the coverage limits for each item to pay the victim[851]. Instead, for personal injury, under the official tort law, the injurer has to pay medical fees, nursing fees, emotional damage, income loss, transportation expense, as well as compensation for disability (for a period of 20 years from the day certified the grade of injury), and other compensations[852]. As to defective automobile products incurred traffic accidents harm in China, there is hardly any data telling the correlation between the existence of insurance coverage and the third-party victim's choice in real practice.

All the above notwithstanding, it should be kept in mind that – no matter how well-developed and generous the insurance system is – many cases do not reach insurance companies, as experiences of perceived injuries may not transform into grievances, and that, even if these experiences are transformed into disputes, the victim may choose to lump his claims. Further, even when the victims claim to the insurers, they are often prone, especially when badly-injured, to accept whatever settlement insurers might propose to them[853].

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[850] See Article 31 of the Regulation on Compulsory Auto Insurance of 2019 which allows the insurance companies to choose, and Article 42 of the Regulation on Compulsory Auto Insurance of 2019 which defines the insured person as the insurance holder or the driver permitted by the insurance holder.

[851] *See* Yang Lixin (杨立新), "The Basic Legislative and Judicial Situation of Road Traffic Accident Liability in Mainland China" (中国大陆地区道路交通事故责任立法司法的基本状况及评价), 26 *Henan Social Sciences* (河南社会科学) 63 (2018), p.69; Dong Xue (董雪) and Feng Yuchen(冯钰宸), "Reflections Upon Current Compulsory Motor Insurance Coverage Limit" (关于现行交强险赔偿限额的思考), 2 *Shanghai Insurance (上海保险)* 48 (2018), pp.48-50.

[852] *See* Interpretation of the Supreme People's Court on Certain Issues Concerning the Application of Law in Trying Cases Involving Compensation for Personal Damage 2003.

[853] *See* Sheldon E. Baskin, "Insurance Company Interference in Personal Injury Law Practice", 10 *Cleveland Marshall L.aw Review* 42 (1961), p.47 (the author opines that "generally, insurance companies are privileged in their attempts at direct settlement with the injured party, even if they know of his retention of counsel"); Peter Cane, *Atiyah's Accidents, Compensation and the Law*, p.296 (opining that insurers usually do not provide full compensation. They

5. Defective Products Recall

Recalling defective products is a method to prevent mass damages to ultimate consumers. It is a process under which the defective product is returned to the manufacturer or the seller. The manufacturer would then try to eliminate or reduce the danger of the defective product through repair or upgrade or "retrofit"[854]. For the manufacturer, recall is an expensive way to remedy the dangerous conditions of defective products after sale[855]. This section will present a brief survey of product recall in the legal systems of the U.S., the European Union, and China. It will analyze the official law that in these jurisdictions apply to product recall and investigate the practice of product recall in each of them.

In the United States, there is no duty to recall products at common law[856]. § 11 of the Restatement (Third) of Torts: Product Liability (1998) also is in line with this stance[857]. The U.S. Congress has empowered several regulatory agencies to order recalls of a variety of products[858]. One of the most

achieve such outcome by putting 'ceilings' or by requiring the insured to pay the first slice of any claim in the standard policy insurance).

[854] *See* David G. Owen, *Product Liability in a Nutshell*, p.341.

[855] *See* David G. Owen, *Product Liability in a Nutshell*, p.341.

[856] *See* David G. Owen, *Product Liability in a Nutshell*, pp.341-342; Michael D. Green and Jonathan Cardi, "Product Liability in United States of America", p.613. There are court decisions affirming the general duty for manufacturers to recall defective products, and repair the hazardous condition of products after sale, but the majority of court decisions on the issue hold that administrative regulatory agencies are better suited than the court to forge the onerous duty for the manufacturer to recall the products. For court decisions affirming the duty to recall, *see Namovicz v. Cooper Tire & Rubber Co*., 225 F.Supp.2d 582 (D.Md.2001); *In re Bridgestone /Firestone, Inc. Tires Products Liability Litigation*., 153 F. Supp.2d 935 (S.D.Ind.2001). For court decisions reject the duty to recall, *see Hendricks v. Ford Motor Co.*, 2012 WL 7956426 (E.D. Tex. 2012); *Adams v. Genie Indus.*, 929 N.E.2d 380 (N.Y. 2010); *Ostendorf v. Clark Equip. Co*., 122 S.W.3d 530 (Ky. 2003).

[857] *See* § 11 of the Products Liability Restatement of 1998 (no duty to recall; liability only for violating agency recall orders or for negligently performing a recall that is voluntarily undertaken).

[858] For a list of Federal agencies that have authority over product recalls, *see* Anita Bernstein, "Voluntary Recalls", *University of Chicago Legal Forum* 359 (2013), p.360, fn.6.

important cases of agencies having the power to order recalls concerns automobile products that have safety-related defects, or do not meet federal standards of safety. Under such circumstances, the National Highway Traffic Safety Administration (NHTSA) can order the recalls of these automobiles[859]. A violation of a recall order will give rise to liability. In the case that an automobile manufacturer voluntarily tries to recall his products from the market, the recall should still be carred out under the control of the NHTSA[860]. As to the effects of recalls upon victims' claims that were already filed and entered into formal court adjudications, some U.S. court decisions have shown a possibility that recalls could be a reason for the courts to dismiss individual claims that have been already filed before the courts[861]. In general, manufacturers do have a post-sale duty to

[859] Under the National Traffic and Motor Vehicle Safety Act, the NHTSA is the sole federal authority that can carry out motor vehicle programs for reducing deaths, injuries, and economic losses resulting from motor vehicle crashes by: "(1) setting and enforcing safety performance standards for motor vehicles and motor vehicle equipment; (2) investigating safety-related defects in motor vehicles and, where appropriate, issuing recall orders; (3) enforcing fuel economy standards; (4) overseeing grants to state and local governments so as to conduct local highway safety programs; and (5) conducting research on driver behavior and traffic safety in order to develop the most efficient and effective safety improvements", *see* Kevin M. McDonald, "Judicial Review of NHTSA-Ordered Recalls", 47 *Wayne Law Review* 1301 (2001), p.1307.

[860] *See Namovicz v. Cooper Tire & Rubber Co*., 225 F.Supp.2d 582 (D.Md.2001), at 585 (the decision states that the manufacturer must comply with the requirements in sections 30118-30120 [of the Vehicle Safety Act], and the recall "is remain under the jurisdiction and control of the NHTSA").

[861] *See Winzler v Toyota Motor Sales USA, Inc*, 681 F3d 1208 (10th Cir 2012) (applying Utah tort law) (the plaintiff, an owner of a 2006 Corolla, had reason to think that the car had a propensity to stall without warning. She asked for an order to requiring Toyota to notify all relevant owners of defects and create and coordinate an equitable fund for reparation. The district court dismissed her complaint for she failed to state a claim. Winzler appealed, and Toyota announced a recall of the model in question, under the auspices of the NHTSA. The 7th circuit held that the recall rendered Winzler's complaint moot and dismissed it.); *In the matter of Aqua Dots Products Liability Litigation*, 654 F3d 748 (7th Cir. 2011) (a class of plaintiffs who bought a toy deemed defective and were dissatisfied with the measures provided by the manufacturer, including a cash refund, sought an additional refund and a punitive damages award by pursuing a tort law claim against the manufacturer, in spite of the fact that no plaintiffs suffered personal injuries. The trial court refused to certify the class on the ground that product recall is superior to a class action, because it gives these customers refunds while sparing them the need of paying of attorney fees. Judge Frank Easterbook who wrote for the 7th circuit, approved the trial court's decision, but not its reasoning. According to Judge Frank Easterbook, the superiority criterion for class certification authorizes judges to compare only one form of adjudication to another- *a*

warn when they discover information about the dangers in the product that was not reasonably known at the time of sale in the U.S.[862]. In fact, American courts have interpreted recalls as a kind of a warning, in the sense that, when manufacturers know about a defect, they should provide relevant safety information about products to consumers and the public[863]. In practice, recalls are not very common. Exceptions (such as the well-known recall of Toyota Corolla for a braking defect in 2009) usually happen under the guidance and the supervision of regulatory authorities.

In the European Union, Article 2 (g) of the Directive 2001/95/EC (hereinafter "General Product Safety Directive") defines "recall" as "any measure aimed at achieving the return of a dangerous product that has already been supplied or made available to consumers by the producer or distributor"[864]. The distributor is defined as any professional in the supply chain, even if his activity does not affect the safety properties of the product[865]. Moreover, with regard to any dangerous products on the market, the Directive provides national authorities with powers "to order or organize [the product's] actual and immediate withdrawal, and alert consumers to the risks it presents"[866], and also "to order or coordinate or, if appropriate, to organize together with producers and distributors its recall from consumers and its destruction in suitable conditions"[867]. The General Product Safety Directive was integrated into the national laws of Member States. In the United Kingdom, the General Product Safety Directive is transposed into the national law of United Kingdom as the General Product Safety Regulations. Besides, although the Consumer Protection Act of 1987 does not provide any stipulation that a producer shall be liable for damages caused to consumers for the reason that he failed to recall a dangerous product, it is still probable

*single suit v. multiple suits*, and because a recall is not adjudication, it cannot be compared to class certification.). For a detailed analysis of these cases, *see* Anita Bernstein, "Voluntary Recalls", pp.369-373.

[862] *See* Michael D. Green and Jonathan Cardi, "Product Liability in United States of America", p.614; *Comstock v. General Motors Corporation*, 358 Mich. 163 (Mich. 1959) (post-sale duty to warn consumers of hazardous products after the product left the manufacturer's control).

[863] *See* Anita Bernstein, "Voluntary Recalls", p.373.

[864] *See* Article 2 (g) of the General Product Safety Directive.

[865] See Article 2 (f) of the General Product Safety Directive.

[866] *See* Article 8 (1) (f) (i) of the General Product Safety Directive.

[867] *See* Article 8 (1) (f) (ii) of the General Product Safety Directive.

that a common law duty of care may arise in appropriate circumstances[868]. In Italy and France, the General Product Safety Directive is strictly followed by their national consumer codes, which provide that the regulatory bodies can require the producer to withdraw from market any product not complying with safety standards, and conduct recall of products from consumers[869]. In Germany, the General Product Safety Directive is transposed into national law by the Product Safety Act (*ProdSG*), which regulates product recalls. In addition, the German Federal Supreme Court has developed a duty for the to actively observe how the products 'behave' on the market, and, if they are inherently dangerous, the producer must warn users and, if they pose a danger of severe life and limb injury, must recall the products[870]. The result of such regulatory framework is that products are often recalled before any damage can take place – and this might be an additional reason explaining the relatively low rate of litigation about products liability in the E.U.

In China, Article 46 of Tort Liability Law provides post-sale warning, and recall requirements for the producer and the seller, as a remedy for the dangerous conditions of defective products [871]. In

[868] *See* Ken Oliphant and Vanessa Wilcox, "Product Liability in England and Wales", p.200 (the author cited a Canadian Supreme Court decision, *Rivotw Marine Ltd v. Washington Iron Works*, [1974] SCR 1189, to show that the duty of care may exist, and a breach of that duty may give rise to liability).

[869] In Italy, *See* Giovanni Comandé, "Product Liability in Italy", p.307; and Article 107 (2) (f) of the Italian Consumer Code. In France, specific criteria for product recall is provided in Article L 422-2 (3) of the French Consumer Code. For more details upon product recall in France, *see* Florian Endrös and Muriel Mazaud, "France", in Alison Newstead and Harley V Ratliff Shook, Hardy & Bacon LLP (eds.): *Product Recall 2017*, Law Business Research Ltd, 2016.

[870] *See* Ulrich Magnus, "Product Liability in Germany", p.271 (the author cited the German Federal Supreme Court case BGHZ 179, 157.).

[871] *See* Article 46 of Tort Liability Law provides that: "[i]f a defect is found in a product after it has been put into circulation, the manufacturer and the seller shall take remedial measures in a timely manner including, inter alia, alerts and recalls. In the event of damage arising from a failure to take remedial measures in a timely manner or inadequate remedial measures, they shall bear tort liability". Article 981 of the 3rd draft of the Tort Book of the Chinese Civil Code (September 2019) continues this requirement upon the seller and the producer. *See* Article 981, para.1 provides that, "[i]f a defect is discovered after the product has been put in circulation, its manufacturer and seller shall take timely remedial measures, such as stopping selling, providing warning, recalling [the product] etc. If the damage is expanded since the manufacturer or the seller fail to take timely remedial measures or the remedial measures taken by them are inadequate, they shall bear tort liability for the extended damage". But Article 981 does add something new. Article 981, para.2 requires the manufacturer or seller to reimburse the victim's expenses. The paragraph provides

real practice, product recall procedures, as well as the definition and scope of "recall", are determined by regulations rather than by Tort Liability Law. Yet, there is no general regulation on product recall, except for a few scattered regulations applying to specific products[872]. In fact, for the recall of food, drug, medical equipment, and auto products, it is usually the manufacturer of finished products who has to recall dangerous products[873]; for the recall of children's toys, it is both the manufacturer and the seller who have the duty to recall them[874].

In real practice, regardless of whether a defective product recall is mandatorily or voluntarily enforced[875], its effectiveness also depends on the consumers' awareness of the existence of recalls and consumers' willingness to react to them. According to the final report of the European Commission's Survey on Consumer Behavior and Products Effectiveness, over a third of the E.U.

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that, "The manufacturer or seller who take the measure of recalling products pursuant to the preceding paragraph shall reimburse the requisite expenses sustained by victims".

[872] There are several regulations for specific products recall: the State Council's Regulation on the Administration of Recall of Defective Auto Products of 2012 (applies to the recall of autos and auto trailers which are manufactured and sold within the territory of China); Administrative Provisions on the Recall of Children's Toys of 2007, issued by the General Administration of Quality Supervision, Inspection and Quarantine(applies to children's toys); Administrative Provisions on the Recall of Food Products of 2007, issued by the General Administration of Quality Supervision, Inspection and Quarantine (applies to food);Administrative Provisions on the Recall of Pharmaceutical Products of 2007, issued by the National Food and Drug Administration (applies to pharmaceutical products).

[873] This is the case of auto products, food, drugs and also medical equipment; also *see* Li You gen (李友根), "The nature of the duty of product recall – an additional the formation of preventive duty" (论产品召回制度的法律责任属性—兼论预防性法律责任的形成), 6 *Studies in Law and Business (法商研究)* 33 (2011), p.34 (author's translation).

[874] *See* Article 3 of the Administrative Provisions on the Recall of Children's Toys of 2007; and Li You gen (李友根), "The nature of the duty of product recall – an additional the formation of preventive duty" (论产品召回制度的法律责任属性—兼论预防性法律责任的形成), p.34.

[875] One should keep in mind that voluntary recall is not free from government coercion: *see* Anita Bernstein, "Voluntary Recalls", p.397, and p.404.

consumers did not react to a recall that was relevant to them[876]. In the U.S., the Consumer Product Safety Commission(CSPC), which has been monitoring the effectiveness of recalls since 1978, found that the consumer response level to product recalls is unsatisfactory[877]. As to China, there is no available official survey upon the effectiveness of product recall in general. There is also little research upon this topic. However, in a survey about consumer perceptions of defective vehicle products recall and the effectiveness of recall, researchers found that nearly 60% of the car owners know a little bit about vehicles products recall, and among those car owners who experienced recalls, nearly half of them have an average satisfaction with the recall experiences, although 13 percent of them worried that the replacement vehicles they received may have more problems than the recalled ones[878].

In all the legal systems herein studied, it appears that the product recall shall be, and actually is, carried out primarily by the manufacturers of the final products. In none of the jurisdictions examined there are cases providing the duty to recall products for the producer of components or raw materials – as there are very few cases against the producer of the final products. Yet, one should emphasize that in many countries regulatory agencies are in charge with ordering recall of defective products, and that the effectiveness of recall also depends on the consumer response level, as well as their satisfaction degree with product recall experiences.

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[876] *See* the Final Report of European Commission's Survey on Consumer Behavior and Products Effectiveness (2019) (http://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/tips/Product.Recall.pdf), p.20.

[877] *See* Anita Bernstein, "Voluntary Recalls", p.391 (the author cites a report prepared for the CPSC in 2003 which summarized recall effectiveness findings through the late 1990s.); for the report, *see* Heiden Associates and XL Associates, *Recall Effectiveness Research: A Review and Summery of The Literature on Consumer Motivation and Behavior*(July 2003) (https://www.cpsc.gov/PageFiles/101932/recalleffectiveness.pdf), pp.24-27.

[878] *See* Sun Luping (孙鲁平) and Du Xiaomeng (杜晓梦), "Investigations on Consumer Perceptions of Defective Vehicle Products Recall and Recall Effectiveness" (消费者对缺陷汽车召回的认知及召回效果调查), 12 *Standard Science (标准科学)* 59 (2015), pp.60-61.

## 6. Civil Procedure

Apart from factors affecting the emergence of tort law claims, there are many features associated with the tort law process that might have an impact in the number and size of compensation claims addressed to courts.

This section will briefly introduce the procedural devices that might matter the most for product liability claims against the supplier of components or raw materials. There is little doubt that procedural features might influence the application and effects of tort law remedies. For example, when many consumers suffer harm because of the same defective components or raw materials, single victims often do not have enough incentives to file a lawsuit themselves. In these situations, it is clear that the availability of class actions would leave an imprint on the application and effects tort law remedies[879]. The fact that only a limited number of potential product liability claims usually arrive before the courts does not mean the procedural features of official adjudication are irrelevant[880] – quite the contrary, it might well be that the low rate of product liability claims is actually due to these procedural features. In fact, tort law rules are "shaped by the structure and procedure of legal process by which they are implemented"[881]. Like substantive rules and standards of positive tort law, procedural devices "work as a backdrop upon which parties, insurers, and lawyers may rely when bargaining outside the dispute resolution systems, or straightforwardly

[879] See Mauro Bussani, Marta Infantino and Franz Werro, "The Common Core Sound: Short Notes on Themes, Harmonies and Disharmonies in European Tort Law", 20 *King's Law Journal* 239 (2009), p.253 (the authors mention the case of environmental pollution which involves a majority group within a pollution, it is clear that the availability of a collective legal action for redress would impinge on the concrete application of tort law rules, since individual victims do not always have sufficient incentives to file such an action on their own).

[880] *See* Mauro Bussani and Marta Infantino, "Tort Law and Legal Cultures", pp.89-90, and p.97.

[881] *See* Mauro Bussani, Marta Infantino and Franz Werro, "The Common Core Sound: Short Notes on Themes, Harmonies and Disharmonies in European Tort Law", p.253.

in the shadow of law"[882]. Thus, the positive tort law also matters "in conflicts that never arrive at the litigation stage, influencing actor's behaviors and expectations throughout society"[883].

Product liability claims against the supplier of components or raw materials, as shown in previous chapters, might involve many victims, raise complex evidentiary and technical issues, and require substantial funding for litigation[884]. This section would refer to the following aspects in product liability claims: (1) the existence of jury system; (2) evidence gathering; (3) the presence of collective actions.

To begin with the existence of jury system, juries play a significant role in the United States, while they are often absent in European and Chinese tort law adjudication[885]. In the U.S., juries are charged, under the judge's instruction, with determining facts, setting forth standards of conduct, and assessing damage[886]. The presence of jurors in tort law trials affects not only the size of trial awards, but also the U.S. lawyers' litigation strategies and styles which are adapted to reach the laypersons as well as judges[887]. In the U.S., juries are a great attraction for plaintiffs. However, there is no evidence proving that jurors are biased against the manufacturers as to be in the victim's

[882] *See* Mauro Bussani and Marta Infantino, "Tort Law and Legal Cultures", p.89.

[883] *See* Mauro Bussani and Marta Infantino, "Tort Law and Legal Cultures", pp.89-90; Mauro Bussani, *Il diritto dell'Occidente: Geopolitica delle regole globali*, pp.144-146; Richard E. Miller and Austin Sarat, "Grievances, Claims and Disputes: Assessing the Adversary Culture", 15 *Law & Society Review* 525 (1980-1981), p.529, and p.531.

[884] *See* Marta Infantino and Weiwei Wang, "Algorithmic Torts: A Prospective Comparative Overview", 29 *Transnational Law & Contemporary Problems* 280 (2019) (forthcoming), p.313.

[885] *See* Ulrich Magnus, "Why is US Tort Law So Different?", 1 *Journal of European Tort Law* 102 (2010) p.111. There is a right to jury trial in Scotland, but it is rarely exercised, *see* Mathias Reimann "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", p.813. In China, juries are employed only in criminal, civil, and administrative cases of significant social impact, *see* Articles 15 and Article 16 of the Law on Juries of 2018.

[886] *See* Stephen Landsman, "The Civil Jury in America", 62 *Law & Contemporary Problems* 285 (1999), pp.288-290; Michael D. Green, "The Impact of the Civil Jury on American Tort Law", 38 *Pepperdine Law Review* 337 (2011), pp.345-348.

[887] *See* Michael D. Green, "The Impact of the Civil Jury on American Tort Law", pp.356–357; Marta Infantino and Weiwei Wang, "Algorithmic Torts: A Prospective Comparative Overview", p.311.

favor[888]. On the contrary, in American jury trails, plaintiffs lose more often than they win[889]. In the European Union and China, the absence of jury system might reduce plaintiffs' expectations of trial awards of extraordinarily high damages, but it also ensures that technical issues, especially those related to the interpretation of the law and to the evaluation of scientific evidence, remain completely in the hand of professional judges, therefore increasing the overall predictability of the system[890].

Second, rules on evidence gathering are key to the success of a product liability claim, as the latter usually involves new technologies, and productional methods. In the U.S., pre-trial discovery is an expensive and powerful procedural mechanism which allows a party to request the opponent party to present all the documents in his possession that are thought to be relevant for the case, while such does not exist neither in Europe nor in China. To obtain documents from the other party, the plaintiff in European or Chinese court has to persuade the judge to order their disclosure[891].

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[888] *See* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", p.814.

[889] *See* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", p.814.

[890] *See* Thomas Kadner Graziano, *Comparative Tort Law: Cases, Materials, and Exercises*, Routledge, 2018, pp.548-549; Joseph Sanders, "The Merits of the Paternalistic Justification for Restrictions on the Admissibility of Expert Evidence", 33 *Setton Hall Law Review* 881 (2002), pp.881-941.

[891] As far as the European Union is concerned, *see* Ulrich Magnus, "Why is US Tort Law So Different?", at p.117. As to China, Chinese procedural law traditionally does not know the notion of 'discovery'. The Supreme Court's Interpretation on Certain Provisions on Civil Litigation Evidence (2001), introduced a limited 'discovery' as a preliminary procedure before a formal court trial. This judicial initiative has now been included in the revised version Art. 133 of Chinese Civil Procedure Law, which requires that parties shall, before the court opens its formal session, undertake a process of exchange of evidence so as to clarify the focal points of the dispute. For more introduction Chinese Pre-trial procedure, *see* Qi Shujie (齐树洁), "On Pre-trial Procedure System in China's Civil Law Practice" (构建我国民事审前程序的思考), 1 *Journal of Xiamen University (Philosophy & Social Sciences) (厦门大学学报（哲学社会科学版）)* 59 (2003), p.64 (author's translation); Tang Weijian (汤维建), "The Establishment and Perfection of the Evidence Exchange System in Civil Litigation" (民事诉讼中的证据交换制度的确立和完善), 1 *Legal Science (Journal of Northwestern University of Political Sciences and Law)(法律科学(西北政法学院学报))* 74 (2004), pp.74-80 (author's translation).

Since product liability litigations often involve complex technical evidence, the potential plaintiff, both in the European Union and China, may not resort to pre-trial discovery, but has to rely on the court's power to gather documents, and to appoint an expert who can aid the court to solve the technical difficulties existed in litigation[892].

Given the fact that product liability cases are likely to imply some forms of expert evidence, it is necessary to add a point relates to experts. In the U.S., experts are hired, and paid by the parties. Accordingly, they are partisan. While in the European Union as well as in China, experts are selected, and commissioned by the court, and they act as neutral advisors to the court[893]. This implies that expert evidence in the U.S. often is not only expensive[894], but also less reliable as experts are partisan[895]. Comparably, Europe and Chinese procedural rules seem to be keener than U.S. ones in promoting cost-containment[896].

Last, as anticipated, it is important to consider the availability of collective actions. The presence of class actions, allowing the combination of multiple claims, is another well-known feature of U.S. civil procedure[897]. Since consumer goods are usually supplied through a massive form in

[892] *See* Marta Infantino and Weiwei Wang, "Algorithmic Torts: A Prospective Comparative Overview", p.312; Thomas Kadner Graziano, *Comparative Tort Law: Cases, Materials, and Exercises*, Routledge, 2018, pp.548-549 and p.551.

[893] *See* Marta Infantino and Weiwei Wang, "Algorithmic Torts: A Prospective Comparative Overview", p.313; Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", pp.826-827; Thomas Kadner Graziano, *Comparative Tort Law: Cases, Materials, and Exercises*, p.550.

[894] For more detailed introduction on the highly cost of expert witnesses, *see* Gregory J. Myers, "When the Small Business Litigant Cannot Afford to Lose (or Win): Litigation Consequences for Small Businesses, Strategies for Managing Costs, and Recommendations for Courts and Policymakers", 39 *William Mitchell Law Review* 140 (2012), p.141, and p.147 (the author introduces that having an expert witness can add tens of thousands of dollars for litigation costs and fees).

[895] *See* Thomas Kadner Graziano, *Comparative Tort Law: Cases, Materials, and Exercises*, Routledge, 2018, p.551; Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", pp.826-827.

[896] *See* Marta Infantino and Weiwei Wang, "Algorithmic Torts: A Prospective Comparative Overview", p.313.

[897] *See* Christopher J. Maley, "Toxic Torts: Class Actions in the United States and England", 19 *Suffolk Transnational Law Review* 523 (1996), p.523, and pp.524-526; Eva Lein, "Class Actions *à l'Européenne* – Competition for U.S. Mass Litigation", in Andrea Bonomi and Krista Nadakavukaren Schefer (eds.): *US Litigation Today: Still a Threat For European Business or Just a Paper Tiger*, Schulthess Éditions Romandes, 2018, pp.139-140.

industrial society, many of the crucial issues for product liability lawsuits, including the test of defectiveness, and the causation, are generally identical. Therefore, aggregating these claims in a single class action, could be one way of providing affordable access to the legal system[898] and would allow the plaintiffs to minimize their costs and risks of litigation[899]. In the European Union and China, product liability class actions are traditionally unknown[900], although in both regions there is a clear trend to overcome the traditional reluctance to combine litigation and to favor the transplant of U.S. like collective actions devices[901]. In recent years, the number of collective actions has constantly risen in China[902]; it is harder to state that the transplanting attempt has been successful in the European Union[903].

When it comes to product liability litigation, in the absence of adequate collective redress in the European Union and China, mass claims cannot be dealt satisfactorily by traditional civil procedures rules in both regions[904]. Nevertheless, even in the absence or limited workability of class actions devices, victims of mass torts in the European Union and in China can always rely

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[898] See Joachim Zekoll, "Comparative Civil Procedure", in Mathias Reimann and Reinhard Zimmermann (eds.): *The Oxford Handbook of Comparative Law*, Oxford University Press, 2019, p.1334.

[899] *See* Marta Infantino and Weiwei Wang, "Algorithmic Torts: A Prospective Comparative Overview", p.313; Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", p.819.

[900] *See* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", pp.819-820; Joachim Zekoll, "Comparative Civil Procedure", p.1334; Benjamin L. Liebman, "Class Action Litigation in China", 111 *Harvard Law Review* 1523 (1998), pp.1523-1541.

[901] *See* Joachim Zekoll, "Comparative Civil Procedure", p.1334. For a general survey of collective actions in a multitude of legal systems included the legal systems in the European Union, and China in 2003, *see* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", pp.819-822. For a more recent account in the European Union, *see* Tiena Leia Russel, "Exporting Class Actions to the European Union", 28 *Boston University International Law Journal* 141 (2010), pp.168-178; *see* also the European Union Council Directive 2014/104/EU, 2014 (L 349/1) on Antitrust Damages Actions; Law of the People's Republic of China on the Protection of Consumer Rights and Interests of 2014.

[902] *See* Fan Yu (范愉), "Tort Law and Improvement of Mass Lawsuit System" (《侵权责任法》与群体性诉讼制度的完善), 31 *Hebei Academic Journal (河北学刊)* 133 (2011), p.134.

[903] *See* Joachim Zekoll, "Comparative Civil Procedure", pp.1335-1337.

[904] *See* Eva Lein, "Class Actions *à l'Européenne* – Competition for U.S. Mass Litigation", pp.142-143.

upon the pervasive interventionism of public law agencies and administrative bodies to seek for remedies[905]. By contrast, class actions in the U.S. system can be quite expensive and difficult to file, as the next paragraph is going to explore[906].

7. Litigation Costs and Litigation Funding

This section discusses the rules on litigation costs and possibilities for litigation funding. The questions that who would bear the costs of litigation and how to fund the litigation are essential for the potential plaintiff's choice to litigate or not.

As is well-known, in the U.S. and China, litigation parties in a (product) liability dispute are responsible for their own lawyer's fees, regardless of who wins[907]. In principle, this would imply that plaintiffs bear a considerable cost even when they win the case. But this cost can be avoided through contingency fees arrangements between the plaintiff and his lawyer both in the U.S. and in China.

In the U.S., contingency fees have been a well-rooted feature of the American legal process since the mid-nineteenth century[908]. Generally speaking, personal injury lawyers often work on a contingency fee agreement basis[909]. The agreement allows lawyers to take a lawsuit that free of charge. If they win the lawsuit, they can then keep for themselves around one-third of the rewards

[905] *See* Benjamin L. Liebman, "Class Action Litigation in China", p.1523; Ulrich Magnus, "Why is US Tort Law So Different?", p.118, and p.123.

[906] See Eva Lein, "Class Actions *à l'Européenne* – Competition for U.S. Mass Litigation", p.141.

[907] *See* Michael D. Green and Jonathan Cardi, "Product Liability in United States of America", p.612; *Alyeska Pipeline Serv. Co. v. Wilderness Soc'y*, 412 U.S. 240 (1975), at 247; for China, *see* Deng Tianjiang (邓天江), "Insufficiency and Improvement of Rules related to Lawyer's Fee" (律师收费制度的不足与完善), 4 *Chinese Lawyer(中国律师)* 94 (2017), pp.94-95 (author's translation).

[908] *See* Peter Karsten, "Enabling the Poor to Have Their Day in Court: The Sanctioning of Contingency Fee Contracts, A History to 1940", 47 *DePaul Law Review* 231 (1998), p.231.

[909] *See* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", p.822.

on the victim's personal injuries[910]. Yet, if they lose the lawsuit, they get nothing and bear the cost of the litigation. In this way, the contingency fee lawyer acts not only as the client's advocate but also as the banker who finances his case[911]. Correlatively, this kind of agreement forces lawyer to run the risks of litigation costs on himself alone. Contingency fee agreements thus favor litigation, especially for plaintiffs who otherwise would not have access to justice, and might even act as a sort of substitute for systems of legal aid. Yet, as commentators observed, contingency fee arrangements have two serious downsides in the U.S. First, because lawyers have to take risks of litigation, "their investment in the early stage of litigation only makes sense if they can reasonably hope to enforce any damage awards they might achieve"[912], and thus they have little incentives to bring many small or middle-sized claims that possess no prospects of high rewards to court[913]. Second, even when lawyers bring these claims to courts, compensation awards that the victims get are likely to be largely reduced after contingency fees are paid to lawyers[914].

[910] *See* James Jr. Fleming, "The Pearson Report: Its "Strategy", 42 *Modern Law Review* 249 (1979), p.257; Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", p.822.

[911] *See* Marc Galanter, "Anyone Can Fall Down a Manhole: The Contingency Fee and Its Discontents", 47 *DePaul Law Review* 457 (1998), p.475.

[912] *See* Ina Ebert, "Tort law and insurance", p.145. However, this is nothing unique to product liability litigation. Contingency fees are only one example. In general, economic incentives promote lawyer's screening of disputes worth to be picked up. For some empirical studies of lawyers' role as gatekeepers of justice, in Western contexts, see Maureen Cain, "The General Practice Lawyer and the Client: Towards a Radical Conception", 7 *International Journal of the Sociology of Law* 331 (1979), pp.331-354; Peter Karsten, "Enabling the Poor to Have Their Day in Court: The Sanctioning of Contingency Fee Contracts, A History to 1940", pp.231-260; in non-Western contexts, *see* Ethan Mitchelson, "The Practice of Law as an Obstacle to Justice: Chinese Lawyers at Work", 40 *Law & Society Review* 1 (2006), pp.1-36 (refers to labor grievances mainly).

[913] *See* Marta Infantino and Weiwei Wang, "Algorithmic Torts: A Prospective Comparative Overview", pp.314-315; Mathias Reimann, "Product Liability", in Mauro Bussani and Anthony J. Sebok (eds.): *Comparative Tort Law: Global Perspectives*, Edward Elgar Publishing, 2015, p.275.

[914] Such situation, may be resolved if the jury or judge quietly take the contingency fee into account, and raise the award accordingly. *See* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", p.822.

In China, contingency fee is a very recent legal borrowing from the U.S.[915]. Contingency fee was formally introduced into the Chinese legal system through the Notice of the National Development and Reform Commission and the Ministry of Justice on Issuing the Measures for the Administration of Lawyers' Fees of 2006 (hereinafter "the Measures for the Administration of Lawyers' Fees of 2006")[916]. Yet, the fact that contingency fee arrangements are in theory available in China does not mean that they have had a huge impact in practice. This is mostly due not only to the traditional unfamiliarity of Chinese lawyers with contingent fees agreements, but also to the circumstance that contingent fees arrangements are not allowed in collective actions, criminal and administrative proceedings, as well as in litigation for State liability[917].

The situation is different in the European Union, where the costs of legal proceedings largely follows the "loser pays" principle[918], which means that "the party losing the lawsuit (or part of it) must also bear the costs of the winning party"[919]. Further, contingency fees are not permitted or are permitted on a very narrow basis[920]. European countries, including France, Belgium, Germany, Italy, Netherlands, allow contingency fee agreements only under strict requirements, while counties like Greece and Finland are a little bit more liberal in this regard[921]. In England, a variation

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[915] *See* Xu Jiali (徐家力), "Discussion upon the Problem of Lawyer's Contingency Fees Agreement" (浅议律师风险代理收费的问题), 3 *Justice of China (中国司法)* 60 (2007), p.60 (author's translation).

[916] *See* Article 13 of the Measures for the Administration of Lawyers' Fees of 2006 (providing that contingency fee shall not exceed thirty percent of the rewards).

[917] *See* Article 12 of Measures for the Administration of Lawyer's Service Charge of 2006.

[918] *See* Ulrich Magnus, "Why is US Tort Law So Different?", p.112; Peter Cane, *Atiyah's Accidents, Compensation and the Law*, p.263; Thomas Kadner Graziano, *Comparative Tort Law: Cases, Materials, and Exercises*, p.557, fn.13 (the author holds that many continental European jurisdictions, as well as English law, provide the loser-pay principle for the costs of legal proceedings).

[919] *See* Marta Infantino and Weiwei Wang, "Algorithmic Torts: A Prospective Comparative Overview", p.315.

[920] *See* Mathias Reimann, "Cost and Fee Allocation in Civil Procedure: A Synthesis", in Mathias Reimann (ed.): *Cost and Fee Allocation in Civil Procedure: A Comparative Study*, Springer, 2012, pp.3-45; Ulrich Magnus, "Why is US Tort Law So Different?", pp.112-113.

[921] There are only a few European counties like Greece, Finland, allowing contingency fee agreements. *See* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", p.823.

of contingency fee agreement[922], which is no-win-no-fee approach, is becoming increasingly common[923]. It is known as a conditional fee agreement, which usually stipulates that, "if the claim fails, the client will pay to their lawyer nothing, except, perhaps, some out-of-pocket expenses ('disbursements'); but in the event of success, the solicitor will be entitled to remuneration calculated on a fee-for-service (typically hourly basis), plus an additional amount – called an 'uplift' or 'success' fee – calculated as a percentage of that remuneration"[924]. Under this agreement, if the lawsuit is lost, the lawyer receives nothing; if the lawsuit is won, the lawyer does not receive any part of the reward, but rather a scheduled or hourly fee[925].

In spite of the rare recourse of contingency fee agreements in China and their virtual absence in Europe, one cannot easily conclude that potential plaintiffs of product liability torts would be better off in the U.S. and China than in the European Union. When taking into account rules about access to justice in product liability litigation, one should also consider other factors, such as the availability of public legal aid, the amount of litigation costs, and other private funding of litigation by third parties[926].

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[922] Contingency fee agreement was declared illegal at common law by the decision of the Court of Appeal of England and Wales in *Awwad v. Geraghty & Co. (a firm)*, [2000] All ER 608. For case comment, *see* Neil Andrews, "Common Law Invalidity of Conditional Fee Arrangements for Litigation, "U-Turn" in the Court of Appeal", 59 *Cambridge Law Journal* 265 (2000), pp.265-267. The Conditional Fee Agreements Regulation 2000 (S.I.2000/692) introduced the contingency fee arrangement into England, but with limits upon the manner and the content of the agreement. It is known as conditional fee agreement. For more discussion, see Richard Abel, "An American Hamburger Stand in St. Paul's Cathedral: Replacing Legal Aid with Conditional Fees in English Personal Injury Litigation", 51 *DePaul Law Review* 253 (2001); Fiona Cownie, Anthony Bradney, and Mandy Burton, *English Legal System in Context*, 4th edition, Oxford University Press, 2007, p.188.

[923] *See* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", p.823.

[924] *See* Peter Cane, *Atiyah's Accidents, Compensation and the Law*, p.263.

[925] *See* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", p.823.

[926] For a comprehensive survey of these as well other factors, and evaluate their impact upon the access to justice in different legal systems, *see* Mathias Reimann (ed.): *Cost and Fee Allocation in Civil Procedure – A Comparative Study*, Springer, 2012; Christopher Hodges, Stefan Vogenauer, and Magdalena Tulibacka (eds.): *The Costs and Funding of Civil Litigation – A Comparative Perspective*, CH Beck, Hart Publishing, 2010.

As to legal aid, the public legal aid schemes are still unknown in the U.S.[927]. This does not mean that there is no legal aid in the U.S. In fact, legal aid work in the U.S. is supported the legal profession, through organizations like American Bar Association and the National Legal Aid and Defender Association[928].In China, public legal aid schemes started to exist since 2003 when the State Council enacted the Legal Aid Regulations[929]. Under the Legal Aid Regulations, natural persons who need legal representatives, but are in economic difficulty, can apply for legal aids from the State-operated legal aid institutions[930]. However, Article 10 of the Regulations limited the scope of legal aid to only a few items including state liability, social security, labor wage payment as well as family law matters (i.e. Spousal support, child support, maintenance for aged parents) but excluding product liability disputes[931]. Therefore, one can hardly observe any impact of public legal aid scheme upon product liability litigation, as victims of defective products causing harm are excluded from the aid program. The situation is more plaintiffs-friendly in Europe, where public legal aid schemes are historically well-rooted[932]. Moreover, in recent years the European Union has added an additional layer of regulation to the long existing national public aid schemes, adopting Council Directive 2002/8/EC of 27 January 2003 to improve access to justice in cross-border disputes by establishing minimum common rules relating to legal aid for such disputes (hereinafter, "Legal Aid Directive")[933].

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[927] *See* Deborah L. Rhode, *Access to Justice*, Oxford University Press, 2004, pp.145-184 (the author introduces that assistance '*pro bono publico*' is scarce in the U.S., where lawyers rarely participate in pro bono activity); Mathias Reimann, "Cost and Fee Allocation in Civil Procedure: A Synthesis", pp.36-37.

[928] *See* Frank S Bloch and Iqbal S Ishar, "Legal Aid, Public Service and Clinical Legal Education: Future Directions from India and the United States", 12 *Michigan Journal of International Law* 92 (1990), p.95.

[929] *See* Weixia Gu, "Courts in China: Judiciary in the Economic and Societal Transitions", p.504.

[930] *See* Article 10 of the Legal Aid Regulations.

[931] *See* Article 10 of the Legal Aid Regulations.

[932] *See* Mathias Reimann, "Cost and Fee Allocation in Civil Procedure: A Synthesis", pp.36-37.

[933] The Legal Aid Directive only covers legal aid in cross-border civil and commercial law disputes (Article 1 (2) of the Directive), thus including cross-border product liability disputes within the Union (according to Article 2 (1), a cross-border dispute is "one where the party applying for legal aid in the context of this Directive is domiciled or habitually resident in a Member State other than the Member State where the court is sitting or where the decision is to be enforced"). Yet, only natural persons are entitled to receive legal aid under the Directive, and therefore small businesses who suffer losses from defective products cannot take advantage of this regime (Article 3 (1) of the Legal

As to the amount of litigation costs, one should keep in mind that, considering the average size of tort claims and the different living costs among the countries under examination, litigation costs are much lower in the Europe and China than in the U.S.[934]. Certainly, to calculate the whole cost of litigation in these jurisdictions, one should consider not only the cost of filing lawsuit, but also the cost of gathering evidence, the attorney fees (which as mentioned earlier, depends whether the fees arrangements), and the possibility of legal aid (public or not), as well as litigation funding. Therefore, it is impossible to survey all the details. What can nevertheless be done is compare the cost of filing a lawsuit. To begin with the U.S., court costs including the filing fees are very low[935]. Even for the federal civil actions, filing fees cost only 350 U.S. dollars (flat fees) to enter[936]. But attorney fees, by contrast, can be very high. Calculating exactly U.S. attorney fees is complicate, because their value and impact, as mentioned earlier, depend on upon whether the arrangement is on a contingency-fee basis. Overall, many scholars have observed that the costs of litigation in the U.S. can be really high[937]. In fact, American lawsuits have been compared to lottery, as most

Aid Directive). Chapters I and III of the Directive specify the minimum standards of legal aid (including pre-litigation advice, legal representation in court, exemption from or assistance with court fees) that Member States in which the court is sitting should offer to natural persons in cross-border disputes, without discrimination to the Union's citizens and third-country nationals residing lawfully in a Member State (Article 4 of the Legal Aid Directive). Commentators have opined that it is hard to evaluate the practical implications of the Legal Aid Directive by so far, due to a lack of follow-up reports from the European Commission on the functioning of this Directive, *see* Eva Storskubb, *Civil Procedure and EU Law: A Policy Area Uncovered*, Oxford University Press, 2008, p.178.

[934] *See* Marta Infantino and Weiwei Wang, "Algorithmic Torts: A Prospective Comparative Overview", p.315; the authors cite Martin Henssler, "The Organization of Legal Professions", in Martin Schauer and Bea Verschraegen (eds.): *General Reports of the XIXTH Congress of the International Academy Private law*, Springer, 2017, pp.261-277 (comparing, among other countries, the United States, Europe, and China); Christopher Hodges, Stefan Vogenauer, and Magdalena Tulibacka, "The Oxford Study on Costs and Funding of Civil Litigation*"*, in Christopher Hodges, Stefan Vogenauer, and Magdalena Tulibacka (eds.): *The Costs and Funding of Civil Litigation*, CH Beck, and Hart Publishing, 2010, pp.69–71 (comparing many European countries to China).

[935] *See* Mathias Reimann, "Liability for Defective Products", p.816.

[936] *See* 28 U.S. Code § 1914 (providing that "[t]he clerk of each district court shall require the parties instituting any civil action, suit or proceeding in such court, whether by original process, removal or otherwise, to pay a filing fee of $350, except that on application for a writ of habeas corpus the filing fee shall be $5").

[937] *See* James R. Maxeiner, "Cost and Fee Allocation in Civil Procedure", 58 *The American Journal of Comparative Law* 195 (2010), p.212.

plaintiffs "walking away with little or nothing other than the pleasure in playing the game"[938]. In Europe, filing a lawsuit could be much expensive. For example, in 1999 filing in Germany a lawsuit that was worth DM 1,000,000 (ca. $ 500,000) would cost DM 5,905 as a court fee, that is to say, almost $ 3,000 at the time[939]. Yet, one should also add that – with the exception of U.K. – lawyers' services in Europe are not particularly costly and that the loser-pay principle applicable in European jurisdictions shields the successful plaintiff from the risk of paying his lawyers' fees[940]. In China, according to the State Council's Measures on the Payment of Litigation Costs of 2007, the cost of filing a claim depends on the type, as well as on the value of the concerned lawsuits. When the lawsuits concern personality rights, the cost of filing varies between 100 CNY and 500 CNY, but it might be increased if the value of the lawsuit exceeds 50,000 CNY[941]. As to property damage cases, the cost of filing depends upon the value of lawsuit; for example, for a lawsuit worth more than 100,000 but below 200,000, the cost is 2% of the lawsuit value[942].

One should also take into account the availability of other forms of litigation financing, such as, for instance, third-party litigation funding. Third-party litigation funding is an arrangement between a litigant and a party who is a stranger to the lawsuit, while the party (stranger) pays the cost of litigation for a litigant in exchange for a share of any eventual awards[943]. While the

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[938] *See* James R. Maxeiner, "Cost and Fee Allocation in Civil Procedure", p.203 (in addition, for this point, at fn.31, the author cites the following works: Public Policy Institute, *An accident and a dream: how the lawsuit lottery is distorting justice and costing New Yorkers billions of dollars every year* (1998); Douglass S. Lodmell and Benjamin R. Lodmell, *The Lawsuit Lottery: The Hijacking of Justice in America* (2004); Jeffrey O'Connell, *The Lawsuit Lottery* (1979)).

[939] *See* Mathias Reimann, "Liability for Defective Products", p.816.

[940] *See* Ulrich Magnus, "Why is US Tort Law So Different?", p.112; Peter Cane, *Atiyah's Accidents, Compensation and the Law*, p.263; Thomas Kadner Graziano, *Comparative Tort Law: Cases, Materials, and Exercises*, p.557, fn.13; Marta Infantino and Weiwei Wang, "Algorithmic Torts: A Prospective Comparative Overview", p.315.

[941] *See* Article 13 of the State Council's Measures on the Payment of Litigation Costs of 2007. However, if compensation is involved in lawsuit concerns personality rights infringement, and if the plaintiff's claim falls in the range of 50,000 CNY and below 100,000 CNY) the cost of filing is 1 percent of the part exceeding his claims; while if his claim exceeding 100,000 CNY, the cost of filing is 0.5% of the exceeding part.

[942] *See* Article 13 of the State Council's Measures on the Payment of Litigation Costs of 2007.

[943] *See* Jason Lyon, "Revolution in Progress: Third-Party Funding of American Litigation", 58 *UCLA Law Review* 571 (2010), p.577; George R. Barker, "Third-Party Litigation Funding in Australia and Europe", 8 *Journal of Law, Economics & Policy* 451 (2012), p.451.

legitimacy of the practice is debated in the U.S., even prohibited by some States, both Europe and China have little problems in allowing it[944].

When applied to tort claims for product related-related accidents, the procedural picture resulting from the various forms of litigation finance strategies rendering mixed reactions. On the one hand, the U.S. legal system is more prone than its European and Chinese counterparts to manage claims for massive harms through tort and collective actions, even if the claims are of small individual value, provided that lawyers have enough incentives to invest in litigation. On the other hand, features like the presence of the jury, the pre-trial discovery procedures, as well as the partisan expert witness, also make the U.S. tort litigation become expensive and unpredictable[945]. By contrast, in the European Union and China access to justice appears to be cheaper, as plaintiffs can rely upon public legal aids (with the exception of China), or the court-appointed witness[946]. However, this picture is not completely true in all European jurisdictions[947]; for example, in Italy, institutional and financial assistance is poorly developed, and litigation is often not an option at all[948].

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[944] *See* Marta Infantino and Weiwei Wang, "Algorithmic Torts: A Prospective Comparative Overview", p.315; Deborah R. Hensler, "Third-Party Financing of Class Action Litigation in the United States: Will the Sky Fall?", 63 *DePaul Law Review* 499 (2014), pp.509-516; Marco de Morpurgo, "A Comparative Legal and Economic Approach to Third-Party Litigation Funding", 19 *Cardozo Journal of International Law & Comparative Law* 343 (2011), pp.393-410; Mathias Reimann, "Cost and Fee Allocation in Civil Procedure: A Synthesis", pp.47–50.

[945] *See* Mathias Reimann, "Liability for Defective Products at the Beginning of the Twenty-First Century: Emergence of a Worldwide Standard?", pp.822-827.

[946] *See* Marta Infantino and Weiwei Wang, "Algorithmic Torts: A Prospective Comparative Overview", p.316; Margaret Y.K. Woo, "Conclusion: Chinese Justice from the Bottom Up", in Margaret Y.K. Woo and Mary E. Gallagher (eds.): Chinese Justice: Civil Dispute Resolution in Contemporary China, Cambridge University Press, 2011, pp.394-394 (describing that Chinese legal aid is still evolving).

[947] *See* Joachim Zekoll, "Comparative Civil Procedure", pp.1332-1333, fn.116.

[948] *See* Sergio Chiarloni, "Civil Justice and Its Paradoxes: An Italian Perspective", in Adrian Zuckerman (ed.): *Civil Justice in Crisis: Comparative Perspective of Civil Procedure*, Oxford University Press, 1999, p.267; Elisabetta Silvestri, "Goals of Civil Justice When Nothing Works: The Case of Italy", in Alan Uzelac (ed.): *Goals of Civil Justice and Civil Procedure in Contemporary of Judicial Systems*, Springer, 2014, p.79, and pp.100-101 (the author opines that the Italian legal aid schemes are so outdated and ineffective for a growing number of Italians to make the right to a fair trial).

Overall, it seems clear that a factor that is important for the transformation of product liability claims in one legal system may not have the same role in another system. For example, product liability insurance is largely available in the U.S., while in Europe and China it does not have a strong role influencing the victim's choices. Moreover, even factors like community values that stimulate lumping, may not dominate the transformation dynamic of product liability claims. For example, in rural Chinese community, it was mentioned earlier that the economic change has stimulated more product liability disputes. In sum, the real picture about the transformation of product liability dispute is much complex than the law in books. Although the official tort law rules may influence the decision-making process of lawyers, and of the victims as well, there are very few reliable data telling how much influence these positive rules may impinge upon the victim's choices to claim (or lump) in many jurisdictions.

# Conclusion

The dissertation focuses on the tort liability of suppliers of raw materials and components that integrated into a product in the United States, the European Union, and China. The first chapter portrays a picture of the development of legal doctrines in relation to product liability in different legal systems. The second chapter forays into the details about liability standards that applied to the supplier of components and raw materials on cases in which raw materials or components integrated or processed into a finished product cause harm. Finally, in the third chapter, the dissertation turns its attention to the law in action, and attempts to trace out the factors that might affect the lives of product liability claims against the supplier of components and raw materials in the United States, the European Union, and China.

The research encountered a few difficulties, mostly due to the lack of sufficient and reliable data about how law really works in different jurisdictions, and to the impossibility of sketching a full account of the impact that legal culture and legal tradition have on rule-borrowing, court decisions, scholarly interpretations, and the daily practice (and non-practice) of law in the United States, the European Union and China. These limits notwithstanding, the research has yield a few findings.

First, there is a homogenous pattern between different legal systems in the development of product liability doctrines. To retrace the historical details, in the middle of the nineteenth century, all of the legal systems under investigation, with the exception of China, treated the injuries caused by things supplied by one person to another, as a matter of contract law, particularly of the contract of sale[949]. Notwithstanding the differences existing between English and American law on the one hand, and systems whose roots lay in Roman law of sales on the other hand, all these systems

[949] *See* Simon Whittaker, *Liability for Products*, p.79.

accepted the privity doctrine of contract, which is a Roman law heritage[950]. Under such doctrine there is "a core belief that contract was the appropriate framework within which claims of this type should be dealt when as a matter of legal form it would, or should, have been possible to construct a non-contractual claim against a manufacturer"[951]. In the twentieth century, the move from contractual remedies to tort remedies seems to be a homogenous feature in transatlantic legal systems, as negligence theory and fault-based liability arrived at the center of the stage in these systems[952].

Second, the study demonstrates that legal systems are not isolated from each other. The view that a legal system is closed, operates in full autonomy, and is "limited by obedience to one political sovereign with a single set of legal professions and courts, with a united education and training system"[953], does not reflect the real interplay between legal systems.

In product liability field, legal ideas from the United States have shaped the development of product liability in the civilian legal systems of the European Union, and also in China[954]. The adoption by the European Union of the Product Liability Directive in 1985 can in this regard be seen as a result of the influence of American Law and a response to a number of high-profile disasters that involved drugs or other products[955].

China, as a late-comer of industrialization, voluntarily borrowed the European model of product liability rules as reflected in its Product Quality Law of 1993. In order to counter consumer frauds, and limit disasters caused by defective products (i.e., the Sanlu Milk scandal), China also transplanted the rule of punitive damages from the United States. Amid all these legal borrowing

[950] Privity was a key feature of the Roman Law of obligations, *see* Andrew Hutchison and Luca Siliquini-Cinelli, "Beyond Common Law: Contractual Privity in Australia and South Africa", 12 *Journal of Comparative Law* 49 (2017), p.49; Reinhard Zimmerman, *The Law of Obligations: Roman Foundations of the Civilian Traditions*, pp.1-33.

[951] *See* John Bell and David Ibbetson, *European Legal Development: The Case of Tort*, volume 9, p.76.

[952] France adopts a re-interpretation of Article 1242, para. 1 for the strict liability for things causing harm, as to cover defective products causing injury in early 1930s.

[953] *See* John Bell, "The Relevance of Foreign Examples", p.435; Alan Watson, *Legal Transplants*, pp.17-20.

[954] *See* Mathias Reimann, "Liability for Defective Products: The Emergence of a Global Standard?", p.835.

[955] *See* John Bell and David Ibbetson, *European Legal Development: The Case of Tort*, volume 9, p.82.

processes in the product liability field, it is legal scholars, and at times, judges, who channeled the movement of legal ideas beyond national boundaries[956].

Legal borrowing also can be a forced one, as in the case of Product Liability Directive[957]. In the European Union, Members States such as United Kingdom, Germany, France, and Italy, although they had their own historical patterns of product liability development, were obliged to transpose the Product Liability Directive, and replace their pre-existing liability regimes applying in the field. The European Union's actions against France is a notable example of such forced borrowing. Nevertheless, these legal systems have kept their peculiarities, as European scholars and judges still interpret the Directive in more or less different ways, as in the case of defectiveness tests[958] and defect categories[959]

Third, the story of product liability also shows that the function of borrowed legal rules from one legal system to another may change in the receiving legal system. One may take punitive damages awards as an example. Punitive damages or exemplary damages had their origins in English law[960], yet their function today in England and Wales is very much different than the one they have in the U.S., and, for sure, also from the Chinese one[961]. Another example is the "implied warranty" doctrine, which has its origin in English law, was transplanted in the United States and there became applicable in favor of a third party under the Uniform Commercial Code, while the English

[956] *See* John Bell, "The Relevance of Foreign Examples", p.437.

[957] S*ee* Simon Whittaker, "Product Liability Directive and Rome II Article 5: 'Full Harmonisation' and the Conflict of Laws", p.450; Paula Giliker, "What do We Mean by EU Tort Law", p.5.

[958] *See* paragraph 2.1, Chapter II.

[959] *See* paragraph 2.2., Chapter II.

[960] For a brief introduction of the origin of punitive damage in English law, *see* Sir Henry Brooke, "A Brief Introduction: The Origins of Punitive Damage", Helmut Koziol and Vanessa Wilcox (eds.): *Punitive Damages: Common Law and Civil Law Perspectives*, Springer, 2011, pp.1-3 (introducing that "[E]xemplary damages first made their appearance on the legal scene in England in the 1760s, This happened during a series of cases in which the government of the day was trying to suppress the publication of a paper known as the North Briton with which a notorious politician called John Wilkes was associated. Individuals suffered wrongful interference with their liberty at the hands of public officials and, in the absence of a code, the English common law judges awarded non-compensatory damages – or told juries that they might award such damages – if the defendant's behaviour seemed bad enough, without troubling too much to classify these damages under any particular heading").

[961] *See* paragraph 5.1.2, Chapter II.

doctrine of implied warranty of merchantability still does not apply in favor of the third party unless the seller explicitly agreed. Looking to those civilian legal systems whose roots lay in their roots in the Roman law, as it is the case in China and in many legal systems of the European Union including Germany, France and Italy, the remedies for a disappointed purchaser of defective goods are contractual remedies. Unlike the implied warranty of merchantability, these remedies do not cover personal injuries[962].

One could go on with similar examples. For instance, the consumer protection test of product defectiveness that originated in the U.S., became the legitimate expectation test when it was borrowed by the Product Liability Directive in the European Union. Scholars and judges in different national legal systems of the European Union have different opinion about whether the legitimate expectation test is the same as the consumer expectation test. In Italy and Germany, the two tests are seen as the same; in France, the legitimate expectation test would depend upon the expectation of the grand public, while, in United Kingdom, the issue did not draw much attention[963]. As to China, which imported the European model of product liability rules, it does not use the legitimate expectation test solely. It also embraces the test that whether products fulfill the quality standards set by nations or sectors. However, a few Chinese court decisions still found that products fulfilling quality standards could be defective if they are dangerous to the consumers, thus diminishing the significance of national and sectorial standards[964].

Third, another common feature is that, in all the systems under analysis, the State-centric perspective of tort law takes the attention of lawyers away from the social lives of tort law. In real practice, a victim may often not even perceive his experience as injurious. Even when the experience is perceived as injurious, a victim may not go through the stage of grievance, and transform the injury into a dispute, thus lumping his claims. Even when the victim actually claims, he may then settle his dispute with the injurer according to unofficial law and unofficial adjudication devices, rather than going through the formal circuits of adjudication. Further, among the factors affecting the lives of product liability claims against the supplier of components or raw materials, one should consider that in many countries there are means other than tort law to redress

[962] *See* paragraph 1, Chapter II.

[963] *See* paragraph 3, Chapter II.

[964] *See* paragraph 3, Chapter II.

a victim's grievances, such as insurance and State-arranged compensation schemes. Moreover, even when victims reach the formal circuit of adjudications, many factors concerning the costs and availability of justice may in fact have an impact on the victim's willingness or ability to sue his injurer. For example, in the United States and in China victims might have recourse to contingency fee agreements and to collective actions. While such mechanisms are virtually non-existing in Europe, public legal aid schemes are widely available on the Continent.

To conclude, the study of the history and development of product liability rules shows that foreign law has often provided legal systems with useful lessons about how to develop their own solutions to problems similar to those existing elsewhere through imitations, transplants, and original reinterpretations. This confirms the value and significance of comparative legal research. Exposure to comparative law not only offers to legal scholars and judges fresh insights into their own legal systems, but also empowers them with the knowledge required to bring forward fruitful exchanges beyond national boundaries.

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