LIABILITY FOR DANGEROUS ACTIVITIES: A COMPARATIVE ANALYSIS

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I. TWO BALLOONS

HOT air ballooning is a dangerous activity, and not only for the balloonist. In *Guille* v. *Swan*,[1] a balloonist crash-landed in a New York vegetable garden. When a crowd rushed to his assistance damage was caused to the vegetables. He was held to be strictly liable for the damage caused. Across the Atlantic balloonists were more glamorous although not more successful. In *Scott's Trs.* v. *Moss*,[2] the defender, an Edinburgh impresario, arranged a balloon flight by the "world-renowned scientific aeronaut", Professor Baldwin. The advertisement promised that the Professor would descend by parachute, landing on ground rented by the defender. In the event, he missed and landed in a turnip field owned by the pursuers. Fences and a large number of turnips were trampled by the crowd rushing to the scene. The Court of Session decided that the defender could be liable only on the basis of fault. Foreseeability was of the essence: the pursuer was entitled to damages if and only if the crowd's actions were the "natural and probable consequence" of the defender's activities. Counsel's research had uncovered *Guille* v. *Swan*, but the Court of Session declined to follow it into strict liability.

These two cases involve similar consequences arising from the same hazardous activity. But the approach adopted by the court is, or appears to be, rather different. These differences are the subject of this article.

II. DANGEROUS ACTIVITIES: SOME PROBLEMS OF DEFINITION

LEGAL systems respond in different ways to the challenge of dangerous activities. Some favour strict liability. Others do no more than apply the normal rules of fault-based liability, on the view that an injured party does not much care whether the damage was caused by an object recognised to be dangerous or by one which is normally harmless.[3] Indeed it has been

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1. 19 Johns. 381 N.Y. (1822).

2. (1889) 17 R.32.

3. That is the view taken, for example, in France. See case commentary on *Dlle Courtois c. Dame Faurie* by J. Carbonnier, *Receuil Dalloz Sirey* (1985) J. 20. See also J. Carbonnier, *Droit civil: 4, Les obligations* (11th edn, 1982), para.107; Starck, Roland and Boyer, *Obligations: 1. Responsabilité délictuelle* (5th edn, 1996), paras.428–430.

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said that "the latter, if anything, seems the more dangerous of the two; it is a wolf in sheep's clothing instead of an obvious wolf".[4]

There are also intermediate possibilities. Some systems temper fault-based liability with the rule that, if an activity is abnormally dangerous, negligence on the part of an independent contractor transfers to the person on whose behalf the activity is being conducted.[5] Virtually all systems make special provision for the outrageously risky, such as the generation of nuclear energy.[6]

These different models are explored later. But first there is a preliminary issue of definition. A legal system which makes special provision for the abnormally dangerous must find some means of explaining what it has in mind. Comparative law suggests three broad approaches.

A. Exhaustive enumeration

In German law strict liability is imposed in relation to specific hazards by separate statute, normally with a financial limit on the amount recoverable. The Liability Act of 1978, for example, imposes strict liability for property damage and personal injuries caused on the railway network, and by gas, electricity and water installations. Other statutes provide for harm caused by aircraft,[7] by nuclear installations,[8] by the use of certain medicines,[9] and for damage to the environment.[10] The Road Traffic Act of 1952 provides for strict liability in respect of road traffic accidents. There is no *general* liability for dangerous activities, and the civil code is silent on the subject.

A similar approach is taken in France. Statutory no-fault liability arises in respect of a number of specific dangerous activities, for example infection with HIV by contaminated blood transfusions,[11] harm caused by emissions from nuclear installations,[12] and maritime pollution by hydrocarbons.[13] The *Loi Badinter* of 1985 provides for strict liability in relation

4. *Hodge & Sons* v. *Anglo American Oil Co.* (1922), 12 Ll.L.Rep. 183 *per* Scrutton LJ at 187. This remark was used by Lord Atkin in *Donoghue* v. *Stevenson* [1932] A.C. 562, 595–596 as an argument against the creation of a separate category of liability for dangerous things.

5. This is the doctrine of non-delegable duties of care, discussed in pt VI below.

6. E.g. the Nuclear Installations Act 1965 (UK), (see *Blue Circle Industries Plc* v. *Ministry of Defence* [1998] 3 All E.R. 385).

7. Air Traffic Act 1936.

8. Atomic Energy Act 1959.

9. Medicines Act 1976. Liability cannot be limited.

10. Environmental Liability Act 1990.

11. Law no. 91–1406 of 31 Dec. 1991, Art.47.

12. Law no. 95–955 of 12 Nov. 1965 and Law no. 68–943 of 30 Oct. 1968 as amended by Law no. 90–488 of 16 June 1990.

13. Law no.77–530 of 26 May 1977.

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to road accidents.[14] Departing from the German model, Article 1384.1 of the *Code Civil*, discussed later,[15] creates a presumption of liability for any harm caused by things, but this is not restricted to things which are inherently dangerous.

B. Non-exhaustive enumeration

Sometimes the list of dangerous activities is no more than explicative of a general principle, so that other examples are possible. This is the technique used in the Russian Federation Civil Code, which is one of the most recent codes as well as the role model for other countries of the former Soviet Union. Article 1079 sets out a non-exhaustive list of dangerous activities.[16] There is strict liability for activities which create danger by the use of transport, mechanical things, high voltage electric power, atomic power, explosives, or noxious poisons, or by construction and other related works. Hot air ballooning is presumably an example of transport. Parallel to the Code provisions, various statutes provide for strict liability in particular contexts. The 1991 R.S.F.S.R. law "On the Protection of the Environment", for example, provides for strict liability for injury or property damage suffered as a result of activities which have an unfavourable impact on the environment.[17]

The same technique is found elsewhere, for example in the Civil Code of Spain.[18]In the European Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment (the "Lugano Convention") the terms "dangerous activity" and "dangerous substance" are defined by reference to detailed lists.[19]

C. General words

English law resorts to general words. The rule in *Rylands* v. *Fletcher*[20] imposes strict liability if a proprietor accumulates dangerous substances which escape from his land and cause damage to other property. The category of substance subject to the rule comprises, quite simply,

14. Law no.85–677 of 5 July 1985, (*Loi Badinter*). See A. Tunc "The *Loi Badinter*. Ten Years of Experience" (1996) 3 *Maastricht Journal of European and Comparative Law* 329–340.

15. In pt IV.

16. Art. 1079 meets the criticism of its Soviet predecessor, Fundamental Principles of Civil Legislation Art. 90, which did not attempt a definition of such activities.

17. Arts 89–90.

18. Art 1908 imposes liability for damage caused by explosives, excessive smoke, and falling trees.

19. Art 2. For the text of the Lugano Convention, see 1993 *Yearbook of International Environmental Law*, pp.691–712. The Convention has been signed only by Cyprus, Finland, Greece, Iceland, Italy, Liechtenstein, Luxembourg, and the Netherlands.

20. (1866) L.R. 1 Exch. 265; affd. (1868) L.R. 3 H.L. 330.

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anything "likely to do mischief if it escapes".[21] *Rylands* v. *Fletcher* itself concerned the escape of water artificially accumulated in a reservoir. However, the rule has over the years been taken to apply to damage caused by the escape of a wide range of substances, including gas,[22] sewage,[23] explosives,[24] and, more fancifully, aberrant fairground machinery,[25] yew tree clippings,[26] and even persons likely to cause disturbance if let loose.[27] The cases contain little analysis of which objects or substances are "likely to cause mischief", such propensities perhaps being taken for granted in the context of the damage caused.

Suggestions have made for reform of the rule in England, most notably by the Pearson Commission, which advocated strict liability for the controllers of things or operations:

> which by their unusually hazardous nature require close, careful and skilled supervision, the failure of which may cause death or personal injury; and, secondly, those which, although abnormally by their nature perfectly safe, are likely, if they do go wrong, to cause serious and extensive casualties.[28]

The suggestion did not prosper.[29]

The *Rylands* v. *Fletcher* rule spread to the United States where, even before 1868, the courts had recognised strict liability for abnormally dangerous activities such as the use of dynamite and other explosives. But while *Rylands* v. *Fletcher* was accepted in some States,[30] it was rejected almost as quickly in others,[31] due in part to the hazardous nature of enterprises routinely found in a frontier society. A new beginning was made with the Second Restatement of the Law of Torts completed in

21. The rule approved by the House of Lords, was stated by Blackburn J in the Court of Exchequer Chamber at 279: "We think that the true rule of law is, that the person who, for his own purposes, brings on his land and collects and keeps there anything likely to do mischief if it escapes, must keep it in at his peril; and if he does not do so, is prima facie answerable for all the damage which is the natural consequence of its escape."

22. *Northwestern Utilities Ltd* v. *London Guarantee Co.* [1936] A.C. 108.

23. *Humphries* v. *Cousins* (1877) 2 C.P.D. 239.

24. *Rainham Chemical Works Ltd* v. *Belvedere Fish Guano Co. Ltd* [1921] 2 A.C. 465.

25. *Hale* v. *Jennings Bros* [1938] 1 All E.R. 579.

26. *Crowhurst* v. *Amersham Burial Board* (1878) 4 Ex.D. 5.

27. *A-G* v. *Corke* [1933] Ch.89.

28. *Civil Liability and Compensation for Personal Injury* Cmnd. 7054 (1978), para.1642.

29. For earlier attempts at law reform in the UK, see *Thirteenth Report of the Law Reform Committee for Scotland* Cmnd. 2348 (1964), and *Civil Liability for Dangerous Things* (1970, Law Com. No.32).

30. *Ball* v. *Nye* 99 Massachusetts 582 (1868); *Cahill* v. *Eastman* 18 Minnesota 324 (1871).

31. *Brown* v. *Collins* 53 New Hampshire 442 (1873); see also *Losee* v. *Buchanan* 51 New York 476 (1873), 484–485, in which the view was expressed that the community should accept exposure to hazard, in that case an exploding boiler, for the sake of industrial progress.

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1977.[32] This imposes strict liability in respect of abnormally dangerous activities; and such activities are defined by means of a detailed enumeration of their characteristics. Paragraph 520 of the Restatement is as follows:

> **ABNORMALLY DANGEROUS ACTIVITIES**
> In determining whether an activity is abnormally dangerous, the following factors are to be considered:
>
> (a) existence of a high degree of risk of some harm to the person, land or chattels of others;
> (b) likelihood that the harm that results from it will be great;
> (c) inability to eliminate the risk by the exercise of reasonable care;
> (d) extent to which the activity is not a matter of common usage;
> (e) inappropriateness of the activity to the place where it is carried on; and
> (f) extent to which its value to the community is outweighed by its dangerous attributes.

Paragraph 520 allows objective risk factors to be set against (in factor (f)) the social utility of the enterprise in question. Not all of the risk factors need be satisfied for an activity to be abnormally dangerous. Examples of activities which have been said to fall within paragraph 520 include the use of explosives, vibrations caused by construction works, spread of fire, escape of water, toxic and radioactive emissions, and contamination of land and water.[33] Strict liability is incurred only in respect of harm of which there is abnormal risk. If a plant producing chemicals discharges noxious waste into the subsoil and the aquifer, the operators will be strictly liable for harm caused to their neighbours' health, but not for injuries suffered by a local resident in a road accident involving one of their lorries.

D. Models of liability

The question of definition may now be left on one side. The rest of this paper is concerned with possible models of liability. The models commonly encountered are strict liability,[34] presumption of liability,[35] and fault-based liability.[36] In addition, something will be said about non-

32. The First Restatement had imposed liability on "ultra-hazardous" activities, defined as those which (i) necessarily involved a risk of serious harm to the person, land or chattels of others, (ii) could not be eliminated by the exercise of utmost care, and (iii) were not a matter of common usage.

33. For a comprehensive analysis of American case law, see W. K. Jones, "Strict Liability for Hazardous Enterprise" (1992) 92 *Columbia Law Review* 1705–1770 at pp.1715–1751.

34. Pt III.

35. Pt IV.

36. Pt V.

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delegable duties of care,[37] and about identifying the person to whom the liability attaches.[38]

III. STRICT LIABILITY

THE assumption that strict liability is "stricter" than fault-based liability is implicit in the conflicting policy arguments put forward in favour of different types of rules. But the assumption should not go unchallenged. Not only is strict liability an elusive concept,[39] but it is rarely applied with full vigour, for there is a natural reluctance to attribute liability to unintentional acts.[40]

It should come as no surprise, therefore, that codified provisions imposing strict liability often permit a range of defences. Article 1079 of the Russian Federation Code, for example, allows the defender to escape liability if he can prove that the harm arose as a result of insuperable force, or due to the intentional conduct of the victim. The rule of *volenti non fit injuria* applies, and the level of damages may be reduced to take into account contributory negligence or the financial status of the defender.

The scope of strict liability may also be restricted in ways which are more fundamental.

A. The Second Restatement of the Law of Torts

In principle the American Second Restatement of the Law of Torts (1977) imposes strict liability. Paragraph 519 is unequivocal. A defendant is liable even where he has "exercised the utmost care to prevent the harm;" nor is liability avoided when the harm has been caused by the intervention of a third party, or by force of nature. This rule is followed by most States,[41] although some exclude liability if the natural occurrence was unforeseeable, or if the action of a third party could not have been prevented by the exercise of reasonable care.

Strict liability is not displaced merely because the victim failed to exercise reasonable care to discover the harmful activity and to protect himself against it. However, the victim is deemed to have assumed the risk if he knowingly exposed himself to the danger[42]—a rule which contrasts with the principle of nuisance law that it is no defence when the plaintiff

37. Pt VI.
38. Pt VII.
39. V. Palmer, "In Quest of a Strict Liability Standard Under the Code" (1982) 56 *Tulane Law Review* 1317–1329 at p. 1317.
40. See P. Cane, *The Anatomy of Tort Law* (1997), pp.49–50.
41. The Second Restatement, para.522. See for example *Yukon Equipment Inc.* v. *Fireman's Fund Insurance Co.*, 585 Alaska P.2d 1206 (1978).
42. *Idem*, para.524.

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has "come" to a nuisance. One possible effect is to allow a hazardous enterprise to set up an "exclusion zone" over land which it does not own. As in nuisance law, strict liability is also displaced if the plaintiff, by the nature of his activities, has made himself unusually sensitive to harm.

But there is a more basic issue which the American litigant must address. Strict liability is confined to activities which are abnormally dangerous within the meaning of paragraph 520 of the Restatement (discussed earlier);[43] and the criteria listed for this purpose (risk, foreseeability, gravity of harm, and so on) coincide in large measure with those used in negligence analysis. In effect, the plaintiff is asked to prove negligence in order to bring the defendant's activities within a regime of strict liability.[44] This conclusion suggests a more general point. In formulating a general definition of dangerous activity it is difficult to avoid criteria which refer back to negligence. Rules which isolate abnormally dangerous activities as a separate category do so because they view them as imposing "a super-risk ... a kind of super-negligence".[45] Nevertheless, in the Restatement version of strict liability at least, such rules leave a relatively heavy onus on the plaintiff.

B. Rylands v. *Fletcher*

Strict liability as applied by the English *Rylands* v. *Fletcher* rule offers the plaintiff little more solace. For the *Rylands* v. *Fletcher* rule has been "progressively emasculated"[46] almost since judgment in the original case was pronounced. A study of all cases in which *Rylands* v. *Fletcher* was cited between 1865 and 1913 revealed that liability was rarely found under the rule.[47] Although, in principle, the English courts have held that the rule may apply to a wide range of different substances, they have

43. In pt II(c).

44. See for example *Erbrich Products Co.* v. *Wills* 509 N.E. 2d 850 (Ind.App. 1987), 856: "When deciding to impose para.519 strict liability, we must not look at the abstract propensities of the particular substance involved, but must analyse the defendant's activity as a whole. ... If the rule were otherwise, virtually every commercial or industrial activity involving substances which are dangerous only in the abstract automatically would be deemed as abnormally dangerous. This result would be intolerable." See also *Prosser and Keeton on the Law of Torts* (5th edn, 1984), para.78: "When a court applies all of the factors suggested in the Second Restatement it is doing virtually the same thing as is done with the negligence concept, except for the fact that it is the function of the court to apply the abnormally dangerous concept to the facts as found by the jury."

45. K. Kress, "The Serious of Harm Thesis" in D. Owen (Ed.), *Philosophical Foundations of Tort Law* (1995), pp.277–297 at p.297. See also W. K. Jones, "Strict Liability for Hazardous Enterprise" (1992) 92 *Columbia Law Review* 1705–1770 at p.1710. Professor Jones puts forward suggestions for the reformulation of the Restatement rules at p.1713.

46. B. S. Markesinis and S. F. Deakin, *Tort Law* (1994), p.472.

47. F. H. Newark, "Non-natural User and *Rylands* v. *Fletcher*" (1961) 24 *Modern Law Review* 557–571.

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interpreted the general basis of liability in a progressively more restrictive fashion.

Thus, in the first place, the rule is applied only when the offending substance has *escaped* from a place occupied or controlled by the defendant to a place outside his control.[48] In contrast with the American rules for example,[49] it has no scope when the damage occurs on the defendant's own land.

Secondly, the rule applies only to property damage, leaving liability for personal injuries to be determined by the law of negligence.[50]

Thirdly, the scope of the rule is narrowed by the existence of a large number of defences. The plaintiff may not claim damages if he has increased the risk to his property, and he cannot increase his neighbour's liability if he puts his own property to some special use.[51] There is no liability if the plaintiff has agreed to the risk, or, by extension, if the potentially dangerous substance has been kept on the premises for the benefit of both plaintiff and defendant.[52] A defence is also available if the damage was precipitated by the actions of a third party which could not have been foreseen,[53] or if the escape was caused by an act of God which could not have been predicted or protected against.[54]

Fourthly, in *Rylands* v. *Fletcher*, Lord Cairns stated that if the offending substance was collected "in the ordinary course of the enjoyment of land" and as a consequence of the "natural use" of the land, then strict liability did not apply.[55] Over the years, a wide view has been taken of "natural" use, and a correspondingly narrow view of "non-natural" use.

Fifthly, liability has become entangled with foreseeability in such a way as to blur the distinction between strict and fault-based liability.

These last two points require further discussion.

Natural and non-natural use

Just as, with the American Restatement, much turns on the meaning of "abnormally dangerous activities", so with *Rylands* v. *Fletcher* the scope

48. *Read* v. *Lyons & Co.* [1913] A.C. 263.

49. E.g. *Garcia* v. *Estate of Norton* 183 Cal.App.3d 413 (1986). The court held the employer strictly liable for injuries received by his employee in an explosion which occurred while they were working on a waste oil tanker with a blowtorch in the employer's yard.

50. See R. Buckley, *The Law of Nuisance* (2nd edn, 1996), pp.53–54.

51. *Robinson* v. *Kilvert* (1889) 41 Ch.Div. 88; *Eastern & South African Telegraph Co. Ltd* v. *Cape Town Tramways* [1902] A.C. 381.

52. E.g. a water supply for both parties (although a claim in negligence may be possible in such circumstances), *Carstairs* v. *Taylor* (1871) L.R. 6 Ex. 217.

53. *Perry* v. *Kendricks Transport Ltd* [1956] 1 W.L.R. 85.

54. *Nichols* v. *Marsland* (1876) 2 Ex.D. 1, 280. In modern times the availability of technology with the capability for such prediction or protection narrows the scope of this defence.

55. *Supra* n.20, at 338–339. Non-natural was defined as "introducing into the close that which in its natural condition was not in or upon it".

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of strict liability is largely determined by the meaning given to "non-natural use". If a use is a "natural" one, *Rylands* v. *Fletcher* does not apply and liability requires fault. Accordingly, a broad definition of "natural" will largely exclude the operation of strict liability.

In the mid-nineteenth century "natural use" suggested agriculture, forestry or mining and excluded industrial and urban uses.[56] The twentieth century cases, however, have tended to interpret "natural" as meaning the usual and the ordinary. In *Rickards* v. *Lothian*[57] premises were flooded as a consequence of a blocked basin in the defendant's lavatory on a floor above. The Privy Council declined to impose strict liability for damage resulting from the installation of a basic facility. "Natural use" was taken to include any use which was a normal incident of urban living. For the rule to apply:

> It must be some special use bringing with it increased danger to others and must not merely be the ordinary use of the land or such a use as is proper for the general benefit of the community.[58]

This formulation isolates two issues which have tended to mesh awkwardly in versions of the natural use test, namely (i) the appropriateness of the activity to the locality, and (ii) the social utility of the defendant's activities. Both can be found in paragraph 520 of the American Restatement, discussed above.[59]

(ii) merits closer examination. If benefit to the community outweighs risk, the American Restatement would not classify the activity as abnormally dangerous. But the logic here seems dubious. A socially useful hazard is no less dangerous than one which is entirely frivolous. An alternative approach might be to accept the status as abnormally dangerous, but to allow its perpetrator a defence on the basis of its utility to the community.

In England discussion of (ii) has focused mainly on the meaning of "community". In *Cambridge Water Company* v. *Eastern Counties Leather*[60] Lord Goff thought that this must refer to a *local* community, not to the community at large.[61] More recently a different line was taken. In *Ellison* v. *Ministry of Defence*[62] the plaintiffs' property was damaged by a

56. J. S. Brearley, "Public Welfare v. 'Natural Use' of Land as the Basis for Liability in Environmental Damage Cases" (1995) 7 *Journal of Environmental Law* 119–136 at p.125.

57. [1913] A.C. 263.

58. *Idem, per* Lord Moulton at 280.

59. Para.520 lists a number of factors for the determination of whether an activity is abnormally dangerous. Factors (d) and (e) correspond to (i), and factor (f) to (ii).

60. [1994] 2 A.C. 264, hereinafter "*Cambridge Water Company*".

61. In *Cambridge Water Company*, *idem*, the defendant company was an important employer in the local, largely rural community. Nevertheless, Lord Goff held, at 309, that it could not escape liability on this basis. Despite its benefit in employment terms, this "small industrial complex" could not be deemed to be making a natural or ordinary use of land.

62. (1996) 81 B.L.R. 108.

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sudden, dramatic flood of rainwater accumulated as a result of construction works at the Greenham Common military airbase. The defendants had been constructing bulk-fuel installations to store fuel for fighter planes, which was clearly not a natural use, in the sense of the provision of services to the local community. Nevertheless, Bowsher J, sitting in the Queen's Bench Division, deemed such a use to be "natural" as it was for the benefit of "the national community as a whole".[63]

If the wide definition of "natural use" used in *Ellison* were to be applied in future cases, the scope of the *Rylands* v. *Fletcher* rule would become very narrow. The few "non-natural" uses still identified as such would normally be prevented by a refusal of planning permission; and since permission is not granted unless the development conforms to the planning strategy for the area and to the needs of the local community, the uses to which such permitted developments are put would almost always conform with Bowsher J's definition of "natural use". This would confine *Rylands* v. *Fletcher* to such uses as were not anticipated at the time planning permission was granted, or which began before the advent of such controls.

Foreseeability

In *Cambridge Water Company* v. *Eastern Counties Leather*[64] the House of Lords accepted Newark's categorisation of the *Rylands* v. *Fletcher* rule as an extension of the law of nuisance to cases of isolated escape;[65] and since under nuisance law damages are awarded only if injury of the relevant type was foreseeable by the defendant, foreseeability was accepted as a component of *Rylands* v. *Fletcher* also.

In *Cambridge Water Company*, solvents used by the defendant in the process of tanning leathers had, over a long period of years, seeped through the tannery floor, through the soil below and thence to the water table, ultimately reaching the plaintiff's borehole more than a mile away. The defendant could not reasonably have foreseen at the time of the spillages that a leakage would result in contamination of this type. Hence there was no liability. However, the court was careful to say that the requirement of foreseeability did not detract from the "strict" nature of the liability. If damage of the relevant type was foreseeable, the defendant was liable, notwithstanding the fact that he took all due care to avoid damage.

63. *Idem*, p.119.
64. [1994] 2 A.C. 264.
65. "The Boundaries of Nuisance" at 487–488. Blackburn J's original statement of the rule had referred to any substance "likely to do mischief if it escapes", and liability was imposed for the "natural and anticipated consequences". For an analysis of foreseeability in this context, see D. Wilkinson, "*Cambridge Water Company* v. *Eastern Counties Leather plc*: Diluting Liability for Continuing Escapes" (1994) *Modern Law Review* 799–810.

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This analysis is problematical. It should be recalled that in tort law the policy justification for foreseeability is avoidability. A defendant who was unable to foresee the consequences of his actions was unable to take the necessary steps to avoid the harm and should not be liable for it.[66] But strict liability disregards questions of avoidability. Whether the defendant attempted to avoid the harm is of no importance. He is liable anyway. It is not clear, therefore, why foreseeability of harm should matter.

This is not to argue that there is no role for foreseeability, but rather that in *Cambridge Water Company* it is put in the wrong place. It is of the nature of most *Rylands* v. *Fletcher* cases that, while the precise circumstances of the harmful escape are unforeseeable, a significant risk of some form of damage is apparent from the outset. Thus a more relevant foreseeability test would assess the defendant's capacity at the point when he engaged upon the dangerous activity to predict the possibility of harm of some sort, rather than his ability to foresee the actual consequences of the escape.

Another ground for doubting *Cambridge Water Company* is that it does not fit all the cases. Roughly speaking, *Rylands* v. *Fletcher* cases fall into two broad categories. Type A cases, such as *Cambridge Water Company* and *Read* v. *Lyons*,[67] concern the escape of intrinsically dangerous substances (respectively chemicals and explosives). The escape may have a long-term pollutant effect as well as, or instead of, causing immediate damage. It is characteristic of such cases that the exact consequences of escape are unpredictable, especially in relation to historic pollution when scientific methods of prediction were much less sophisticated. But what can normally be predicted is that harm *of some kind* will occur. In instructing the offending operations, the defendant has imported the risk of an accident occurring, and it is on this basis of created risk that strict liability regimes are normally constructed. Thus in many US jurisdictions knowledge of the extent of the potential danger is not a prerequisite of liability.[68] In *Cambridge Water Company* thousands of litres of the offending chemical had been spilt over the years. At the time of the spillages, few could have predicted that the leakage would contaminate a distant water source, but the possibility of some damage occurring when it penetrated the subsoil must have been less in doubt.

Type B cases, such as *Rylands* v. *Fletcher* itself,[69] *Rickards* v. *Lothian* and *Ellison* v. *Ministry of Defence*, involve the accumulation of a substance which is not intrinsically dangerous in itself. Usually it is water.

66. See S. Perry, "Risk, Harm and Responsibility" in D. G. Owen (Ed.), *The Philosophical Foundations of Tort Law* (1995), pp.321–346 at p.343.

67. [1913] A.C. 263.

68. *Garcia* v. *Estate of Norton* 183 Cal.App.3d 413 (1986).

69. See also *Rickards* v. *Lothian* [1913] A.C. 263 and *Ellison* v. *Ministry of Defence* (1996) 81 B.L.R. 108.

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The escape which causes damage is normally attributable to a structural or engineering failure, and there are generally no long-term pollutant effects. In type B cases it is easier to predict the type of damage, but the escape itself is often more difficult to foresee. In *Ellison*, the plaintiffs resorted to a sophisticated computer model in an attempt to demonstrate the foreseeability of the freak storm and the flash flood which followed. The court was unconvinced. Once the flood waters escaped, however, structural damage in the surrounding area would have been a likely outcome. The foreseeability requirement formulated in *Cambridge Water Company*, a type A case, does not take account of the different issues involved in type B cases.

Four further points may be made. First, it is not clear whether *Cambridge Water Company* places the onus upon the plaintiff to prove the foreseeability of harm, or whether the burden is upon the defendant to plead the defence that the harm was not foreseeable. As *Ellison* shows, the former interpretation would place a daunting burden on the plaintiff.

Secondly, in *Rylands* v. *Fletcher* itself, Lord Cairns appeared to take for granted that the liability being imposed was stricter than under the law of nuisance.[70] That view does not appear to survive the decision in *Cambridge Water Company*.

Thirdly, if the *Rylands* v. *Fletcher* rule is now part of the law of nuisance, other aspects of nuisance law will also apply. For example, following the recent case of *Hunter* v. *Canary Wharf*,[71] only owners and tenants would have title to sue, and relatives and invitees of those persons must seek redress in other ways. Following *Leakey* v. *National Trust for Places of Historic Interest or Natural Beauty*,[72] the occupier's duty to prevent harm would require to be judged taking into account the resources of the parties.

Fourthly, there is the problem of continuing contamination. In *Cambridge Water Company* pools of the solvent were still present in the aquifer underneath the tannery and would carry on penetrating the plaintiff's water supply. But if liability for continuing harm is assessed by reference to the foreseeability of damage when the pollution first began, it would seem to follow that past ignorance is an excuse for continuing pollution. Certainly that seems to have been the view adopted in *Cambridge Water Company*. The continuing damage was not foreseeable when the defendant created the conditions which caused it, and the solvent had now passed beyond the defendant's control and been irretrievably lost in the ground below. When a dangerous substance has escaped beyond the defendant's control, then, in the court's view, there is

70. *Supra* n.20, at 340.
71. [1997] A.C. 655.
72. [1980] Q.B. 485.

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strict liability only for those consequences foreseeable at the stage when he still did have control. Naturally, if strict liability fails, negligence is likely to fail also, due to the absence of foreseeability.

C. *Summary: the intrusion of negligence*

The impact of strict liability is restricted, not only by the availability of defences but by the intrusion of negligence. When, as in the American Restatement or in *Rylands* v. *Fletcher*, strict liability is imposed in respect of a general category of dangerous activities (as opposed to a fixed list), the terminology of negligence law has a tendency to reassert itself. Non-specific categorisations of such activities justify the imposition of strict liability by reference to risk and foreseeability. But the result can be tantamount to asking the plaintiff to prove negligence before he can enjoy strict liability.

IV. PRESUMPTION OF LIABILITY

A. *France*

The French rules on liability for damage caused by things are less susceptible to the pull of negligence. In place of strict liability there is a presumption of liability. Article 1384.1 of the Code Civil provides that:

> One is responsible not only for the harm which one causes by one's own action, but also for that which is caused by the action of persons for whom one is answerable, or by things which one has in one's keeping.[73]

Article 1384.1 makes no distinction between things which are hazardous and things which are not.[74] The provision applies to obvious hazards, of course, for example liquid oxygen,[75] explosives,[76] or tree-cutting equipment[77]; but the offending thing may also be a perfectly ordinary object

73. "*On est responsable non seulement du dommage que l'on cause par son propre fait, mais encore de celui que est causé par le fait des personnes dont on doit répondre, ou des choses que l'on a sous sa garde.*" Art. 1384.1 was originally read in conjunction with Arts 1385 and 1386 as setting out a strict basis of liability only when harm was caused by an animal or dangerous building under the defender's control. However, as in other systems, the increased hazards of mechanisation raised the question of compensation for those who suffered harm as the result of industrial accidents. In a landmark decision in 1896, the Cour de Cassation ruled that Art. 1384.1 could be interpreted as a general stand-alone provision setting out a presumption of responsibility when damage is caused by things of whatever sort. (See *Dalloz Périodique* 1897.1.433, and also commentary thereon by Saleilles. Art. 1384.1 was used as the basis upon which to award damages in favour of a widow who sued her husband's employers after he was killed by an exploding boiler.)

74. *Arrêt Jand'heur, Dalloz Périodique* 1930.1.57.

76. *Ville de Montigny-lès-Metz* v. *Sté Cardem et autres, Recueil Dalloz Sirey* 1994 J. 80.

77. *La Mutuelle du Mans assurance IARD* v. *Bau* Civ.(2) 12 Dec. 1994.

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such as a tree,[78] a tombstone,[79] a garage door,[80] or a sheet of thin polystyrene.[81]

The modern view is that Article 1384.1 imposes *une présomption de responsabilité*, a presumption of *liability* rather than a presumption of *fault*. The defendant escapes liability only if he can prove that the accident occurred due to *force majeure* or unforeseeable circumstances beyond his control.[82] The heavy onus placed on the defendant is said to create an "objective theory of created risk",[83] and favours the victims of accidents rather than those who have provided their cause, however unintentionally. This encourages claims. When the Pearson Committee visited France in 1975 it was told that 75,000 personal injury cases per year were heard in the French courts, while in the UK the comparable figure was 2,000.[84]

In practice, the rules are complicated by the bewildering variety of situations to which Article 1384.1 may be applied. If a moving object has caused harm by colliding with the plaintiff's person or his property, the presumption of responsibility means that the plaintiff need prove only causation.[85] But if the thing was stationery, or in motion but did not collide with the plaintiff, it must be established that the object was the *cause génératrice*, the "generating cause" of the accident.[86]In practice the plaintiff's task is to do this by showing that the object (i) was defective, (ii) that it functioned abnormally, or (iii) that it was placed in an abnormal position.

In theory, fault is irrelevant. If, for example, the object was defective, and the causal link thus established, its keeper cannot escape liability by proving that he was not at fault.[87] But the situation is less clear in cases

78. *Leroux* v. *Cons. Mauger, Recueil Dalloz Sirey* 1966 J. 700.

79. *Veuve Casiel* v. *Veuve Douillard, Dalloz Périodique* 1939 J. 72.

80. *Épx Brière* v. *CPCAM de Lyon*, Civ.(2) 8 June 1994.

81. *Electricité de France* v. *Chiaramonti*, Civ.(2) 13 April 1995. In his enthusiasm after the famous ruling in *Jand'heur*, Josserand observed that accidents are almost always due to the agency of a thing, *Dalloz Periodique* 1930 *Chronique* 25–28, while Ripert responded that, if that were the case, fault-based liability was as good as reduced to collisions between nudists, *Dalloz Périodique* 30 1.57 at p.59.

82. *Ledore* c. *Gilbertas*, CAA Lyon 10 May 1985: "*Le gardien d'une chose ne peut s'exonérer de sa responsabilité qu'en rapportant la preuve d'un événement imprévisible et irrésistible.*"

83. See M. S. Amos and F. P. Walton, *Introduction to French Law* (3rd edn, 1967), p.205.

84. *Civil Liability and Compensation for Personal Injury* Cmnd. 7054 (1978), para.366.

85. See J. Bell *et al Principles of French Law* (1998), pp.377–378. A separate set of rules now operates for road traffic accidents since the Loi Badinter of 1985, *supra* n.14.

86. *S.N.C.F.* v. *Papot, Recueil Dalloz-Sirey* 1971 J. 690.

87. Starck, Roland, Boyer *Obligations*; *1 Responsabilité Délictuelle* (5th edn, 1996), paras.453–462: "*de toute anomalie on ne peut conclure à l'existence d'une faute*". But compare with A. Tunc "The Twentieth Century Development and Function of the Law of Torts in France" (1965) 14 I.C.L.Q. 1089–1103 at p.1096: "As a matter of fact, our courts usually discharge the custodian when he can give evidence that he, or the person who was actually in control of the thing, has not committed any fault".

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where the object functioned abnormally or was placed in an abnormal situation. It can be difficult to separate the notion of abnormality from the concept of fault,[88] and considerations such as the reasonableness of the defendant's behaviour may come into play.[89] In *Electricité de France* c. *Chiaramonti*, for example, a representative from EDF visiting Mme. Chiaramonti's house fell through a hole in her floor to the cellar below. The hole had been covered by a thin sheet of white polystyrene. Liability was found under Article 1384.1 on the basis that the polystyrene had been placed "in an abnormal manner" by Mme. Chiaramonti. The plaintiffs argued successfully that she had "committed a fault" by placing the polystyrene in this way. The judgement refers to considerations such as whether a person of "normal" vigilance would have noticed the danger, and whether the cellar opening should "normally" have been covered by a more substantial material.

In English law the facts of *Electricité de France* c. *Chiaramonti* would be treated, not as strict liability, but as occupiers' liability. So would a number of other cases which, in France, fall under Article 1384.1—for example, *Veuve Castel* c. *Veuve Douillard*,[90] where a tombstone fell from a sepulchre and caused injury. Doubtless the occupiers in such cases failed to exercise "such care as in all the circumstance of the case is reasonable" to ensure the safety of those entering their property as required under the Occupiers' Liability Act 1984. Like the French "keeper" under Article 1384.1, an English occupier may be held liable despite having no direct part in the incident in question. The criterion applied is whether the defendant "has sufficient degree of control over premises that he ought to realise that any failure on his part to use care may result in injury to a person lawfully coming there".[91]From this element of control arises a positive duty to maintain the safety of premises, which is arguably more rigorous than the liability for omissions encountered in general negligence law.

Article 1384.1 does not govern all cases. If an accident was caused primarily by the actions of an individual rather than any actual or presumed fault in the keeping or handling of an object, claims fall under Article 1382, the general rule on delictual liability, which requires a finding of fault. Concurrent liability under Articles 1382 and 1384.1 is possible, although infrequent. An illustration of the interaction between 1382 and 1384.1 can be found in *Ledore* c. *Gilbertas*,[92]which concerned a set of goalposts knocked out of position at the premises of a sports club.

88. J. Carbonnier *Théorie des obligations* (1963), p.428.
89. See W. S. Malone, "Ruminations on Liability for the Acts of Things" (1982) 42 *Louisiana Law Review* 979–1009 at p.991.
90. *Dalloz Périodique* 1939 J. 72.
91. *Wheat* v. *Lacon* [1966] A.C. 552 *per* Lord Denning at 578.
92. C.A.A. Lyon 10 May 1985.

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As the posts were being replaced, a 13-year-old boy, Gilbertas, jumped up to swing on the crossbar. M. Ledore, a club member, rushed to steady the frame, but was injured when it toppled over him. M Ledore sued M. and Mme. Gilbertas, the boy's parents, and the sports club. The actions of the boy were sufficient to constitute fault under Article 1382, although in this case his parents could not be found vicariously liable since at the time of the incident he was under the supervision of the club. On the other hand, the sports club was held liable under Article 1384.1 as the keepers of the goalposts which had injured M. Ledore.

B. Louisiana

In North America the French rule was, as usual, exported both to Louisiana and to Quebec, but has come to acquire a life of its own.

In Louisiana Article 2317 of the Civil Code provides that:

> We are responsible, not only for the damage occasioned by our own act, but for that which is caused by the act of ... things which we have in our custody.

At first this was interpreted as imposing strict liability,[93] but later cases required an unreasonable risk of harm.[94] Relevant factors for this purpose included the probability of risk occurring, the gravity of the consequences if it did, and the burden of adequate precautions.[95] Following a "turf war" between the legislature and the supreme court,[96] a new Article 2317.1 was added in 1996 introducing a requirement of fault:

> The owner or custodian of a thing is answerable for damage occasioned by its ruin, vice or defect, only upon a showing that he knew or, in the exercise of reasonable care, should have known of the ruin, vice or defect which caused the damage, that the damage could have been prevented by the exercise of reasonable care, and that he failed to exercise such reasonable care. Nothing in this Article shall preclude the court from the application of the doctrine of *res ipsa loquitur* in an appropriate case.

93. *Loescher* v. *Parr* 324 So.441 (La.1975), in which the Louisiana Supreme Court found liability against the owner of a magnolia tree when the tree collapsed upon a car. Although the trunk of the tree was found to be 90% rotten, there was no reason that the owner should have known this.

94. *Entrevia* v. *Hood* 427 So.2d 1146 (La.1983).

95. *Verrett v. Cameron Telephone Co.*, 417 So.2d 1319 (La.App. 1982), 1325–26.

96. See F. L. Maraist and T. C. Galligan Jr., "The Ongoing 'Turf War' for Louisiana Tort Law; Interpreting Immunity and the Solidarity Skirmish" (1995) 56 *Louisiana Law Review* 215–230. There had also been considerable academic debate concerning strict liability for the acts of things. See for example W. S. Malone, *op cit.*, *supra* n.89 which concludes as follows: "the plasticity of the negligence concept and its capacity to adjust itself to an everchanging world strongly recommends it as a vehicle that should not lightly be cast aside."

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While some commentators have viewed this reform as an attack on the civil law tradition in Louisiana,[97] others have pointed out that in most cases brought under the old Article 2317 "liability could have easily been imposed on a negligence basis".[98]

C. Quebec

The experience in Quebec has been similar. The analogous provision in the Civil Code of Lower Canada, imposing liability for the acts of things, was Article 1054. However, the Quebec doctrine was not interpreted as broadly as its French counterpart,[99] and Article 1054 has now been recast as Article 1465 of the new Quebec Civil Code:

> A person entrusted with the custody of a thing is liable to reparation for injury resulting from the autonomous act of the thing, unless he proves that he is not at fault.

The obvious distinction between the new Code provisions in Quebec and Louisiana is that in the latter the onus is on the plaintiff to prove fault, although leaving open the possibility of that onus being reversed under the *res ipsa loquitur* doctrine. In Quebec, the onus of proof is on the defendant from the outset to prove absence of fault. But perhaps the more important point is that in the two "mixed" jurisdictions[100] where French law has been influential, the notion of fault has come to qualify liability for things.

V. FAULT-BASED LIABILITY

A. Scotland

The idea that *Rylands* v. *Fletcher* might apply in Scotland has been described by the House of Lords as "a heresy which ought to be extirpated".[101] In the modern law, liability for dangerous activities is

97. See F. L. Maraist and T. C. Galligan Jr., "Burying Caesar: Civil Justice Reform and the Changing Face of Louisiana Tort Law" (1996) 51 *Tulane Law Review* 339–412.

98. W. S. Malone, *op cit.*, *supra* n.89, at p.1001.

99. See P. A. Crepeau, "Liability for Damage Caused by Things from the Civil Law Point of View" (1962) 40 *Canadian Bar Review* 222–239.

100. I.e. jurisdictions which display a mixture of common law and civil law.

101. *RHM Bakeries* v. *Strathclyde Regional Council* 1985 S.C.(H.L.) 17 *per* Lord Fraser at 41. Lord Fraser's words have been cited several times since in the Scots courts. A Scottish Outer House case decided just after *Cambridge Water Company*, *supra* n.60 and just before *Burnie Port Authority* v. *General Jones Pty Ltd* (1994) 179 C.L.R. 520 restates the Scottish position unequivocally. In *McQueen* v. *The Glasgow Garden Festival (1988) Ltd*, 1995 S.L.T. 211, any line of argument "reminiscent of ... *Rylands* v. *Fletcher*" was firmly rejected by Lord Cullen at 213.

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determined within the general framework of delictual liability, and fault must be shown.[102]

Type A cases: heightened duty of care

The basis of *culpa* for type A cases (accumulation of an intrinsically dangerous substance)[103] was stated by the Lord Justice Clerk Moncrieff in *Chalmers* v. *Dixon* in the following way:

> If a man puts upon his land a new combination of materials, which he knows, or ought to know are of a dangerous nature, then either due care will prevent injury, in which case he is liable if injury occurs for not taking that due care, or else no precautions will prevent injury, in which case he is liable for his original act in placing the material upon the ground.[104]

This is, of course, a heightened duty of care, which corresponds to the heightened risk imposed upon the pursuer by the presence of dangerous substances. Even a slight lack of care may be enough to constitute fault:[105]in *Donoghue* v. *Stevenson*, Lord Macmillan suggested that, in relation to the intrinsically hazardous, "the degree of diligence required is so stringent as to amount almost to a guarantee of safety".[106] In the absence of an alternative explanation consistent with lack of fault on the part of the defender, the pursuer may also invoke the doctrine of *res ipsa loquitur*.[107]

Type B cases: rebuttable presumption of fault

Many of the type B cases (accumulation of a substance not intrinsically dangerous) concern flooding caused during the construction of the railway network in the nineteenth century. In one of the earliest,[108] the

102. It was suggested in *RHM Bakeries* v. *Strathclyde Regional Council*, *supra* n.101 on the authority of a House of Lords case in 1917, *Caledonian Railway Company* v. *Corporation of Greenock*, 1917 S.L.T. 67, that the only circumstances in which the *Rylands* v. *Fletcher* rule might possibly apply in Scots law was when a proprietor interfered with the natural flow of a stream. In fact, while several English cases including *Rylands* v. *Fletcher* were cited in that case, all were distinguished. (See Lord Wrenbury at 74 "To construct a reservoir on your own land is a lawful act. To close or divert a natural line of flow so as to render it less efficient is not. It has never been held that in such a case there is not liability.") Most of the dicta in that case concerning the basis of liability explain it by reference to fault. Lord Finlay, LC concludes, at 70, that "the appellants, in constructing the culvert, ought to have foreseen the possibility of such an occurrence and to have provided against it." The rule as formulated in that case derives mainly from analysis of the nineteenth century Scots case law.

103. I.e. type A as identified in pt III above in the context of *Rylands* v. *Fletcher*.

104. (1876) 3 R. 461, 464.

105. See for example *Nautilus Steamship Co. Ltd* v. *David Henderson and Co. Ltd* 1919 S.C. 605 (use of oxyacetylene flame by repairers); *Fitzpatrick* v. *Melville* 1926 S.L.T 478 (storing of poison near public area); *Gilmour* v. *Simpson* 1958 S.C. 477 (use of blow lamp).

106. 1932 S.C.(H.L.) 31, 65.

107. E.g. *Devine* v. *Colvilles Ltd* 1969 S.C.(H.L.) 67; *D. McIntyre & Son Ltd.* v. *Soutar* 1980 S.L.T. (Sh.Ct.) 115.

108. *Samuel* v. *Edinburgh and Glasgow Railway Company* (1850) 13 D. 312.

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pursuer's land was flooded by water accumulated in a railway cutting. He argued that fault need not be established, and that it was sufficient to prove causation. That argument was rejected. Lord Cockburn stated that the defender was "bound to provide against the ordinary operations of nature, but not against her miracles."[109]

The best-known case, *Kerr* v. *Earl of Orkney*,[110] decided some ten years before *Rylands* v. *Fletcher*, involved flood damage after the defender's dam had collapsed. Perhaps because the defender's building works were so obviously defective, the nature of the requirement for fault was barely discussed.[111]The basis of liability is, however, suggested in the judgment given at first instance:

> This fact [the flooding] occurring in reference to a recent work, constructed by a private party for his own pleasure, must be held to throw on the respondent the burden of explaining the fact on some footing consistent with the strength and sufficiency of the work.

This is a presumption of fault, rather than strict liability. The burden of proof shifts to the defender, but can be overcome. As was said in a later case:[112]

> If harm occurs in such a context, provided that the cause is otherwise unexplained, the doctrine of *res ipsa loquitur*, will come into play. This will raise a presumption of fault on the part of the person who introduced the dangerous activity. This presumption can be displaced by an explanation by the defenders consistent with absence of fault ...

The presumption of *fault* created by the doctrine of *res ipsa loquitur* does not favour the pursuer (plaintiff) to the same extent as the French presumption of *liability*. The difference can be illustrated by reference to two cases, one from Louisiana and one from Scotland.

In *Marquez* v. *City Stores*,[113] a Louisiana case decided before the 1996 reforms, a small child was injured on an escalator when his foot caught in the gap between the moving steps and the fixed skirting. The plaintiff did not prove that the escalator was defective, and the court did not accept that the escalator had malfunctioned immediately before the incident. The court also noted that the offending gap measured three sixteenths of an inch when the national safety standard prescribed that the gap should not exceed three eighths of an inch. There was, therefore, no finding of fault, and indeed there were explanations for the incident consistent with

109. *Idem*, 314.
110. (1857) 20 D. 298.
111. "I never saw a case of such water-works in which the maker had less to say in order to free himself from liability," *idem*, *per* Lord Justice Clerk Hope at 303.
112. *Ballard* v. *North British Railway Company* 1923 S.C.(H.L.) 43. A similar approach was adopted in *Potter* v. *Hamilton and Strathaven Railway Company* (1864) 3 M. 83.
113. 371 So.2d 810 (La.1979).

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lack of fault on the part of the store. Nevertheless, the presumption of liability contained in Article 2317 of the Code was applied against the store as the keeper of the escalator.

In the Scottish case, *McQueen* v. *The Glasgow Garden Festival (1988) Ltd*,[114] the pursuer was injured by flying shrapnel from a firework which exploded unexpectedly at a display organised by the defenders. The court declined to infer negligence on the basis of *res ipsa loquitur*, and Mrs McQueen's claim failed. Although the precise cause of the accident was not known, there were possible explanations, such as manufacturers' negligence, which were consistent with lack of negligence on the part of the defenders. In similar circumstances French law would almost certainly apply the presumption of fault discussed above.[115]

B. South Africa

Rylands v. *Fletcher* was imported into South Africa by the decision of the Privy Council in *Eastern and South African Telegraph Co. Ltd* v. *Cape Town Tramways Co. Ltd*.[116] This overruled the view of the appellate division that *Rylands* v. *Fletcher* was inconsistent with Roman-Dutch law. But in modern times the position has shifted once more. The *Rylands* v. *Fletcher* rule has been decisively rejected, and liability now depends on fault.[117] While strict liability rules exist in specific situations, in the main they derive from Roman-law actions,[118] or are created by recent statute.[119] Such rules are regarded as exceptions to the fundamental principle of no liability without fault.[120]

C. Australia

Australia has also rejected *Rylands* v. *Fletcher*, although much more recently. In *Burnie Port Authority* v. *General Jones Pty Ltd*, decided some

114. 1995 S.L.T 211.

115. Contrast *McQueen idem*, with the French case of *Ghirardi* v. *société Ruggieri*, Civ.(2) 30 Oct. 1989, in which Ruggieri were presumed liable when fireworks stored in their premises exploded prematurely and damaged the Ghirardis' property. See also *Ourliac* v. *Comité des Fêtes du Farel*, Civ (2) 1 April 1987 in which a young boy found an unexploded firework after a fireworks display and was injured when he set it off. The Cour de Cassation overturned the Cour d'appel's ruling that the boy had become the keeper at the relevant time, and that the presumption of liability had therefore shifted from the fireworks organisers.

116. [1902] A.C. 381.

117. T. W. Price, "Is the Rule in *Rylands* v. *Fletcher* part of Roman-Dutch law?" (1953) *South African Law Journal* 381–386; J. C. van der Walt, "Strict Liability in the South African Law of Delict" (1968) 1 *Comparative and International Law Journal of South Africa* 49–83 at pp.66–67.

118. E.g. *Actio de effusis vel deiectis*; *actio positi vel suspensi*; *interdictum quod vi aut clam*.

119. E.g. Nuclear Energy Act 1982.

120. R. G. McKerron *The Law of Delict in South Africa* (7th edn, 1971), pp.11–12; J. Neethling *et al Law of Delict* (2nd edn, 1994), p.341.

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three months after the decision of the House of Lords in *Cambridge Water Company*, the Australian High Court held that the *Rylands* v. *Fletcher* rule should be regarded as having been "absorbed by the principles of ordinary negligence".[121] The case concerned fire damage caused to property stored by the plaintiffs in the defendants' premises. The fire was caused by the negligence of a contractor in carrying out unguarded welding operations near a highly flammable insulating material, and the case was brought *inter alia* under the rule in *Rylands* v. *Fletcher*, on the basis that welding near flammable material was a non-natural use. The High Court determined that the *Rylands* v. *Fletcher* rule should be abandoned in favour of the general principles of negligence. It reasoned that, in effect, the rule did not preserve liability in any areas not covered by ordinary negligence, and that negligence now "encompassed and overlay the territory in which the *Rylands* v. *Fletcher* rule operated".[122] The qualifications made to the rule over the years, and in particular the transformation of the non-natural use test into a test of "special" and "not ordinary" use,[123] had caused it to "degenerate into an essentially unprincipled and ad hoc subjective determination".[124] Negligence law represented a more "coherent" alternative.[125]

The decision in *Burnie Port Authority* was not unanimous. Two of the judges were concerned that the rules of negligence offered little more certainty than *Rylands* v. *Fletcher*. Moreover, Brennan J suggested that special difficulties attach to hazardous activities which the mainstream rules of negligence do not address:

> As long as it remains the law that a person is not liable in negligence for a reasonably foreseeable risk of injury unless a reasonably practicable alternative means of avoiding the risk was also available to the defendant, liability will continue to exist under *Rylands* v. *Fletcher* in cases where it does not exist in negligence.[126]

121. *Supra* n.101, at 556, (hereinafter "*Burnie Port Authority*"). For commentary on this case, see R. F. V. Heuston and R. A. Buckley, "The Return of *Rylands* v. *Fletcher*" (1994) 110 *Law Quarterly Review* 506–509; S. Dziobon and R. Mullender, "Formalism Forever Thwarted: *Rylands v. Fletcher* in Australia" (1995) *Cambridge Law Journal* 23–25.

122. *Supra* n.101, at 547.

123. Their lordships were aware of the decision of the House of Lords in *Cambridge Water Company*, *supra* n.60, but did not refer to Lord Goff's restrictive interpretation of "non-natural" use in that case. Indeed, the two dissenting judges in *Burnie Port Authority* *supra* n.101, who favoured retaining the *Rylands* v. *Fletcher* rule would not in the end have found the Port Authority liable under the rule, for the reason that they deemed the use of the premises which the defendant had authorised to be an ordinary one, and not a "non-natural" one.

124. *Idem*, at 540.

125. *Idem*, at 544.

126. *Idem*, at 591.

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However, as the example of Scotland shows, this difficulty can be met by deeming the defendant at fault if he has introduced a hazard which all due care is unable to control.

D. Strict liability and fault-based liability compared

The difference between strict and fault-based liability is not as great as might be supposed. Since in practice each is modified so as to take on some aspects of the other, it is hardly surprising that they should sometimes arrive at the same results. As has been observed:[127]

> There are of course cases in which there is little difference in the result between the application of the English rule of absolute liability and the Scottish rule of *culpa*, where the facts raise a presumption of negligence so compelling as to be practically incapable of being displaced.

But important differences remain. To retain a fault-based framework is to avoid some at least of the difficulties created by *Rylands* v. *Fletcher*. Foreseeability relates to general harm rather than to the specifics of the particular accident which has actually occurred.[128] Claims may be made in respect of personal injuries as well as injury to property.[129] There is no requirement that the substance escape, and hence no distinction between harm occurring on and harm occurring off the defendant's premises.[130] Relatives and invitees have title to sue on the same terms as the owners and tenants of the land upon which the damage occurs. And finally the strained distinction between natural and unnatural uses of land does not require to be applied.

VI. NON-DELEGABLE DUTIES OF CARE

A different way of approaching the same problem is to say that if (a) a person engages in a hazardous activity (b) for that purpose he uses an independent contractor, and (c) the independent contractor is negligent, then (d) the negligence of the independent contractor transfers across to the principal engaging in the activity. Since the contractor is independent, there is normally no question of vicarious liability; but in its place comes the idea that, in relation to hazardous activities, the duty of care cannot be

127. *McLaughlan* v. *Craig* 1948 S.C. 599 *per* Lord President Cooper at 611.

128. *Hughes* v. *Lord Advocate* 1963 S.C.(H.L.) 31. (This Scots House of Lords case was not cited in *Cambridge Water Company*, *supra* n.60.)

129. That was already the case in the (now rejected) Australian version of *Rylands* v. *Fletcher*. See *Benning* v. *Wong* (1969) 122 C.L.R. 249.

130. *Burnie Port Authority supra* n.101, at 557: "It is unnecessary for the purposes of the present case to express a concluded view on the question whether the duty of care owed, in such circumstances, to a lawful visitor on the premises is likewise a non-delegable one. The ordinary processes of legal reasoning by analogy, induction and deduction would prima facie indicate that it is."

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delegated. It is possible to characterise this approach as a form of strict liability, for the defendant is liable even although he is not at fault. But fault remains an underlying requirement, for if the contractor is not negligent, there is no liability.[131]

The doctrine of non-delegable duties of care is found in systems with fault-based liability. That is no surprise. A transference of negligence is a convenient way of penalising those who engage in hazardous activities. To insist on personal negligence would be to set the threshold of liability too high. Thus the doctrine of non-delegation is recognised both in Scotland[132]and in South Africa;[133] and it was introduced to Australia in *Burnie Port Authority*,[134] the very case which rejected *Rylands* v. *Fletcher* in favour of fault-based liability.

But non-delegation is also recognised in some strict liability systems, including England and the United States. Indeed, the construction of Messrs Rylands and Horrocks' reservoir, on a different analysis, could well be seen as giving rise to a non-delegable duty of care when these gentlemen instructed their contractors to start the works. This is further evidence of the common ground between systems which outwardly may seem very different.

An example from California is *Ramsey* v. *Marutamaya Ogatsu Fireworks Company*.[135] Technicians were injured in a firework display due to a defect in the manufacture of two of the fireworks. They attempted to recover damages from the display organisers, as well as from the manufacturers. Californian case law suggested that a public firework display would not have been classified as an abnormally dangerous activity which attracted strict liability under Restatement paragraphs 519 and 520. However, the court deemed this to be a sufficiently dangerous

131. "Although the doctrine of extra-hazardous acts is sometimes treated as an exception to the general rule that a principal is not liable for the negligence of his independent contractor, it is in truth an instance of strict liability for breach of duty of care which the principal personally owes to the plaintiff", *Stevens* v. *Brodribb Sawmilling Co. Pty Ltd* (1986) 160 C.L.R. 16 *per* Mason CJ at 29–30. See also *Stoneman* v. *Lyons* (1975) 133 C.L.R. 550. But while Mason CJ concluded in *Stevens* that the doctrine "had no place in Australian law", he was a member of the later court which accorded it recognition in *Burnie Port Authority*, *supra* n.101.

132. *Noble's Trs.* v. *Economic Forestry (Scotland) Ltd.* 1988 S.L.T. 662.

133. *Langley Fox Building Partnership (Pty) Ltd* v. *De Valence* 1991 1 S.A.1(A).

134. See E. Fisher, "Risk, Justice and Independent Contractors: The Demise of the Rule in *Rylands* v. *Fletcher* in Australia" (1995) 7 *Journal of Environmental Law* 199–223.

135. 72 Cal.App.3d 516 (1977 Cal.App.). This case invites comparison with *McQueen* v. *The Glasgow Garden Festival (1988) Ltd*, 1995 S.L.T. 211, discussed earlier.

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enterprise to give rise to a non-delegable duty of care under paragraph 423 of the Restatement.[136]

The doctrine of non-delegation introduces its own uncertainties. In particular, if a duty of care is non-delegable only with regard to hazardous activities,[137] the problem of categorising such activities re-emerges. The English courts have encountered difficulties in achieving a satisfactory definition,[138] and such definitions often involve an assessment of risk similar to that required in mainstream negligence.[139] The test applied in South African law assesses the reasonableness of the defendant's conduct by reference to three questions:

> (1) Would a reasonable man have foreseen the risk of danger in consequence of the work he employed the contractor to perform? If so, (2) would a reasonable man have taken steps to guard against the danger? If so, (3) were such steps duly taken in the case in question?[140]

This test could almost be reformulated to ask whether the risk factor was such that the defendant was negligent in engaging anyone to do the work. Thus, once the activity is classified as dangerous, the doctrine comes close to heightening non-delegation to the level of a guarantee against the occurrence of harm.

136. Para.423 of the Second Restatement reads: "One who carries on an activity which threatens a grave risk of serious bodily harm or death unless the instrumentalities used are carefully constructed and maintained, and who employs an independent contractor to construct or maintain such instrumentalities, is subject to the same liability for physical harm caused by the negligence of the contractor in construction or maintaining such instrumentalities as though the employer had himself done the work of construction or maintenance". Another example of para.423 liability is *Maloney* v. *Rath* 69 Cal.2d 442 (1968), 40 A.L.R.3d 1 (motorist liable for negligence of independent contractor in failing to maintain brakes). Improperly maintained vehicles were said to create "a grave risk of serious bodily harm or death".

137. In *Burnie Port Authority*, *supra* n.101, at 558–559 the duty was non-delegable when "the combined effect of the magnitude of the foreseeable risk of an accident happening and the magnitude of the foreseeable potential injury or damage of an accident does occur is such that an ordinary person acting reasonably would consider it necessary to exercise special care or to take special precautions in relation to it".

138. See *Honeywill & Stein Ltd* v. *Larkin Bros Ltd* [1934] 1 K.B. 191 *per* Slesser LJ at 199: "If a man does work on or near another's property which involves danger to that property unless proper care is taken, he is liable to the owners of the property for damage resulting to it from the failure to take proper care, and is equally liable if, instead of doing the work himself he procures another, whether agent, servant or otherwise, to do it for him." See also *Bower* v. *Peate* (1876) 1 Q.B.D. 321, and E. McKendrick, "Vicarious Liability and Independent Contractors—A Re-examination" (1990) 53 *Modern Law Review* 770–784.

139. In *Alcock* v. *Wraith*, *The Times* 23 Sept. 1991, Neill LJ suggested that the "crucial question" in such cases is in fact whether the activity involved "some special risk or was it from its very nature likely to cause damage".

140. *Langley Fox Building Partnership (Pty) Ltd* v. *De Valence* 1991 1 S.A. 1(A) *per* Goldstone AJA at 12.

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VII. WHO IS LIABLE?

In fault-based systems, liability rests with the person who was at fault, subject to the rule, just discussed, which permits the transference of negligence. Systems which do not insist on fault are often less accommodating. If strict liability is to be allowed, it is subject to limitations. Only narrow classes of person can be strictly liable, and the liability of others depends on a finding of fault. Thus liability under *Rylands* v. *Fletcher* is restricted to the person who owns or controls the land from which the dangerous substance escapes; and in French law, the presumption of liability applies only to the *gardien*, the keeper of the offending object.

The French rule merits further discussion. The relevant point for ascertaining who is responsible as *gardien* is, generally speaking the time of the accident. But there may be difficulties in ascertaining who is the *gardien*. Under Article 1384.1 of the Code an owner may rebut the presumption that he is *gardien* by establishing that another individual has the object for the purposes of loan, hire, or even repair. This may lead to a situation whereby one person is the *gardien de la structure* and another *gardien du comportement*, the former responsible for intrinsic defects and the latter for defects in handling the object. The key question is the factual determination as to who has use, control and direction of the object at the relevant time.[141] However, concepts such as use, control and direction are necessarily imprecise. Two cases illustrate the difficulties.

In *Société L'Oxygène liquide* v. *Bouloux et Lathus*,[142] the Société L'Oxygène liquide sent a consignment of compressed oxygen by rail. The metal bottles containing the oxygen were collected from the station by lorry. On delivery, one of the bottles exploded, injuring two people. The cause of the explosion could not be ascertained. The final ruling was that the Société L'Oxygène liquide, not the carrier, remained liable as retaining *la garde de la structure* of the oxygen. Control was transferred to another "only when it is established that all possibility of preventing the harm which the thing could cause has been appropriately transferred to the third party".

This decision may be compared with the recent case of *Mannessier* v. *Société Papeteries de l'AA*.[143] The operators of a paper mill allowed employees to take away empty industrial-sized containers for their own use. One individual, M. Mannessier, took away several. The containers still held significant traces of a noxious chemical. Accordingly, when M. Mannessier washed them out, the water system was polluted and fish in a nearby fish farm were killed. The court rejected M. Mannessier's

141. Starck, Roland and Boyer, *op cit.*, *supra* n.3, at paras.500ff.

142. *Recueil Dalloz* 1960 J. 609. See also case note by Tunc in 1962 *Revue trimestrielle de droit civil* 647–650.

143. Civ.(2) 25 March 1998.

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argument that the paper mill should be presumed responsible under Article 1384.1. The offending substance had left the mill's keeping before the damage was caused. The mill was no longer the *gardien*. Hence it was liable only if there was fault, on general principles of law.[144] The parallels with *Cambridge Water Company* are intriguing. Both cases focus on the actions of the original keeper at the time when control is lost. The French rules find liability if the keeper has been at fault in the manner in which he disposed of the substance. The English rules impose strict liability if the harmful consequences of the disposal are foreseeable. In neither case, on the facts, is there liability.

VIII. CONCLUSION

The great difficulty posed by the application of negligence law, and by the modern interpretation of the *Rylands* v. *Fletcher* rule, is that it places a heavy burden of proof placed upon the injured party, and the obligation to adduce what is often detailed technical evidence. When the plaintiff is in a weaker position than the defendant as regards the obtaining of evidence, there is a case to be made for transferring the burden of proof. It is sometimes more realistic to ask the alleged polluter to prove that he was *not* negligent than to ask the victim to prove negligence in the management of someone else's property. The case for strict liability is strengthened when the risk has been introduced unilaterally by the defendant.[145]Conversely, if both parties have participated in the chain of events, and have had some opportunity to avert the harm, the case is less persuasive.

At the same time, in many cases involving dangerous activities, no fault in the moral, as opposed to legal, sense attaches to the defendant's conduct. Indeed it may often have brought economic or social advantages to others. The imposition of a regime of heightened liability is justified, in the case of hot air ballooning for example, because the level of risk outweighed the benefits. In practice there is often little difference between the application of fault-based and strict liability rules because a calculation of risk against benefit typically underpins both the calculus of risk in negligence and also the categorisation of the activities which are subject to strict liability.

144. I.e., under Art. 1382 of the Code, discussed in pt IV(a) above.

145. See M. Faure, "Economic Aspects of Environmental Liability: an Introduction" (1996) *European Review of Private Law* 85–110 at p.93.

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