

TALES OF DAMAGE AND (RETRO-) CAUSATION

Stathis Banakas¹

*'Der Schadensersatz bezieht sich auf den Schaden. Ein nachteiliges Ereignis soll aus der Welt geschafft, soll wiedergutmacht werden'*²

'Why should we lay down temporal precedence as a defining property of a cause?'³

I. Of Injuries and Damages in General

1. What Injuries?

When a person has suffered a physical damage, whether personal injury or property damage, all major European traditions of civil liability, including French, English and German tort law allow the recovery of all consequential expenses⁴. Such expenses include not only repair costs, consequential losses of profit and the like, but also, normally, all other costs that, in the circumstances, were reasonable for the victim to incur (for example, the cost of hiring a temporary substitute for a damaged chattel in order to mitigate the cost of its non-availability).

What amounts to physical damage is not, however, always clear. In the English case of *Blue Circle Industries Plc v The Ministry of Defence*⁵, Blue Circle ("BCL") owned some property, the Aldermaston Court Estate. It extended to some 137 acres and included a listed Victorian Manor House, used as a hotel, and a modern office building, Portland House. They were set in attractive grounds

¹ Reader in Law, Norwich Law School, University of East Anglia, England; Professor of Comparative law, University of Notre Dame in London; Formerly Fernand Braudel Senior Fellow, European University Institute, Florence, Italy.

² Erwin Deutsch, "Der Ersatz reiner Vermögensschaden nach deutschem Recht"; Banakas, E.K. (ed), *Civil Liability for Pure Economic Loss*, 1996, p. 55. See also Schubert, C., *Die Wiedergutmachung immaterieller Schäden im Privatrecht*, 2013, Mohr Siebeck, p. 11 f.

³ Dummett, A.E., in Dummett, A.E and Flew, A. 'Symposium: Can an Effect Precede Its Cause?' *Proceedings of the Aristotelian Society, Supplementary Volumes*, Vol. 28, Belief and Will (1954), pp. 27-62, at p. 28

⁴ See my paper Banakas, S 'Non-Pecuniary Loss in Personal Injury: Topography Architecture and Nomenclature in the European Landscape', in 10:2 *Journal of Comparative Law*, 2015, 291-342 with further references.

⁵ 141 SJ LB 11(Ch.D).

which included a large ornamental lake. The estate adjoined the Aldermaston Atomic Weapons Establishment (AWE) whose work at the relevant time included the research, design and production of nuclear devices for the Government. As a result of heavy rain, water from ponds on the AWE site overflowed onto the estate. A survey carried out by AWE personnel shortly thereafter revealed that a small area of marshland near the AWE boundary was contaminated by small quantities of radioactive matter (including plutonium), which, though not posing any threat to health, were above regulatory levels (under the Radioactive Substances Act 1960). At the same time, BCL was conducting negotiations for the sale of the estate to Sun Microsystems Ltd ("Sun") at a price of around £10m. Following the disclosure of the contamination, Sun ceased its interest in the site and the estate remained unsold. AWE accepted responsibility to pay for the removal of contaminated material (at a cost of nearly £350,000), but denied liability for any further costs or for the effect of the incident on the saleability or value of the property. BCL presented to the court a claim founded on the statutory cause of action provided by s. 12 of the Nuclear Installations Act 1965 or, alternatively, on nuisance or the rule of so-called strict liability for dangerous escapes in *Rylands v Fletcher*. Liability under the Act turned on whether the necessary "damage to property" required by s. 7(1) of the Act of 1965 to engage the liability of the defendants meant only physical damage to tangible property or also extended to cover pure economic loss or damage to incorporeal property or property rights. In an earlier case of a claim under the Act for contamination, the case of *Merlin v British Nuclear Fuels plc*⁶, Gatehouse J had held that the mere presence within the plaintiffs' property of emitting radionuclides emanating from waste discharge which cause no physical damage to the fabric of the property, could not on its own constitute such damage and any diminution in the value of the property caused by their presence was accordingly pure economic loss. That case concerned a claim by plaintiffs whose house had allegedly been contaminated by radionuclides emanating from the notorious British Nuclear Fuel's plant at Sellafield. They had moved in order to avoid exposing their children to a health risk but were unable to sell the property except at a much reduced price. Their claim failed on the basis that contamination of the air space within a building was not damage to property. The judge said that the plaintiffs' argument that "property" included the air space within the walls, ceilings and floors of the house and that this was,

⁶ *Merlin v British Nuclear Fuels plc* [1990] 2 QB 557.

therefore, damaged by the presence of radionuclides and, as a result, became less valuable as the family's home, seemed to him to be 'too far-fetched'. Another case, *Hunter v LDCC*,⁷ concerned Common Law claims for damages, arising from the deposit of dust on the plaintiff's house, during the construction of a new road. The Court of Appeal had to determine as a preliminary issue whether such deposits were capable of constituting damage to property. Interesting is the judgment of Pill LJ (with whom the other members of the Court agreed) who said⁸: "In my judgment the deposit of dust is capable of giving rise to an action in negligence. Whether it does depends on proof of physical damage and that depends on the evidence and the circumstances. Dust is an inevitable incident of urban life and the claim arises on the assumption that the defendants have caused excessive deposits. Reasonable conduct and a reasonable amount of cleaning to limit the ill effects of dust can be expected of householders. Subject to that, if, for example, in ordinary use the excessive deposit is trodden into the fabric of a carpet by householders in such a way as to lessen the value of the fabric, an action would lie. Similarly, if it follows from the effects of excessive dust on the fabric that professional cleaning of the fabric is reasonably required, the cost is actionable and if the fabric is diminished by the cleaning that too would constitute damage. Excessive dust might also be shown to have damaged electrical apparatus and there could no doubt be many other examples. The damage is in the physical change which renders the article less useful or less valuable. On the assumptions we are invited to make, that rather than any general concept of loss of utility is the appropriate test". After considering these cases, Carnwath J in *Blue Circle Industries Plc v The Ministry of Defence*⁹ was in no doubt that the case fell on the "physical damage" side of the line, accepting Pill LJ's finding that the damage is in the physical change which renders the property less useful or less valuable. The judge also considered the leading cases of *Murphy v Brentwood D.C.*¹⁰, and *Invercargill City Council v Hamlin*¹¹. *Murphy* decided that the duty of care in the tort of negligence is

⁷ [1996] 1 All ER 482 (CA).

⁸ At p. 366 f

⁹ 141 SJ LB 11 (Ch.D.).

¹⁰ [1991] 1 AC 398 (HL).

¹¹ [1996] AC 624 (P.C.). In this case, the Privy Council upheld the right of the New Zealand Court of Appeal not to follow the English House of Lords and develop the Common Law in New Zealand according to local policy considerations. *Murphy* was not followed in that case, concerning a duty of care arising from statutory powers of a local authority, granted by building byelaws requiring approval of the foundations of a building by the authority's building inspector. When the inspector negligently approved the defective foundations of a house causing damage to the house, the local authority was held to have owed a duty of care to the owner of house.

concerned with safety from physical injury, whether to persons or property, and neither the protection of property rights as such, nor, indeed, the compensation of pure economic losses. It follows that the cost of repair of defective property (provided the defect was discovered before any injury was done), as well as the loss from the diminution of its value are not recoverable in negligence. This applies not only to subsequent purchasers of defectively built premises (in the case of which it must, of course, be accepted that their property rights were instituted on an already damaged object), but also to the building owner, subject to the caveat that the latter may have a claim against the builder in negligence for repair or demolition costs of buildings that create a danger of physical injury on neighbouring land or on the highway. In the culture of English tort law it is the nature of the injury, rather than the legal right infringed, that matters. And it is only “physical” or “property” damage that can be compensated in an action in negligence, not a merely “economic” one¹². Murphy also established that if the defect is discovered before there is any injury to health or damage to property, the cost incurred by a subsequent purchaser in putting the defect right is pure economic loss and is not claimable in negligence¹³. But, interestingly, the *Blue Circle Industries* case presented the judge with the additional, more difficult question, whether it mattered that the difference in value of the property was partly attributable to the general fall in rental values in England between January 1993 and December 1994, rather than the contamination itself. On this point, he found direct assistance in another New Zealand case, *McElroy Milne v Commercial Electronics Ltd*¹⁴. In that case, a solicitor negligently failed to ensure that a lease granted by his developer client contained a guarantee from the lessee's parent company. The result was that the developer, who had intended to sell the property with the benefit of the lease soon after completion, found himself in dispute with the parent company and was unable to market the property for more than two

¹² *Murphy* is followed in England in a way that has drastically reduced recovery in tort against negligent architects or builders for anything but physical injury, even for the building owner or first occupier: *Lancashire & Cheshire Assn. of Baptist Churches v Howard & Seddon (a Firm)* [1993] 3 All ER 487. But the Supreme Court of Canada is following a more eclectic approach, refusing to apply Murphy as setting a principle of non-recovery, and treating the question of proximity on a more factual basis: *Norsk Pacific Steamship Co. v Canadian National Railway* [1992] 1 SCR 1021.

¹³ If the subsequent purchaser repairs the dangerous defect, the non-delegable duty of the person whose negligence originally caused the defect to make the premises safe is, thus, discharged “free of charge”. However, the subsequent purchaser may sue the creator of the dangerous defect for the cost of repair while the defect is not yet put right, and the former may be liable for such a cost, as, before the defect is put right, the creator of the defect continues to have a duty of care to all persons whose safety may be at immediate risk.

¹⁴ [1993] 1 NZLR 39.

years, during which time the market fell. The New Zealand Court of Appeal held that the developer was entitled to the difference between what the property would have fetched if sold soon after its completion with a guaranteed lease and what it eventually fetched two years later. In the light of that case, Carnwath J in *Blue Circle Industries Plc* held that the disclosure of the contamination in January 1993 produced a situation in which BCL, in a period of falling property values, were unable to market the property until remedial works were complete. That was a foreseeable consequence of the contamination and AWE were responsible for it. In arriving at this conclusion, the learned judge is responsible for the only remarkable development in England after *Murphy*, divorcing himself from the restrictive philosophy of the House of Lords and justifiably extending the legal notion of property damage to allow the compensation in tort of the loss of value caused by negligent direct physical interference with the property.

It is also interesting to have a look at what is considered by the courts to be a property damage in German law. It is often said by German writers that a pure infringement of a property right, culpable and unlawful, is actionable and ensuing actual damage will be compensated under paragraph 823, section I, of the German Civil Code. Like in English law, however, only the subject of the proprietary right himself can sue, not a third party suffering consequential loss. There is also no doubt that the theft or damage to the substance of the object of the proprietary right is actionable. But, again like English law, German law provides no remedy for a negligently caused pure loss of market value of property without any physical damage to it¹⁵. And the physical damage must, of course, have been caused after the proprietary interest of the plaintiff on the property was established; thus, the cases of original latent structural defects, like the English case of *Murphy*, are easily distinguished from cases of subsequent defective alterations or extensions¹⁶. Where German law appears possibly more generous than Anglo-American law is

¹⁵ See authorities cited by Palandt, *BGB Kommentar*, Para. 823, no 5

¹⁶ See, e.g. BGH LM Nr 4 zu Para 830 BGB; OLG Stuttgart NJW 1967, 512, accepted that the addition of a defective new part is *per se* 'property loss', even without further damage caused by it to the property on which it was fitted.

in relation to the loss of use of (undamaged) property. Provided that the property cannot be used by anybody (i.e. not only the owner or possessor) and, also, that it cannot be used at all, there can be an action under 823, I¹⁷.

The English and the German systems, in particular, are progressively moving closer to one another in their attitude that the recovery of losses caused by the invasion of physical interests is almost "axiomatic"¹⁸, has a "normative" character and does not always depend on actual proof that the costs had already occurred on the day of the trial. This attitude was more naturally formed in the Common Law tradition; while behind the German conversion to it can be found a remarkable case of doctrinal transplantation of a Common Law conception, of great interest to Comparative law. German law has, in the "normative concept of damage", endorsed an idea similar to the Common Law idea of an action for damages as a vindicative remedy of a right ('*Rechtsverfolgende Natur des Schadensersatzes*').

More specifically, the English law of torts has a tradition of so-called "torts actionable per se"¹⁹. Because the action for damages used to serve, in the past, also the purpose of testing out the existence of a right; in such cases, the presence of actual harm was not always necessary for the plaintiff to be able to sue. In the Tort of Negligence, however, only actual harm is compensated²⁰. But with their practice of "general damages" awards, English courts have

¹⁷ As in the celebrated 'canal' case, BGHZ 55, 153, NJW 1971, 886, involving the immobilisation of a ship in a canal not properly maintained by a local authority; see the classic article by Moeschel, *Juristische Schulung*, 1977, p. 3 f.

¹⁸ But in *Marc Rich v Bishop Rock Marine, The Nicholas H.* [1995] 3 All ER 307 (HL), a plaintiff's claim for a physical loss (loss of property) was denied as "unjust, unreasonable and unfair". It was held that to allow the claim would be "to interfere with and risk damaging the intricate and carefully regulated international code constituted by The Hague and the Hague-Visby Rules" (adjusting rights and duties between ship-owners and those shipping goods under bills of lading). The plaintiff had shipped his cargo under a bill of lading, and the cargo was lost when the defendant surveyor underestimated the importance of damage to the ship, allowing her to sail after inadequate repairs and sink almost immediately together with the cargo. The defendant was not the ship-owner. This shows that, in a commercial context, concerns about commercial market arrangements and market efficiency may overcome the policy of protecting physical interest in property from negligence actions.

¹⁹ In some cases an action in tort lies without any proof of damage; the reason is historical: see Clerk & Lindsell, *On Torts*, para. 302, supplying a catalogue of cases where actual damage is unnecessary. Trespass to land, person (but unintentional trespass to person may now need proof of damage: see *Letang v Cooper* [1965] 1 QB 232, 245 per Diplock L.J.) or goods and libel (see *Hayward v Hayward* (1887) 34 Ch.D. 198) are notable examples of torts actionable per se.

²⁰ The tort of Negligence is "traditionally described as damage, which is not too remote, caused by a breach of a duty of care owed by the defendant to the plaintiff": Clerk & Lindsell, *On Torts*, para. 859, referring to *Lochgelly Iron & Coal Co. v M'Mullan* [1934] AC 1, 25 per Lord Wright.

allowed themselves considerable space for normative manoeuvring. It is often the case that such awards go far beyond the monetary value of the actual harm suffered. The usefulness of this practice becomes only too evident with novel types of injury: if the courts feel that they are fit for compensation, the mechanism is there to accommodate them. In Germany, it is often argued that the German Civil Code (*Bürgerliches Gesetzbuch* or BGB), apparently under the strong influence of Mommsen²¹, endorsed a strictly factual, “materialistic” concept of damage. This is considered to be the philosophy behind the principle of non-compensation of so-called “non-material” losses (§ 253 BGB)²². But the comparative work of Neuner in the 1930s, and several other German scholars more recently, created a theoretical movement in favour of revising the orthodoxy of this view. Neuner’s “normative theory” of damage was directly inspired by the old Common Law tradition of using the tortious action as a test ground for the existence of a right; Neuner called this the “*rechtsverfolgende Funktion*” of the action for damages. Neuner became, in this way, the apostle of a new faith that has proved for Mommsen’s intellectual disciples hard to resist in the decades following his seminal article in the “*Archiv für die civilistische Praxis*”²³. Neuner’s work and its effect on the evolution of German doctrine and jurisprudence provide a rare and striking example of the transplantation not merely of a principle or a doctrine, but of a whole tradition from a legal system with a highly individual experimental style into a legal system of the highest dogmatic sophistication. The transplantation becomes even more noteworthy if one considers that the tradition in question was, at the time of its initiation in Germany, rapidly declining in England, so that it is today only of peripheral importance. From the “*rechtsverfolgende Funktion*” of the tortious action Neuner concluded that the concept of “damage” itself has to be a “normative” concept. The law should be left free to work out its own concept of damage for its own purposes. Assessment of damages should, furthermore, be made on the objective basis of the “common value” of the perished interest (“*gemeiner Wert*”), rather than on the basis of its subjective value. The latter was another postulate of the traditional

²¹ Mommsen, *Zur Lehre von dem Interesse*, 1855.

²² See details and literature in Banakas, S ‘Non-Pecuniary Loss in Personal Injury: Topography Architecture and Nomenclature in the European Landscape’, in 10:2 *Journal of Comparative Law*, 2015, 291-342

²³ Neuner, *Interesse und Vermögensschaden*, *AcP* 133, 277 f. (1931); see also, a year later, Wilburg, *Zur Lehre von der Vorteilsausgleichung*, in *JherB* 82, 51 f.; for a critical account of the literature following these two articles see Grunsky, *Aktuelle Probleme zum Begriff des Vermögensschadens*, 1968; Hagen, *Fort- oder Fehlentwicklung des Schadensbegriffs*, *JuS* 1969, 61 f.; Hauss in *ZVersWiss* 1967, 151; Zeuner, *Schadens- begriff und Ersatz von Vermögensschäden*, *AcP* 163, 380 (1963); idem in *GEDÄCHTNISSEHRIFT FÜR DIETZ*, 1972, S. 99 f.; Baur in *FS RAISER*, 1974, S. 120 f.

Mommsenian concept of damage. Neuner's ideas were further developed by several other authors; among others, led by Bydlinski (he calls the award of damages "a sanction for the injured interest or good")²⁴ and Larenz (who introduced the idea of a "*Rechtsfortsetzungsfunktion*" of the action for damages)²⁵.

2. The Causal Link

Proof of sufficient causal link is normally required by every modern tort system as a necessary condition of liability; a postulate of the principle of personal responsibility. The causal connection is preferable to any other, such as, for instance, a spatio-temporal one²⁶.

A great deal of ink has been spilt on the question of the proper criterion of legal causation. Apart from the self-evident fact (about which all tort laws using the causal explanation cannot but agree) that the defendant's conduct must be at least a condition "sine qua non" of the harm complained of, there appears to exist a healthy diversity in modern tort laws as to the criteria of "legal" causation that the courts apply next.

In French law, for example, it is commonly accepted in the context of art. 1240 f. of the Code Civil that a "direct" causal link must exist between the defendant's conduct and the damage. The exact meaning of this (unwritten, but apparently indisputable) rule, is not very clear²⁷. It cannot mean that the defendant's conduct must be the sole condition of the harm, because this would be defining liability too narrowly. It has been suggested that whenever there is an independent or subsequent condition of the harm, other than the defendant's conduct, with a special "explanatory" force (e.g. may be considered "abnormal" under the circumstances), then the defendant's

²⁴ *Probleme der Schadensverursachung nach deutschem und österreichischem Recht*, 1964, p. 29 f.

²⁵ Larenz, *Schuldrecht I*, 1987, p. 425, and subsequent editions; a good account of the history of the German debate on the concept of damage can be found in H. Lange/G. Schiemann/J. Gernhuber, *Schadensersatz: Handbuch des Schuldrechts*, 2003, p. 26 f.; see also E. Wolf in *FS Schiedermaier* 1976, S. 545 f.; Kondgen, *AcP* 177, 1 f. (1977), attempts an economic analysis of the issue. Finally, a first detailed comparative study is Magnus, *Schaden und Ersatz*, 1987.

²⁶ See the discussion in Honore, *International Encyclopedia of Comparative Law XI*, ch. 7, p. 7 f.; for a more recent European comparative study see B. Winiger/H. Koziol/B. A. Koch/R. Zimmermann (editors), *Essential Cases on Natural Causation: 1 (Digest of European Tort Law)*, 2007.

²⁷ See for the history of this article (old 1382 Code Civil), Weill/Terre, *Obligations*, 2d ed, p. 810 f.; Mazeaud/Mazeaud, *Traite Theorique et Pratique de la Responsabilite Civile*, Vol. II, 6th ed, No. 1666 f.; Le Tourneau, *Responsabilite Civile*, 2d ed, p. 197 f.; Carbonnier, *Droit Civil*, IV, 7th ed, p. 319 f.; and also the comparative discussion in Honore, In- *tEncCompL XI*, ch. 7, p. 40 f.

conduct ceases to be a “direct” cause of the harm²⁸. Another view is that only “necessary” consequences are “direct” consequences, but this hardly explains anything²⁹. It is, on the other hand, noteworthy that “foreseeability”, so important a criterion in Common Law and, also, of central importance in German law, too, has been described as “*une idée directrice*” for the judge in this connection³⁰. Some French decisions have actually turned to a test of legal causation similar to the German “adequacy” test³¹. Of special interest is, also, another interpretation of “directness”, which relates the causation rule to the legal notion of fault: the more serious the defendant’s fault, the more “direct” its consequences. If the fault is extremely serious, e.g. malice, the defendant must account for virtually all harmful consequences. Marteau, who first advanced this view more than a century ago,³² may have been influenced by the treatment of serious fault in other legal systems. In Common Law, for example, there is a well-established principle, according to which “intended consequences” are “never too remote”³³, and in German law wrongful intention receives a similarly harsh treatment³⁴. Marteau considered the defendant’s fault to be the most important factor to influence the judge’s mind as to the imputability of certain consequences; he believed that: «la formule du dommage indirect est une fausse étiquette qui sert à designer le *jus moderandi* du juge français»³⁵.

But three objections were advanced against this:³⁶ Firstly, it has been noted that a similar distinction between intentional and non-intentional consequences is not made in the field of contractual liability (art. 1151 C.C.),

²⁸ Honore, *op. cit.*, p. 41.

²⁹ See, e.g., the discussion in Mazeaud/Mazeaud, *Traite*, Vol. II, 6th ed, No. 1673.

³⁰ Mazeaud/Mazeaud, *Traite*, Vol. II, 6th ed, p. 791; foreseeability plays a central role also in contractual liability and it has been suggested by the great Rene Savatier (*Responsabilite Civile*, Vol. II, 2d ed, No. 472) that all foreseeable harm could qualify as “direct”, regardless of cause of action.

³¹ See e.g., Mazeaud/Mazeaud, *Traite*, Vol. II, 6th ed, No. 1442; Weill/Terre, *Obligations*, 2d ed, p. 811; compare Le Tourneau, *Responsabilite*, Nos 528 f.

³² Marteau, *La causalite dans la responsabilite civile*, 1914, p. 221 f.

³³ “The intention to injure the plaintiff disposes of any question of remoteness”: *Quinn v Leathem* [1901] AC 495, 537 *per* Lord Lindley. The same applies to reckless indifference regarding a harmful event: for the purposes of liability, recklessness is treated as bad intention: see Clerk & Lindsell, *On Torts*, para. 339. Deceitful statements engage the tortfeasor’s liability for all damage flowing directly from the fraud, whether foreseeable or not: *Doyle v Olby (Ironmongers) Ltd.* [1969] 2 QB 158 (CA); this is the case despite the fact that the damage is only pecuniary (contrary to what appears to be the general causation rule in negligence, regarding the extent of liability for pecuniary damage).

³⁴ The tortfeasor must account for intended harm, even when it fails to qualify as an “objectively probable” (i.e. “adequate”) consequence of his conduct.

³⁵ Marteau, *op. cit. Supra*, p. 221. See the similarly pragmatic approach of a leading English judge, Lord Hoffmann, “Causation”, 121 *Law Quarterly Review* 2003, 592-603, on which more *infra*.

³⁶ Mazeaud/Mazeaud, *Traite*, Vol. II, 6th ed, No. 1672.

where, besides, “directness” itself, as a criterion of causation, originated. Secondly, it has been observed that the very idea of a moderating power of the judge in awarding damages is contrary to the wishes of the authors of the Code Civil, as revealed in the record of its “motives”. Thirdly, since the application of the principle of directness affects the legal issue of causation, it is subjected to the control of the French Civil Supreme Court, the *Cour de Cassation*; a “*jus moderandi*”, belonging to the sovereign power of the trial judge, would make this control virtually impossible.

It is submitted, however, that Marteau’s observations are not entirely devoid of truth. In an oblique way the French judge has, in fact, been given a certain “*jus moderandi*” i.e. by being granted, in practice, an effective discretion in the actual assessment of damages. And the courts cannot but be influenced by the degree of fault involved when deciding the issue of “directness”. «On donne une idée assez juste de la jurisprudence, en disant qu'elle s'attache à une causalité morale plutôt que matérielle»³⁷.

The influence of the degree of fault is, besides, no less in the context of an “adequacy” theory of causation relating the “generally foreseeable” harm (the commonest criterion of “adequacy”) to the type of harm of which the defendant’s conduct significantly increased the probability. This version of the “adequacy” theory has been criticized, too, for confusing fault and causation³⁸. But in the case of non-premeditated harm³⁹ it is often likely that a serious amount of carelessness will have a stronger explanatory force, no matter how objectively the “adequate” cause is defined; this is not a confusion of fault and causation, but a reflection of the fact that a causation theory based on probability cannot but take into account the degree to which seriousness of fault and probability of harm are in proportion.

In German law, the *conditio sine qua non* test is coupled with a test of “adequate cause”, whose correctional intervention is meant to avert an intolerable expansion of liability. The most common version of the “adequacy” theory employs a test according to which a condition of the harm may be considered as a *causa adequata*, when it has increased the objective probability of the harm. The significance of a condition is considered *ex post facto* (forecast with hindsight: in German “*nachträgliche Prognose*”). It is, moreover, the “hindsight” of a most prudent and perceptive observer that is to be taken into account, and

³⁷ Carbonnier, DROIT CIVIL, 7th ed IV, p. 319; compare Lord Hoffmann’s similarly robust view, above, note 31.

³⁸ See Dalcq, *Traite De La Responsabilite Civile*, Vol. II, No. 2374; but in most versions of the adequacy theory the “generally foreseeable” or “objectively probable” condition is so defined (see *infra*, under B. in the text) as to defeat this criticism: see Honore, *IntEncCompL* XI ch. 7, no. 86.

³⁹ “Adequacy” gives way, on the other hand, to the simple *conditio sine qua non* test in the case of intended harm: *supra*.

the calculation of harm-probability is done in the light of “all the knowledge of laws and generalizations” available to mankind⁴⁰. This formula has run into difficulties in practice, especially in connection with certain types of consequential losses (e.g. ulterior harm)⁴¹.

The Common Law causation test of “reasonable foreseeability” has strong similarities with the German “adequacy” test⁴². For example it has been held that foreseeability is determined in the light of the knowledge of the “reasonable” man after the act⁴³. Proof of foreseeability is an absolutely necessary condition for a claim to be accepted in negligence in Anglo-American law. If the harm is not shown to be foreseeable “in kind”, then there is no question of recovery, even if it can be shown to be “direct”⁴⁴. On the other hand, a physical loss that is shown to have been foreseeable, may be recoverable, albeit “indirect”⁴⁵. In German law, too, it seems that physical losses, if they can be taken to be among the objectively foreseeable consequences of the harmful event, are recoverable, even when they appear to be “indirect”⁴⁶.

II. The Special Problem of Expenditure to Prevent Anticipated Physical Damage (“Vorsorgekosten”)⁴⁷

1. A Philosophical Challenge

As elegantly put by Erwin Deutsch, “Compensation is for harm: a harmful event has occurred in the world, and the harm should be made good”⁴⁸. The question may be asked, however, whether the law should not also contemplate the acceptability of the recovery of expenses towards mitigating or totally averting a damage that has not yet materialized but is strongly anticipated. The law

⁴⁰ For the adequacy theory used in Germany see the classic account of Deutsch, *Haftungsrecht*, Vol. I, 1976, p. 146 f.; see also Honore, *IntEncCompL* XI, ch. 7, p. 49 f., for a general discussion of “probability” theories of causation, of which the adequacy theory is by far the most important.

⁴¹ Honore, *op. cit.*, p. 54.

⁴² See Banakas, S., ‘Causalité juridique et imputation: réflexions sur quelques développements récents en droit anglais’, *Revue Lamy Droit Civil*, Suppl. au No 40, July/August 2007, 93

⁴³ See the analysis in Dias [1967] *CLJ* 62, 68, 77–82.

⁴⁴ Since *The Wagon Mound (No 1)* [1961] AC 388, the House of Lords has held that if the damage is foreseeable in kind neither the unforeseeable extent of the injury nor the unforeseeable manner of its incidence can absolve the defendant: see *Smith v Leech Brain & Co., Ltd.*, [1962] 2 QB 405; *Hughes v Lord Advocate* [1963] AC 837. These principles apply only to physical loss, i.e. injury to person or property.

⁴⁵ As has been illustrated by the House of Lords decision in the case of *Dorset Yacht Ltd. v Home Office* [1970] AC 1004: see the remarks of Lord Denning M.R. in *S.C.M. v W.J. Whittall & Son, Ltd* [1971] 1 QB 337, 43.

⁴⁶ See BGHZ 41,123.

⁴⁷ See H. Lange/G. Schiemann/J. Gernhuber, *Schadensersatz: Handbuch Des Schuldrechts*, 2003, p. 295 w. f. r. There is no specialist literature dedicated to this problem in English law.

⁴⁸ Erwin Deutsch, “Der Ersatz reiner Vermoegenschaden nach deutschem Recht”; Banakas, E.K. (ed), *Civil Liability For Pure Economic Loss*, 1996, p. 73 (translated by Tony Weir).

generally recognises not only the right to self defence (a valid defence under most tort systems) but also a duty to mitigate the loss *ex post facto*. It would appear quite reasonable, in view of the existence of such a duty, to recognise the recoverability of mitigation expenses made *ex ante*⁴⁹. The issue is not easy to decide. Let us consider some examples.

A bus company keeps stand-by buses for quick replacement of any vehicles that might be accidentally damaged. An enterprise incurs special overhead expenses towards establishing a mechanism for preventing and/or putting right any damage or break down that might occur and affect business interests. A supermarket appoints special security staff to prevent shoplifting⁵⁰. The television licensing authority spends money to put in place a mechanism to collect license dues from unwilling users⁵¹. The musicians' guild charges a subscription to a copyright protection agency hunting copyright violators⁵². When the damage finally materializes, can these precautionary costs be recovered from a tortfeasor, whose anticipated wrongful act caused such expenditure to be incurred in advance of the tortious act?

The technical problem at issue here appears to be the following: to what extent expenses incurred in mitigation or aversion of an anticipated damage, likely to be caused by a strongly anticipated harmful event, may be seen as having been "caused" by the subsequent materialization of the harmful event?

This problem is a well-known philosophical problem that has received the following general formulation: "*Can an Effect ever Precede its Cause?*"⁵³, also known as the problem of *retro-causation* or *backward causation*. This is what one of the outstanding philosophers of our time, the late Professor Michael Dummett, has written on the issue:

"We may observe that the occurrence of an event of a certain kind is a sufficient condition for the previous occurrence of an event of another kind; and, having

⁴⁹ See with further references, Looschelders, Dirk, *Die Mitverantwortlichkeit des Geschädigten im Privatrecht (Jus Privatum)* 1999, Mohr Siebeck, p. 496 f.

⁵⁰ See e.g. BGHZ 75, 230, 234, commented with approval by Erwin Deutsch in JZ 1980, 99 f., denying recovery of such precautionary expenditure; cf similarly, LG München DAR 1988, 383. Further references and discussion of the (negative) literature in Lange, H. and Schiemann, G., *Schadensersatz (Handbuch Des Schuldrechts)*, 3rd ed., 2003, Mohr Siebeck, p. 387 f.

⁵¹ Recovery allowed in BGHZ 75, 238; for some reason the issue, which was quite popular in German literature in the 1970s has not been much discussed recently in Germany. For interesting comparisons with Swiss case law and an assessment of German case law see Honsell, *Schweizerisches Obligationenrecht, Besonderer Teil*, 6th ed. 2001, para. 11 IV 2.

⁵² See the favorable decisions of the Federal Supreme Court for GEMA, the music authors' society, BGHZ 17, 376, 383 and BGHZ 59, 286; Löwenheim, *Schadensersatz in doppelter Höhe der Lizenzgebühr bei Urheberrechtstverletzung?*, JZ 1992, 12 f.; also the detailed analysis, and evaluation of the hostile literature, in Lange, H. and Schiemann, G., *Schadensersatz (Handbuch Des Schuldrechts)*, 3rd ed., 2003, Mohr Siebeck, at p. 297 f.

⁵³ Michael Dummett, *Truth and Other Enigmas*, 1978, p. 319 f.

observed this, we might, under certain conditions, offer the occurrence of the latter event, not indeed as a causal, but as a quasi-causal explanation of the occurrence of the earlier. There are three such conditions that have to be fulfilled if it were to be reasonable to offer such a quasi-causal explanation. First, the occurrence of the earlier event, which was to be explained by reference to that of the latter event, would have to be incapable, so far as we could judge, of being (causally) explained by reference to simultaneous or preceding events; there must be no discoverable explanation of the earlier event which did not refer to the latter. Secondly, there would have to be reason for thinking that the two events were not causally connected, i.e. there must be no discoverable way of representing the earlier event as a causal antecedent (a remote cause) of the latter. Thirdly, we should have to be able to give a satisfactory (causal) account of the occurrence of the latter event which contained no reference to the occurrence of the earlier. If these three conditions were fulfilled, and there really was good evidence of the repeated concomitance of the two events, then the quasi-causal connection between them would be a fact of nature which we could do no more than observe and record.”⁵⁴

In the light of these three conditions of Professor Dummett, expenses in mitigation or aversion of anticipated harm come very close to qualifying as “quasi-consequential” losses upon the (subsequent) damage (if and when the latter finally occurs). But it appears that the first condition demands proof that the expenses were inescapably necessitated, in the light of all circumstances, by the kind and scope of the anticipated damage to the extent that they might be seen, at the time of their occurrence, as virtually “forced” upon the will of the plaintiff. Can this, if true, ever be the case in practice?

Be that as it may, it is probable that courts are likely to indulge less in technical causation issues and more in broader considerations of policy, to the extent that this is allowed to them. Indeed, the issue has arisen as a concrete problem in the German law of damages, in the form of so-called precautionary expenditure and costs of averting or mitigating an anticipated loss⁵⁵. The anticipated loss itself will be the product of an unlawful act, which the advance expenditure is

⁵⁴ ibid., p. 322 f. See also the philosophical debate ignited by Dummett’s views and the criticisms of Flew in Dummett, A.E., in Dummett, A.E and Flew, A. ‘Symposium: Can an Effect Precede Its Cause?’ *Proceedings of the Aristotelian Society, Supplementary Volumes*, Vol. 28, Belief and Will (1954), pp. 27-62; a good summary of the philosophical debate on these issues can be found in ‘Backward Causation’, *Stanford Encyclopedia of Philosophy*, <https://plato.stanford.edu/entries/causation-backwards/> (last visited 26.01.2017)

⁵⁵ On the problem of the recoverability of expenses made in advance of the harmful event in order to avert it or mitigate its effect see Lange, H. and Schiemann, G., *Schadensersatz (Handbuch Des Schuldrechts)*, 3rd ed., 2003, p. 385 with further references; also from the original literature in Germany Hagmann, *Die Schadensersatzrechtliche Behandlung Von Vorsorgemaßnahmen*, Diss., Tuebingen 1976; von Marschall in *Fs Max Rheinstein*, Vol. II, 1969, 625; Schmidt, *JZ* 1974, 73 f.; Klimke, *NJW* 1974, 81 f.; Canaris, *NJW* 1974, 521; Musielack, *JuS* 1977, 531.

intended to prevent: for example, the cost of hiring security personnel to guard the premises of a supermarket from acts of theft. And the person from whom the advance expenditure will be claimed will be anyone found liable for such an anticipated unlawful act, which in their case the expenditure, obviously, eventually failed to prevent.

German courts seem to have adopted a rather negative position in connection with such expenditure, when such costs not exceed normal, day to day, overhead expenditure. But, exceptionally, when, under the circumstances, established standards of legal policy, like the principle of "*Treu und Glauben*", dictate otherwise, such advance expenditure may be recoverable from the defendant who is liable for the main delictual act⁵⁶.

In France considerations of legal policy find more space in the broadness of the liability and compensation principles of the general clauses. This is illustrated by a decision of a lower court in a case where the Electricity Board of France sought the recovery of costs, towards maintaining and putting into operation stand by repair units, from the party responsible for damage to a power cable. The first instance court found that these costs represented no actual harm; they had been "otherwise" indemnified, i.e. mainly in the price of electricity, where all "overheads" of the Board were also reflected. But the *Cour de Cassation* thought that the Board ought to be allowed to recover those costs on the grounds of the principle of "*réparation intégrale*"⁵⁷. This implies that the *Cour de Cassation* accepted not only that the expenses represented "actual harm", but that they were also causally connected with the harmful event in anticipation of which they had been incurred.

The French scholar, Philippe Le Tourneau applauded the recoverability of expenses towards averting or mitigating a damage from the person responsible for that damage on the grounds that, otherwise, "the spirit of initiative and enterprise, profitable to the community, would be discouraged"⁵⁸. The issue of causation, however, should not be so lightly dismissed. Personal liability, whether based on fault or not (i.e. "strict liability"), cannot and should not be extended beyond events for which the harmful event is, at least, a cause. If "to award compensation without fault" has now come to be regarded by some distinguished lawyers as liable to "make society bankrupt"⁵⁹, what can one say on the implications of "compensation without causation". But is there any

⁵⁶ See BGHZ 32, 280; BGH JZ 1961, 420; and *supra*, notes 24, 25.

⁵⁷ Dalloz Sirey 1976 J. 137 note Le Tourneau; see also *Revue Trimestrielle de Droit Civil*, 1975, 106 obs. Durry.

⁵⁸ *Ibid.*

⁵⁹ Denning (Lord), *The Discipline of Law*, 1979, p. 280; compare von Caemmerer in *RabelsZ* 42, 5 f. (1978).

evidence of causation in such cases?

Let us take a closer look: the compensation of such advance expenditure raises three major issues:

The first is, can the posterior unlawful act be seen as the cause of the expenditure? Professor Dummett's three conditions above ought to be satisfied for this to be the case. It seems that, on face-value, these three conditions are satisfied: First, the occurrence of the earlier event, the advance expenditure, is incapable of being (causally) explained by reference to simultaneous or preceding events; there must be no discoverable explanation of the earlier event which did not refer to the latter. Provided, of course, that the advance precautionary (security) expenditure has been exclusively caused by an anticipated unlawful act, such as that of the defendant, and no other event, such as, for example, health and safety or public relations. Second, there can be no reason for thinking that the two events were not causally connected, i.e. there is no discoverable way of representing the prior expenditure as a causal antecedent (a remote cause) of the unlawful act: surely, the theft is not in any way caused by the advance security measures. This, however, will not be the case, obviously, if, on the facts, security measures have in any way precipitated the subsequent theft, for example, by making possible a particular way of carrying it out and the like. Third, there certainly is a satisfactory (causal) account of the occurrence of the latter event which contains no reference to the occurrence of the earlier: the defendant's fault in committing the unlawful act. Additionally, as Dummett would require, the repeated concomitance of the two events, advance security expenditure and subsequent thefts is evident. This according to Dummett should lead us to accept a quasi-causal connection between them as "a fact of nature". But a paradox here is that advance precautionary security expenditure is, of course, intended to prevent the subsequent unlawful act from happening; indeed, if security works, that should be the case. If it doesn't work and a theft takes place, could it be considered as a net loss for the claimant (see below)?

A second issue is that clearly only a proportion of the advance precautionary security expenditure can be clearly attributed to the subsequent unlawful act, unless, of course, the measure was an ad hoc advance precaution against an identified single threat. This raises issues of probability and of magnitude of anticipated risk and assessment of advance costs attributable to each subsequent unlawful act, because such an act is as much the cause of the prior expenditure as any other subsequent unlawful act that was committed on the

same premises, indeed, also any other attempted unlawful act thwarted by the prior expenditure.

A third issue, related to the second, is avoiding the overcompensating of the claimant, whose prior expenditure may have thwarted other subsequent unlawful acts; if the defendant should compensate a portion of the expenditure, assessment must take this into account.

A fourth issue is that a distinction needs to be made between precautionary expenditure caused by the threat of, and aiming at, preventing the subsequent unlawful act and other precautionary expenditure, for example, of an indemnificatory nature, such as loss or accident insurance. Last, but not least, comes the issue of the degree to which precautionary expenditure is the result of the exercise of the claimant's own free will, which is, unlike actual damage caused by the injurer, voluntary expenditure. This has been a major obstacle in actual case law in several European jurisdictions⁶⁰.

Regardless of the logical coherence of the above, calculating the defendant's liability for prior precautionary expenditure by the claimant may be practically difficult, if not impossible, and will depend on the extent to which statistical evidence may persuade a court of law. Unless, of course, one is prepared to see the defendant's liability for such expenditure as being at large, i.e. in the form of general, normative damages that a court of law can award without need of concrete calculation of the extent of pecuniary loss.

2. Getting Real about Legal Causation

"[The] causal-set model does not imply any chronological relationship among the causal elements involved, *although all causes must precede the plaintiff's harm*"⁶¹.

This blunt statement, combined with the need to test causation on the so-called counter-factual inquiry test, would immediately appear to shut the door to any speculation on precautionary expenditure qualifying as harm caused by subsequent wrongful activity. It must be made clear that the need for the "effect" to follow the "cause", and not the inverse, is unanimously accepted by

⁶⁰ See the analysis of Heinrich Honsell, *FS*

für Peter Schlechtriem Zum 70. Geburtstag (edited by Schwenzer, I./Schlechtriem, P./Hager, G.), 2003, S. 750 f.

⁶¹ American Law Institute, *Restatement of the Law Third, Torts: Liability For Physical Harm – Proposed Final Draft No. 1*, 2005, Chapter 5, Para. 26 Factual Cause, p. 420 (italics added).

both lawyers and scientists as a self-evident requirement of legal causation⁶². As put by an eminent scientist, writing on the environment, epidemiology and disease, the first important question always is: “Is the temporal relationship correct?”⁶³

Be that as it may, legal causation cannot but be also based on the indisputable complexity of natural causation⁶⁴, famously described by John Stuart Mill as follows:

“The cause then, philosophically speaking, is the sum total of the conditions positive and negative taken together; the whole of the conditions of every description, which being realized, the consequence invariably follows.”⁶⁵

The fact that precautionary advance expenditure may have (also) been caused by other events, e.g. increase of business competitiveness, greater cost-effectiveness and the like, should be no obstacle, as tort theory traditionally accepts that the tortfeasor’s conduct does not need to be the sole cause of the claimant’s loss, acknowledging the simple scientific proposition that

“...there can never be a single cause of an event. A very complex set of circumstances must be present for any effect to occur.”⁶⁶

While the affirmation that “all causes must precede the plaintiff’s harm” smacks of dogmatism that seems to beg the question, the counter-factual inquiry test, in particular, would immediately point to the fact that such advance expenditure could not have possibly be caused by this particular defendant’s subsequent act, since absent this defendant’s specific act such precautionary expenditure would still have occurred. However, counter-factual inquiry also shows that absent all

⁶² A good review of English and US developments on legal causation is Stapleton, “Cause in Fact and the Scope of Liability for Consequences”, 119 *Law Quarterly Review* 2003, 388-425.

⁶³ Austin Bradford Hill, “The Environment and Disease: Association or Causation?”, 58 *Proceedings of the Royal Society of Medicine* 295 (1965).

⁶⁴ Unless, of course, one has the authority, and, dare I say, audacity of a judge of the stature of Lord Hoffmann, who boldly declared that “There is nothing special or mysterious about the law of causation. One decides, as a matter of law, what causal connection the law requires and one then decides, as a question of fact, whether the claimant has satisfied the requirements of the law. There is, in my opinion, nothing more to be said”, in Leonard Hoffmann, “Causation”, 121 *Law Quarterly Review* 2003, 592-603. This “common sense” approach of the House of Lords reached an apogee of unscientific “policy” trickery in the causation area in the case of *Chester v Afshar* [2004] UKHL 41, [2005] 1 AC 134: see more in my paper “Causalité juridique et imputation: réflexions sur quelques développements récents en droit anglais”, *Revue Lamy Droit Civil, Suppl. au No 40*, July/August 2007, 93-99.

⁶⁵ John Stuart Mill, *A System of Logic: Ratiocinative And Inductive*, 1843, ch. V para. 3, ch. VIII para. 1-4; for a modern endorsement of Mill’s view of causation in a so-called necessary element of a sufficient set (NESS) test see Wright, R. V., “Causation in Tort Law”, 73 *California Law Review* 1735 (1985): the NESS test is primarily intended to address the problem of duplicative or preemptive causes, which, however, is outside the scope of the present study.

⁶⁶ Fischer, D. A., “Causation in Fact in Omission cases”, 1992 *Utah Law Review* 1335, 1338; Stapleton, in “Legal Cause: Cause-in-fact and the Scope of Liability for Consequences”, 54 *Vanderbilt Law Review* 941, 958-961 (2001), refers to Chaos theory to support a similar view.

future wrongful acts that are statistically probable, the precautionary expenditure would, indeed, not have occurred. Can this help, if one takes into account other examples of cases where tort law has found it possible to accept the defendant's liability although the claimant could not establish factual causation against him specifically, but could only infer such factual causation against a group of persons to which the defendant belonged? In the UK, the House of Lords accepted such liability without proof of individual causation in the case of death caused by an employee's exposure to asbestos⁶⁷. Also, so-called "market-share" liability in US law⁶⁸ may have a surprising potential of application in cases of precautionary expenditure, applicable, although necessarily in reverse chronological order, to cases of advance security expenditure been charged in a similar way to those that share the lucrative market of criminal activity. And this would be more in accordance with so-called normative economics theory (deterrence), as it would encourage the efficient prevention of tortious activity at the expense of the tortfeasor rather than any corrective-justice approach.

Dummett's logical/empirical approach to temporarily inverse natural causation could be not too far from the reality of advance precautionary expenditure imposed on the claimant by the strong probability of the defendant's wrongful act. True, this expenditure is the result of the claimant's exercise of her own free will and freedom of choice. Unfortunately, English law is not very clear on the conditions under which a person may be liable to another for the latter's voluntary (self-inflicted) loss⁶⁹. EU Civil liability law, on the other hand, is clearer

⁶⁷ *Fairchild v Glenhaven Funeral Services Ltd* [2002] UKHL 22; restricted to mesothelioma cases by the Compensation Act 2006, s. 3. Related issues of great interest include the status of epidemiological evidence when factual causation is not possible; see for example the judgment of Swift J. in *Jeffrey Jones and others -v- The Secretary of State for Energy and Climate Change and Coal Products Limited* [2012] EWHC 2936 (QB) and further discussion in Banakas, S., 'Causalité juridique et imputation: réflexions sur quelques développements récents en droit anglais', *Revue Lamy Droit Civil*, Suppl. au No 40, July/August 2007, 93

⁶⁸ US case law on 'market share liability', which began with the Californian case of *Sindell v Abbot Labs.* 26 Cal. 3d 588, 2, 607 P. 2d 924 (Cal 1980), is reviewed comprehensively in Twerski, A. D., "Market Share- A Tale of Two Centuries", 55 *Brooklyn Law Review* 869 (1989); Rostron, A., "Beyond Market Share Liability: A Theory of Proportional Share Liability for Non Fungible Products", *UCLA Law Review* 2004, 151; see also Wright, R. W., "Once More into the Bramble Bush: Duty, Causal Contribution, and the Extent of Legal Responsibility", 54 *Vanderbilt Law Review* 1071 (2001). Market share liability is different than the joint and several liability recognized in Section 876 of the Restatement (Second) of Torts known as concerted action theory. Market share liability also must not be confused with so-called 'alternative liability', known since the time of the Roman *lex aquilia*, (see the famous US case of *Summers v. Tice* 33 Cal.2d 80, 199 P.2d 1 (1948), in which two members of a hunting party simultaneously fired their guns in the same direction, and the plaintiff was shot in the eye and lip, but determining which of the two hunters had shot him was not possible: the California Supreme Court held that the burden of proof on the plaintiff was nevertheless discharged, and it was on either defendant to prove that the shot fired by him was not the cause). But market share liability is close to enterprise liability for defective products, recognized in *Hall v. E.L DuPont de Nemours & Co.*, 345 F. Supp. 353, US Dist. Court, ED New York (1972), also endorsed by the UK House of Lords on a different reasoning in *Fairchild* (above note 67).

⁶⁹ See in a context totally different than the one discussed in this paper, *Corr v IBC Vehicles Ltd*, 2008 WL 371099 (HL), [2008] 2 All E.R. 943, [2008], in which the House of Lords held that a company was liable to the widow for damages under the Fatal Accidents Act 1976 s. 1 in respect of the financial loss attributable to the suicide of her late husband, employed by the company as a maintenance engineer. He had been struck on the head by a machine he was working on. After the accident he underwent reconstructive surgery and remained disfigured, suffering from post-traumatic stress disorder; he became depressed and his condition worsened over time, until, finally, he committed suicide nearly six years after the accident. The

and considerably meaner when the claimant's loss appears to be the result of the claimant's own voluntary act, operating with a causation test based on the idea of a direct causal link between wrongful act and loss⁷⁰, also used in French law, as we have seen. Without entering the age-old moral debate on whether or not we humans are free agents, we must accept the reality that the law presumes us to be so, and does give effect to our so-called free will to create rights and responsibilities, and also contribute through its exercise to our own losses, extinguishing or decreasing the responsibility of others that have also contributed to them. But the law also acknowledges the effect of external compulsion on a person in exercising their freedom of will, when such compulsion is physical/psychological (duress) or even economic. And compulsion in deciding to incur expense may not just be physical/psychological/economic, but also legal, for example, security expenditure required by insurance. This could be seen as close to an objective constraint on the claimant's free will as it can get, and could provide enough evidence of expenditure attributed to an event outside the claimant's control. To reach a conclusion, Dummett's criteria are specifically intended to explain causation empirically, not scientifically. Moreover, in an age where quantum physics has demonstrated that anything is scientifically possible in nature, Dummett's criteria offer a pragmatic understanding of causation and can be applied to human acts without serious difficulty. However, even if factual causation could thus be established, the question of how far the wrongdoer should be held responsible for advance precautionary expenditure⁷¹ remains an important issue of legal policy. And causation is as much an area of legal policy as it is, or should be, of philosophical or scientific speculation⁷². If advance

House of Lords rejected the claim by the company that the suicide was a *novus actus interveniens*, breaking the chain of causation between the accident and the death. In another case, *Calvert v William Hill Credit Ltd*, 2008 WL 678097 (Ch.D), (2008) 105 LSG 28, [2008] EWHC 454, concerning a claim by a gambling loser that the bookmaker owed him a duty of care as a problem gambler and that the duty was breached with the bookmaker's failure to comply with a request to exclude the gambler from gambling, the Chancery Court held that only exceptional circumstances could give rise to a Common Law duty of care to prevent or to mitigate the consequences or aggravation of self-inflicted harm, but, in rejecting the gambler's claim, left those circumstances undefined, referring to the vague three stage test of foreseeability, proximity and fairness, introduced in *Marc Rich & Co AG v Bishop Rock Marine Co Ltd (The Nicholas H)* [1996] AC 211 HL and reinforced, with the addition of the requirement of voluntary assumption of responsibility, in *Customs and Excise Commissioners v Barclays Bank Plc* [2006] UKHL 28, [2007] 1 AC 181. The Court noted that the voluntary assumption test was most influential where the parties' relationship had the indicia of contract save for consideration.

⁷⁰ In *Internationaler Hilfsfonds eV v Commission of the European Communities* [2007] 3 CMLR 31, the ECJ held (applying *Herpels v Commission of the European Communities* (C54/77) [1978] ECR 585 ECJ), that the causal link required under the EC Treaty (Amsterdam) Art. 288 for the civil liability of the EU Commission for an alleged wrongful act could only be established where the damage was the direct consequence of the wrongful act in question (see also *P Dumortier Freres SA v Council of Ministers of the European Communities* (64/76) (Liability) [1979] ECR 3091 ECJ and *Societa Finanziaria Siderurgica Finsider SpA v Commission of the European Communities* (C363/88) [1992] ECR I-359). It was the claimant's own decision to seek legal advice when bringing complaints before the European Ombudsman against the Commission and the Commission could not be held liable for that decision. Accordingly, there was no causal link between the damage alleged, the claimant's lawyers' fees, and the original act of the Commission that had triggered the complaints.

⁷¹ Pragmatism also dictates a realistic approach to the issue of whether wrongdoers, other, perhaps, than violators of musical copyright rights, can be expected to be solvent enough or to be liability-insured.

⁷² "Courts of law must accept the fact that the philosophic doctrine of causation and the juridical doctrine of responsibility for the consequences of a negligent act diverge. To a philosopher – a term which I use in no disparaging sense, for what is a

security expenditure qualifies as recoverable loss, what about the cost to the claimant of loss insurance against the risk of losses caused by wrongful acts such as the act of the defendant? It could be argued that in view of the fact that the claimant is allowed, under most systems, the windfall of tort damages and loss insurance payouts, if such insurance had been privately purchased, this would be taking the wrongdoer's responsibility too far; but it might also be argued, from an economic deterrence perspective that the cost of such insurance, as indeed other, advance precautionary expenditure should be charged to the wrongdoer for maximum deterrence⁷³. And from a corrective-justice perspective, is it not imperative that wrongdoers account for all losses and expenditure caused by their wrongful conduct? Admittedly, though, the moral case looks stronger in relation to advance security expenditure caused by the need to prevent intentional wrongful acts, such as shoplifting, or copyright violations, rather than merely negligent ones.

philosopher but one who, *inter alia*, reasons severely and with precision? – to a philosopher, the whole legal doctrine of responsibility must seem anomalous. To him, if event C could not occur unless each of two previous events – A and B – had preceded it, it would be unmeaning to say that A was more responsible for the occurrence of C than was B, or that B was more responsible for its occurrence than was A.” *Per* Lord Asquith of Bishop-stone in *Stapley v Gypsum Mines Ltd* [1953] AC 663 at 687. Commenting on this passage, Lord Hoffmann said: “Lord Asquith had been awarded firsts in Mods and Greats at Balliol, so he presumably knew what he was talking about. But the proposition seemed to mean that if someone buys a gun and shoots someone, a philosopher would say that it was “unmeaning” to treat the killer as more responsible for the victim’s death than the shopkeeper who sold the gun. At that point I thought that if this was philosophy, I was glad I was reading law”: “Causation”, 121 *Law Quarterly Review* 2003, 592, 593.

⁷³ On whether or not tort law can actually achieve economic deterrence see the masterful study of the late Garry Schwartz, “Reality in the Economic Analysis of Tort Law: Does Tort Law Really Deter?”, in 42 *UCLA Law Review*, 376-444 (1994).