



THE UNIVERSITY *of* EDINBURGH

Edinburgh Research Explorer

Re-establishing Orthodoxy in the Realm of Causation

Citation for published version:

Hogg, M 2007, 'Re-establishing Orthodoxy in the Realm of Causation', *Edinburgh Law Review*, vol. 11, no. 1, pp. 8-30. <https://doi.org/10.3366/elr.2007.11.1.8>

Digital Object Identifier (DOI):

[10.3366/elr.2007.11.1.8](https://doi.org/10.3366/elr.2007.11.1.8)

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Publisher's PDF, also known as Version of record

Published In:

Edinburgh Law Review

Publisher Rights Statement:

©Hogg, M. (2007). Re-establishing Orthodoxy in the Realm of Causation. *Edinburgh Law Review*, 11, 8-30doi: 10.3366/elr.2007.11.1.8

General rights

Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

The University of Edinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact openaccess@ed.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.



Re-establishing Orthodoxy in the Realm of Causation

Martin A Hogg^{*}

A INTRODUCTION

B THE CURRENT LAW ON CAUSATION-IN-FACT AND APPORTIONMENT OF LOSS

- (1) *Sine qua non* causation
- (2) Risk creation as causation: *McGhee v NCB*
- (3) An alternative to risk creation as causation: lost chance recovery
- (4) Causal orthodoxy reasserted: *Barker v Corus*
- (5) Apportionment of loss

C FUTURE LOSSES: *GREGG v SCOTT*

- (1) Future damage not existing physical damage
- (2) Doctor's negligence not the cause of the loss
- (3) Loss of chance analysis too difficult for medical negligence cases
- (4) Conclusion

D THE SEARCH FOR NEW TYPES OF ACTIONABLE LOSS ON TO WHICH TO ATTACH LOST CHANCE CLAIMS

- (1) Demonstrable physical injury
- (2) Pleural plaques as harm
- (3) Chance/fear of future illness as harm
- (4) Cumulating *de minimis* harms to constitute actionable harm

E SOME CONCLUSIONS

A. INTRODUCTION

In recent years British jurisprudence is fortunate to have benefited from a plentiful supply of case law and academic writing on the requirement of causation in delictual or tortious liability.¹ The relevant decisions and academic writings have

^{*} Senior Lecturer, School of Law, University of Edinburgh.

¹ The term "British jurisprudence" is used as a loose umbrella term to refer to the jurisprudence of the three independent British legal jurisdictions, namely Scotland, England and Wales, and Northern Ireland. Recent British academic consideration of causation in delict or tort includes the following: R Goldberg, *Causation and Risk in the Law of Torts* (1999); J Stapleton, "Unpacking causation", in P Cane

enabled the law to develop a relatively sophisticated analysis of precisely how the causal requirement may be demonstrated both in simple as well as complex cases. In this respect the legal systems of Scotland and England may be contrasted with other jurisdictions where, due to a paucity of judicial or academic consideration, the rules of causation have remained largely undeveloped.²

The relative good fortune for British legal scholarship in relation to causation has, however, not been arrived at without some wrong turns along the way. One such wrong turn was made, it will be argued below, by the House of Lords in its decision in *McGhee v National Coal Board*.³ The House of Lords took the opportunity to correct this wrong turn in its recent decision in *Barker v Corus (UK) plc*,⁴ an analysis of which decision forms much of the substance of section B of this article. Even with the correction of causal wrong turns, however, the courts continue to struggle with some causal issues, in particular those surrounding losses which may arise in the future.

This article seeks in the first place to review where the law presently stands in Scotland and England in relation to so-called “causation-in fact”, otherwise known as “factual causation” or “natural causation”. Causation-in-fact is causation as it operates in the real world, without regard to its legal significance in the determination of responsibility for harm.⁵ Specific consideration will be given to the recent realignment of the material increase in risk test of causation-in-fact undertaken in the *Barker* appeal, which it will be argued was correctly decided.

Secondly, because no test of causation-in-fact can deal adequately with cases of inherent causal uncertainty, the article argues that other solutions must be adopted to deal with such cases. One category of case involves claims of loss of future prospects, and will be discussed with specific reference to the decision of the House of Lords in *Gregg v Scott*.⁶ It will be argued that that decision was correct, and that any claims for loss of future prospects ought to be anchored by

and J Gardner (eds), *Relating to Responsibility: Essays in Honour of Tony Honoré on his 80th Birthday*; (2001); J Stapleton, “Lords a’leaping evidentiary gaps” (2002) 10 Torts LJ 276; J Stapleton, “Causation-in-fact and the scope of liability for consequences” (2003) 119 LQR 388; M Hogg, “The role of causation in delict” 2005 JR 89.

2 One such example is South Africa, where the requirement of causation-in-fact in delict has remained essentially undeveloped beyond the simple *sine qua non* test.

3 1973 SC (HL) 37, [1973] 1 WLR 1.

4 [2006] UKHL 20, [2006] 2 WLR 1027.

5 Causation-in-fact is often distinguished from what has been termed “legal causation”, although it has been strongly argued by some that it is better to avoid the term “legal causation” altogether, and refer instead more transparently to considerations affecting the attribution of responsibility for harm. That argument is, however, outwith the purposes of this paper. See further Stapleton, “Causation-in-fact” (n 1) at 411f; R Wright, “The grounds and extent of legal responsibility” (2003) 40 San Diego LRev 1425; Hogg (n 1) at 138-148.

6 [2005] UKHL 2, [2005] 2 AC 176.

reference to claimable present loss.

Thirdly, the article examines an issue which, given the decisions in *Barker* and *Gregg*, is likely to constitute the next causally problematic issue for the House of Lords: what may constitute existing physical harm for the purposes of a damages claim for personal injury? This may not appear, at first glance, to be a causal issue at all. However, its relevance for causation lies in the fact that, so long as some demonstrable existing physical harm can be demonstrated to have been caused by a defender, recovery in respect of causally uncertain future harm can be attached to a claim for damages for the existing harm. The issue arose most recently in the decision of the Court of Appeal in *Grieves v FT Everard & Sons Ltd*,⁷ considered below.

Allied to these causal matters is the issue of apportionment of damages. The issue is related because to say that a defender caused a loss does not fully answer the question of who should be liable for that loss, given that there may be other defenders who are equally deemed to have caused the loss. In such cases of multiple causation of harm the courts have struggled to identify which solution to apportionment of liability is most equitable in different types of case. Inevitably, the need to do justice not just to individuals but to categories of litigant such as victims' groups, or manufacturers, employers and ultimately insurers, has troubled the courts. Because the question of apportionment of liability has featured in many causal cases, the currently applicable rules are also considered below.

B. THE CURRENT LAW ON CAUSATION-IN-FACT AND APPORTIONMENT OF LOSS

(1) *Sine qua non* causation

The position of the *sine qua non*, or “but for”, test as the starting point for the analysis of causation-in-fact in Scots and English Law is well established, a position which has traditionally been seen as uncontroversial.⁸ The test has also been accepted as the starting point in the examination of causation-in-fact in most other Western jurisdictions.⁹ The test operates by requiring a court to consider, of

7 [2006] EWCA Civ 27.

8 For its application in Scottish cases see, for instance, *McWilliams v Sir William Arrol & Co Ltd* 1962 SC (HL) 70; *Porter v Strathclyde Regional Council* 1991 SLT 446; *Binnie v Rederij Theodoro BV* 1993 SC 71.

9 Some Civilian jurisdictions cast the “but for” test in terms of an “equivalence theory”, which holds that every condition without which the damage would not have occurred is a cause of the damage: this is the case for German Law's *Äquivalenztheorie* and French Law's *théorie de l'équivalence des conditions*. See further on French and German Law, W van Gerven et al, *Tort Law (Common Law of Europe Casebooks)* (2000) ch 4.

a possible cause of injury *c*, whether, but for the operation of that cause, the result *r* would still have occurred. This is counterfactual analysis:¹⁰ it tests necessity of effect by asking whether or not the result would have occurred in the absence of the given cause. Philosophers call this sense of necessity “strong necessity”.¹¹ Because, however, causes do not always operate singly to produce results but can form part of a set of causes (or “conditions”) sufficient to produce a result, and because different sets of causes may equally produce the same result, the concept of necessity also has a weak sense in which it denotes that, while *c* may not have been necessary for result *r*, nonetheless *c* was a necessary member of a set of conditions sufficient for *r*.¹²

Most outcomes are produced by such sets of causes. This, however, is not necessarily productive of difficulty. Where, for instance, two causes *c1* and *c2* have cumulatively produced a result of greater magnitude than would have been produced by either cause operating alone, then one can say that but for each of *c1* and *c2* a specific magnitude of the overall harm would have been avoided. Any cause which thus “materially contributes” to the totality an overall injury is a *sine qua non* cause of that injury, even if it can be shown that the injury would still have occurred to a lesser extent in the absence of that cause. That much was settled by the House of Lords in *Wardlaw v Bonnington Castings*¹³ when it developed the material contribution gloss to the *sine qua non* test. What that case implies about apportionment of loss is rather more troublesome, as discussed below.

More problematic for the *sine qua non* test are cases of multiple causation where neither *c1* nor *c2* alone was necessary for *r* to occur because the other of the causes would have been productive of *r* to exactly the same degree in any event. For instance:

- (i) Two vehicles, driven by *D1* and *D2* respectively, collide with a pedestrian, *P*. *P* is killed. Either collision on its own would have caused *P*'s death.
- (ii) *P* is exposed to toxic waste from three different polluters, *D1*, *D2* and *D3*. *P* develops cancer. The cancer would have resulted from the toxic effect produced by any one of the polluters acting on its own.

These cases are examples of “duplicative” or “over-determined” causation. The “but for” test, even with its material contribution gloss, does not adequately deal

¹⁰ See further Hogg, (n 1) at 102 n 47.

¹¹ See further on the strong and weak senses of necessity, as well as sufficiency of outcome, Hogg (n 1) at 101-106.

¹² This test of necessary membership of a set sufficient for the outcome is capable of producing a more comprehensive test of causation than the *sine qua non* test currently used by the courts. The former is commonly called the “NESS” test: see text at n 15 below.

¹³ 1956 SC (HL) 26, [1956] AC 613.

with such cases, unless one infers a fictional material contribution,¹⁴ because no individual cause can be said to have made any necessary difference to the outcome. Such cases can, however, be resolved adequately by using a more focused test for causation-in-fact, commonly called the “NESS” test.¹⁵ This test has not thus far been adopted by any jurisdiction within the United Kingdom, but I have argued elsewhere that it would provide a more comprehensive test for establishing causation-in-fact.¹⁶

Taken with its material contribution gloss, the *sine qua non* test, while not able to deal with all complex cases of multiple causation, accords at least with an intuitive sense that the process of counterfactual analysis is appropriate for testing causation-in-fact. That virtue is not shared by the material increase in risk test introduced into the law by the House of Lords in 1972 in *McGhee v National Coal Board*.¹⁷

(2) Risk creation as causation: *McGhee v NCB*

In *McGhee* the House of Lords decided that mere risk creation was sufficient to constitute a causal connection between harmful conduct and injury. The defender was held to have caused the pursuer’s dermatitis merely because its behaviour in prolonging his exposure to abrasive dust had increased the risk of his contracting the disease. There was no evidence that, but for the defender’s behaviour, the pursuer would not have contracted dermatitis, or would have contracted it in a less severe form. Their Lordships decided, however, that there was no essential difference between the defender’s having materially increased the risk that the pursuer would contract dermatitis and having materially contributed to that dermatitis.

As a result of this decision, mere risk creation became sufficient in certain cases to satisfy a causal connection to actual physical harm.¹⁸ Yet it is hard to see how risk creation can equate to causation. My careless driving may risk injury to pedestrians but does not of itself occasion physical harm unless the vehicle strikes them; my misrepresentation about an individual’s creditworthiness may create a risk of

14 As arguably occurred in the House of Lords decision in *Wardlaw*, where their Lordships inferred that each of the machines producing substantial amounts of noxious dust must have contributed materially to the totality of dust inhaled by the pursuer, even though it could not be shown from which machine the relevant dust particles came.

15 The NESS acronym signifies that what is at issue is whether the cause is a necessary element for the sufficiency of a set of antecedent conditions sufficient for the outcome.

16 See Hogg (n 1) at 104-106.

17 1973 SC (HL) 37, [1973] 1 WLR 1.

18 Risk creation already operated in the field of consequential losses, where loss of future prospects relating to existing physical harm might be claimed, and in the field of lost chance recovery, where the harm sued for was the loss of the opportunity of avoiding actual harm rather than the actual harm itself. However, in each of these types of case, the risk of harm was treated as the loss itself.

financial loss to anyone who lends to that individual but cannot of itself cause actual harm unless such misrepresentation is acted upon by a lender. Creating a risk of harm is not the same as causing that harm. To assert otherwise is a legal fiction, and a rather unconvincing one at that.

The decision in *McGhee* fundamentally undermined the rule that a connection, demonstrated by counterfactual analysis, was needed between harm and loss before causation could be established. It opened up the possibility that a defender might be held liable for damage which in actuality he had not caused, save in the fictional sense of having created the risk of its occurrence. The decision in *McGhee* to bend the rules of causation was motivated by policy, specifically a concern that demonstrably negligent defenders should not be permitted to avoid liability for harm merely because the pursuer was unable, as a result of an inherent unpredictability in the causal chain, to establish causation according to the usual requirements. Concern for pursuers in such a position was doubtless commendable, but an alternative mechanism could have been adopted by which to provide an equitable balancing between the interests of pursuer and defender, namely lost chance recovery. The House of Lords chose not to follow such alternative route, and embarked instead on a risk-based causal analysis which itself ran the substantial risk of future application to even less causally robust facts. That danger was demonstrated in *Wilsher v Essex AHA*,¹⁹ although in the event the House of Lords refused to sanction the expansion of the *McGhee* principle which would have been necessary to permit recovery in that case.²⁰

After *Wilsher*, the unorthodox approach taken in *McGhee* lay dormant for fifteen years. However, the upsurge in claims for asbestos-related illness provided the impetus for the House of Lords to re-assert the *McGhee* principle. In *Fairchild v Glenhaven Funeral Services*,²¹ the House of Lords reaffirmed its earlier view that mere risk creation can be considered the equivalent of causation in cases of causally indeterminate physical harm. It did so within the context of a claim for damages against a number of different tortfeasors, each of which had contributed a risk that Mr Fairchild might contract a mesothelioma of the pleura by negligently exposing him to asbestos fibres. Unlike *McGhee* there were multiple defendants, but as in *McGhee* the injury suffered was a so-called “indivisible” one,²² so that it

19 [1988] AC 1074.

20 The principal difference in the *Wilsher* claim lay in the fact that the harm sustained might have arisen as a result of one of a number of different types of causal agency, not merely a single causal agent such as the brick dust in *McGhee*.

21 [2002] UKHL 22, [2003] 1 AC 32.

22 In other words, the illness did not vary in severity in relation to the period of exposure to the harmful agent. On the contrary, the medical evidence indicated that a mesothelioma of the pleura might be triggered by a single asbestos fibre.

was not possible at the time of trial to determine which period of exposure had triggered the fatal injury. The House of Lords, applying the *McGhee* causal fiction, held that each defendant which had materially exposed Mr Fairchild to the risk could properly be said to have caused the injury.

Fairchild extended the *McGhee* principle from injuries involving one defender to those involving multiple defenders, but otherwise left it unchanged. In both *McGhee* and *Fairchild* the crucial factor was an inherent uncertainty as to whether the defender's negligent behaviour had caused or materially contributed to an injury. Indeed, the subsequent recognition in *Barker v Corus* that the principle can apply to cases where some of the causes may be non-negligent²³ merely emphasises the similarity of *Barker* and *Fairchild* with *McGhee*, for in *McGhee* the initial exposure of the pursuer to the abrasive dust had also been non-negligent. In all three cases liability was established purely because the defender's negligent conduct created a risk of injury. It is therefore incorrect to suggest, as some may, that the new approach taken in *Barker* revises *Fairchild*, a similarly multiple-defender case, but not the single-defender case of *McGhee*.

(3) An alternative to risk creation as causation: lost chance recovery

In both *McGhee* and *Fairchild* the House of Lords might have provided a better solution to the problem at hand by using lost chance analysis. Lost chance analysis permits a pursuer (or claimant),²⁴ in restricted circumstances, to recover not for the actual damage suffered, but for the lost chance or opportunity of having avoided that damage. This chance or opportunity is evidently not a tangible loss to person or property, but may nonetheless be considered a valuable commodity. Numerous examples of lost chance recovery exist in the Scottish and English jurisprudence.²⁵ The doctrine can only be utilised when there is an inherent causal uncertainty about whether the actual harm suffered would have been caused absent the faulty behaviour of the wrongdoer. In other words, lost chance analysis can be utilised where asking the question, "but for the wrongful behaviour of *D*, would *P* still have suffered the loss?", cannot produce an answer either way. Such causal uncertainty can arise either because of a lack of scientific knowledge (such as prevails in relation to the aetiology of many indivisible diseases) or because of the inherent unpredictability of human behaviour.

Lost chance analysis has two principal virtues over the material increase in risk

²³ [2006] UKHL 20 at para 17 per Lord Hoffmann.

²⁴ The terms will be used interchangeably, as with defender and defendant.

²⁵ See, for instance, *Chaplin v Hicks* [1911] 2 KB 786; *Kyle v P & J Stormonth Darling* 1994 SLT 191; *Allied Maples v Simmons & Simmons* [1995] 1 WLR 1602; *First Interstate Bank of California v Cohen Arnold*, *The Times*, 11 December 1995; *Paul v Ogilvy* 2001 SLT 171.

approach adopted in *McGhee* and *Fairchild*. First, it maintains the traditional rules of causation. Before recovery for a lost chance is permitted, the pursuer must still show that, prior to the defender's fault, there was the chance of avoiding the injury, and that, but for the defender's fault, the pursuer would not have lost that chance. In other words, in a lost chance action the gist of the claim may have changed but the causal requirement has not. Secondly, whereas the material increase in risk test means that a defender may be held liable for an injury which, on a *sine qua non* basis, he did not actually cause, lost chance recovery provides an equitable *via media* to the problem of causal uncertainty by compensating only the pursuer's loss of a chance of avoiding the harm, damages being valued by reference to the magnitude of the chance. Thus, if *P* has lost a one third chance of avoiding injuries valued at £3,000, *P* recovers only for the value of that chance (one third of £3,000, i.e. £1,000). Such an approach strikes a balance between letting off a defender who may in fact have caused the harm, and penalising a defender who may not have caused the harm at all.

Before *Barker v Corus*, the courts struggled to explain the conceptual difference between recovery for lost chances and for material increase in risk, and what the criteria were for the application of the one rather than the other. Given that the essential issue for both is the same,²⁶ it seemed anomalous that in material increase in risk cases full recovery for the physical harm was allowed, while in lost chance cases there was recovery only in proportion to the magnitude of the chance. These problems were tackled in the *Barker* decision.

(4) Causal orthodoxy reasserted: *Barker v Corus*

It is no exaggeration to describe the *Barker* decision as the most important development in British causal jurisprudence in the last twenty years.²⁷ The facts of *Barker* were broadly similar to *Fairchild*, in that Barker had been materially exposed to asbestos during periods of employment with two employers (one of which was now insolvent and without any identified insurer). In addition, however, Barker had suffered a third period of material exposure while self-employed. He died in 1996 from a mesothelioma of the pleura. Assuming that, as in *Fairchild*, the material increase in risk principle was to be utilised to find the two employers jointly and severally liable for such an indivisible injury, the only solvent and insured defendant, Corus, would bear liability for the whole damages.

The House of Lords upheld a damages claim against both employers, but held that each was to be seen as having caused, not the physical harm itself, but only a

²⁶ Namely, is the pursuer prevented by some inherent causal uncertainty from demonstrating a causal connection between the harm and the wrongful conduct?

²⁷ *Barker v Corus (UK) plc* [2006] UKHL 20, [2006] 2 WLR 1027.

proportion of the risk of such harm (Mr Barker having also contributed a proportion through his own negligence). Further, and crucially, each defendant was liable only in proportion to the magnitude of the risk of injury to which it had exposed Mr Barker. The second finding, concerning apportionment, is discussed later;²⁸ the first, concerning causation, merits a full examination now.

Whereas in *Fairchild* the House of Lords had replicated the approach of *McGhee* in holding the defendants liable *in solidum* on the basis that each, by contributing a material risk of injury to the claimant, had caused the injury, the majority in *Barker* recast the *McGhee-Fairchild* principle as one of loss of a chance. Material increase in risk was no longer to be seen as the equivalent of causing the actual harm, but was to be recognised for what it was: simply causation of the risk of an injury, or, to put it another way, causation of the loss of a chance or opportunity of avoiding that injury. Lord Hoffmann set out the new approach in the leading speech. He argued that, in *Fairchild*, while a minority had equated material increase in risk with material contribution (the *McGhee* approach), the majority had taken a different view.²⁹ Referring to his own speech in *Fairchild*, he characterised his comparison between material increase in risk and material contribution as simply a legal analogy. Recognising this, it was more consistent to admit that, if the basis of liability was risk creation, then the damage caused ought to be seen not as the injury itself but as the creation of a risk or chance of such injury. Lord Hoffmann justified this new approach to the *McGhee-Fairchild* principle on the basis of its fairness, saying it would “smooth the roughness of the justice” to defendants.³⁰

Lord Rodger, in the minority, was scornful of attempts to recast the *McGhee-Fairchild* principle in terms of loss of a chance. He found the speeches of the majority in *McGhee* and *Fairchild* to be quite clear: material increase in risk was to be treated as equivalent to a material contribution to the actual injury caused. Lord Hoffmann was doing nothing more than “rewriting the key decisions in *McGhee*”.³¹ Lord Rodger was sceptical that the new approach would be any fairer, as the majority claimed; on the contrary, in an attempt to improve the lot of defendants and their insurers, innocent claimants would often be left only with a small proportion of damages.

While, however, Lord Rodger was strictly correct on the interpretation of the earlier authorities, Lord Hoffmann’s re-interpretation of those authorities, if somewhat strained, seems justified by the legitimate goals of reasserting causal

28 At B(5) below.

29 [2006] UKHL 20 at paras 31-34.

30 Para 43.

31 Para 71.

orthodoxy and of finding a just balance, in cases of inherent causal uncertainty, between the interests of claimants and defendants. While the decision in *Barker* cannot bind the Scottish courts, it is suggested that, for the reasons set out earlier,³² they should follow it.³³

Where the *Barker* principle applies, each culpable defender will be held liable in damages only in proportion to the risk of injury which he contributed. This question of apportionment of loss will now be examined.

(5) Apportionment of loss

The basic rule regarding apportionment of liability for loss is not hard to grasp: a defender is liable for the loss he has caused. In the simple case of a sole defender *D*, so long as the whole of the identifiable and quantifiable loss suffered by the pursuer *P* has been caused by *D* alone, *D* is wholly and solely liable for that loss. Additionally, without there being any other defenders, if *P* has partly caused the loss, contributory negligence may be pled against him, and, if proved, *P*'s damages must be reduced to the extent a court "thinks just and equitable having regard to the claimant's share in the responsibility for the damage".³⁴

In cases where two defenders *D1* and *D2* have each contributed to *P*'s loss, and have each caused a clearly identifiable amount of that loss (in other words, the damage is divisible into portions), the basic rule discussed in the previous paragraph equally applies: *D1* is solely liable for the portion caused by him, and *D2* solely for such portion caused by him. In Scotland this type of liability is called "several", whereas in England the term "joint" liability is used, a difference which is apt to confuse.³⁵

Of difficulty for these established rules is *Wardlaw v Bonnington Castings*.³⁶ Although the disease suffered by the pursuer in this case was divisible (or "dose-

³² At B(3).

³³ *Barker*-type cases are not, of course, the only problematic type of causal indeterminacy. Cases where what is causally uncertain is what the pursuer would have done in the absence of the defender's fault have also recently troubled the courts: see *Chester v Afshar* [2005] 1 AC 134. I have suggested elsewhere (see Hogg (n 1)) that the House of Lords' solution in *Chester* (through the scope given to the duty of care) might be utilised to solve a number of types of causally indeterminate case; cf J Stapleton, "Occam's razor reveals an orthodox basis for *Chester v Afshar*" (2006) 122 LQR 426, who argues that, while the result in *Chester* was correct, the reasoning should have been founded in a discussion of the scope of liability for the doctor's breach of duty.

³⁴ Law Reform (Contributory Negligence) Act 1945 s 1(1). The courts have interpreted the phrase "share in the responsibility" by reference to a combination of objective causal potency and degree of fault: see *Davies v Swann Motor Co (Swansea) Ltd* [1949] 2 KB 291; *Cork v Kirby McLean Ltd* [1952] 2 All ER 402; *Porter v Strathclyde Regional Council* 1991 SLT 446.

³⁵ See, on this difference in terminology, G M Anderson, "Disease causation and the extent of material contribution" 2006 SLT (News) 87 at 92. For an example of such several liability see *Barr v Neilson & Neilson* (1868) 6 M 651.

³⁶ 1956 SC (HL) 26, [1956] AC 613.

related”), so that the defender should only have been liable for the proportionate degree of harm which its culpable contribution to the disease had made, the defender was in fact found liable for the whole of the pursuer’s loss. On the assumption that the relative contribution to the severity of the illness added by the defender’s negligence was capable of determination, this finding seems flawed; on the other hand, it may be that the state of scientific knowledge at the time did not allow a reasonable assessment of the contribution made by the defender’s negligence.

The position is different, and more difficult, if the harm contributed by each defender is not readily distinguishable or divisible – so-called “indivisible injuries”. Common examples include non-dose-related diseases (as occurred in *McGhee*, *Fairchild* and *Barker*), and indivisible physical injuries (such as fractured limbs or death). In such cases, where two or more defenders have contributed to an indivisible injury, liability has traditionally been joint and several,³⁷ which is to say each defender is liable either for a portion of the whole injury (as determined by the court, if an apportionment is asked for by defenders) or for the whole injury, at the option of the pursuer. In cases where the pursuer seeks recovery of the whole damages from one defender, that defender may subsequently seek to recover a contribution from the other defender or defenders. Such joint and several liability is a deviation from the basic rule outlined earlier, that a defender is liable only for such damage as he has caused, and is designed to avoid the argument that, because the precise extent of the damage caused cannot be shown, no award against the defender should be made. In *Fairchild*, given the indivisible nature of the disease involved, a finding of joint and several liability was, quite properly, made.³⁸

The *Barker* decision has not changed matters. Because *Barker* redefined the gist of what was being sued for as divisible proportions of the overall risk of harm, the case was essentially about several (in Scots terms) or joint (in English terms) liability for clearly separate and distinguishable injuries. *Barker* did not therefore disturb the exceptional rule of joint and several liability for indivisible harm: it simply recognised that cases of risk creation are cases of divisible harm, so that the ordinary rule of liability for harm, that a defender is liable only for the damage which he has caused, applies. The adverse effect this would have on a claimant’s position in mesothelioma cases has proved highly controversial and is discussed later.³⁹

37 *Fleming v Gemmill* 1908 SC 340 (pollution of a river by a number of wrongdoers).

38 Although the defendants in *Fairchild* did not ask for an apportionment *inter se*, their Lordships noted that such an apportionment could quite properly have been made had it been requested.

39 At E below.

C. FUTURE LOSSES: *GREGG v SCOTT*

Not all losses which are the subject of damages claims are demonstrable existing losses at the time the claim is raised. It has long been common for damages claims to relate to losses which, it is argued, will arise later. Of course, there will usually be causal uncertainty surrounding whether losses will or will not arise after the date of a court's determination of liability, for future outcomes are determined in large part by the effects of presently unknowable future behaviour or events.⁴⁰ Nonetheless, in some cases courts are willing to infer that, on the balance of probabilities, had the defender not been negligent, a loss would have been avoided in the future, even if such an inference is strictly fictional. In such cases, the future loss is treated as if it is a certainty. But, for the most part, future losses must be treated as indeterminate and therefore as having only a certain likelihood that they will occur. Courts assess the likelihood of such uncertain future losses and take this into account when awarding damages.⁴¹

*Gregg v Scott*⁴² involved a claim which related to what might occur in the future. While Mr Gregg argued that the negligence of his general practitioner had occasioned a delay in treatment which in turn had occasioned the enlargement of a malignant tumour, his claim for damages was not for the increase in the size of the tumour, nor indeed for the pain and suffering which such enlargement had caused. Although his claim had begun as an ordinary one for pain and injury consequent on the spread of cancer,⁴³ it had been reframed as the action proceeded as one for either (i) loss of life expectancy consequent upon the spread of the cancer, or (ii) pure loss of life expectancy, not contingent upon any other loss. The medical evidence indicated that his chances of "survival" (defined by the medical experts involved in the case as remission from further adverse effects for ten years from the time of the negligence) had been reduced from 42% to 25% by the delay in treatment. While the reduced life expectancy could be described as a harm which Mr Gregg presently suffered, the ultimate harm which he feared – death caused by cancer – was a future loss which might never occur.⁴⁴

Mr Gregg's claim was rejected by a 3:2 majority of the House of Lords. This was because the sole damage of which a chance of avoidance had been lost was future damage rather than existing physical damage, and because the doctor's negligence had not been the cause of any loss of a chance of avoiding future damage. A

40 See further on the question of determinism in the causation of future events, Hogg (n 1) at 117-121.

41 This point is discussed further below at section C(1) of this article.

42 [2005] UKHL 2, [2005] 2 AC 176.

43 [2005] 2 AC 176 at para 196 per Baroness Hale.

44 In fact, by the time the House of Lords handed down its decision Mr Gregg had survived for some nine and a half years of the ten years which had been regarded by the medical experts as "survival".

further practical reason – that lost chance analysis is too complicated for medical negligence claims – was also adduced. It will be argued that only the first of these reasons stands up to scrutiny.

(1) Future damage not existing physical damage

As stated earlier, Scottish and English Law will entertain certain claims in respect of possible future losses. At common law, a claimant can seek a once-and-for-all award for all losses, which may include an element for possible future loss. Damages for possible future loss will be assessed according to the risk of its occurring. While claims usually focus on lost future income (patrimonial loss), they may also include an element for future pain and suffering from a possible worsening in the pursuer's physical condition as well as an element for any suffering caused by awareness of loss of life expectancy (non-patrimonial losses).⁴⁵ Loss of life expectancy itself, however, is no longer a distinct head of recoverable damages.⁴⁶ Lost future income is usually compensated by way of a calculation of future lost earnings, so long as the claimant is likely (on the balance of probabilities) to die earlier than he would have done otherwise. Other lost future income may be taken into account too, in particular pension income. It is possible to include lost opportunities of less than 50% likelihood which, on the balance of probabilities, would have come the claimant's way, such as the possibility of more lucrative employment or promotion. Courts must also consider the risk that the claimant would have lost his job through redundancy or some other reason and might therefore have been in a *less* advantageous position. These considerations have been well settled in the relevant Scots and English cases.⁴⁷ When considering such future possibilities, the courts have to evaluate the level of risk of the harm occurring which will shorten the pursuer's life, such level of risk then being factored in when the quantum of damages is assessed.

An alternative to the once-and-for-all common law damages award is for a claimant to utilise a statutory provision which permits a provisional damages claim for any existing loss (which might include damages for lost income on account of loss of life expectancy) as well as authorising the claimant to seek further damages in respect of a subsequently occurring serious disease or a serious deterioration

45 Non-patrimonial loss is referred to as *solatium* in Scots Law. See further S A Bennett, *Personal Injury Damages in Scotland*, 4th edn (2005) ch 6; Scottish Law Commission, Report on *The effect of Death on Damages* (Scot Law Com No 134, 1992) paras 4.13-4.22.

46 Damages (Scotland) Act 1976 s 9A(2); Administration of Justice Act 1982 s 1(1).

47 See, for instance, *Sellar's CB v Glasgow Victoria and Leverndale Hospitals* 1973 SLT (Notes) 3; *Moeliker v A Reyrolle & Co Ltd* [1977] 1 WLR 132; *Chan Wai Tong v Li Ping Sum* [1985] AC 446; *Wall v Bryant* 1994 SLT 1260; *Robertson's CB v Anderson* 1996 SC 217 at 224-5 per Lord Clyde; *Hill v Wilson* 1997 SC 81; *Hendrie v The Scottish Ministers* 2003 SCLR 642; *Watt v Bridges* 2004 RepLR 96.

in his physical condition if and when this occurs.⁴⁸ If the claimant opts to use this statutory route, his provisional award cannot include damages for possible future physical harm, as this future physical harm will be fully compensated by the later claim if and when it is made.

The claimant's choice is thus between a once-off, full damages award for all present and possible future loss (future loss being assessed by reference to the risk of its occurring), and a provisional award for all presently suffered loss together with the option of a further claim for physical deterioration should it occur.

Why then could not Mr Gregg have attempted to raise either a common law claim for the risk of future harm, or a statutory claim for provisional damages with the possibility of a later claim for subsequent deterioration? The obstacle lay in the fact that the courts have taken the view that, regardless of which of these two routes is utilised, any claim must follow on the back of a claim for existing demonstrable physical injury.⁴⁹ There has to be a present physical loss to which can be attached additional possible future losses. What type of injury can constitute such presently claimable loss is discussed in section D below. Perhaps Mr Gregg might have attempted to argue that the enlargement of his tumour was such existing physical loss.⁵⁰ But in the event he claimed merely for reduced life expectancy, with the result that the majority of their Lordships concluded that his claim could not succeed.

As the foregoing discussion shows, the courts are not averse to claims for future possible loss *per se*. Such claims must, however, be attached to a claim for presently suffered physical harm – a requirement which has been adopted, quite reasonably, as a mechanism for controlling speculative lost chance recovery in cases of personal injury. Without it, any party exposed to medical negligence might claim for possible future losses. Consider the following example:

A thousand women aged between 35 and 45 are screened for breast cancer at a hospital. The medical examinations are negligently carried out so that no woman who is at high risk of developing breast cancer is properly identified. The hospital's omission is not discovered for ten years. Medical evidence indicates that such delay creates an increased 15% risk that a woman will suffer from irremediable breast cancer. Can each of the thousand women who have not in any event gone on to develop breast cancer

48 For the relevant statutory provision, see Supreme Court Act 1981 s 32A (for England) and Administration of Justice Act 1982 s 12 (for Scotland). For an example of an award of provisional damages under the statutory provision, see *Walker v Brigham & Cowan (Hull) Ltd* 4 May 1995, (English) Court of Appeal, unreported.

49 This restriction was noted in *Gregg v Scott* [2005] 2 AC 176 in the speeches of Lord Phillips (para 177), Lord Hope (para 118) and Lord Nicholls (para 44). There seems to be no theoretical reason why, in an appropriate case, the existing demonstrable injury might not be economic loss.

50 Lord Hope, in the minority, effectively rewrote Mr Gregg's claim, arguing (para 117) that it amounted to a claim that his tumour had increased in size, a demonstrable existing loss, such that an additional claim for reduced life expectancy could be added to it.

sue in respect of their lost chance of avoiding irremediable breast cancer even if they cannot show any current ill effects?⁵¹

Without the requirement that a future lost chance claim must be tied to a present physical loss, the answer in this example must be yes, at least in the absence of any other factor preventing recovery. On the basis that such claims are undesirable, the requirement makes sense as a mechanism for controlling liability for personal injury, and indeed performs the same function as other limiting requirements such as the requirement of foreseeability of loss in relation to remoteness of damages, and the restrictions placed upon secondary nervous shock claims.

(2) Doctor's negligence not the cause of the loss

A second reason suggested in the speeches of the majority in *Gregg* was that, even if Mr Gregg's claim for loss of life expectancy were to be considered a presently suffered and actionable loss, such loss could not be demonstrated to have been caused by the negligence of his doctor rather than by his pre-existing cancer.⁵²

It is hard to see what precisely is meant here. Of course the available evidence could not permit a determination of whether the loss of life expectancy had been caused by the delay in diagnosis or treatment (possible cause 1) or whether such delay made no difference because the loss of life expectancy would have resulted in any event because of Mr Gregg's pre-existing cancer (possible cause 2). But this is precisely the causal uncertainty that existed in *Fairchild*, where it could not be proved whether the mesothelioma had been caused during Mr Fairchild's first period of exposure to asbestos (possible cause 1) or during one of the subsequent periods of exposure (possible causes 2, 3, etc). In both *Gregg* and *Fairchild* there existed the same kind of inherent uncertainty about the cause of the loss, a view which is confirmed by the recasting in *Barker* of the *Fairchild* and *McGhee* decisions as loss of a chance claims. To assert, as Lord Hoffmann and Lady Hale do in *Gregg*, that Mr Gregg's claim must fail because of the uncertainty surrounding what caused his loss of life expectancy would logically lead to the conclusion that the claims in *McGhee*, *Fairchild* and *Barker* ought also to have failed. Moreover, to assert that a difference lies in the fact that in *Gregg* the claimant was already suffering from cancer before the negligent act whereas in *Fairchild* the claimant was healthy, is to rely upon an irrelevant distinction. This

51 Or, to take another example suggested by Lady Hale in *Gregg* (at para 212), should a defendant who had exposed someone to cigarette smoke, thereby increasing his risk of contracting lung cancer, be liable even though the person exposed showed no signs of current ill health?

52 See the speeches of Lord Hoffmann (at para 68) and Lady Hale (para 200). Lady Hale does, however, admit that a claim against the doctor might have lain for temporal acceleration of pain and suffering (para 206). Such claims for accelerated loss are established in Scots law: see, for instance, *Sutherland v North British Steel Group* 1986 SLT (Sh Ct) 29.

distinction does not change the nature of the inherent uncertainty in each case, which lies in our inability, in the state of current medical knowledge, to determine whether the loss was due to the defender's negligence or to another factor capable of causing the harm.

This second ground for denying liability must be considered flawed. In the light of *Barker*, a denial of future *Gregg*-type claims on the basis that the identity of the proper cause of the harm is uncertain cannot be maintained. That type of uncertainty is of the very nature of a loss of a chance claim.

(3) Loss of chance analysis too difficult for medical negligence cases

Lord Phillips, following a complicated analysis of the differing prospects of Mr Gregg's avoiding different adverse consequences, concluded that the complexities involved in determining the various chances of the different outcomes was a policy factor mitigating against introducing lost chance recovery into medical negligence claims: "A robust test which produces rough justice may be preferable to a test that on occasion will be difficult, if not impossible, to apply with confidence in practice."⁵³

Was this conclusion justified? On the facts of the case before him, it seems not. Mr Gregg was not claiming in respect of the different possible outcomes listed by Lord Phillips (such as psychiatric distress) but merely for the reduced chance of avoiding an earlier death. Given this, it would have been necessary for the court only to calculate a single loss of a chance figure. No doubt this would have been difficult, involving weighing up different versions of medical evidence as to the statistics relevant to people in Mr Gregg's position, and deciding, on the balance of probabilities, the magnitude of chance of avoiding an early death lost by the delay in diagnosis and treatment, but it would not have been much harder than weighing up any other evidence on the balance of probabilities. Admittedly, if a pursuer claims in respect of multiple lost chances, the difficulties are greater,⁵⁴ but that might occur in commercial as well as in medical cases, and in the simple case any problems should not be overstated. In any event, given the subsequent decision in *Barker*, that courts are required to evaluate the magnitude of lost chances in applying the modified *Fairchild* principle, the concerns of Lord Phillips must be seen as having been overtaken by legal development.

⁵³ *Gregg v Scott* [2005] 2 AC 176 at para 170 per Lord Phillips, para 226 per Lady Hale.

⁵⁴ Where multiple possible chances are at issue, the courts have struggled to determine what the proper damages in a lost chance case should be: see on this point an analysis of the multiple lost chance case of *Paul v Ogilvy* 2001 SLT 171 in M Hogg, "*Paul v Ogilvy*: a lost opportunity for lost chance recovery" (2003) 7 EdinLR 86.

(4) Conclusion

In conclusion, what would give genuine cause for concern about setting manageable bounds of recovery were a *Gregg*-type case to give rise to liability would be neither that the action would be for loss of a chance *per se* (for *Barker* shows that such recovery in personal injury claims is now possible), nor that there would be uncertainty as to who caused the loss of a chance (for such uncertainty is precisely of the essence of lost chance recovery). Rather, the cause for concern would lie in the fact that lost chance recovery shorn of any requirement of attachment to existing physical loss would lead to a massive expansion in liability founded purely on indeterminate causal connection to ultimate future harm. Given the huge increase in the volume and scope of claims which might arise, and the consequent negative impact upon liability costs for both private insurers and the National Health Service,⁵⁵ it does not seem unreasonable that the courts have continued to characterise *Gregg*-type loss of a chance claims as posing a danger to manageable personal injury liability.⁵⁶

D. THE SEARCH FOR NEW TYPES OF ACTIONABLE LOSS ON TO WHICH TO ATTACH LOST CHANCE CLAIMS

(1) Demonstrable physical injury

As discussed in the previous section, one approach which the claimant in *Gregg* might have taken would have been to argue that there had been demonstrable existing physical injury by virtue of the fact that his cancerous tumour had increased in size.⁵⁷ Given this possible approach, a crucial point for future cases becomes: what counts as demonstrable physical injury?

The notion of “injury” requires, of course, that there be an injurious effect upon the pursuer, which might be constituted by pain and suffering, or by external physical manifestation even in the absence of pain. A deformed or missing limb clearly constitutes injury, as does a scar, scratch, burn, or even change in skin pigmentation. All are external and visible. What, however, of mere internal biological or cellular alteration, not attended by pain or suffering, not productive of adverse symptoms, and not of itself indicative of any likely future harm? Can such internal biological or cellular alteration count as physical injury, whether

⁵⁵ *Gregg v Scott* [2005] 2 AC 176 at para 90 per Lord Hoffmann. Lord Nicholls (para 53) was not impressed by these considerations.

⁵⁶ The Irish Supreme Court has taken a different view, holding in *Philp v Ryan* [2004] IESC 105 that, even though medical negligence did not cause the plaintiff any physical ill effects, damages were nonetheless to be awarded for the patient's deprivation of life expectancy and resultant anxiety.

⁵⁷ Although Lord Hoffmann seemed to doubt that simple enlargement of a tumour was physical injury at all: see [2005] 2 AC 176 at para 87.

considered on its own or taken together with other factors?⁵⁸ Older authorities on this matter are not especially helpful, as, in the days before x-ray technology, internal injury which had no consequential external manifestation or symptoms of pain was not detectable. For that reason injury in early legal authority is conceived of in terms of visible defect or pain. However, it was precisely the question of internal asymptomatic change which was raised by the most recent asbestos litigation, *Grieves v FT Everard & Sons Ltd.*⁵⁹

Each of the claimants in *Grieves* had been negligently exposed by one of the defendants to asbestos fibres and consequently developed pleural plaques or pleural thickening.⁶⁰ In themselves, both conditions are benign and do not lead directly to any other condition,⁶¹ whether benign or malignant. However, the presence of pleural plaques or pleural thickening can indicate a cumulative level of asbestos exposure at which there is a heightened risk of further asbestos-related diseases. It was argued that this exposure to asbestos put the claimants at an increased risk of developing mesothelioma at some future stage, as well as causing them to suffer from fear of contracting mesothelioma and, in the case of the first appellant, a depressive psychiatric illness resulting from such fear. The claimants sought to use the pleural plaques as a hook on which to attach these further “injuries”. The Court of Appeal rejected the claims, holding by a majority that: (i) the development of pleural plaques was insufficiently significant of itself to constitute damage on which a claim in negligence could be founded, nor was that position altered by attaching a further claim in respect of increased risk of contracting a future illness or fear of so doing; (ii) no claim could be made in respect of the chance of contracting a future disease if that was not consequent on some physical injury; and (iii) fear of future illness was not of itself a freestanding head of damage and, in the case of the appellant suffering a psychiatric illness, this was unforeseeable so far as the defendant in question was concerned.

It is suggested that the Court of Appeal was correct in holding both that pleural plaques are not sufficiently injurious *per se*, unless they occasion some physical discomfiture or other adverse symptom, and that fear of illness or the risk of future harm are not types of injury which can be claimed in the absence of some form of actionable physical injury.⁶¹ That is enough to conclude that the decision

58 [2006] EWCA Civ 27. The Court of Appeal dismissed the joint actions. An appeal has been made to the House of Lords and is likely to be heard in the first half of 2007.

59 For an explanation of these conditions, see the judgment of Lord Phillips CJ in *Grieves* at paras 10 f. As pleural plaques and pleural thickening are essentially variations of the same kind of internal cellular mutation, they are referred to in this text simply by reference to the former term.

60 In 1% of cases pleural plaques can cause respiratory discomfort, but this is not serious.

61 Cf the decision of the Irish Supreme Court in *Philp v Ryan* [2004] IESC 105. The only harm caused to Mr Philp was distress in respect of reduced life expectancy, and in the reduction of life expectancy itself. No physical ill effects were caused by the doctor's negligence. Despite the absence of any such physical

was correct. On the further point that *de minimis* harms⁶² cannot be cumulated to constitute actionable harm, it is suggested that the court overstated matters somewhat. Many *de minimis* types of harm *can* be cumulated in assessing the pursuer's overall state. However, the rule against cumulating lost chances and fear of illness with *de minimis* harm seems to be an exception to this rule, so that, on the specific facts of the case, accumulation was impermissible and the conclusion of the court correct.

(2) Pleural plaques as harm

Given that, save in exceptional cases, pleural plaques produce neither physical sensation nor any other physical effect, the conclusion of the majority of the Court of Appeal in *Grieves* was that they are not actionable damage. The opposite conclusion was reached by Smith LJ, who argued that (i) in that small percentage of pleural plaque cases which are attended by physical discomfiture, pleural plaques *are* considered harm, so that in such cases it cannot be the symptoms which are the injury but the plaques themselves, and (ii) visible benign tissue change can constitute harm, and there is no reason to treat internal tissue changes differently.

These two points are, at first blush, challenging for the majority's view, but it is suggested that they can be adequately countered. First, when assessing whether an injury has occurred, the courts usually consider physical change and pain together. Pain by necessity requires the presence of physical change, even if this is merely at the level of cellular change, nerve impulse, or muscular or vascular contraction. A migraine headache, for instance, is the result of vascular contraction affecting blood flow to the brain. Physical alteration is not always attended by pain, however. I may be knocked over yet suffer no pain, even if some cellular alteration will have occurred as a result of the fall. In such a case, I have not been injured, at least in a way that constitutes more than *de minimis* harm. The purpose of looking for pain or suffering when physical alteration occurs is to see whether that alteration is sufficiently serious. Secondly, if *external* physical alteration occurs without pain, a court may nonetheless consider that serious enough of itself to constitute harm, but this is because the courts see a difference between painless alterations which are internal and those which are external. More value is attached to external physical alterations because our personalities are defined

"hook" on which to hang his claim, Mr Philp was awarded damages for reduced life expectancy and for his distress. Specific reference was made by the court to the allegedly analogous case of common awards for "the risk that an injured plaintiff may in the future develop arthritis in an injured joint".

62 By *de minimis* harms must be understood harms which do not make a material contribution to the injury sustained.

in large part by the appearance we present to the world. The conclusion of the majority in *Grieves* that asymptomatic, internal cellular change is not sufficiently injurious to sound in damages is a perfectly reasonable one.

In apparent contrast to the conclusion of the majority in *Grieves*, the Court of Session has taken the view that negligently caused pleural plaques are of themselves injurious, holding them actionable in the presence of other harm. Unfortunately, in neither of the relevant decisions was there any substantial consideration as to whether pleural plaques constitute injury *per se*: it was simply assumed that they do.⁶³ Given this fact, the position of the Scottish courts on pleural plaques as injurious *per se* cannot be seen as settled, and it is likely that the consideration by the House of Lords of the matter in the forthcoming *Grieves* appeal will be determinative of the question on both sides of the border.

(3) Chance/fear of future illness as harm⁶⁴

From the earlier discussion of *Fairchild* and *Gregg*, it will be plain that the House of Lords is presently unwilling to treat a mere chance of contracting a future illness, unconnected to any presently suffered physical loss, as actionable. The likelihood of a short term change in this view is small, even if it were to be thought desirable.

As for fear of future illness as freestanding harm, mental distress caused by an existing physical injury may certainly be claimable as damages, this falling in Scotland within the claim for *solatium*. Additionally, mental distress caused by a fear that a current injury may worsen or may lead to further deleterious consequences can also be something for which damages may be awarded. However, both in Scotland and England, mental distress which is not consequent upon an existing physical harm is not claimable. For example, if *P* is exposed by *D* to radiation, and suffers no immediate physical harm, but fears that he may develop leukaemia in the future, this fear is not something for which damages may be sought. As with the risk of contracting a future illness, the requirement that fear of harm be attached to an existing physical harm provides a policy-inspired brake upon personal injury liability, ensuring that large numbers of wholly speculative claims are precluded.

63 *Nicol v Scottish Power plc* 1998 SLT 822; *Gibson v McAndrew Wormald* 1998 SLT 562 esp at 563 per Lord Maclean.

64 It is not proposed to discuss whether the Court of Appeal was correct in rejecting Mr *Grieves*' freestanding claim in respect of having suffered a psychiatric illness in consequence of his developing pleural plaques. However, the test propounded by Lord Lloyd in *Page v Smith* [1996] AC 155 at 190 B-E for such claims by primary victims would seem to suggest that, given the exposure of Mr *Grieves* by his employer to asbestos, some kind of personal injury was reasonably foreseeable, even if not psychiatric injury *per se*, and therefore that freestanding liability should have been imposed for his psychiatric illness.

(4) Cumulating *de minimis* harms to constitute actionable harm

The view of the majority in *Grieves* was that there was no authority beyond first instance decisions for “aggregating three heads of claim which, individually, could not found a cause of action, so as to constitute sufficient damage to give rise to a legal claim.”⁶⁵ Certainly this is true if the heads of claim relate to harms lacking in adverse physical effect and which would be unclaimable individually. More controversial, however, is the inference that it is impermissible to aggregate a number of *de minimis* harms, each on its own causing an adverse (if minor) physical effect. Such circumstances might arise in cases either of single or multiple defenders. Take, for instance, a case where twenty polluters each release *de minimis* levels of pollution into a river, and the cumulative effect is that a farmer’s herd of cattle is poisoned. Ought a claim in delict against each of the defenders to be barred? If no action lies in such a case, then, given the overall totality of harm inflicted upon the victim, the purpose of the law of delict to enforce restorative justice is arguably being thwarted.⁶⁶

Upholding that purpose suggests that courts ought to have regard to the totality of the harm in order to decide whether *P* has been harmed by *D*, or by *D1*, *D2*, *D3*, etc. For physical harms, aggregation ought thus to be possible, if it is not so presently. The farmer ought to have an action against the twenty polluters for the indivisible harm of the death of his cattle, regardless of the fact that the contribution of each was *de minimis*; and the liability of the twenty should be joint and several. However, it does seem from the earlier discussion that some types of harm, including fear of harm and lost opportunities of avoiding future physical harm, cannot be aggregated with physical harm unless that harm is more than merely *de minimis*. This is a reasonable policy-based exception to what should be the normal ability of pursuers to ask a court to consider the totality of the harm they have suffered. The policy exists because the court considers bodily, physical harm to be the most serious type of harm. If a pursuer wishes to use it as a hook on which to hang other non-physical injuries, such as a reduced likelihood of avoiding future harm, that physical harm should be serious enough, of itself, to be actionable.

E. SOME CONCLUSIONS

In recent case law, questions of causation, apportionment of damage, and actionable injury have posed intellectually challenging problems of the most fundamental

65 [2006] EWCA Civ 27 at para 68 per Lord Phillips CJ and Longmore LJ.

66 Although non-recoverability in such cases does seem to be the position in other European jurisdictions.

importance in the law of delict and tort. As a result, the following may now be taken as settled.

In the first place, it is preferable to analyse a material increase in the risk of harm as causation of the risk, such risk of harm being seen as the actionable damage. This view, asserted by the House of Lords in *Barker*, has reconciled the divergent streams of material increase in risk and lost chance claims, and has re-established causal orthodoxy after thirty years of wayward analysis following *McGhee*.

Secondly, having confirmed that lost chance recovery is the rock upon which many cases of causal uncertainty is founded, the House of Lords has clarified that, where the identity of the person causing the harm is in doubt, lost chance recovery imposes not joint and several liability upon defenders for the whole of the pursuer's loss, but merely several liability upon each defender for the extent of the risk of harm that he has caused.

Thirdly, a claim for loss of future expectancies or avoidance of future harm is only maintainable in the presence of existing physical injury suffered by the pursuer or claimant. In reaffirming this view, the House of Lords in *Gregg* has sensibly avoided opening up personal injury law to merely speculative claims of future harm.

The appeal in *Grieves* is due to come before the House of Lords at some point during 2007. It is to be hoped that their Lordships will take the opportunity to reaffirm the view of the Court of Appeal that a claimant cannot cumulate otherwise *de minimis* claims for lost expectancy or anxiety with physical harm which he has suffered if that physical harm is itself merely *de minimis*, and that symptomatic pleural plaques are not sufficiently injurious of themselves to constitute actionable harm, despite the fact that they were frequently treated as such by the legal profession for the twenty years or so prior to the *Grieves* litigation. Both of these conclusions of the Court of Appeal are justifiable by sound policy reasons relating to the appropriate boundaries of personal injury law.

It is worth concluding by noting that, given recent newsprint generated by asbestos liability cases, it is unsurprising that interested parties such as victims' compensation groups lobbied both the Westminster and Scottish Parliaments for legislative change to improve the rights of negligently-caused mesothelioma sufferers. In May 2006, Des McNulty MSP proposed a Member's Bill before the Scottish Parliament which would have had the effect of amending section 1(2) of the Damages (Scotland) Act 1976 in relation to claims by relatives of injured persons.⁶⁷ That Bill ran out of parliamentary time, but the proposal was

67 In his supporting statement for the Bill, Mr McNulty asserted that "The House of Lords judgement in *Barker v Corus* ... is contrary to accepted principles of Scots Law, as set out in the published dissenting opinion of Lord Rodger of Earlsferry." This presupposes that the approach taken in *McGhee* was correct which, it has been suggested in this article, it was not.

subsequently adopted by the Scottish Executive as the Rights of Relatives to Damages (Mesothelioma) (Scotland) Bill and is now before the Scottish Parliament.⁶⁸

On the separate question of the apportionment of liability issue raised by the *Barker* decision, the Scottish Parliament voted to allow Westminster to legislate on a UK-wide basis. This was achieved in section 3 of the Compensation Act 2006,⁶⁹ which reinstates joint and several liability in respect of the causation of asbestos-related mesothelioma of the pleura,⁷⁰ thereby reversing that aspect of the *Barker* decision.⁷¹ Defenders may continue to seek an apportionment of liability *inter se*, and awards may be reduced in respect of contributory negligence.⁷² Additionally, in order to protect properly insured defenders from bearing the burden of liability in cases where co-defenders are uninsured, and thus potentially unable to meet their liability, the statute provides for Treasury regulations to set up a compensation fund from which defenders may seek a contribution in respect of the portion of total liability due by co-defenders unable to pay.⁷³

Whilst this legislative development has, on the face of it, restored an unfairness pinpointed by the majority in *Barker*, namely that joint and several liability in cases of indeterminate causation imposes upon defenders liability *in solidum* for losses which, in actuality, they may not have not caused at all, the sting has been taken out of the tail through provision of a statutory compensation fund to ensure that solvent and insured defenders are not forced to bear the burden of insolvent or uninsured co-defenders. This seems a reasonable compromise which should satisfy victims' groups as well as employers and insurers. The legislation has sensibly not sought to undo *Barker's* general realignment of material increase in risk cases as lost chance cases, nor has it tampered with the rules of causation in mesothelioma cases. It remains to be seen whether such realignment will find favour within the academic community, but it has been suggested in this article that, for reasons of causal orthodoxy, the approach of the majority in *Barker* should be welcomed.

68 SP Bill 75, Session 2 (2006). The Bill was introduced on 27 September 2006.

69 The Act received Royal Assent on 25 July 2006, and section 3, on liability for mesothelioma, came into force on the same day. Section 3 is given retrospective effect, although without affecting claims settled before 3 May 2006: see s 16(3), (4).

70 The exposure caused by the defender must have been the result of negligence or breach of statutory duty (s 3(1)(a)), and the cause of the mesothelioma must, "because of the nature of mesothelioma and the state of medical science", be indeterminate (s 3(1)(c)).

71 Compensation Act 2006 s 3(1), (2).

72 Section 3(3).

73 Section 3(7).