Material Contribution

Andrew Axon, Barrister, Parklane Plowden Chambers

28 March 2022

Introduction

> *" … the law of material contribution … is evidently a legal issue which is ripe for authoritative review …"*

Thorley v Sandwell & West Birmingham Hospital NHS Trust [2021] EWHC 2604, Soole J

1. What follows is not that review but an attempt to explain why it is required.

2. Unlike legislation, the common law does not confine itself to a particular situation or case. It has been described as a complex network of interconnected principles applicable to all situations falling within its scope[1]. The more fundamental the principle of law, the wider its reach. Consequently, the development of the law on causation in the context of disease litigation has found its way into the field of clinical negligence.

3. The law of material contribution has migrated from industrial disease to clinical negligence litigation because they share one particular characteristic, the injuries suffered by claimants often arise from a combination of tortious and non-tortious causes.

4. In industrial disease litigation, this will typically be exposure to a noxious substance or agent for periods of time or at levels which are reached in part

[1] Lord Neuberger and Lord Reed – International Energy Group v Zurich Insurance plc [2016] AC @192.

PARKLANE PLOWDEN MAKING A POSITIVE DIFFERENCE IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

non-negligently and in part negligently. In the context of clinical care, it is often the time during which a pathological process goes undiagnosed and therefore untreated. The terms negligent and non-negligent exposure; or, negligent and non-negligent delay are familiar.

5. The interplay between these processes, and therefore the extent to which losses are recovered depend on scientific knowledge, which is being mined and tested by lawyers in ever greater detail. The "rock of uncertainty"[2], if not eroding is certainly under siege.

6. If our knowledge of both the facts and scientific understanding were absolute, such that Arthur Fairchild had been able to establish which fibre or fibres caused to his mesothelioma; or that Kamal Williams were able prove that with earlier treatment of his sepsis, his myocardial ischemia would have been avoided, there would be no need to modify the approach to causation beyond the familiar 'but for' test. Despite our best efforts we are not all knowing and the deeper we mine the more uncertainties we are liable to uncover.

7. More often than not, these gaps in our knowledge are adequately bridged by concepts of the standard of proof and inference. In a civil claim, certainty is not required, merely the balance of probabilities. But occasionally the but for test, in combination with the latitude afforded by the application of a lower standard of proof than that demanded of the rigours of science is not enough.

8. These "hard cases" have the propensity to make "bad law". These types of case often give rise to exceptions, which have to be defined so they can be identified in the future. As Lord Nicholls of Birkenhead stated in Fairchild[3] [36]

---

[2] The term used to describe lack of scientific knowledge – Fairchild v Glenhaven Funeral Services Ltd [2002] UKHL 22; [2003] 1 AC 32 per Lord Bingham [8]

[3] Fairchild v Glenhaven Funeral Services Ltd [2002] UKHL 22; [2003] 1 AC 32

" … To be acceptable the law must be coherent. It must be principled. The basis on which one case, or one type of case, is distinguished from another should be transparent and capable of identification. When a decision departs from principles normally applied, the basis for doing so must be rational and justifiable if the decision is to avoid the reproach that hard cases make bad law…"

9. Therefore, in order to be coherent and principled, the courts adopt and use terminology to distinguish these type of cases. The law of material contribution seems to have an embarrassment of riches, with the use of phrases including: divisible, indivisible, cumulative causes, dose related, single agent, material contribution to injury, material contribution to risk etc.

10. As this area of the law has migrated over time from industrial disease to clinical negligence, the use of these phrases lies at the heart of the confusion referred to by Mr Justice Soole.

<u>Understanding the terminology – disease cases</u>

11. Lawyers, scientists, philosophers and the general public interpret the meaning of words very differently. The priority of the lawyer is to achieve a just result:

    "... the law's view of causation is less concerned with logical and philosophical considerations than with the need to produce a just result to the parties involved".[4]

12. To understand how the courts have applied the law of material contribution to cases of clinical negligence, it is worth considering the context in which commonly used phrases entered the legal vocabulary.

---

[4] Fairchild v Glenhaven Funeral Services Ltd [2002] UKHL 22; [2003] 1 AC 32 per Lord Bingham [31] citing King CJ *Birkholtz v R J Gilbertson Pty Ltd (1985) 38 SASR 121 at 130*

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

PARKLANE PLOWDEN MAKING A POSITIVE DIFFERENCE IN EVERYTHING WE DO

Divisible injury/Indivisible injury/Cumulative cause.

13. Recognising the distinction between “divisible” and “indivisible” and also “cause” and “harm/injury”, is at the heart of understanding how the concept of material contribution has been applied (and arguably misapplied). For that reason, harm is referred to either divisible/indivisible and cause is referred to either cumulative/non-cumulative.[5] What are the differences and why are they relevant?

The difference

Divisible injury.

14. The adjective “divisible” means that which it describes is capable of being divided. In the context of disease litigation, a divisible disease/injury is where progression/severity is driven by exposure to the noxious agent. The greater the exposure, the more severe the disease. Examples include: asbestosis, silicosis, VWF, and industrial deafness.

Indivisible injury

15. Conversely, an indivisible disease/injury is one which, does not get worse as exposure increases. The likelihood of onset of the disease may be related to the level of exposure but following onset, it progresses independently of the noxious agent that caused it. Examples are mesothelioma or cancer.

Cumulative cause – divisible injury

16. There is a further important distinction, a cumulative cause is a different concept from a divisible injury. In order to be a divisible injury in law, it follows that it must have a cumulative cause. Asbestosis, silicosis, VWF, and industrial

[5] The importance of the distinction - See Underhill LJ *BAE Systems (Operations) Ltd v Konczak, [2018] I.C.R. 1 (2017) per [71]*

PARKLANE PLOWDEN MAKING A POSITIVE DIFFERENCE IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

deafness are all examples of this. If the cause was not cumulative, it could not be divided with reference to causal components.

Single (non-cumulative) cause – indivisible injury

17. In a personal injury claim, examples of an indivisible injury (i.e., a broken leg) being caused by a single agent (i.e., a car accident) are commonplace. In disease litigation, less so. If (and it is a big if) Arthur Fairchild's mesothelioma was caused by a single fibre of asbestos, it would amount to an indivisible injury (mesothelioma) being caused by a single agent (asbestos fibre).

Cumulative cause – indivisible injury

18. This is the problem area. Cumulative causes of indivisible injury are difficult to recognise but arguably more prevalent in the field clinical negligence. The typical example is a when, due to increasing insult, a threshold is met causing an injury**.** In cases of this type, the "but for" test will normally apply, as the totality of exposure reaches a point when injury occurs. Before this point, the injury would have been avoided. Above all it is this category which has caused inconsistency and confusion in the field of clinical negligence

<u>Examples</u>

In Sienkiewicz v Grief (UK) Ltd [2011] Lord Phillips explains these distinctions in the following terms[6]:

Principles of causation in relation to disease.

12. Many diseases are caused by the invasion of the body by an outside agent. Some diseases are caused by a single agent. Thus, malaria results from a single mosquito bite. The extent of the risk of getting

---

[6] Sienkiewicz v Grief (UK) Ltd [2011] UKSC [12] – [14]

PARKLANE PLOWDEN MAKING A
POSITIVE
DIFFERENCE
IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

malaria will depend upon the quantity of malarial mosquitoes to which the individual is exposed, but this factor will not affect the manner in which the disease is contracted nor the severity of the disease once it is contracted. The disease has a single, uniform, trigger and is indivisible.

13. The contraction of other diseases can be dose related. Ingestion of the agent that causes the disease operates cumulatively so that, after a threshold is passed, it causes the onset of the disease. Lung cancer caused by smoking is an example of such a disease, where the disease itself is indivisible. The severity of the disease, once it has been initiated, is not related to the degree of exposure to cigarette smoke.

14. More commonly, diseases where the contraction is dose related are divisible. The agent ingested operates cumulatively first to cause the disease and then to progress the disease. Thus, the severity of the disease is related to the quantity of the agent that is ingested. Asbestosis and silicosis are examples of such diseases, as are the conditions of vibration white finger and industrial deafness, although the insults to the body that cause these conditions are not noxious agents.

The relevance

19. Lord Toulson in Williams v The Bermuda Hospitals Board [2016] UKPC quoted Professor Sarah Green (Causation in Negligence, Hart publishing, 2015, chapter 5, P 97) put it:

"… It is trite negligence law that, where possible, defendant should only be held liable for that part of the claimant's ultimate damage to which they can be causally linked… It is equally trite that, where a defendant has been found to

PARKLANE PLOWDEN MAKING A POSITIVE DIFFERENCE IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

have caused or contributed to an indivisible injury, she will be held liable for it, even though there may well have been other contributing causes.…"[7]

20. Similarly, after citing the examples[8], later in the judgment of Lord Toulson in *Sienkiewicz* states [90]:

> *" … Where the disease is indivisible, such as lung cancer, a defendant who has tortiously contributed to the cause of the disease will be liable in full. Where the disease is divisible, such as asbestosis, the tortfeasor will be liable in respect of the share of the disease for which he is responsible…"*

21. These observations neatly explain the importance underpinning the distinction between divisible and indivisible injuries. If the defendant is held to have tortiously contributed[9] to a disease, the extent of its liability may depend upon whether injury is divisible or indivisible. If divisible, the scientific evidence may be capable of establishing the extent to which a noxious agent has contributed to an injury and the defendant's liability is then limited to the extent of its contribution.[10] If indivisible, the defendant's liability extends to the entirety of the injury.

22. If only it were that simple. Scientific knowledge is not always capable of, or called upon, to determine the extent to which a noxious agent has contributed to the outcome of a divisible injury. In Bonnington Castings LTD v Wardlaw [1956] AC 613, while the pneumoconiosis was a divisible injury, the point regarding attribution[11] was never raised or argued and consequently, the claimant recovered in full (see below). This was despite acknowledgment that other (non-negligent) causes contributed to the disease. It is also important to acknowledge that the terminology "divisible" or "indivisible" were never used in

[7] Lord Toulson - Williams v The Bermuda Hospitals Board [2016] UKPC [31]
[8] Paragraph 18 above.
[9] As opposed to contributing to the risk of a disease – explained below.
[10] Holtby v Brigham & Cowan (Hull) Ltd [2000] All ER 421 Stuart-Smith LJ [20]
[11] The attribution of a divisible injury is illustrated by Holtby v Brigham & Cowan (Hull) Ltd [2000] All ER 421

PARKLANE PLOWDEN MAKING A POSITIVE DIFFERENCE IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

Bonnington and the categorisation of pneumoconiosis as a divisible injury (which it clearly is) came later[12].

The problem

23. The principle summarised by Professor Green is simply stated but difficult to apply. It is difficult to find any example of an industrial disease which is defined as indivisible and to which a defendant has been found to have contributed in part.

24. Examples of indivisible injury are mesothelioma (*Fairchild*[13]) and cancer (*Heneghan*[14]). But in neither case was it found that exposure materially contributed to the disease. Had they done so, *Fairchild* would not have been the landmark case that it was. Rather, in both instances damages were recovered under a narrower exception to the "but for" rule based upon contribution to risk.

25. With both diseases (mesothelioma and cancer), you either get it or you don't, and progression or severity of the disease is independent of how you get it (an indivisible injury). Furthermore, in circumstances where asbestos is the causative agent, these are not diseases which present because of an accumulation of exposure whereby a tolerance exceeded. They occur because of a microbiological mutation in the DNA of cells attributable to the inhibitive effect asbestos has on programmed cell death. Detailed analysis of the distinction is to be found in *Heneghan*

" …. Asbestos burden cannot be equated with the silica dust which causes pneumoconiosis. The greater the accumulation of such dust in the lungs; the greater the damage that is being caused to the lung tissue of an individual

[12] Sienkiewicz v Grief (UK) Ltd [2011] UKSC [17] per Lord Phillips. Contrast with earlier views – Mustill J – Thompson v Smiths Shiprepairers [1984] QB 405 p 441.
[13] Fairchild v Glenhaven Funeral Services Ltd [2002] UKHL 22; [2003] 1 AC
[14] Heneghan v. Manchester Dry Docks Ltd. & ors. [2016] EWCA Civ 86.

patient with that disease. The dust is directly contributing to the disease process. The greater the exposure to asbestos fibres, on the other hand, the greater the risk that lung cancer may result…"[15]

26. In both *Fairchild* and *Heneghan*, it was held that the tortious exposure contributed to the risk of contracting the disease but there is a fundamental distinction between "material contribution to risk of an indivisible injury" and "material contribution to an indivisible injury". In law, the two are treated very differently (see below).

27. So, where, in disease litigation, do we find an example of the assertion:

" … *where a defendant has been found to have caused or contributed to an indivisible injury, she will be held liable for it, even though there may well have been other contributing causes.…"*

28. The authority relied upon in fact relates to a divisible injury (pneumoconiosis), but where the Defendant did not seek to argue its liability should be apportioned.

Bonnington[16]

29. The claimant contracted pneumoconiosis from inhaling air silica dust at the workplace. The main source of dust was from pneumatic hammers (the innocent dust) some dust came from swing grinders, omitted due to a failure to intercept and remove that dust (the guilty dust). It was held guilty dust did in fact contribute to a quota of dust which was not negligible to the claimant's lungs and therefore helped produce the disease.

30. The nature of the disease is such that the more silica dust inhaled, the more insult the body suffers and the more severe the overall disability – it is therefore

[15] Heneghan v Manchester Dry Docks Ltd [2016] 1WLR per Lord Dyson [14]
[16] Bonnington Castings LTD v Wardlaw [1956] AC 613

divisible. Importantly, it was not argued (in 1955) that pneumoconiosis was a divisible injury and/or that the defendant's liability should be limited to the damage to which it was causally linked. Whether, but for the negligent exposure, Mr Wardlaw would have been severely impaired by shortness of breath, mildly asymptomatic or asymptomatic was not considered.

Smith LJ in AB V MOD[17]

> *" … The decision of the House of Lords in Bonnington amounted to a modification of the 'but for' rule of causation because the plaintiff recovered damages for the harm caused by all the dust, not just the tortious component. At no stage in that case was it suggested that the damages should be apportioned as between the effect of the tortious and non-tortious components. If that had been suggested, and if expert evidence had been called showing the effect of the different components (as we think it would be nowadays), the damages would probably have been apportioned…"*

31. In Williams v The Bermuda Hospitals Board [2016] UKPC [32], Lord Toulson described the decision in the following terms:

> *" …In Bonnington there was no suggestion that the pneumoconiosis was "divisible", meaning that the severity of the disease depended on the quantity of dust inhaled. Lord Reid interpreted the medical evidence as meaning that the particles from the swing grinders were a cause of the entire disease. True, they were only part of the cause, but they were a partial cause of the entire injury, as distinct from being a cause of only*

[17] B v Ministry of Defence [2010] EWCA Civ 1317 per Smith LJ [134]

PARKLANE PLOWDEN MAKING A POSITIVE DIFFERENCE IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

part of the injury. Lord Reid's approach was understandable in view of the way in which the case was argued…"[18]

32. On the basis that the defendant had been found to have contributed to the disease, absent of any argument that cause and effect could be divided between tortfeasors, the claimant recovered for the entirety of the losses caused by the disease even though there were other contributing causes.

33. In conclusion, the distinction between a divisible and indivisible injury is an important one. If the injury is divisible, recovery is limited to that which the defendant is proved to have caused (assuming scientific knowledge permits the point to be taken). If the injury is indivisible, the claimant is entitled to recover the entirety of the loss.

34. Lord Phillips in Sienkiewicz v Greif (UK) Ltd [2011] 2 AC 229, para 90*:*

> *"Where the disease is indivisible, such as lung cancer, a defendant who has tortiously contributed to the cause of the disease will be liable in full. Where the disease is divisible, such as asbestosis, the tortfeasor will be liable in respect of the share of the disease for which he is responsible."*

<u>Material contribution to injury/Material contribution to risk of injury</u>

35. It is very different to tortiously contribute to an injury as opposed to contributing towards the risk of that injury arising.

36. If a claimant can establish that the negligence of the defendant materially contributed to an injury, the starting point is for recovery. The question then

[18] In a note to the Lord Toulson's judgement in *Williams*, he observes that in subsequent cases the accepted view is that pneumoconiosis is a "divisible" disease, its severity being dependent on the quantity of dust inhaled.

PARKLANE PLOWDEN MAKING A POSITIVE DIFFERENCE IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

becomes whether the claimant recovers in part or in full. The approach to material contribution to risk, is altogether different.

37. If the nature of the disease and exposure falls within very narrow criteria, a material increase in the risk will suffice (the *Fairchild* exception). Alternatively, if the claimant is able to establish that the extent of the increased risk attributable to the negligent agent is sufficiently high, an inference may be drawn that the negligent agent is in fact the cause (“Doubling the risk”).

The *Fairchild*[19] exception

(Developed by *Barker*[20] and varied by Section 3 of the Compensation Act).

38. Fairchild involved three separate mesothelioma claims. In each case the victim had been exposed to asbestos dust during periods of employment with more than one employer. They contracted mesothelioma. This is an indivisible disease. In that sense, it is similar to lung cancer and differs from diseases such as pneumoconiosis and silicosis. It was accepted that the risk of developing mesothelioma increased in proportion to the quantity of asbestos dust and fibres inhaled: the greater the quantity of dust and fibres inhaled, the greater the risk. There was no way of identifying, even on a balance of probabilities, the source of the fibre or fibres which initiated the genetic process which in turn culminated in the malignant tumour. Lord Bingham referred to this as the “rock of uncertainty”

39. In order to surmount this difficulty, the House of Lords adopted[21] a modified approach to proof of causation: proof that a defendant employer had materially contributed to the risk of contracting the disease was sufficient to satisfy the causal requirements for his liability.

[19] Fairchild v Glenhaven Funeral Services Ltd [2002] UKHL 22; [2003] 1 AC 32
[20] Barker v Corus UK Ltd [2006] UKHL 20; [2006] 2 AC 572
[21] This approach had been heralded earlier in McGhee v National Coal Board [1973] 1 WLR 1

40. In Fairchild, the House of Lords did not address the question of apportionment between defendants. That issue was confronted in Barker v Corus UK Ltd [2006] UKHL 20, [2006] 2 AC 572. In that case, the deceased who died of mesothelioma had been exposed to asbestos during three periods of his working life: while working for a company which had become insolvent; while working for the defendant; and while he was self-employed. It was held that the defendant was liable only in proportion to his own contribution to the exposure to the asbestos and therefore to the risk that the deceased would contract mesothelioma. The effect of this decision was reversed by section 3 of the Compensation Act 2006, although it only applies to mesothelioma cases.

41. The "Fairchild exception" is confined in its application. Five elements must be present:

    i. C has proved all that he possibly can but medical science is unable to determine how the injury was caused.

    ii. D's negligence materially increased the risk to the claimant (not just a class of persons).

    iii. D's conduct was capable of causing C's injury

    iv. C's injury was caused by the type of risk created by D's negligence.

    v. The injury was caused, if not by the same agency as involved in the defendant's negligence, at least an agency that operated in substantially the same way.

42. The Fairchild exception has been applied to a very limited extent beyond mesothelioma cases. The notable exception being cancer caused by exposure to asbestos – Heneghan v Manchester Dry Docks Ltd [2016] EWCA Civ 86. With the passage of time and greater scientific understanding, it is likely to become of historical relevance only. This appears to be a reasonable

PARKLANE PLOWDEN MAKING A POSITIVE DIFFERENCE IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

assumption based upon the endorsement by the Supreme Court[22] of the following observation by Smith LJ in – AB v Ministry of Defence [2010] EWCA Civ 131: [154]

> *" …. So, we conclude that there is no foreseeable possibility that the Supreme Court would be willing to extend the Fairchild exception so as to cover conditions such as we are here concerned with, which have multiple potential causes some of which have not even been identified. We reject as highly unlikely the suggestion that the Supreme Court might be prepared, on policy grounds, to extend the exception well beyond that which was contemplated at the time of Fairchild or Barker. We say that because, to effect such a change would be to upset completely the long-established principle on which proof of causation is based… "*

AB v MOD, otherwise known as the *Atomic Veterans* case, is an important authority in the migration of material contribution into the field of clinical negligence and is considered in further detail below.

Doubling the risk

43. Challenging arguments fall for consideration when contending that an increase of risk of injury has reached the threshold whereby causation can be established. The appropriateness of applying a "double the risk" test and the use of epidemiological evidence to establish increased risk has been extensively considered in Sienkiewicz v Grief (UK) Ltd [2011] UKSC, in which the observations of Rodger LJ and Hale LJ[23] as to the status of statistical evidence is of particular note.

44. Conversely, if non-negligent care would have halved the risk of an event occurring, statistically that event would have been avoided. A useful analysis of

[22] Ministry of Defence v AB and others [2012] UKSC 9 per Lord Wilson [157]
[23] Sienkiewicz v Grief (UK) Ltd [2011] UKSC [170 – 172]

PARKLANE PLOWDEN MAKING A POSITIVE DIFFERENCE IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

the concept of relative risk ("RR") and the role of epidemiological evidence is to be found in the detailed judgment of Jay J in Rich v Hull and East Yorkshire NHS Hospital Trust [2015] EWHC 3395.

45. In *Williams*, Lord Toulson[24] observed:

> *" … Finally, reference was made during the argument to the "doubling of risk" test which has sometimes been used or advocated as a tool used in deciding questions of causation. The Board would counsel caution in its use. As Baroness Hale of Richmond said in Sienkiewicz at para 170, evaluation of risk can be important in making choices about future action. This is particularly so in the medical field, where a practitioner will owe a duty to the patient to see that the patient is properly informed about the potential risks of different forms of treatment (or non-treatment). Use of such evidence, for example epidemiological evidence, to determine questions of past fact is rather different. That is not to deny that it may sometimes be very helpful. If it is a known fact that a particular type of act (or omission) is likely to have a particular effect, proof that the defendant was responsible for such an act (or omission) and that the claimant had what is the usual effect will be powerful evidence from which to infer causation, without necessarily requiring a detailed scientific explanation for the link. But inferring causation from proof of heightened risk is never an exercise to apply mechanistically. A doubled tiny risk will still be very small …"*

The evolving caselaw

Bailey v. Ministry of Defence [2008] EWCA Civ 883

46. The facts:

[24] Williams v The Bermuda Hospitals Board [2016] UKPC [48]

PARKLANE PLOWDEN MAKING A POSITIVE DIFFERENCE IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

The claimant was admitted to hospital for surgery to treat gallstones. The operation, performed on evening 11/1/01 (ERCP) was complicated by bleeding and the blockage (stone) was not removed, albeit non-negligently.

After the procedure, the claimant was sent back to the ward. There was no recovery chart, no nursing records or subsequent ward care. When seen 12 hours later, the claimant was clearly unwell. By 4:00 pm 12/01/01 she had developed post ERCP pancreatitis (inflammation in the pancreas). During this period there was want of care. Importantly the pancreatitis was not attributable to that want of care.

Over the next 24 hours, there was further deterioration. She required a blood transfusion on 13/01/01. She was then transferred to ICU on 14/01/01. The claimant had now started bleeding from her gut and develop renal failure and acute pancreatitis. She now required circulatory support and was developing respiratory failure.

The claimant was taken to ICU at Queen Alexandra Hospital, Portsmouth. She underwent PTC – a procedure to insert a stent through the skin and liver into the top of the bile duct. This in turn caused a massive bleed requiring 2 x laparotomies, sphincterotomy, a cholecystectomy and packing of the liver for bleeding with aggressive support. This period of treatment which continued 14/01/01 – 19/01/01 was caused by the lack of care and development of acute pancreatitis.

Two weeks after initial surgery, in a weakened state, the claimant drank 100ml of lemonade. She became nauseous, vomited and aspirated. At around midnight she suffered a cardiac arrest resulting in hypoxic brain injury.

The claimant argued that with appropriate care, although she would have developed pancreatitis and renal failure, requiring a planned laparotomy after

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

ERCP on 12/01/01 or 13/01/01, she would have avoided: the PTC; consequential bleeding; and emergency laparotomies during the period 14/01/01 – 19/01/01.

In short, had the claimant been properly treated, with appropriate post-operative management, she would not have become as ill as she did. She would have recovered sooner, with the result that she would not have been so weak that she aspirated on 21/01/01 – leading to her cardiac arrest and hypoxic brain damage.

The issue was whether the claimant's inability to respond naturally to her vomit was because of weakness due to her severe pancreatitis and to what extent, if at all, the want of care was causative.

47. Foskett J:

The judge at first instance held that the negligence in the care of the claimant made a material contribution to her injury upon the following basis [17]:

(1) If appropriate care and resuscitation had been provided after the procedure on 12th January the claimant would have had a further procedure on the 12th January which would have saved all, or at least some, of the traumatic and life−threatening period and procedures which she had to endure on 15th to 19th January.

(2) That would have avoided the considerable weakening of the claimant, which resulted and which was occurring in addition to any debilitation arising from her pancreatitis.

(3) The physical cause of her aspiration and subsequent cardiac arrest was her weakness and inability to react to her vomit.

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

(4) There were two contributory causes of that weakness, the non−negligent cause pancreatitis, and the negligent cause, the lack of care and what flowed from that.

(5) Since each "contributed materially" to the overall weakness, and since the overall weakness caused the aspiration, causation was established.

48. The Court of Appeal adopted the principles to be found in *Bonnington*[25]*,* in so doing, Waller LJ concluding at [46]:

> *" … In a case where medical science cannot establish the probability that 'but for' an act of negligence the injury would not have happened but can establish that the contribution of the negligent cause was more than negligible, the 'but for' test is modified, and the claimant will succeed..."*

49. Academics[26] have criticised equating *Bailey* to *Bonnington* on the basis that the former (cardiac arrest) is an indivisible injury, whereas the latter (pneumoconiosis) is divisible injury. However, in both cases: the claimant established the negligence contributed (more than negligibly) to the injury; that science could not determine, but for the negligence, the injury would have been avoided; and, divisibility was not in issue (for different reasons).

50. Waller LJ considered the application of *Bonnington* and the phrase *"cumulative cause case" stating: "it seems to me thus respectfully that Lord Rodger in Fairchild accurately summarises the position when he says in paragraph 129 that in the cumulative cause case such as Wardlaw the but for test is modified*"

<u>Should *Bailey* be classified as an "indivisible injury" case?</u>

[25] Bailey v. Ministry of Defence [2008] EWCA Civ 883 [16] per Waller LJ.
[26] Prof Jane Stapleton – Unnecessary Causes – Law Quarterly Review January 2013

PARKLANE PLOWDEN MAKING A
POSITIVE
DIFFERENCE
IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

51. In *Bailey*, the goal was to recover damages for the consequences of hypoxic brain damage. The causal chain was as follows:

> Failure to provide post-operative care - severe illness due to untreated complications and pancreatitis - weakness during recovery plus weakness from pancreatitis – aspiration - cardiac arrest - hypoxic brain damage.

52. The claimant could prove a number of these steps on the balance of probabilities: negligence caused the complication; the complication caused <u>some</u> weakness; the weakness caused the aspiration, the aspiration caused the cardiac arrest, which caused the hypoxic injury.

53. The problem for the claimant was establishing that the weakness causally associated with the negligence caused, as a matter of law, the aspiration of vomit, the trigger for what followed. On that analysis, *Bailey* was an indivisible injury (aspiration/cardiac arrest) attributable to a cumulative cause (weakness).

54. The relationship between cause and injury is an important one. Had Grannia Bailey never aspirated, it is reasonable to assume that she would I have been entitled to recover damages to reflect the tumultuous post-operative events caused by the defendant's negligent care. Under those circumstances, the post-operative complications and weakness would have been the injury.

55. However, Grannia Bailey went on to aspirate (an indivisible injury) caused by a combination of: the post-operative complications/weakness (negligent); and, the pancreatitis/weakness (non-negligent) and therefore a cumulative cause.

56. Smith LJ, who sat in *Bailey,* and subsequently *Dickens* and *AB v MOD* has expressed views about the classification of the injury in *Bailey*, which are difficult to reconcile.

<u>Dickens v O2 Plc [2008] EWCA Civ 1144</u>

57. In *Dickens,* the defendant was held liable for psychiatric injury caused by stress at work. Between November 2000 – April 2002, the claimant complained of difficulty coping at work. Her role comprised auditing, which she found particularly difficult requiring very long hours. In April 2002, the claimant met with her line manager explaining she was at the end of her tether. A referral to occupational health was made, although this was not followed up. In June 2002 the claimant was signed off as unfit for work on account of "anxiety and depression". She never returned and her employment was terminated in November 2003.

58. At first instance, the trial judge concluded the defendant's failure to act had been a breach of duty. In assessing damages, the judge took account of various other non-tortious factors (IBS, emotional stress, relationship problems, domestic turmoil - flooding at home) which he considered had contributed to claimant's illness and damages were reduced by 50%.

59. Following the guidance in *Hatton*[27] relating to stress at work claims, both parties accepted it was right to apportion damages. That approach was questioned by Smith LJ (who sat in *Bailey*) stating [42]:

> *" … My immediate reaction to the question of apportionment in the instant appeal was to wonder whether this case was any different from Bailey. Was this not a case of an indivisible injury (the respondent's seriously damaged state following her breakdown) with more than one cause? It was not possible to say that, but for the tort, the respondent would probably not have suffered the breakdown but it was possible to say that the tort had made a material contribution to it. If that is a correct analysis,*

[27] *Hatton v Sutherland [2002] ICR 613 – per Hale LJ [41] - if it is established that the constellation of symptoms suffered by the claimant stems from a number of different extrinsic causes then in our view a sensible attempt should be made to apportion liability accordingly.*

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

should not the starting point have been that the respondent was entitled to recover in full?"

60. In fact, in *Hatton* the "apportionment" was more of a quantification exercise, taking into account the claimant's vulnerability but for the negligence[28]. In any event Smith LJ is clearly classifying the injury in *Bailey* as "indivisible".

61. Lord Justice Sedley supported the view expressed by Smith LJ:

" …I like [Lady Justice Smith], am troubled by the shared assumption about the appropriateness of apportionment on which the case has proceeded. While the law does not expect tortfeasors to pay for damage that they have not caused, it regards them as having caused damage to which they have materially contributed. Such damage may be limited in its arithmetical purchase where one can quantify the possibility that it would have occurred sooner or later in any event; but that is quite different from apportioning the damage itself between tortious and non−tortious causes. The latter may become admissible where the aetiology of the injury makes it truly divisible, but that is not this case.

While the obiter dicta of Hale LJ in Hatton are, as always, entitled to the greatest respect, the stare decisis principle requires courts of first instance, at least for the present, to take their cue in this regard from Bailey…"

<u>AB v Ministry of Defence [2010] EWCA Civ 1317 *"The Atomic Veterans"*</u>

62. Between 1952–58 the MOD undertook a series of atmospheric tests of thermonuclear devices in the Pacific Ocean involving fission and fusion bombs. 22,000 servicemen were involved. It was alleged there had been exposure to

[28] *Hatton v Sunderland [2002] ICR 613 – per Hale LJ [42] - Further, the quantification of damages for financial losses must take some account of contingencies. In this context, one of those contingencies may well be the chance that the claimant would have succumbed to a stress−related disorder in any event.*

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

ionising radiation due to fall out, contaminating food and drink, leading to illness including (but not limited to) cancers.

63. Limitation was decided as a preliminary issue in 10 lead cases before Foskett J in 2009. He decided the cases could proceed due to absence of requisite knowledge - section 14 of the Act; alternatively, discretion should be applied under section 33.

64. Ultimately the case went to the Supreme Court, where the veterans' case was dismissed. However, the Court of Appeal considered the case on causation with reference to section 33 of the Limitation Act.

65. Limited epidemiological evidence had been obtained but the argument on causation was that either the application of *Fairchild* would be broadened to include the circumstances of the veterans claim (essentially ruled out by the Court of Appeal and the Supreme Court[29]) or that exposure to ionising radiation doubled relative risk[30]. In other words, this was a "material contribution to risk" case.

66. Smith LJ then considered the modification of the 'but for' rule, stating the claimants in *Fairchild* could not rely on *Bonnington* because mesothelioma is an indivisible condition[31]. In fact, the primary reason the claimants could not rely on *Bonnington* was because they were only able to establish material contribution to risk. Had they been able to establish a causative link between the asbestos and mesothelioma, *Bonnington* would not have applied, not because the injury was divisible or indivisible, but because the cause was not cumulative.

67. Smith LJ goes on to state [150]

[29] Ministry of Defence (Respondent) v AB and Others [2012] UKSC 9 [157] per Lord Phillips.
[30] Per Smith LJ [132]
[31] Per Smith LJ [136]

PARKLANE PLOWDEN MAKING A POSITIVE DIFFERENCE IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

" … at least so far as cancers are concerned, the claimants cannot rely on proving that the radiation exposure has made a material contribution to the disease, as in Bailey and Bonnington Castings. This principle applies only where the disease or condition is "divisible" so that an increased dose of the harmful agent worsens the disease (emphasis applied) … in Bailey the tort (a failure of medical care) increased the physical weakness … it was the overall weakness which led to the claimants failure to protect her airway when she vomited with the result that she inhaled her vomit and suffered a cardiac arrest and brain damage … in those cases, the pneumoconiosis and the weakness were divisible conditions …"

68. It is difficult to reconcile the views expressed about the injury suffered in *Bailey* by Smith LJ in *Dickens* (it is indivisible) and *AB v MOD* (it is divisible) but it goes someway to explain problems encountered by the court on Thorley v Sandwell & West Birmingham Hospital NHS Trust [2021] EWHC 2604. – discussed below.

69. The apparent contradiction between the *Dickens* and *AB v MOD* has been identified subsequently. In Rich v Hull and East Yorkshire NHS Hospital Trust [2015] EWHC 3395, Jay J, observed:

" …The Courts have had difficulty in differentiating between divisible and indivisible injuries in less straightforward cases: see the valuable analysis of Swift J in Jones v Secretary of State for Energy and Climate Change [2012] EWHC 2936 (QB) (at paragraph 6.49), and Smith L.J.'s differing approaches in Dickens v O2 Plc [2008] EWCA Civ 1144 and B v MoD [2010] EWCA Civ 1317... "

70. The analysis of Swift J in Jones [6.49] was:

" …By contrast, the Court of Appeal in the Atomic Veterans case concluded that it was only in cases of divisible injury that the Bonnington principle

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

PARKLANE PLOWDEN MAKING A POSITIVE DIFFERENCE IN EVERYTHING WE DO

applied. It is true that the type of injury suffered by the claimant in Bonnington *was in fact divisible.*
However, it was not treated as such by the parties or the court; they approached the injury as though it was an indivisible injury. Similarly, the Court of Appeal in the Atomic Veterans *case regarded the 'injury' in the case of* Bailey *as having been the claimant's weakened state which had led to her cardiac arrest and brain damage. They regarded that injury as divisible. Yet, it seems to me that the 'injury' in* Bailey *was in reality the claimant's brain damage, which was indivisible. The defendant's negligence had made an unquantifiable contribution to the weakness that had led to the development of that brain damage.*
If that is right, the fact that an injury is indivisible does not necessarily preclude the application of the Bonnington principle..."

Should *Bailey* be classified as a "material contribution" case at all?

71. Arguably not. Perhaps it can be viewed as a "threshold" case (paragraph 18 above), in which a cumulative cause (weakness) causes an indivisible injury (aspiration). In Williams v The Bermuda Hospitals Board [2016] UKPC, Lord Toulson remarked upon *Bailey* in the following terms:

> *" …In the view of the Board, on those findings of primary fact Foskett J was right to hold the hospital responsible in law for the consequences of the aspiration. As to the parallel weakness of the claimant due to her pancreatitis, the case may be seen as an example of the well known principle that a tortfeasor takes his victim as he finds her. The Board does not share the view of the Court of Appeal that the case involved a departure from the "but-for" test. The judge concluded that the totality of the claimant's weakened condition caused the harm. If so, "but-for" causation was established. The fact that her vulnerability was heightened by her pancreatitis no more assisted the hospital's case than if she had an egg shell skull…"*

The clinical negligence cases

Williams v The Bermuda Hospitals Board [2016] UKPC

Facts:

72. The claimant complained of abdominal pain. He was suffering from acute appendicitis. The claimant arrived at the emergency department at 11:17 hours. A scan was performed at 17:27 hours and surgery at 21:30 hours.

73. At operation (appendectomy) it was found the claimant had a ruptured appendix and widespread pus throughout the pelvic cavity.

74. During surgery the claimant suffered a myocardial ischaemic event and lung complications.

75. Hellman J found sepsis from the ruptured appendix caused injury to the heart and lungs. He found that surgery should have taken place earlier (saving between approximately 2 – 4 hours).

76. The judge concluded that the claimant had failed to prove, on the balance of probabilities, the culpable delay caused the complications (myocardial ischaemia event and lung complications), awarding $2000.

Court of Appeal – reversed decision on causation and remitted the case.

Ward JJA

> The proper test was not whether the negligent delay caused the injury but rather whether it contributed materially to the injury [19]. Thereafter, the "but for" test is sometimes relaxed to enable the claimant to overcome the causation hurdle when it might otherwise seem unjust to require the claimant to prove the impossible – *Bailey v Ministry of Defence [2009] 1WLR*.

The claimant was awarded $60,000.

77. Before the Supreme Court, counsel for the claimant submitted the *Bonnington* principle applied where the evidence points to cumulative causes and the probability that the defendant's negligence contributed to the injury [25].

78. Lord Toulson concluded:

> *"[41] … The sepsis was not divided into separate components causing separate damage to the heart and lungs. Its development and effect on the heart and lungs was a single continuous process, during which the sufficiency of the supply of oxygen to the heart steadily reduced. [42] On the trial judge's findings, that process continued for a minimum period of two hours 20 minutes longer than it should have done. In the judgment of the Board, it is right to infer on the balance of probabilities that the hospital board's negligence materially contributed to the process, and therefore materially contributed to the injury to the heart and lungs…"*

79. Lord Toulson went on to make comments upon *Bonnington* and *Bailey*:

    [32] In a subscript about Bonnington, he observed it was an accepted view that pneumoconiosis is a "divisible" disease[32].

    [47] Bailey was not a departure from the 'but for' test[33].

<u>John V Central Manchester and Manchester children's University Hospitals NHS Foundation Trust [2016] EWHC 407</u>

Facts

80. Dr John was a GP. On 23 December 2007, he lost his footing on stairs sustaining a traumatic brain injury. An ambulance was called, and he was taken to the Manchester Royal infirmary in the early hours. He was admitted but did

[32] See paragraph 32 above
[33] See paragraph 67 above

PARKLANE PLOWDEN MAKING A POSITIVE DIFFERENCE IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

not undergo CT scan until 1:12 pm. He underwent surgery at 7:30 pm. Surgery involved left fronto-parietal craniotomy and evacuation of acute subdural haematoma. Recovery was complicated by post-operative infection.

81. The claimant's case was that he suffered an extended period of raised intracranial pressure which materially contributed to the cognitive and neuropsychological deficits. Consequent cognitive deficits meant the claimant was unlikely to work as a doctor again.

82. The judge concluded the claimant suffered damaging raised intracranial pressure from 12:15 pm., a period in excess of 7 hours, of which between 5 hours 45 minutes – 6 hours would have been avoided without negligent delay [79].

83. The causative elements were the initial traumatic brain injury; post traumatic raised intra-cranial pressure; and post-operative infection.

84. It was accepted that the correct approach was to ask whether that raised intracranial pressure had made a material contribution to the damage. A stage was reached whereby, if not conceded, that point was not argued.

85. It was then necessary to apportion damage between the damage caused by the raised intracranial pressure (the tortious cause) and that caused by the combination of the initial head injury and the post-operative infection (non-tortious causes),

86. Finally, if attribution between the cases was not possible, it was argued the claimant recovers in full.

87. The judge concluded that apportionment was not possible stating [100]

> *" … the Bailey and Williams cases are cases where it was impossible, not merely difficult, to attribute particular causes to particular loss. The present*

PARKLANE PLOWDEN MAKING A POSITIVE DIFFERENCE IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

case likewise entails impossibility rather than simply difficulty. As such it is not an appropriate case for an apportionment exercise ..;"

88. The troubling aspect of this case was that, during the process of quantifying damages, the but for test was applied to the prediction of what claimant's earnings would have been "but for" the effects of the damaging raised intra-cranial pressure [112 -113].

89. There seems to be a contradiction between the finding that it was impossible to attribute a particular cause to a particular loss but then to calculate damages upon the basis that, but for the accident, there would be reduced earning capacity due to the initial head injury, unrelated to the defendant's negligence.

90. The answer to this apparent contradiction may be found in the approach to psychiatric injury *BAe Systems (Operations) Limited v Konczak* [2018] ICR 1 per Underhill LJ [61], citing Hatton v Sutherland [2002] he highlights the distinction between apportionment and assessment of damages:

Proposition 15 is:

"Where the harm suffered has more than one cause, the employer should only pay for that proportion of the harm suffered which is attributable to his wrongdoing, unless the harm is truly indivisible. It is for the defendant to raise the question of apportionment …"

Proposition 16 is:

*"The **assessment of damages** will take account of any pre-existing disorder or vulnerability and of the chance that the claimant would have succumbed to a stress-related disorder in any event."*

91. At paragraph 72, Underhill LJ summarises:

PARKLANE PLOWDEN MAKING A POSITIVE DIFFERENCE IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

On my understanding of Rahman and Hatton, even in that case the tribunal should seek to find a rational basis for distinguishing between a part of the illness which is due to the employer's wrong and a part which is due to other causes; but whether that is possible will depend on the facts and the evidence. If there is no such basis, then the injury will indeed be, in Hale LJ's words, "truly indivisible", and principle requires that the claimant is compensated for the whole of the injury—though, importantly, if (as Smith LJ says will be typically the case) the claimant has a vulnerable personality, a discount may be required in accordance with proposition 16.

92. The distinction between stress at work cases and the principles set out in *Hatton v Sutherland* as compared with *John* is that the former discounts damages to reflect future possible vulnerability. This is legitimate and does not contradict the conclusion that the injury is "truly indivisible". However, in *John,* the reduction of damages arose applying the but for test to reflect what the outcome would have been due to the non-negligent causes (the original fall and post-operative infection). This is far more difficult to reconcile with the Judge's conclusion that it was impossible to *attribute particular causes to particular loss.*

<u>Leach v North East Ambulance Service NHS Foundation Trust [2020] EWHC 2914 (QB)</u>

Facts

93. The claimant was at home when she suffered a subarachnoid haemorrhage (SAH) as a result of a ruptured aneurysm. The claimant first called 999 at 14:22 and requested an ambulance. At 15:19, her neighbour made a second call for an ambulance and a third call at 15:51. The claimant's parents arrived and made a fourth call at 16:00. The ambulance arrived at 16:11.

94. The claimant was taken to James Cook University Hospital where she underwent successful treatment for SAH. Within a short period of admission, she had developed PTSD.

95. It was agreed between the parties that the admitted negligent period of delay was 31 minutes. The period of non-negligent delay was adjudged as 78 minutes [18]

96. It is correct to say that the trial judge (HHJ Freedman) expressed some surprise that a waiting time of 1 hour 49 minutes represented a reasonable period. Nevertheless, that was not a matter which the learned judge was called to determine.

97. The defendant's medical expert was of the opinion that the claimant was destined to suffer full-blown PTSD from the moment when she suffered the SAH. [20] The claimant's expert stated it was simply not possible to pinpoint a moment when the PTSD was triggered during the time between the happening of the SAH and the arrival of the ambulance and the trial judge considered that any attempt to do so was an artificial approach and entered the realms of speculation.

98. The learned judge concluded (referring to the views of Globe J in Ceri Leigh v London Ambulance NHS Trust [2014] EWHC 286 (QB), the injury was indivisible [43]:

> *" …I have already observed in the course of this judgment that I regard PTSD as an indivisible injury. It is far removed from, for example, industrial diseases such as noise induced deafness or asbestosis which are known to be dose related. That is simply not the case with PTSD. If I cannot say when the trigger for the PTSD occurred, it would not be logical to go on to conclude that, nevertheless, there can be an apportionment*

exercise. In any event, such would not be legitimate if my assessment is correct that this is an indivisible injury…"

99. HHJ Freedman summarised the position as follows [14]:

    i) If it can be shown that the claimant would have developed PTSD, in any event, irrespective of the negligent period of delay, then the claim fails.

    ii) If it can be shown that but for the period of negligent delay the claimant would not have developed PTSD, the claim succeeds.

    iii) If, on the other hand, the evidence is incapable of supporting either of the two propositions set out above, then if it can be shown the negligent period of the delay made of material contribution to the PTSD, the claim succeeds.

100. The case of *Ceri Leigh* warrants some further consideration, although in the context that it was a decision pre-dating the observations of Lord Toulson about *Bailey* in *Williams* [34]. It was however agreed that PTSD was a "cumulative cause" type case [5] to which *Bailey* applied. The learned judge concluded [28]:

> *" … Adopting the Bailey test, I am unable to find on the balance of probabilities that the PTSD would have occurred in any event before 19.33 … I am satisfied that this is a case where medical science cannot establish the probability that 'but for' the negligent failure of the ambulance to arrive before 19.33, the PTSD would not have happened, but it has been established that the contribution of the negligent failure was more than negligible. It made a material contribution to the development of the claimant's PTSD. The claimant therefore succeeds on the first issue …"*

---

[34] See paragraph 67 above.

PARKLANE PLOWDEN MAKING A POSITIVE DIFFERENCE IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

Davies v Frimley Health NHS Foundation Trust [2021] EWHC 169

101. Mrs Davies died from bacterial meningitis on 27th February 2015. She had been admitted to Wrexham Park Hospital, where she received intravenous antibiotics commenced at 13:20. It was agreed the defendant was negligent by failing to begin administrating antibiotics by 10:40. The claimant contended either: with earlier administration of antibiotics, on the balance of probabilities, Mrs Davies would have survived; alternatively, failure to do so made a material contribution to her death.

102. In this case, HHJ Auerbach concluded that the tipping point or threshold had not been reached by 10:40 and had antibiotics been prescribed at that time, on the balance of probabilities, the deceased would have survived [166 – 167].

103. Although not obliged, the Judge went on to consider in some considerable detail the caselaw relating to material contribution [168 – 210].

104. The judge focused upon competing arguments as to whether or not "material contribution" had any part play where the injury was indivisible [196]. His starting point was:

> *First, where the harm is divisible, a party will be liable if their culpable conduct made a contribution to the harm, to the extent of that contribution.*
>
> *Secondly, where the harm is indivisible, a party will be liable for the whole of it, if they caused it, applying "but for" principles.*
>
> *Thirdly, if two wrongdoers have both together caused an indivisible injury, in respect of which it is impossible to apportion liability between them, then each is co-liable for the whole of the injury suffered.*

105. The judge then posed the question whether there were alternative available routes to recovery. The difficulty with the judge's analysis is the wording of the

3rd option, in which the words "or contributed" are omitted. It will be recalled, in *Williams,* Lord Toulson adopted the following proposition:

"… It is trite negligence law that, where possible, defendant should only be held liable for that part of the claimant's ultimate damage to which they can because of the linked… It is equally trite that, where a defendant has been found to have caused ***or contributed*** *to an indivisible injury, she will be held liable for it, even though there may well have been other contributing causes.…"*[35]

106. Nevertheless, the learned judge concluded that the decisions in *Bonnington* and *Bailey* (in light of subsequent comment from the Court of Appeal, Supreme Court and Privy Council), do not stand for any novel legal principle, distinct from the general jurisprudence on co-contribution to divisible and indivisible harms. There may be some force in this observation bearing in mind *Bailey* was subsequently viewed as an eggshell skull case[36] and *Bonnington* would have been decided differently today[37] but it is the jurisprudence relating co-contribution to divisible and indivisible harms, which has caused so much recent confusion, in particular the case of *Thorley*.

Thorley v Sandwell and West Birmingham NHS Trust [2021] EWHC 2604

107. The claimant suffered chest pain, for which investigation by coronary angiogram was necessary, arranged for 27 April 2005. He had pre-existing atrial fibrillation, a condition increasing the risk of blood clots for which she took a daily dose of warfarin (anticoagulant). The Claimant stopped his daily dose of warfarin for a 6-day period (23–28 April inclusive), restarting it at a lower dose on 29th April 2005.

[35] Williams v The Bermuda Hospitals Board [2016] UKPC per Lord Toulson [31]
[36] Williams v The Bermuda Hospitals Board [2016] UKPC per Lord Toulson [47]
[37] AB v Ministry of Defence [2010] EWCA Civ 1317 per Smith LJ [134]

PARKLANE PLOWDEN MAKING A POSITIVE DIFFERENCE IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

108. On 30th April 2005, he suffered an ischaemic stroke resulting in permanent and severe physical and cognitive disability.

109. It was contended cessation of warfarin should have been limited to a 3-day period, restarted at the usual (higher) dose. It was contended these breaches caused or materially contributed to the occurrence of the stroke. A limited admission was made to the extent that warfarin should have been restarted on 28 April, although all other allegations were denied.

110. Soole J found the allegations of negligence unproven but proceeded to consider causation both upon the basis the warfarin should have been restricted to 3 days and recommenced 24 hours earlier.

111. The case on causation was put on two alternative bases: (i) but for and (ii) material contribution. It was agreed that this was not a case whereby negligence materially increased the risk potentially engaging the "Fairchild exception".[81]

112. In most basic terms, AF causes pooling of blood in the atria capable of forming clots (thrombi). These can break off causing an obstruction (embolism) – hence thromboembolism. If this occurs in the brain, it causes an ischaemic stroke or cerebrovascular accident (CVA).

113. Warfarin works by reducing the formation of clots (thrombi), although it does not dissolve them.

114. The INR measures the time for blood to clot. The relative incidence of stroke is on a steep gradient between an INR of 2.0 (Base target range for prevention of thromboembolism) and 1.0 (no anticoagulant effect).

115. The claimant argued that, had warfarin been reintroduced from 27 April 2005, by 30th April 2005 (the date of the CVA) the INR would have been 1.5 versus 1.2 (actual reading). A study *Hylek et al 1996*, showed that the risk rose very

PARKLANE PLOWDEN MAKING A POSITIVE DIFFERENCE IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

steeply as INR levels fell below 2.0. It was found that the relative incidence of stroke and INR of 1.5 as compared with 1.2 was 3.3:8:3 or 39%.

116. Without wishing to oversimplify the complex matter before the court, the RR of 0.39 belied what the judge concluded to be the actual risk of stroke. The correlation between INR and the likelihood of thrombosis was less certain where warfarin is stopped and restarted [89]. While INR is very sensitive to clotting factor VII it is less so for factors II and IX and when warfarin is stopped and started again factor VII is a poor indicator of the more important factors II and IX [128]. This was explained due to the differing half-lives of the clotting factors.

117. The learned judge rejected the claim, applying the 'but for' case but nevertheless, went on to consider material contribution.

118. It was accepted ischaemic stroke was an indivisible injury [139] – i.e. it happens or it doesn't and its severity is unaffected by the dose of warfarin. The issue between the parties was whether the "indivisibility" was a bar to the application of material contribution. The defendant relied upon AB v Ministry of Defence [2010] EWCA Civ 1317 *"The Atomic Veterans"*

119. In which it will be recalled, Smith LJ stated [150]

" … at least so far as cancers are concerned, the claimants cannot rely on proving that the radiation exposure has made a material contribution to the disease, as in Bailey and Bonnington Castings. This principle applies only where the disease or condition is "divisible" so that an increased dose of the harmful agent worsens the disease (emphasis applied) … in Bailey the tort (a failure of medical care) increased the physical weakness … it was the overall weakness which led to the claimants failure to protect her airway when she vomited with the result that she inhaled her vomit and suffered a cardiac arrest and brain damage … in those cases, the pneumoconiosis and the weakness were divisible conditions …"

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

120. Relying on the Court of Appeal in AB V MOD, the learned judge concluded the claim of material contribution must fail on the basis that this modified test of causation does not apply where there is a single tortfeasor and an indivisible injury.

121. Finally, and in any event, Soole J concluded that the delay in reinstating the warfarin contributed not to the stroke but to the risk of it occurring. In which case, material contribution had no role to play. The increasing of the risk could only be relevant, if the increase was of such a magnitude that causation could be inferred. The narrow *Fairchild* exception did not apply.

122. Although it would not have affected the outcome, the difficulty with the decision in *Thorley* is the reliance upon *AB v MOD* as authority for the proposition material contribution does not apply to indivisible injuries. This seems difficult to reconcile with the approach of Lord Toulson in *Williams* and *Sienkiewicz* (paragraph 19 and 20 above). The answer may stem from the use of terminology, Smith LJ in *AB v MOD.* It will be recalled she referred to divisibility in relation to the claimant's weakness as opposed to the aspiration or cardiac arrest and in this sense, divisibility was being used to describe the cause and not the injury. As Swift J put it:

> *" … the Court of Appeal in the Atomic Veterans case regarded the 'injury' in the case of Bailey as having been the claimant's weakened state which had led to her cardiac arrest and brain damage. They regarded that injury as divisible. Yet, it seems to me that the 'injury' in Bailey was in reality the claimant's brain damage, which was indivisible. The defendant's negligence had made an unquantifiable contribution to the weakness that had led to the development of that brain damage.*
> *If that is right, the fact that an injury is indivisible does not necessarily preclude the application of the Bonnington principle."*

PARKLANE PLOWDEN MAKING A POSITIVE DIFFERENCE IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

123. It will be evident from all of the above that the law on material contribution remains uncertain/controversial. At the outset of this paper, the observation was made that this was not an authoritative review of the subject but rather, an explanation as to why that review is required. Nevertheless, based upon the foregoing, a step-by-step approach to tackling causation would look broadly as follows:

Step 1: Apply the 'but for' test.

- But for D's negligence there would have been no injury – C succeeds in full.
- But for D's negligence there would have been the same injury – C fails.

Step 2: If Step 1 does not apply but it can be established that D's negligence materially contributed to C's injury.

- Is the injury divisible? if so:
  - the extent of harm can be attributed to D's negligence applying the 'but for' test? – C succeeds to that extent.
  - the extent of harm cannot be attributed to D's negligence (e.g. scientific knowledge is not capable of providing the answer) – C succeeds in full[38]
- Is the injury indivisible? If so:
  - if *Thorley* is followed, C fails

[38] In both *Thorley* and *Davies*, considerable time and expense were devoted to answering this question. The courts approach to costs proportionality vis-à-vis proving causation is an area that is likely to evolve.

PARKLANE PLOWDEN MAKING A POSITIVE DIFFERENCE IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

- if *Thorley* is incorrect and material contribution applies, C succeeds in full.

Step 3: If the D's negligence contributed to the risk of injury, C fails unless:

- The risk increase is sufficiently high to infer causation (but for test).
- D's negligence merely contributed to the risk – Fairchild exception – very limited application.

Andrew Axon

28 March 2022

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.

References

- International Energy Group v Zurich Insurance Plc [2016] AC 509 at 192 - https://www.bailii.org/uk/cases/UKSC/2015/33.html
- Fairchild v Glenhaven Funeral Services Ltd [2002] UKHL 22; [2003] 1 AC 32 - https://www.bailii.org/uk/cases/UKHL/2002/22.html
- Sienkiewicz v Grief (UK) Ltd [2011] UKSC 10 [12] – [14] - https://www.bailii.org/uk/cases/UKSC/2011/10.html
- Bonnington Castings LTD v Wardlaw [1956] AC 613 - https://www.bailii.org/uk/cases/UKHL/1956/1.html
- Williams v Bermuda Hospitals Board [2016] UKPC 4 [31] - https://www.bailii.org/uk/cases/UKPC/2016/4.html
- Holtby v Brigham & Cowan (Hull) Ltd [2000] All ER 421 - https://www.bailii.org/ew/cases/EWCA/Civ/2000/111.html
- Heneghan v Manchester Dry Docks Ltd & Ors [2016] EWCA Civ 86 - https://www.bailii.org/ew/cases/EWCA/Civ/2016/86.html
- AB v Ministry of Defence [2010] EWCA Civ 1317 - https://www.bailii.org/ew/cases/EWCA/Civ/2010/1317.html
- Barker Corus UK Ltd [2006] 2 AC 572 - https://www.bailii.org/uk/cases/UKHL/2006/20.html
- McGhee v National Coal Board [1973] 1 WLR 1 - https://www.bailii.org/uk/cases/UKHL/1972/7.html
- Ministry of Defence v AB and others [2012] UKSC 9 - https://www.bailii.org/uk/cases/UKSC/2012/9.html
- Bailey v Ministry of Defence [2008] EWCA 883 - https://www.bailii.org/ew/cases/EWCA/Civ/2008/883.html
- Prof Jane Stapleton – Unnecessary Causes – Law Quarterly Review January 2013 - https://uk.westlaw.com/Document/I98EFAFF03D4C11E28F87DAA8A495317C/View/FullText.html?navigationPath=Search%2Fv1%2Fresults%2Fnavigation%2Fi0ad604ac0000017fd4d8d458fef68a36%3Fppcid%3D26528358200d48a58a6fbcea2ad7152f%26Nav%3DRESEARCH_COMBINED_WLUK%26fragmentIdentifier%3DI98EFAFF03D4C11E28F87DAA8A495317C%26parentRank%3D0%26startIndex%3D1%26contextData%3D%2528sc.Search%2529%26transitionType%3DSearchItem&listSource=Search&listPageSource=db4a244ef4815efb7c94a2b78824fffb&list=RESEARCH_COMBINED_WLUK&rank=1&sessionScopeId=9dea3bfb22f1aecb7d07d6465b808ad9e279768689a8190a0ef7a2e93c1d8e33&ppcid=26528358200d48a58a6fbcea2ad7152f&originationContext=Search%20Result&transitionType=SearchItem&contextData=(sc.Search)&comp=wluk&navId=4968340236F2C9A96485BA5BF73C9DCE -*(requires Westlaw access)*
- Dickens v O2 Plc [2008] EWCA Civ 1144 - https://www.bailii.org/ew/cases/EWCA/Civ/2008/1144.html
- Hatton v Sutherland [2002] ICR 613 http://www.parklaneplowden.co.uk/app/uploads/2022/03/2002-I.C.R.-613.pdf
- Thorley v Sandwell & West Birmingham Hospital NHS Trust [2021] EWHC 2604 (QB) -https://www.bailii.org/ew/cases/EWHC/Admin/2021/2604.html
- John v Central Manchester and Manchester Children's University Hospitals NHS Foundation Trust [2016] EWHC 407 - https://www.bailii.org/ew/cases/EWHC/QB/2016/407.html

- Leach v North East Ambulance Service NHS Foundation Trust [2020] EWHC 2914 (QB) - https://www.bailii.org/ew/cases/EWHC/QB/2020/2914.html
- Ceri Leigh v London Ambulance NHS Trust [2014] EWHC 286 (QB) - https://www.bailii.org/ew/cases/EWHC/QB/2014/286.html
- Davies v Frimley Health NHS Foundation Trust [2021] EWHC 169 - https://www.bailii.org/ew/cases/EWHC/QB/2021/169.html

PARKLANE PLOWDEN MAKING A
POSITIVE
DIFFERENCE
IN EVERYTHING WE DO

Barristers regulated by the Bar Standards Board. Authorised and regulated by the Bar Standards Board.