

Risk, Loss, Negligence and Cause

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I: INTRODUCTION

This article explores the legal predicament of a plaintiff who suffers physical injury following another's negligent act or omission but cannot establish, on the balance of probabilities, that the breach of duty caused or materially contributed to the injury. The legal predicament stems from the requirement that:¹

[The] plaintiff must prove not only negligence or breach of duty but also that such fault caused, or materially contributed to, his injury ... by the ordinary standard of proof in civil actions; he must make it appear at least that, on a balance of probabilities, the breach of duty caused, or materially contributed to, his injury.

The plaintiff must prove that "but for" the negligence, the injury would not have been sustained.

This article focuses on cases where there has been medical negligence and medical uncertainty over the cause of a condition. In such cases, the difficulty for the plaintiff generally arises from two factors. First, there may be uncertain or conflicting medical opinion concerning the aetiology and cause of a medical condition, or the inferences to be drawn from the evidence. Secondly, there may also be competing causal explanations for the onset of the condition, none of which are more likely than the explanation involving the defendant's negligence.

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¹ *Bonnington Castings Ltd v Wardlaw* [1956] AC 613, 620 per Lord Reid (HL).

It has been said that hard cases make bad law. These are hard cases. On one side is the victim of a disabling medical condition, and on the other is the person thought to have negligently created a risk of causing the injury suffered. The plaintiff cannot show that, on the balance of probabilities, the defendant's negligence injured the plaintiff. The defendant cannot show that, on the balance of probabilities, something else caused the injury. Neither party can meet the burden of proof, but the negligent defendant benefits from the factual uncertainty, as the plaintiff must shoulder this burden.

This legal predicament can arise in New Zealand medical negligence cases. To obtain cover under the Accident Rehabilitation and Compensation Insurance Act 1992 a claimant must suffer "personal injury".² Section 4(2) of the Act provides that no cardio-vascular or cerebro-vascular episode shall constitute personal injury unless it is the result of, *inter alia*, medical misadventure. Section 10 excludes cover for personal injury caused wholly or substantially by disease or infection unless, *inter alia*, the personal injury is medical misadventure. "Medical misadventure" means "physical injury resulting from medical error or medical mishap". It includes negligent diagnosis and the negligent failure to provide treatment under s 5(7). "Medical error" is defined as "the failure of a registered health professional to observe a standard of care and skill reasonably to be expected in the circumstances".³

A person who, following medical negligence, suffers a heart attack or stroke, or is injured by disease or infection, will not have suffered a "personal injury" unless the condition was caused by the negligence. As the heart attack, stroke, or injury caused by disease or infection can occur in the absence of negligence, a claimant must establish that the negligence caused the medical condition. If the claimant cannot establish causation, no "personal injury" has been suffered and cover is not available under the Act.⁴

II: JUDICIAL RESPONSES

There is some judicial sympathy for a plaintiff who may have been injured by a negligent defendant, yet cannot establish that the defendant's negligence caused the injury. In such cases, courts have assisted the plaintiff in a number of ways:

- (i) Adopting a commonsense approach which does not recognise a substantial difference between materially increasing the risk of injury

² Pursuant to s 4(1) "personal injury" means "the death of, or physical injuries to, a person, and any mental injury suffered by that person which is an outcome of those physical injuries to that person". See also s 8(3).

³ "Medical misadventure" and "medical error" are defined in s 5(1).

⁴ I contend that the Act removes the need to establish the particular cause of injury in non-medical situations. Generally, the nature of the injury in that situation will determine whether compensation is available.

- and materially contributing to the injury.⁵
- (ii) Shifting the burden of proof from the plaintiff to the defendant when the injury is within the ambit of the risk created by the defendant's negligence.⁶
 - (iii) Defining the plaintiff's injury as the loss of a chance of avoiding the injury.⁷
 - (iv) Viewing the issue as one of quantification of loss, not of causation.⁸

The merits of each approach will be considered.

1. The Commonsense Approach

*McGhee v National Coal Board*⁹ involved negligence and medical uncertainty. The plaintiff contracted dermatitis from brick dust which came from brick kilns that his employers instructed him to empty. The employers negligently failed to provide showers to wash off the dust, so the plaintiff had to cycle home with the dust on his skin. It was accepted that the negligence materially increased the risk of harm. However, expert medical opinion differed as to whether the plaintiff would have contracted the dermatitis if washing facilities had been provided. The House of Lords allowed the plaintiff's appeal. The majority, adopting "a broad and practical viewpoint", saw no substantial difference between a material increase in risk and a material contribution to the injury.¹⁰

A material increase in risk is relevant to the issue of breach of duty, not causation. However, their Lordships have been applauded for refusing "clearly to delineate between breach of duty and causation".¹¹ Weinrib viewed the decision as one of policy, not fact. The House of Lords wished to discourage breaches of duty. Their findings were thought to reveal the role that policy may play in deciding the "factual" question of material contribution.

In *Wilsher v Essex Area Health Authority*,¹² their Lordships approved the majority reasoning. Lord Bridge cautioned that *McGhee* laid down no new

5 *McGhee v National Coal Board* [1973] 1 WLR 1, per Lords Reid, Simon, Kilbrandon, and Salmon (HL).

6 *Ibid*, per Lord Wilberforce.

7 *Herskovits v Group Health Co-operative of Puget Sound* 664 P 2d 474 (Wash 1983); *Hotson v East Berkshire Area Health Authority* [1987] AC 750 (CA). The response of the House of Lords may be found at the same citation.

8 *Hotson v Fitzgerald* [1985] 1 WLR 1036.

9 *Supra* at note 5.

10 *Ibid*, 5 (per Lord Reid), 8 (per Lord Simon), 10 (per Lord Kilbrandon), 12 (per Lord Salmon).

11 Weinrib, "A Step Forward in Factual Causation" (1975) 38 MLR 518, 533.

12 [1988] AC 1074 (HL).

principle of law.¹³ The plaintiff retained the onus of establishing causation. His Lordship downplayed the significance of the decision.¹⁴

Adopting a robust and pragmatic approach to the undisputed primary facts of the defenders' case, the majority concluded that it was a legitimate *inference* of fact that the negligence had materially contributed to the pursuer's injury.

McGhee may not establish a new principle of law, but it must be questioned whether the majority did conclude that it was legitimate, in the circumstances, to draw an inference of fact. I respectfully suggest that Lord Bridge is misled by his disapproval of Lord Wilberforce's approach in *McGhee*. Lord Wilberforce did not adopt the reasoning of the majority. The explanation for this appears to be contained in one sentence:¹⁵

And I must say that, at least in the present case, to bridge the evidential gap by *inference* seems to me something of a fiction, since it was precisely this *inference* which the medical expert declined to make.

The majority in *McGhee* did not use the word "inference" or its cognates in their judgments. They rejected the defendants' argument that, in this type of case, evidence of a material increase of risk is not proof of a material contribution to the injury. Their Lordships rejected the *distinction* between material increase of risk and material contribution. They did not, as Lords Wilberforce and Bridge supposed, *infer* material contribution from evidence of a material increase in the risk.

Equating an increased risk with a contribution to the injury establishes a presumption¹⁶ that the breach of duty caused the injury. Hence, the effect of the majority reasoning in *McGhee* was to require the negligent defendants to prove that the injury did not result from the breach of duty. In effect, the majority reversed the burden of proof. They did not acknowledge that they were doing this. As such, their approach contrasts unfavourably with that of Lord Wilberforce which is considered in the next section.

2. Shifting the Burden of Proof

In *McGhee*, although there was little doubt that the brick dust caused the dermatitis, medical evidence could not establish whether the defendants' negligence played a causal role in the injury. It could only be established that the

13 Ibid, 1090. Compare the judgment of Mustill LJ in the Court of Appeal: [1987] QB 730, 771-772. Mustill LJ derived the following principle from *McGhee*:

"If it is an established fact that conduct of a particular kind creates a risk that injury will be caused to another or increases an existing risk that injury will ensue; and if the two parties stand in such a relationship that the one party owes a duty not to conduct himself in that way; and if the first party does conduct himself in that way; and if the other party does suffer injury of the kind to which the risk related; then the first party is taken to have caused the injury by his breach of duty, even though the existence and extent of the contribution made by the breach cannot be ascertained."

14 Ibid.

15 Supra at note 5, at 7. Emphasis added.

16 Ibid, 9 per Lord Simon.

negligence increased the risk of dermatitis.

Lord Wilberforce agreed with the Court below that “merely to show that a breach of duty increases the risk of harm is not, in abstracto, enough to enable the pursuer to succeed”.¹⁷ Although the breach increased the risk, the defendant may prove that the cause of the injury lay elsewhere. Lord Wilberforce noted that when neither party can establish what caused or made a material contribution to the injury, “logic” dictates that the plaintiff must fail. But that is not the end of the matter.¹⁸

First, it is a sound principle that where a person has, by breach of a duty of care, created a risk, and injury occurs within the area of that risk, the loss should be borne by him unless he shows that it had some other cause. Secondly, from the evidential point of view, one may ask, why should a man who is able to show that his employer should have taken certain precautions, because without them there is a risk, or an added risk, of injury or disease, and who in fact sustains exactly that injury or disease, have to assume the burden of proving more: namely, that it was the addition to the risk, caused by the breach of duty, which caused or materially contributed to the injury? In many cases, of which the present is typical, this is impossible to prove, just because honest medical opinion cannot segregate the causes of an illness between compound causes.

To prevent a defendant breaching a duty of care, secure in the knowledge that the causal consequences of the breach cannot be established, Lord Wilberforce reversed the onus of proof. Thus, the defendant must prove that the breach did no more than materially increase the risk of injury. It is not permitted to shelter behind the evidential uncertainty caused by the breach of duty.

In *Wilsher* there was an irreconcilable conflict of expert medical opinion. Notwithstanding this, Lord Bridge declared that if the trial judge had preferred, on the balance of probabilities, the evidence led for the plaintiff, then “a finding in favour of the plaintiff would have been unassailable.”¹⁹ On the facts, such a preference could only be subjective. This demonstrates the attractiveness of Lord Wilberforce’s approach. In substituting open principle for inference and preference, some of the mystery and disguised policy decisions are removed from the law of causation.

However, Lord Wilberforce’s approach does not correct the injustice inherent in the law of causation. At present, a plaintiff who cannot establish the cause of injury recovers nothing. One who makes it over the threshold of proof recovers everything. Applying Lord Wilberforce’s adjustment, the negligent defendant would pay in full measure, although the injury may have been caused by factors unconnected to the defendant.

Shifting the burden of proof may not contravene the requirement that there is no liability for negligence in the absence of causation, since causation is presumed. However, in making the defendant fully liable where only negligence is proved, the defendant effectively takes on the role of insurer for the plaintiff’s loss.

¹⁷ *Ibid.*, 6.

¹⁸ *Ibid.*, 6-7.

¹⁹ *Supra* at note 12, at 1082.

Furthermore, it is of little assistance to the plaintiff in a case such as *Wilsher*.

In *Wilsher* the infant plaintiff was born prematurely, suffering from many serious conditions, including underdeveloped lungs which could lead to an oxygen deficiency causing brain damage. Due to medical negligence the plaintiff received excess oxygen. He was later discovered to be suffering from an incurable impairment of the retina called Retrolental Fibroplasia (“RLF”), resulting in near blindness. RLF could have been caused by the excess oxygen, but at least four other conditions suffered by the plaintiff could equally have caused the injury. The hospital denied that it materially increased the risk of the injury occurring. It argued that the plaintiff had failed to establish that its admitted negligence, and not one of the other conditions, caused the injury. The plaintiff succeeded at first instance.

In the English Court of Appeal, Mustill LJ acknowledged that the situations in *McGhee* and *Wilsher* were quite different. In *McGhee* it was accepted that the dermatitis was caused by brick dust. In *Wilsher* there were at least five possible causes of the near-blindness. His Honour noted that “[w]hat the defendants did was not to enhance the risk that the known factors would lead to injury, but to add to the list of factors which might do so.”²⁰ Nevertheless, after much hesitation, his Honour held that this did not prevent him from applying the principle derived from *McGhee*.²¹

The other majority judge, Glidewell LJ, was alert to the possibility that the excess oxygen did not cause the RLF. However, his Honour appeared to hold that liability attached merely for negligently increasing the risk of the injury.²² His Honour did not seem to recognise that the House of Lords in *McGhee* viewed the increased risk as *causative*.

Sir Nicolas Browne-Wilkinson V-C dissented. While recognising “the commonsense, if not the logic” of *McGhee*, his Honour considered that it could not be applied to the facts of *Wilsher* because “failure to take preventative measures against one out of five possible causes is no evidence as to which of those five caused the injury.”²³ Furthermore, the Vice-Chancellor declared that the “illogical decision” ought not to be extended.²⁴

In my view, there is no ground of public policy which requires the defendants to be held liable for an injury which they may well not have caused and which the steps they ought to have taken would not have avoided if, in fact, the cause of the plaintiff’s RLF was not excess oxygen but one of the four other candidates.

I suggest that the dissent contains the better reasoning. It may be appropriate to reverse the burden of proof where the defendant’s negligence increases the risk of

20 *Supra* at note 13, at 771.

21 *Ibid.*

22 *Ibid.*, 775-776.

23 *Ibid.*, 779.

24 *Ibid.*, 780.

the very causal factor which led to the injury becoming operative. The negligence may not be sufficient to justify an inference of material contribution, but the likelihood that it played a role is greater than where there are equally plausible competing explanations.

Although Lord Bridge approved the Vice-Chancellor's dissent, this is difficult to reconcile with his Lordship's view that the trial judge's preference for evidence of one party would have been unassailable. The point of the dissent is that "no one can tell in this case whether excess oxygen did or did not cause or contribute to the RLF".²⁵

As a result, it is my contention that neither preferences, inferences, nor reversals of the burden of proof are adequate to deal with the predicament.

3. Loss of Chance

To this point, the approaches considered aim to relieve the plaintiff of the evidential burden of proving that the negligent defendant caused or contributed to the plaintiff's injury, without reducing the liability of the defendant to recompense the plaintiff fully for the loss suffered. But this is not the only way in which the courts have attempted to assist the plaintiff in these hard cases. The possibility that the plaintiff has been harmed by the defendant, and the possibility that the defendant's negligence has not materially contributed to the injury, are jointly entertained in analyses of the plaintiff's "lost chance".

The loss of a chance is compensable in law. *Chaplin v Hicks*²⁶ is the classic contractual case in which damages were awarded for a lost chance. The plaintiff was one of fifty women allotted interviews for the selection of twelve acting positions. In breach of contract, the plaintiff was denied an interview. She lost the chance of gaining valuable employment. Although she could not prove that she would have gained one of the twelve jobs, the Court accepted that the opportunity denied her had value. The lost chance was compensated by an award of damages against the defendant.

A lost chance is also compensable in the tort of negligence if actionable damage is shown to have been caused by the defendant. Where actionable damage is compensable, loss of prospects may be taken into account in assessing the value of the damage caused. However, loss of a chance has also been argued in tort cases where actionable damage cannot be shown to have been caused by the defendant, yet the suspicion of causal contribution is real. In such cases an attempt is made to circumvent the difficulty of establishing the defendant's causal responsibility for the plaintiff's injury. Counsel have argued that although an injury cannot be

²⁵ *Ibid.*, 779. See also *Loveday v Renton*, noted (1988) 1132 Sol J 911, where a claim was dismissed on the basis that it could not be shown, on the balance of probabilities, that whooping-cough vaccine caused brain damage in children.

²⁶ [1911] 2 KB 786 (CA).

proved to be the defendant's fault, the defendant should compensate the plaintiff for the lost chance of avoiding the injury.

(a) *Economic loss*

Although the argument only appears to have been raised in cases of physical injury, Coote believes that the scope of the argument should be restricted to cases involving the lost chance of financial gain.²⁷ He argues that the lost chance of financial gain can represent a present economic loss and hence can be compensable in tort where the cause of action depends on establishing an economic loss.

While economic theory can recognise a lost opportunity as a present economic loss, there is a dearth of legal authority in favour of this view. Coote appears to cite the Court of Appeal decision in *Takaro Properties Ltd v Rowling*²⁸ as support for this view, and the Court of Appeal decision in *Craig v East Coast Bays City Council*²⁹ as consistent with his argument.³⁰ However, in both of these cases the Court accepted that negligence had caused actionable damage: the collapse of a commercial venture in *Takaro* and the reduction in value of a house in *Craig*. The Court's comments on loss of a chance refer only to the assessment of the loss occasioned by the negligence. In both cases, determining the value of the loss necessitated a consideration of future hypothetical facts; namely, what was the chance of success of Takaro's commercial venture and of an appeal by Craig? Answers had to be determined in order to assess the measure of the losses which were proved to have been negligently caused. In neither case did the Court recognise loss of a chance as the foundation of the action.

Further, in *Scott Group Ltd v MacFarlane*³¹ Cooke J, as he then was, held that the plaintiff company may have lost the chance of being better off, but "[the company] did not make any loss. All that happened was that its profit was not as great as it would have been if the accounts had been correct."³² His Honour did not regard that lost chance as "representing" an economic loss.

Coote's suggestion that the lost chance represents an economic loss seems no less artificial than the claim that a lost chance to avoid a physical injury could represent a physical injury, a claim which he disparages. Despite his efforts to accommodate this claim within the existing law of negligence, compensating a lost economic chance in this context is no less radical than compensating a lost chance of avoiding physical injury.

27 "Chance and the Burden of Proof in Contract and Tort" (1988) 62 ALJ 761.

28 [1986] 1 NZLR 22.

29 [1986] 1 NZLR 99.

30 He is not the only commentator to view the Court of Appeal in *Takaro* as accepting that the loss of the chance of economic profit can found a cause of action. See Fleming, "Probabilistic Causation in Tort Law" (1989) 68 Can Bar Rev 661, 674.

31 [1978] 1 NZLR 553 (CA).

32 *Ibid*, 587.

(b) *Hotson v Fitzgerald; Hotson v East Berkshire Area Health Authority*³³

This case lends itself to a discussion of the different approaches taken to a lost chance analysis. A thirteen year old boy fell from a rope to muddy ground twelve feet below, landing on his seat. At hospital his left knee was X-rayed, but no X-ray was taken of his left hip or femur. He was given an elastic knee-bandage, and told to return in ten days if necessary. The boy suffered excruciating pain for the next five days, receiving scant attention from his local doctor. He returned to the hospital and his hip was X-rayed, revealing an acute traumatic fracture separation of the left femoral epiphysis. This is a very serious injury for a child, as the injury may interfere with the blood supply such that necrosis develops, causing a hip deformity. The boy had emergency surgery, but this did not prevent the deformity occurring. The defendant hospital admitted its negligence in failing to X-ray the hip, but denied liability for the necrosis or hip deformity.

The trial judge, Simon Brown J, found that there was a seventy-five per cent probability that necrosis would result from the accident. The defendant argued that the plaintiff must fail because he could not establish, on the balance of probabilities, that the negligent failure to X-ray the hip caused, or materially contributed to, the injury. Furthermore, until such liability was established, the question of chance in relation to the quantum of damages did not arise.

The defendant's argument was rejected. His Honour held that he was bound to follow the approach of the House of Lords in *Davies v Taylor*,³⁴ where the all-or-nothing balance of probabilities test was rejected when evaluating a lost chance. It is respectfully submitted that herein lies his Honour's error. Their Lordships measured the value of a proven injury by evaluating the chance that a *future event* would have occurred if there had been no injury. The probability of that chance was equated with the value of the loss. Their Lordships rejected the argument that there could not be compensation for the loss unless it was more probable than not that the future event would have occurred. The lost chance was compensable in proportion to its probability because it had already been established that the defendant caused actionable damage.

In contrast, *Hotson* did not concern a future hypothetical event but a past event, namely, the cause of the plaintiff's injury. The evidentiary test for establishing past events is hypothetical in nature: "What would have happened in the past but for the defendant's act?" However, alleged past events are not hypothetical, they either did or did not occur. With respect, Simon Brown J confused the hypothetical nature of a future event and the hypothetical process by which the courts determine the occurrence of past events. His Honour erred in thinking that he had the choice of either treating it as a matter of causation, which would be unfair to the plaintiff, or treating it as an issue of quantification, which would allow the plaintiff some

³³ *Supra* at notes 7 and 8.

³⁴ [1974] AC 207.

recovery.³⁵

The defendant did not contest that the breach of duty caused the plaintiff five days of pain and suffering before the fracture was correctly diagnosed. Simon Brown J held, in the alternative, that if proof of damage were required, this pain and suffering sufficed, and the lost chance could be attached to it in the evaluation of damages. With respect, this holding is also open to challenge. Before it could be argued that loss of a chance should be recoverable in this way, it would need to be established that the pain and suffering caused the plaintiff to lose the chance of avoiding necrosis. There must be a causal link between the actionable damage and the lost chance. On the facts, there was no such casual link.

The effect of the decision, according to Price, was “that the standard of proof of causation was reduced in such cases and that the plaintiff satisfied the burden of proof of causation where he could show that he lost a *substantial* chance of being better off”.³⁶ Proof that the negligence caused the loss of a substantial chance is equated with proof that the substantive injury was caused. This “proportionate approach” is reminiscent of the approach of the majority in *McGhee*. Where Price parts company with their Lordships is over the value he places on this proof of causation. A plaintiff does not recover the full value of the substantive injury as he or she would under the all-or-nothing approach of the balance of probabilities test. Instead, the award of compensation is determined in proportion to the extent of the chance lost. A twenty-five per cent chance of avoiding the substantive injury which was lost by negligence is compensated by twenty-five per cent of the value of the injury suffered.

This is difficult to justify. A finding of causation is a finding that the defendant caused the injury, so it is only fair that full compensation is paid. Price lowers the hurdle of causation to help the injured plaintiff, while also recognising through the damages awarded that causation has not been established. The concept of causation is thus distorted.

(c) Loss of chance as injury

The English Court of Appeal in *Hotson* differed from Simon Brown J in recognising the lost chance of avoiding injury as the injury for which compensation could be awarded. Sir John Donaldson MR interpreted the plaintiff’s complaint as the loss of any *benefit* which he would have derived from proper treatment on the first visit to hospital. Part of the benefit was a twenty-five per cent chance of avoiding the hip deformity. The Master of the Rolls held, in common with Simon Brown J and the other members of the Court of Appeal, that it would not be sensible if the claim should fail simply because it was brought in tort and not contract. It was noted above that loss of a chance can be compensable

35 Supra at note 8, at 176-178.

36 “Causation – the Lords’ Lost Chance?” (1989) 38 ICLQ 735, 745.

in contract if the chance which has been lost is the subject of the bargain. This was not the situation which the Master of the Rolls had in mind:³⁷

I am quite unable to detect any rational basis for a state of the law, if such it be, whereby in identical circumstances Dr A who treats a patient under the National Health Service, and whose liability therefore falls to be determined in accordance with the law of tort, should be in a different position from Dr B who treats a patient outside the service, and whose liability therefore falls to be determined in accordance with the law of contract, assuming, of course, that the contract is in terms which impose upon him neither more nor less than the tortious duty.

Although the passage quoted is ambiguous, the context makes it clear that loss of a chance was thought to be compensable in the contractual situation described. This belief can be challenged. Although breach of a contractual duty is sufficient to sustain an action, it does not follow from this that any lost chance is necessarily compensable. I suggest that it is irrelevant that in *Chaplin v Hicks* the lost chance was a chance for which the plaintiff had contracted. The crucial factor was that the breach of duty prevented any chance of her gaining employment as an actress, a future hypothetical event, from being realised.³⁸

This can be contrasted with the contractual situation envisaged by Donaldson MR. The plaintiff is negligently treated at a private hospital in breach of contract. An injury is suffered. The plaintiff can sue for the breach but to receive more than nominal damages the plaintiff must prove, under the current law, that the breach caused the injury. The possibility or chance of having suffered a loss is only compensable where a future event is concerned. However, the chance allegedly lost by the plaintiff in the contractual scenario concerns a past event, an actual injury.

If this reasoning is sound, it follows that to recognise loss of a chance as a tortious injury, in order to remove a disparity between contract and tort, is unwarranted. Ironically, it would have the effect of allowing loss of a chance claims which would fail in contract to succeed in tort.

In *Hotson*, Dillon LJ accepted that the doctor's negligence lost the plaintiff a chance. However, Dillon LJ maintained that:³⁹

[The] position would have been different if ... the finding on the facts on the balance of probabilities had been that had all care been taken still the patient would have suffered the same result. In that event there would, on the facts, have been no chance and the plaintiff would thus have suffered no damage from the negligence.

In overturning the Court of Appeal, it was just such a finding that was made by the House of Lords. Their Lordships held that there was no loss of a chance to be considered since, on the balance of probabilities, the fall was the sole cause of the

³⁷ *Supra* at note 7, at 760 (CA).

³⁸ This point is also made by Cooper, "Damages for the Loss of Chance in Contract and Tort" (1988) 6 AULR 39, 41; and Hill, "A Lost Chance for Compensation in the Tort of Negligence by the House of Lords" (1991) 54 MLR 511, 514.

³⁹ *Supra* at note 7, at 764 (CA).

injury. The plaintiff was “doomed” before he reached the hospital. *Mallett v McMonagle*⁴⁰ set down the rule that where a Court determines what happened in the past “anything that is more probable than not it treats as certain”. Their Lordships’ application of the rule in *Hotson* shows that the rule circumscribes the operation of the lost-chance-as-injury doctrine. However, as Fleming noted, this approach fails to do justice to the plaintiff’s argument and appears to have been used by the Court to avoid considering what would have happened if the treatment had been prompt.⁴¹

On their Lordships’ approach, a lost chance may be compensable when no other causal finding is possible. Their Lordships left undecided the question of whether a plaintiff could ever succeed by proving loss of a chance in a medical negligence case. Lord Bridge opined that an analogy drawn from *Chaplin v Hicks* faced “formidable difficulties”.⁴² Lord Mackay hinted that a loss of chance argument along similar lines to *McGhee* might succeed. However, it is clear that his Honour had in mind a situation where the loss of chance could be held to be a material decrease in the chance of escaping injury, the counterpart of a material increase in the risk of suffering injury. Such a material decrease, by a wave of the *McGhee* wand, could be equated with a material contribution to the injury.

(d) Loss of chance as injury – conceptual problems

In the Court of Appeal, the defendant in *Hotson* submitted that an expansion of the categories of loss to include the lost chance of avoiding injury would lead to the anomalous result that plaintiffs, who are deprived of a chance of recovery or exposed to a chance of injury, will have a right of action even if they remain uninjured in the event. The Master of the Rolls thought that this was of no consequence “since the loss suffered will be nil and, at best, only nominal damages will be recoverable”.⁴³

Some commentators, however, are adamant that the plaintiff is deserving of compensation even in the absence of substantive injury because a legal injury will have been suffered.⁴⁴ Stapleton opines that a convincing rationale is required for restricting the cause of action to cases where “actual” injury has occurred or is certain to occur.⁴⁵ In contrast, Price argues that:⁴⁶

[The Court of Appeal’s] response exposes the whole fallacy in this approach to the problem. If the plaintiff remains uninjured circumstances have proved that he personally never did lose a chance of

40 [1970] AC 166, 176 per Lord Diplock (HL).

41 “Probabilistic Causation in Tort Law: A Postscript” (1991) 70 Can Bar Rev 136, 137 and 141.

42 *Supra* at note 7, at 782 (HL).

43 *Ibid*, 762 (CA). See also the judgment of Croom-Johnson LJ at 770.

44 Gerecke, “Risk Exposure As Injury” (1990) 35 McGill LJ 797, 807.

45 “The Gist of Negligence: Part II” (1988) 104 LQR 389, 395. Compare Wright, “Causation in Tort Law” [1985] 73 Calif LR 1735, 1816.

46 *Supra* at note 36, at 748.

recovery To redefine the injury in such cases is merely to indulge in semantic juggling. The plaintiff suffers injury only if physical harm or death ensues. Further, it is possible adequately to quantify damages in such a case only if the ensuing harm or death is the yardstick Such an assessment method itself admits that it is the ensuing harm which is the true injury.

Hence Price opts for an alteration of the standard of proof for causation, instead of distorting the concept of injury. In his view, personal injury guarantees that a *personal* chance has been lost. Where no injury ensues, only a *statistical* chance is lost. No personal chance was lost if the plaintiff remained uninjured. Price is unimpressed with the response which would categorise the legal interest as the personal chance, seeing this as an unwarranted limitation from the perspective of the lost chance theory.⁴⁷

It is not clear why this limitation is thought unwarranted. The point of expanding the categories of loss is to enable the deserving plaintiff, frustrated by a lack of omniscience, to recover a portion of the damages to which he or she would be entitled were it possible to prove that negligence caused the substantive injury. It does not seem unwarranted or ad hoc to confine the new remedy to the situation which sparked the call for relief and reform.

Hill agrees that the loss of a statistical chance should not be compensable as “[a] statistical chance can only be an assessment, based on data collected from previous unconnected outcomes, giving a probability of that outcome in any non-individual case.”⁴⁸ A statistical chance does not provide one with a personal chance of surviving cancer. The statistical chance does not reflect one’s genetic and environmental preconditions to the disease; only one’s personal chance does that. Hill is emphatic that the court must determine what one’s personal chance was prior to the breach of duty. The statistical chance should not be compensated because the traditional rule is to compensate for loss personal to the plaintiff. A statistical chance is not personal to the plaintiff.

Brachtenbach J, dissenting in *Herskovits v Group Health Co-operative of Puget Sound*,⁴⁹ equated statistics with “bare” percentages. In a colourful example, he imagined a town with two taxi companies. One company has three blue taxis, the other has one yellow taxi. A pedestrian is hit by a taxi, but cannot recall its colour. His Honour regarded it as a statistical fact that there is a seventy-five per cent chance that a blue taxi was responsible, but thought that this was not sufficient to hold the blue taxi company liable, stating that “[w]hat is necessary, at the minimum, is some evidence connecting the statistics to the facts of the case.”⁵⁰ This example is cited by Lord Mackay⁵¹ in *Hotson* and by Hill.⁵²

The alleged unreasonableness of applying statistical chances to an individual

47 Ibid.

48 Supra at note 38, at 512.

49 Supra at note 7.

50 Ibid, 490.

51 Supra at note 7, at 789 (HL).

52 Supra at note 38, at 521.

plaintiff's case has been challenged on the basis that the critics have misconceived the nature of statistics. Scott explains that variables such as "age of the patient, size of the tumour, evidence of distant spread of the tumour, treatment which has already been given, and the presence or absence of other unrelated illnesses" are taken into account in statistical analysis.⁵³ This enables medical statistics to provide a "fairly accurate reflection" of an individual patient's chances of a good outcome. However, Price distinguishes the evidence presented in *Hotson* as not truly statistical, although expressed in percentage terms. He accepts that, while epidemiology cannot prove causation in the traditional sense by attributing a plaintiff's disease to one specific cause, epidemiological statistical inferences ought to be acceptable courtroom evidence as it is "the basis of our assessment of the efficacy of drugs and medical devices in particular."⁵⁴ This argument is strengthened when one recalls the judicial caution that legal causation is less stringent than scientific causation.⁵⁵

Hill's thesis does not depend upon the exclusion of statistical data for he rejects the idea that a personal chance is lost when an injury is suffered following a negligent act or omission. Hill contends that *Hotson* never had a personal chance, but this contention should be distinguished from Lord Ackner's statement that *Hotson* was "doomed". He reasons that either *Hotson* would have developed necrosis as a result of the fall alone or he would have escaped that deformity, and that this complex fact is not affected by the inability of medical experts to agree over which alternative would have been realised but for the negligence. If *Hotson*'s fall was sufficient for the onset of the injury, he did not lose a personal chance as a result of the negligence. On the other hand, if the fall was not sufficient, then the negligence caused or materially contributed to the injury. If the negligence was a cause of the injury, then according to Hill, it did not cause *Hotson* to lose a personal chance of avoiding the injury; but for the negligence, he would not have developed the injury. Thus, the uncertainty over the causal role of the negligence is not equivalent to the loss of a personal chance.

Some commentators have identified the injury with "risk exposure".⁵⁶ However, it is one thing to argue that negligence may have materially increased the risk of injury. It is another to equate any increased risk with a loss (except, perhaps, of peace of mind). It should be accepted that the desire to provide the plaintiff with a measure of compensation from the defendant's pocket cannot be achieved by the addition of a category of loss which is conceptually incoherent.

53 "Causation in Medico-Legal Practice: A Doctor's Approach to the 'Lost Opportunity' Cases" (1992) 55 MLR 521, 524.

54 *Supra* at note 36, at 756.

55 *Snell v Farrell* (1990) 72 DLR (4th) 289 (SCC); *McGhee v National Coal Board*, *supra* at note 5, at 4-5 per Lord Reid.

56 For example see Gerecke, *supra* at note 44; Wright, *supra* at note 45; Boon, "Causation and the Increase of Risk" (1988) 51 MLR 508.

In *Hotson*, their Lordships held that the plaintiff had no chance of avoiding the injury because, on the balance of probabilities, the fall had sealed his fate. On the balance of probabilities, proper medical treatment would not have altered the outcome. It was noted above that Simon Brown J thought he was applying the law when he quantified the loss and ignored the issue of causation. With respect, he was mistaken. But his legal error should not be confused with an error of principle. A *probability* that necrosis would have occurred, irrespective of the negligence, does not rule out the *possibility* that the negligence did contribute to the injury. The *law* does not take note of that possibility. In so doing, it ignores the statistical certainty that a percentage of Hotsons would not have developed necrosis if they had received early treatment.

The all-or-nothing nature of the balance of probabilities test for causation is appropriate when there is not a cognisable uncertainty over the causal role of a defendant. However, where there are evidential difficulties due to the nature and circumstances of the injury, the placement of the burden of proof effectively determines the outcome of proceedings. In such circumstances, it would be more appropriate if an investigation into the probability of causal role was the substantive issue for the court, rather than the *means* by which the all-or-nothing fact of causation were established.

An investigation into the probability of causal role does not lead inexorably to a reduction in the standard of proof required for causation. It can be a means of providing the plaintiff with some compensation from the negligent defendant in special cases where it is uncertain whether the defendant's negligence caused the plaintiff's injury.

Hill argues that if compensation is awarded for "loss of a chance", then "an unfair result will *always* be produced".⁵⁷ Some defendants will pay a portion of the cost of the injury when they have caused no harm, and some plaintiffs will miss out on the full compensation that they are actually entitled to receive from the wrongdoer.

Hill's contention that an award of compensation commensurate with the level of probability of causal contribution will always produce an unfair result presumably contrasts unfavourably with the current situation, where some deserving plaintiffs miss out altogether due to evidential difficulties. Further, it should be noted that the superiority of either the traditional balance of probabilities rule or a proportional recovery rule depends on the goal or criteria used to determine "fairness".⁵⁸

If the goal is to minimize the number of erroneously decided cases or the sum of the wrongful payments that are made, the preponderance-of-the-evidence rule emerges as the superior choice. However, if the goal is to minimize making large errors or to avoid bias in the distribution of the

⁵⁷ *Supra* at note 38, at 518.

⁵⁸ Orloff & Stedinger, "A Framework for Evaluating the Preponderance-of-the-Evidence Standard" (1983) 131 U Pa L Rev 1159, 1172.

errors among plaintiffs and defendants, the [proportional recovery] rule emerges as the superior choice.

Neither rule leads to a just result in every case. However, the issue is whether the proportional recovery rule, at least in cases where the cause of the injury is unknown, would serve justice better than the balance of probabilities test.

III: CONCLUSION

All of the approaches considered in this article have failings. The distinction between breach and causation is not blurred, but ignored. The reversal of the burden of proof and the presumption of causation substitutes one injustice for another. The conceptual role of causation is distorted in an effort to support the plaintiff's claim for recompense. More recently, it has been suggested that the loss of a chance should be recognised in tort because the failure to do so "creates pressure to manipulate and distort other rules affecting causation and damages in an effort to mitigate this perceived harshness".⁵⁹ By this means a factual uncertainty is construed as an asset entitled to legal protection.

The failure to compensate for the uncertainty stemming from the negligently increased risk of harm undermines the deterrence aim of tort. It allows negligent defendants to benefit from the uncertainty which they have created. The Accident Rehabilitation and Compensation Insurance Act does not provide a complete solution. For example, *Hotson* would have been covered only by virtue of the initial injury to his hip. *Wilsher* would have recovered nothing under the Act. Even if the New Zealand courts were willing to recognise an increased risk of harm or a "lost chance" as a legal injury, it would fall outside the statutory definition of personal injury in s 4 because it is not physical in nature, nor is it a mental injury consequent on a physical injury. The ability to sustain an action outside the Act would depend on the judicial interpretation of s 17 which bars proceedings for damages "arising directly or indirectly out of personal injury". Although the increased risk of harm does not *arise* out of the personal injury, its conceptual dependency on the substantive injury would appear to entail that the *proceedings* arise out of the injury.

Hill notes that policy, not logic, underlies any decision to award the plaintiff some compensation from the negligent defendant in cases where it is uncertain whether the defendant's negligence caused the plaintiff's injury. Since this basis of recovery is a radical departure from previous law, Hill argues that any change should be left to the discretion of the legislature.⁶⁰ It could be suggested, at the very least, that the Act should be amended to allow the victim of medical

⁵⁹ King, "Causation, Valuation and Chance in Personal Injury Torts Involving Pre-existing Conditions and Future Consequences" (1981) 90 Yale LJ 1353, 1377.

⁶⁰ *Supra* at note 38, at 519. See also Lord Bridge in *Wilsher v Essex Health Authority*, *supra* at note 12, at 1092.

negligence to be compensated where the cause cannot be ascertained.

However, in light of the difficulties raised in this article concerning the proper avenue by which to recognise the uncertainty stemming from a defendant's negligence, I contend that Hill's appeal to leave the issue to the legislature should be reformulated. The legislature should be roused to act, but it would act best if it were to provide a statutory compensation scheme for illness and disease that did not require proof of causation. Liability should be a secondary matter when people are in need.