TREATING CHANCE CONSISTENTLY: RECASTING THE APPROACH TO CAUSATION AND DAMAGE IN NEGLIGENCE

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'Lost chance' claims in the law of negligence have been the subject of much judicial disagreement and academic debate. Regrettably, issues of consistency and principle in the law's treatment of chance have been chronically overlooked in this context. In both Australia and England, this has led to decisions compelling even the most optimistic proponents to conclude that there is little hope for the recognition of non-financial lost chances as actionable damage. The following article asserts that this is an unsatisfactory state of affairs and proposes a means of rectifying the deficiency. It explains that, far from representing a radical shift, the recognition of such lost chances as actionable damage would produce just and principled results by extending a powerful logic already present in the existing case law.

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I Introduction

In the law of negligence, 'lost chance' claims arise where a defendant negligently deprives a plaintiff of a chance to realise a more favourable outcome. Such claims are attractive where a plaintiff is unable to establish causation of traditional actionable damage, due to a greater than even chance that the relevant detriment would have occurred in the absence of the defendant's negligence. Despite devoting extensive attention to these claims, courts and academics alike have failed to properly consider the ramifications for consistency and principle of refusing recovery in all but financial lost chance cases. In the Anglo–Australian sphere, cases involving claims in the medical treatment context have thrown this into particularly sharp relief.[1]

This article aims to address that deficiency. Its essential claim is that the refusal of Australian and English courts to recognise non-financial lost chances as actionable damage is grounded in an unjustifiably inconsistent approach to chance. Ultimately, the differential treatment of hypothetical events at the 'causation' and 'assessment of damages' stages of the negligence inquiry is responsible for this inconsistency. The advocated approach — recognising the loss of genuine 'objective chances' as actionable damage where the detrimental outcome has materialised — challenges the status quo and the tide of recent decisions. It would see hypothetical events — and thus chance — approached on a consistent basis, resulting in

[1] See, eg, *Gregg v Scott* [2005] 2 AC 176 ('*Gregg*'); *Tabet v Gett* (2010) 240 CLR 537 ('*Tabet*').

principled compensatory awards that respond to plaintiffs' losses as best we comprehend them.

The argument is structured as follows. Part II surveys the present state of the law in relation to actionable damage and lost chances in the financial and medical contexts. Part III examines the problems with the current approach, arguing that the fundamental flaw lies in the inconsistent treatment of hypothetical events, though other important shortcomings are also identified. Part IV interrogates the distinction between hypothetical events and past events, demonstrating that the two are properly distinguished on the basis of the type of 'chance' involved. With reference to notions of determinism, it is explained that some 'chances' relate to past events (illusory 'epistemic chances') while other 'chances' relate to hypothetical events (genuine 'objective chances'). Part V then makes explicit the implicitly chance-based nature of traditional damages awards in negligence. It is demonstrated that the routine practice of contingency discounting, which takes account of hypothetical events, means existing awards reflect the plaintiff's lost objective chance to avoid the detriment constituting the actionable damage. Recognising this, it is asserted that to view lost objective chances to avoid such a detriment as actionable damage would not constitute a radical shift in approach. On the contrary, it would resolve the fundamental problem described in Part III and yield just and principled outcomes in lost chance cases. Part VI concludes the argument.

II Current State of the Law

It is trite law that damage is the gist of the action in negligence.[2] Without proof that the defendant caused the plaintiff to suffer some outcome that the law recognises as actionable, no tort has been committed. In Australian jurisdictions, the civil liability legislation affirms this position with its require-

[2] *Alcan Gove Pty Ltd v Zabic* (2015) 257 CLR 1, 7 [8] (French CJ, Kiefel, Bell, Keane and Nettle JJ) ('*Alcan Gove*'); *Gregg* (n 1) 201 [99] (Lord Hope), 226 [193] (Baroness Hale). See also Jane Stapleton, 'The Gist of Negligence: Minimum Actionable Damage' (Pt 1) (1988) 104 (April) *Law Quarterly Review* 213, 213.

ment of proof of 'harm'.[3] Determining the meaning of 'actionable damage' or 'harm' is therefore logically prior to any issue of causation.[4]

In *Harriton v Stephens*, Crennan J, with whom Gleeson CJ, Gummow J and Heydon J agreed, defined damage as a 'loss, deprivation or detriment' that leaves the plaintiff 'worse off'.[5] Lord Hoffmann employed a similar definition in *Rothwell v Chemical & Insulating Co Ltd*.[6] Representative of this approach, both the High Court of Australia ('High Court') and the House of Lords have held that asymptomatic pleural plaques that develop on the lungs after the inhalation of asbestos fibres do not constitute actionable damage.[7] In addition to causing no symptoms, these plaques have no 'potentiality for harm' in the future,[8] and so could not be regarded as a detriment of any kind.[9]

Ultimately, deciding what constitutes actionable damage or harm is a question of policy.[10] It is with this in mind that we turn to consider the varying approaches to lost chances in the financial and medical contexts.

3 See, eg, *Civil Liability Act 2002* (NSW) ss 5, 5D. The definition of 'harm' provided by the Act is non-exhaustive, but explicitly refers to 'personal injury or death', 'damage to property' and 'economic loss': at s 5. While s 5D(2) provides an exception to the 'but-for' test of causation in 'an exceptional case', proof of harm is still required.

4 Jane Stapleton, 'The Gist of Negligence: The Relationship between "Damage" and Causation' (Pt 2) (1988) 104 (July) *Law Quarterly Review* 389, 389, 393 ('Part 2: The Relationship between Damage and Causation'). See also *Gregg* (n 1) 232 [217] (Baroness Hale).

5 (2006) 226 CLR 52, 126 [251] (Gleeson CJ agreeing at 58 [1]–[2], Gummow J agreeing at 58 [4], Heydon J agreeing at 113 [208]). The Court referred to this statement with approval in *Alcan Gove* (n 2) 7–8 [8] (French CJ, Kiefel, Bell, Keane and Nettle JJ). See also the statement of Hayne and Bell JJ in *Tabet* (n 1), defining actionable damage as some 'detrimental difference': at 564 [69].

6 [2008] 1 AC 281, 289 [7] ('*Rothwell*'). His Lordship referred to damage as 'an abstract concept of being worse off'. Cf the view that these definitions describe 'loss', rather than 'damage': Donal Nolan, 'Rights, Damage and Loss' (2017) 37(2) *Oxford Journal of Legal Studies* 255, 256.

7 See below nn 8–9.

8 *Alcan Gove* (n 2) 11 [17] (French CJ, Kiefel, Bell, Keane and Nettle JJ). See also *Rothwell* (n 6) 297 [38] (Lord Hope), 312 [91] (Lord Rodger).

9 *Alcan Gove* (n 2) 11 [17] (French CJ, Kiefel, Bell, Keane and Nettle JJ); *Rothwell* (n 6) 288 [2] (Lord Hoffmann), 307 [73] (Lord Scott), 311 [88] (Lord Rodger), 314–15 [103] (Lord Mance). Cf *Dryden v Johnson Matthey plc* [2019] AC 403, where the condition of platinum salt sensitisation was held to constitute actionable damage despite its asymptomatic nature. In contrast to asymptomatic pleural plaques, platinum salt sensitisation itself causes increased susceptibility to a symptomatic condition (rather than serving as a mere marker of exposure to a harmful substance), thereby amounting to a loss of physiological function that leaves victims worse off: at 418 [40], 419–20 [47] (Lady Black JSC, Baroness Hale PSC, Lords Wilson, Reed and Lloyd-Jones JJSC agreeing).

10 *Alcan Gove* (n 2) 7 [8] (French CJ, Kiefel, Bell, Keane and Nettle JJ).

A *Valuable 'Financial' Chances*

In both Australia and England, it has long been established that lost 'commercial opportunities' are compensable upon breach of contract.[11] In *Sellars v Adelaide Petroleum NL* ('*Sellars*'), a majority of the High Court held that such lost chances, when bearing some non-negligible value, also suffice as the gist of the action in the tort of negligence.[12] 'Value' has been imputed to chances that are directly convertible into financial gain.[13] To similar effect, in *Gregg v Scott* ('*Gregg*'), Lord Hoffmann and Baroness Hale observed that lost chances suffice as actionable damage where they constitute financial loss in themselves.[14] Accordingly, classifying this category as lost *financial* chances — rather than merely *commercial* chances — more precisely captures the law's approach.

In *Badenach v Calvert* ('*Badenach*'), a lost financial chance was claimed as the relevant harm[15] in the tort of negligence. The plaintiff was the sole beneficiary of the testator's will. The alleged breach consisted in the defendant solicitor's failure to inform the testator that his daughter may have a claim against his estate for testator's family maintenance. The plaintiff argued that the solicitor's negligence deprived him of the chance to receive inter vivos payments from the testator prior to his death.[16] The High Court unanimously denied that the solicitor owed the plaintiff a duty in the terms pleaded,[17] but the plurality judgment nonetheless considered causation, which directed attention to the damage element issue.[18]

French CJ, Kiefel and Keane JJ reiterated that the plaintiff had to prove on the balance of probabilities that he would have enjoyed a 'valuable oppor-

[11] See, eg, *Chaplin v Hicks* [1911] 2 KB 786; *Howe v Teefy* (1927) 27 SR (NSW) 301.

[12] (1994) 179 CLR 332, 355 (Mason CJ, Dawson, Toohey and Gaudron JJ) ('*Sellars*'). While this case concerned s 52 of the *Trade Practices Act 1974* (Cth), for which damage was the gist of the action, their Honours expressly stated that this approach also applies in tort and contract.

[13] See, eg, *Tabet* (n 1) 581 [124] (Kiefel J); *Badenach v Calvert* (2016) 257 CLR 440, 454 [39] (French CJ, Kiefel and Keane JJ) ('*Badenach*').

[14] *Gregg* (n 1) 197 [83] (Lord Hoffman), 232 [219]–[220] (Baroness Hale).

[15] *Badenach* (n 13). 'Harm', as the case was decided under the *Civil Liability Act 2002* (Tas). The High Court did not treat the meaning of 'harm' under the statute as differing from that of 'actionable damage' at common law: see, eg, at 465–6 [92]–[96] (Gordon J).

[16] Ibid 445–6 [1]–[4] (French CJ, Kiefel and Keane JJ).

[17] Ibid 455 [45]–[46] (French CJ, Kiefel and Keane JJ), 461 [69]–[70] (Gageler J), 465 [91] (Gordon J).

[18] Ibid 453 [34] (French CJ, Kiefel and Keane JJ).

tunity' in the absence of the defendant's negligence.[19] In an at times convoluted passage, their Honours decided the causation question in the defendant's favour on the ground that it was not proven that there was a 'substantial prospect' that the testator would have undertaken the inter vivos transactions.[20] The essential basis for the decision therefore appears to have been that the lost chance claimed was no more than speculative. Their Honours did not doubt, however, that the lost chance of benefitting from inter vivos payments could constitute harm or actionable damage in the tort of negligence. If there had been a duty and if the plaintiff had established a substantial chance that the testator would have undertaken the transactions, the tort would have been made out.[21]

B *Chances of a Better Medical Outcome*

The other context in which lost chance claims have commonly arisen is the doctor–patient relationship. Claims that a medical practitioner's negligence deprived the plaintiff of a less than even chance of a better medical outcome were made in the English cases of *Hotson v East Berkshire Area Health Authority* ('*Hotson*')[22] and *Gregg*,[23] and in the Australian case of *Tabet v Gett* ('*Tabet*').[24] It should be observed here that, while this article proceeds to devote much attention to the medical negligence context, this focus is merely a function of the cases in which the non-financial lost chance issue has commonly arisen. The arguments made in relation to lost chances of a better medical outcome apply with equal force, mutatis mutandis, to lost chances to avoid other detrimental outcomes.

In *Hotson*, the defendant's breach of duty lay in his negligent non-treatment of the plaintiff, who presented to hospital with a femoral epiphysis injury. The evidence was that, upon arrival, the plaintiff either did or did not have sufficient blood vessels intact to prevent avascular necrosis developing in

[19] Ibid 454–5 [40]–[41].

[20] Ibid 454–5 [36]–[41]. The confusion arises from the fact that, earlier on the same page, their Honours stated that to prove factual causation, the plaintiff needed to satisfy the Court on the balance of probabilities that he would have received the testator's estate: at 454 [40]. Even if we put to one side the inconsistent use of 'estate' and '*inter vivos* transactions', the requirement to establish, on the balance of probabilities, that the inter vivos transactions would have taken place is clearly a higher bar than establishing a 'substantial prospect' of this occurring.

[21] Ibid 454–5 [39]–[41].

[22] [1987] AC 750 ('*Hotson*').

[23] *Gregg* (n 1).

[24] *Tabet* (n 1).

the epiphysis. The likelihood that enough blood vessels remained was estimated at only 25%.[25] The House of Lords unanimously decided that no genuine lost chance of avoiding the onset of avascular necrosis could be claimed. Their Lordships observed that the decisive question for the causation inquiry in this case — whether a sufficient number of blood vessels were intact when the defendant attended to the plaintiff — referred to an already existing state of affairs.[26] It was, therefore, a question of past fact to be determined on the balance of probabilities.[27] Because the plaintiff could only show a 25% likelihood that sufficient blood vessels were intact, he necessarily failed.

In *Gregg*, the defendant negligently misdiagnosed as benign a cancerous lump under the plaintiff's arm. The plaintiff, who was still alive at the time of the trial, established that this reduced his already less-than-even chance of achieving a cure from cancer, defined as survival for 10 years.[28] In a 3:2 decision, the House of Lords found in favour of the defendant, holding that English law did not recognise as actionable damage lost chances of the type the plaintiff had suffered.[29]

Only Lord Hoffmann and Baroness Hale ruled out any recognition of a lost chance of a better medical outcome as actionable damage.[30] Lord Hoffmann adopted a deterministic worldview of pathological cases, the implication being that Mr Gregg was either doomed to succumb to the cancer or destined to survive.[31] His Lordship thereby viewed the case as analogous to *Hotson* — one turning on proof of a past event[32] — and held that the plaintiff must fail because he could not establish, on the balance of probabilities, that he would have survived.[33] Lord Hoffmann also referred to a distinction between lost chances that constitute financial loss — where recovery has been allowed and 'the chance can itself plausibly be characterised as an item of

[25] *Hotson* (n 22) 785 (Lord Mackay).

[26] Ibid 782 (Lord Bridge), 785 (Lord Mackay), 791 (Lord Ackner).

[27] Ibid 782 (Lord Bridge), 785 (Lord Mackay), 792 (Lord Ackner).

[28] The chance was held to have been reduced from 42% to 25%: *Gregg* (n 1) 181 [5] (Lord Nicholls). In contrast to the rest of the House, Lord Phillips did not accept the statistical evidence on which basis this finding had been made: at 214–17 [147]–[159].

[29] Ibid 198 [90] (Lord Hoffmann), 225 [190] (Lord Phillips), 233–4 [223]–[225] (Baroness Hale).

[30] Ibid 197–9 [85]–[90] (Lord Hoffmann), 234 [226] (Baroness Hale).

[31] Ibid 196 [80]. See below Part IV.

[32] *Gregg* (n 1) 196 [79].

[33] Ibid 196 [79]–[80].

property' — and lost chances of a better medical outcome, such as the one in the instant case.[34] Amongst a slew of policy considerations, Baroness Hale seems to have been most persuaded by the financial argument: her Ladyship accepted that 'there is a real difference between personal injury and financial loss'.[35] The other member of the majority, Lord Phillips, ruled out recognising lost chances as actionable damage where the detrimental outcome to which the chance related had not yet materialised.[36] However, his Lordship expressly left open the question of whether they could be recognised in a case where the detrimental outcome had eventuated.[37] Lord Phillips did not, therefore, decide whether a plaintiff in a case like *Tabet*, discussed below, should succeed.

Lord Nicholls, who found for the plaintiff, was willing to recognise lost chances of a better medical outcome as actionable damage, even in cases such as the present one where the detrimental outcome had not yet eventuated.[38] His Lordship reached this decision with reference to the accepted 'degree of probabilities' approach to hypothetical events employed in the assessment of damages, which results in awards proportionate to the relative likelihood that certain events would have occurred in the absence of the defendant's negligence.[39] Lord Hope also found for the plaintiff, but purported to do so on a traditional approach.[40] His Lordship relied upon an increase in the size of the plaintiff's tumour after the defendant's negligence as the actionable damage. The diminution in the plaintiff's chance of survival consequent upon that tumour's growth could then be taken into account in the assessment of damages, according to his Lordship.[41]

[34] Ibid 197 [83]. See also below Part III(B)(1).

[35] *Gregg* (n 1) 232 [219].

[36] Ibid 225 [190].

[37] Ibid. In terms of the terminology introduced in Part V, Lord Phillips ruled out recovery for lost chances in 'open cases', but left the door ajar for recovery in 'closed cases'.

[38] Ibid 189 [41]–[43]. That is, even in 'open cases'.

[39] Ibid 182–3 [11]–[17], quoting *Mallett v McMonagle* [1970] AC 166, 176 (Lord Diplock) ('*Mallett*'). See below Part III.

[40] Ibid 200 [95]. As Lord Phillips observed, Lord Hope's judgment differs significantly from that of Lord Nicholls: at 221–2 [171], 225 [188]. This is despite Lord Hope stating otherwise: at 199 [92].

[41] Ibid 207 [116]–[117]. Lord Hoffmann rejected this approach as artificial and not addressing the crux of the question before the Court: at 198 [86]–[87]. Most problematically, Lord Hope's approach only offers a solution in cases where there is a 'hook' of traditional damage on which to hang the rest of the claim: cf Jane Stapleton, 'Cause-in-Fact and the Scope of Liability for Consequences' (2003) 119 (July) *Law Quarterly Review* 388, 423–4 ('Cause-in-Fact and the Scope of Liability').

Despite intermediate appellate court authority to the contrary,[42] the High Court also refused to recognise the lost chance of a better medical outcome as actionable damage in *Tabet*.[43] Here, the defendant's negligence consisted in his failure to order a CT scan at an earlier point in time. This had caused the plaintiff, a young girl, to lose a chance of avoiding further brain damage that resulted from a subsequent neurological event.[44] Unlike in *Gregg*, the detrimental outcome had materialised: the further brain damage had eventuated.

Kiefel J, with whom Hayne, Crennan and Bell JJ agreed,[45] distinguished lost chances of a better medical outcome from lost financial chances of the type recognised in *Sellars*, on the basis that the former cannot be regarded as valuable in themselves.[46] Gummow ACJ applied an analogous distinction.[47] Kiefel J thought that to recognise such lost chances as actionable damage would be to distort the causation inquiry by severing the connection between fault and damage.[48] All five judges who considered the actionability of a lost chance of a better medical outcome therefore returned a negative response.

C *Summary of the Law at Present*

On account of their perceived intrinsic value, lost financial chances are accepted as actionable damage in negligence actions in both Australia and England. The approach differs in relation to chances that are not directly con-

42 *Rufo v Hosking* (2004) 61 NSWLR 678 ('*Rufo*'); *Gavalas v Singh* (2001) 3 VR 404 ('*Gavalas*'). Note, however, that the decisive issue in *Gavalas* was whether the defendant's negligence had caused the plaintiff's tumour to grow so as to become less amenable to removal: at 406 [6] (Ormiston JA), 412 [25], 423 [58] (Smith AJA). This is properly viewed as a question of past fact. Because the tumour either had grown or had not grown, at least in this respect, *Gavalas* involved no lost 'objective chance': see below Part IV and Part V.

43 *Tabet* (n 1) 559 [45] (Gummow ACJ), 564 [68] (Hayne and Bell JJ), 575 [101]–[102] (Crennan J), 589 [152] (Kiefel J). Heydon J did not decide the question: at 574 [92].

44 The trial judge held that the plaintiff had lost a 40% chance of avoiding 25% of her overall disability: *Tabet v Mansour* [2007] NSWSC 36, [378], [429] (Studdert J) ('*Tabet (Trial)*'). The Court of Appeal assessed the chance lost at only 15%: *Gett v Tabet* (2009) 254 ALR 504, 555 [245] (Allsop P, Beazley and Basten JJA) ('*Tabet (Appeal)*'). Note that in the High Court, Gummow ACJ and Heydon J did not accept that the evidence established the existence of any non-speculative chance and dismissed the appeal on this ground: ibid 559 [45] (Gummow ACJ), 574 [96] (Heydon J).

45 *Tabet* (n 1) 564 [65] (Hayne and Bell JJ), 575 [100]–[103] (Crennan J).

46 Ibid 581–2 [124].

47 Ibid 561 [53]–[54].

48 Ibid 586 [142]. See below Part V(B). See also ibid 562 [56]–[59] (Gummow ACJ).

vertible into monetary gain. A common setting in which the latter form of chance arises is where a negligent medical practitioner deprives a patient of a chance of a better medical outcome. In *Tabet*, the High Court foreclosed the possibility of recognising such lost chances as actionable. In *Gregg*, a majority held that such lost chances are not actionable, at least where the detrimental outcome has not yet eventuated. Lord Phillips' qualification means that the question of recognising lost chances as actionable damage where the detrimental outcome has materialised strictly remains open in England.

III Problems with the Current Approach

The fundamental problem with the current approach to lost chance claims is its grounding in the inconsistent treatment of hypothetical events, and therefore of chance. This in turn leads, as Part V discusses, to a failure to compensate plaintiffs for their losses, properly understood. This Part focuses on this fundamental problem, while also discussing two secondary issues with the status quo.

A *Inconsistent Treatment of Hypothetical Events*

In *Mallett v McMonagle* ('*Mallett*'), Lord Diplock explained that, when assessing damages, a court determines what happened in the past on the balance of probabilities.[49] Where it considers that an event more probably occurred than not, it treats the event as certain. Where it is not so satisfied, it treats the event as never having occurred.[50] His Lordship distinguished this approach to past events from the method of dealing with hypothetical and future events. Where the court is asked to consider what would have happened in the absence of the defendant's negligence or what will now happen in the future, it must estimate the chance that particular events would have occurred or will occur and award damages proportionately.[51] In *Mallett* itself, for instance, the widowed plaintiff's award needed to be reduced

[49] *Mallett* (n 39) 176.

[50] Ibid.

[51] Ibid. In applying *Mallett* (n 39), the High Court adopted this view of Lord Diplock's judgment: *Malec v JC Hutton Pty Ltd* (1990) 169 CLR 638, 639–40 (Brennan and Dawson JJ), 643 (Deane, Gaudron and McHugh JJ) ('*Malec*'). The Supreme Court of Canada did the same: *Athey v Leonati* [1996] 3 SCR 458, 470–1 [27]–[30] (Major J). See also Brian Coote, 'Chance and the Burden of Proof in Contract and Tort' (1988) 62(10) *Australian Law Journal* 761, 767. Cf David Hamer, '"Chance Would Be a Fine Thing": Proof of Causation and Quantum in an Unpredictable World' (1999) 23(3) *Melbourne University Law Review* 557, 587.

to reflect the chance that her negligently killed husband might not have lived until retirement age or that he might otherwise have been disabled from employment.[52]

The High Court adopted the same view in *Malec v JC Hutton Pty Ltd* ('*Malec*'),[53] holding that all non-speculative chances must be considered in the assessment of damages.[54] Brennan and Dawson JJ referred to Lord Diplock's judgment in *Mallett* and emphasised that treating hypothetical events as though they were past events in the assessment of damages 'misconceive[s] the process of evaluation'.[55] Deane, Gaudron and McHugh JJ also followed *Mallett*, explaining the powerful logic behind refusing to deal with hypothetical events on an all-or-nothing basis:

> [Q]uestions as to the … hypothetical effect of physical injury or degeneration are not commonly susceptible of scientific demonstration or proof. … Where proof is necessarily unattainable, it would be unfair to treat as certain a prediction which has a 51 per cent probability of occurring, but to ignore altogether a prediction which has a 49 per cent probability of occurring. Thus, the court assesses the degree of probability that an event would have occurred … and adjusts its award of damages to reflect the degree of probability.[56]

A key point for the purposes of this article is that the 'but-for' test of causation, applied in both *Gregg* and *Tabet*, itself necessitates a hypothetical analysis.[57] The court must ask, in much the same way as when assessing damages: 'What would have been the state of affairs had the defendant's negligence not occurred?' Only the subject of the inquiry differs: the causation stage focuses on whether the plaintiff would still have suffered the relevant actionable damage in the absence of the defendant's breach of duty; the assessment stage focuses on whether the plaintiff would have been in

52 *Mallett* (n 39) 176 (Lord Diplock).

53 *Malec* (n 51).

54 Ibid 643 (Deane, Gaudron and McHugh JJ).

55 Ibid 640.

56 Ibid 643.

57 Hamer (n 51) 573; Martin A Hogg, 'Re-Establishing Orthodoxy in the Realm of Causation' (2007) 11(1) *Edinburgh Law Review* 8, 11 ('Re-Establishing Orthodoxy'). As Hamer has observed, the alternative 'NESS' (necessary element of a sufficient set) test of causation, propounded by Richard Wright, also relies upon a hypothetical inquiry: Hamer (n 51) 572–3. Determining whether a factor was a necessary element of a sufficient set involves a comparison with what would have occurred in the absence of that factor's presence in the set.

a globally 'better off' position in the absence of the actionable damage caused by the defendant.[58]

Naturally, as *Hotson* demonstrates, not every question that is confronted as part of the causation inquiry will be a hypothetical one: there will be accomplished 'past events' that would fall to be decided on the balance of probabilities under the logic of *Mallett* and *Malec*.[59] As observed in Part II, Lord Hoffmann was of the view that the outcome in *Gregg* was deterministic and, as a result, also properly approached as a past event. This is a crucial point and one that is taken up in Part IV. However, for all the other judges who categorically ruled out recognising lost chances of a better medical outcome as actionable damage — viz Baroness Hale in *Gregg* and the majority of the High Court in *Tabet* — the inquiry into whether the respective plaintiffs would have suffered the detrimental medical outcome in the absence of the defendant's negligence was not treated as anything other than a hypothetical question.[60] Despite the statements in *Mallett* and *Malec*, these judges applied the balance of probabilities approach.

In light of the *Mallett* and *Malec* comments on the insusceptibility to proof of hypothetical events, the inconsistency of insisting on such proof at the causation stage is arresting. As the discussion in Part V reveals, in cases where causation is established, the proportionate approach at the assessment stage allows for adjustments that befit the hypothetical character of but-for inquiries. However, the situation is different where the plaintiff cannot meet the but-for test at the causation stage due to a greater-than-even chance that the detriment constituting the actionable damage would have occurred anyway. In these circumstances — as in *Tabet* — the plaintiff fails entirely, contradicting the proportionate logic of *Mallett* and *Malec*.

58 See Jane Stapleton, 'Unnecessary Causes' (2013) 129 (January) *Law Quarterly Review* 39, 54–5.

59 In *Hotson* (n 22), Lords Mackay and Ackner explicitly invoked *Mallett* (n 39) in support of their approach, notwithstanding that their Lordships were confronted with a causation, rather than an assessment, issue: at 785 (Lord Mackay), 792 (Lord Ackner).

60 While in *Tabet* (n 1), Gummow ACJ and Kiefel J referred to the question of causation in this case as concerning a 'past event', their Honours were here referring to the fact that, unlike in *Gregg* (n 1), the detrimental outcome had eventuated: at 563 [62] (Gummow ACJ), 587 [143] (Kiefel J). In terms of the nomenclature introduced in Part V, their Honours were thereby observing that the case was a 'closed', rather than an 'open', case. Their Honours did not, unlike Lord Hoffmann, treat the question of whether the plaintiff would have suffered the harm in the absence of the negligence as fully determined. The reliance placed by Gummow ACJ on Lord Hoffmann's judgment in support of his Honour's 'past event' point was therefore misguided: at 563 [62].

In *Rufo v Hosking* ('*Rufo*'), one of the intermediate appellate court decisions overruled in *Tabet*, this very inconsistency was drawn upon to support the conclusion that the lost chance of a better medical outcome should be viewed as actionable damage.[61] In terms that foreshadow the discussion in Part V, Santow JA held:

> [D]amages for future loss are customarily discounted already for vicissitudes. Likewise, damages for loss of future prospects or in relation to hypothetical past events are discounted on *Malec* principles. This is so even where the plaintiff proves on the balance of probabilities that the defendant *did* cause harm in the form of a risk that eventuated … That *Malec* approach to damages emphasises the unfairness in the medical negligence context of *not* then allowing a loss of chance approach where less than even.[62]

The plaintiff in *Rufo* claimed that the defendant's negligence, which consisted in prescribing too high a dose of corticosteroids and not introducing a steroid sparer at an earlier point, had deprived her of the chance of avoiding certain bone microfractures.[63] The New South Wales Court of Appeal was satisfied that the plaintiff had proved, on the balance of probabilities, that the defendant had caused her to lose this non-speculative chance of a better outcome.[64] The Court allowed recovery, remitting the matter to the primary judge for assessment of damages on a lost chance basis.[65] *Hotson* was explicitly distinguished on the basis that it was concerned with a 'past historic event, whose outcome was inevitable', as distinct from *Malec*-type cases concerning hypothetical events, of which the instant case was an example, where the outcome 'was not inevitable'.[66]

The fundamental basis for criticising the refusal to recognise non-financial lost chances as actionable damage is therefore the unjustified inconsistency that this creates in the law's treatment of hypothetical events and, by extension, chance generally. If a lost chance, proved on the balance of probabilities, were held to constitute actionable damage — as in *Rufo* — hypothetical questions as to how the plaintiff would have fared in the absence of the defendant's negligence could be addressed on a degree of probabilities

[61] *Rufo* (n 42) 680–1 [9]–[10] (Hodgson JA); 687–90 [36]–[51] (Santow JA).

[62] Ibid 689 [49] (emphasis in original).

[63] Ibid 687 [36] (Santow JA), 692 [67] (MW Campbell AJA).

[64] Ibid 688 [41], 690 [53] (Santow JA), 694 [405]–[406], 695 [410] (MW Campbell AJA).

[65] Ibid 702 [447] (MW Campbell AJA, Hodgson JA agreeing at 679 [1], Santow JA agreeing at 681 [55]).

[66] Ibid 690 [51] (Santow JA). See also below Part IV.

approach in the assessment of damages. This approach, as the reasoning in *Mallett* and *Malec* makes clear, would reflect the inherent insusceptibility to proof of such questions.

Naturally, this focuses attention on the issue of precisely which events courts should treat as hypothetical. After secondary problems with the current approach are canvassed, Part IV takes up this complex matter.

B *Other Problems with the Current Approach*

There are two further shortcomings in the law's current approach: (i) its illusory distinction between financial and non-financial chances; and (ii) its frustration of the duty of care. While the change in approach advocated in Part V is based on a resolution of the unjustified inconsistency in the treatment of hypothetical events and chance, the approach therein proposed would also alleviate these further shortcomings.

1 *Illusory Distinction between Financial and Non-Financial Chances*

Part II discussed the emphasis placed by members of the House of Lords and High Court on the distinction between financial and non-financial chances. Those lost chances that have been recognised as actionable damage have been characterised as 'valuable' in themselves, due to their direct convertibility into monetary gain.[67] Other lost chances, such as those of a better medical outcome, have been considered to lack inherent 'value'.[68]

This financial–personal injury distinction has been heavily criticised on the grounds that it affords stronger protection to monetary interests than to personal bodily interests.[69] Indeed, this position appears a significant turnaround, given the law's traditional reluctance to compensate a plaintiff's pure economic loss in negligence.[70] The distinction is further undermined by the fact that, as counsel for the plaintiff pointed out in *Tabet*, there is a market in which people are willing to pay to exploit their sub-50% chance of a better

[67] *Tabet* (n 1) 561 [54] (Gummow ACJ), 581–2 [124] (Kiefel J). See also *Gregg* (n 1) 197 [83] (Lord Hoffmann), 232 [220] (Baroness Hale).

[68] See, eg, *Tabet* (n 1) 581–2 [124] (Kiefel J).

[69] Robert Stevens, *Torts and Rights* (Oxford University Press, 2007) 48; Harold Luntz, 'Loss of Chance in Medical Negligence' (Legal Studies Research Paper No 522, The University of Melbourne, 2010) 22.

[70] See *Cattle v The Stockton Waterworks Co* (1875) LR 10 QB 453. This persisted until *Hedley Byrne & Co Ltd v Heller & Partners Ltd* [1964] AC 465.

medical outcome.[71] The claim that these chances are nonetheless of no intrinsic value is very difficult to understand.

A further point, which seems to have been overlooked in previous analyses, is that the financial distinction implicitly relies upon a 'directness' distinction. In personal injury cases, there can be no doubt that suffering a substantial personal injury will cost the person in monetary terms, whether by creating new needs or depriving them of earning capacity. These cases are simply one step further removed from monetary loss than the financial cases: in the personal injury cases, one loses the chance to enjoy a better medical outcome, and the realisation of the injury then results in monetary loss;[72] in the financial cases, one loses the chance to enjoy a financially beneficial situation, which directly sounds in monetary loss. The tenuous ground of directness is hardly an appropriate basis on which to differentiate the cases.

2 *Frustration of the Duty to Take Reasonable Care*

Particularly in the medical context, the refusal to recognise lost chances as actionable damage threatens to frustrate the duty to take reasonable care. Patients will frequently present for treatment with a less-than-even chance of enjoying a positive medical outcome.[73] In such cases, if lost chances go unrecognised, the duty of care is rendered empty, as no breach of the standard of care will result in the establishment of the tort of negligence.[74] In other words, given the correlative nature of duties and rights,[75] the plaintiff's right to careful treatment, while theoretically enforceable, is hollow.

On two different conceptions of the theoretical underpinnings of tort law, this is a deficient state of affairs. First, take the view that tort law is predominantly concerned with corrective justice[76] and personal responsibility.[77] It is

[71] *Tabet* (n 1) 540 (BW Walker SC) (during argument). See also Luntz (n 69) 12.

[72] Stevens (n 69) has adverted to a related point in the context of *Gregg* (n 1), observing that 'it is possible to characterize Gregg's increased risk of death [viz lost chance of avoiding death] as financial: he had a diminished chance of earning income during the prospective period of the "lost years"': at 48.

[73] *Matsuyama v Birnbaum* 890 NE 2d 819, 835 (Mass, 2008) (Marshall CJ) ('*Matsuyama*'); *Rufo* (n 42) 684 [26] (Santow JA). Patients suffering from late-stage cancer furnish but one example.

[74] *Gregg* (n 1) 180 [2]–[4] (Lord Nicholls). See also *Herskovits v Group Health Cooperative of Puget Sound*, 664 P 2d 474, 477 (Wash, 1983) (Dore J); *Matsuyama* (n 73) 829–30 (Marshall CJ); Stapleton, 'Part 2: The Relationship between Damage and Causation' (n 4) 390–1.

[75] Wesley Newcomb Hohfeld, 'Some Fundamental Legal Conceptions as Applied in Judicial Reasoning' (1913) 23(1) *Yale Law Journal* 16, 31–2.

[76] See Ernest J Weinrib, *Corrective Justice* (Oxford University Press, 2012) 2.

true that in negligence, where damage is the gist of the action, the damage 'form[s] part of the description of the interest protected'.[78] But, as the High Court has observed, the law has a policy choice to make when deciding what suffices as actionable damage.[79] The approach that prevailed in *Gregg* and *Tabet* undermines the utility of tort law as a system of corrective justice and personal responsibility; it denies the possibility of redress in response to the negligent interference with one's interest in one's own person, a key interest protected by tort law.[80]

Second, consider the view that tort law has a deterrent function.[81] In *Hill v Van Erp*, in holding that a solicitor had breached his duty of care, members of the High Court emphasised the importance of maintaining professional standards,[82] an aspect of deterrence. In *Gregg*, Baroness Hale offered an explanation as to why, exceptionally, such a consideration should not apply to medical professionals:

> [D]octors and other health care professionals are not solely, or even mainly, motivated by the fear of adverse legal consequences. They are motivated by their natural desire and their professional duty to do their best for their patients.[83]

With respect to her Ladyship, the motivations of a wide and diverse array of medical professionals form too complex an issue to take on judicial notice.[84] But even if we take this argument at its highest and accept that these professionals are not *mainly* 'motivated by the fear of adverse legal consequences', the deterrent impact of imposing liability in lost chance cases

77 See, eg, Peter Cane, *The Anatomy of Tort Law* (Hart Publishing, 1997) 24.

78 Ibid 167.

79 *Alcan Gove* (n 2) 7 [8] (French CJ, Kiefel, Bell, Keane and Nettle JJ).

80 Cane (n 77) 124. Cf Stevens (n 69), who emphasised that the law has chosen to be concerned with outcomes: at 44–5. Weinrib has made a similar point: Ernest J Weinrib, 'Causal Uncertainty' (2016) 36(1) *Oxford Journal of Legal Studies* 135, 160. However, retaining a focus on outcomes and recognising lost chances as actionable damage need not be mutually exclusive: see below Part V.

81 See, eg, Cane (n 77) 206–7.

82 (1997) 188 CLR 159, 195 (Gaudron J), 234 (Gummow J) ('*Hill*'). See also Luntz (n 69) 26.

83 *Gregg* (n 1) 231 [217].

84 Reinforcing that her Ladyship's view is far from self-evident, other judges have feared the deterrent effect would be *too great* if liability were imposed in lost chance cases: see, eg, the concern regarding 'defensive medicine' expressed by Gummow ACJ in *Tabet* (n 1) 563 [59]. Puzzlingly, Gummow ACJ referred to Baroness Hale's concern immediately after expressing his Honour's misgivings regarding defensive medicine: at 563 [60].

could nevertheless affect a medical professional's actions. It could also incentivise the development and improvement of systems in hospitals and other facilities to prevent careless treatment.[85]

At the very least, there is a prima facie argument, which has been considered substantial in relation to legal professionals,[86] that the threat of liability could deter negligent (or incentivise careful) conduct on the part of medical practitioners and institutions. This prima facie position in fact finds support in empirical studies which have concluded that tort liability has a deterrent effect in the medical treatment context.[87]

It bears emphasising that the causation stage of the negligence inquiry, in which this 'frustration of duty' issue appears, is reached *only if* the court has decided that a breach of the reasonable standard of care has occurred.[88] An alteration to the approach taken at this causation stage would effect no change to the standard of care required of a medical practitioner.

IV The Determinism Issue: 'Epistemic Chances' versus 'Objective Chances'

Earlier points in this article have referred to the notion of deterministic events. An event is considered deterministic if its outcome is fully determined by events that have already occurred.[89] 'Universal determinism' — the theory that with intelligence capable of comprehending all the forces animating nature and beings, we would be able to speak with certainty about all future events[90] — is the subject of strident philosophical debate[91] and may

[85] See Justice James Edelman, 'Loss of a Chance' (2013) 21(1) *Torts Law Journal* 1, 13; *Matsuyama* (n 73) 830 (Marshall CJ); *Lee v Minister for Corrective Services* [2012] ZACC 30, 52 [92]–[93] (Cameron J) (Constitutional Court).

[86] See, eg, *Hill* (n 82) 195 (Gaudron J), 234 (Gummow J).

[87] See, eg, Paul Fenn et al, 'Deterrence and Liability for Medical Negligence: Theory and Evidence' (Conference Paper, Conference of the European Association of Law and Economics, 19–21 September 2002) 27; Zenon Zabinski and Bernard S Black, 'The Deterrent Effect of Tort Law: Evidence from Medical Malpractice Reform' (Law and Economics Research Paper No 13-09, Northwestern University, February 2015) 26.

[88] See *Rufo* (n 42) 684–5 [26]–[27] (Santow JA).

[89] Helen Reece, 'Losses of Chances in the Law' (1996) 59(2) *Modern Law Review* 188, 192.

[90] Pierre Simon Laplace, *Philosophical Essay on Probabilities*, tr Frederick Wilson Truscott and Frederick Lincoln Emory (John Wiley & Sons, 1902) 4. It has also been described as the view that 'everything that happens is fully necessitated by antecedent circumstances': John Dupré, *The Disorder of Things: Metaphysical Foundations of the Disunity of Science* (Harvard University Press, 1993) 171. Belief in universal causal determinism originated with the Stoics: Anthony Kenny, *A New History of Western Philosophy* (Oxford University Press, 2010) 156.

have been undermined by the discoveries of quantum mechanics.[92] Nevertheless, the view that there are certain deterministic events in the world still enjoys support.[93]

This Part now makes clear the significance of the determinism issue for the proper approach to chance and hypothetical events in the law of negligence. It establishes that deterministic events — in relation to which illusory 'epistemic chances' exist — are properly treated as past events, while potentially indeterministic events — in relation to which genuine 'objective chances' are appropriately seen as existing — are properly treated as hypothetical events.

Before embarking upon this task, a brief description of the epistemic chance–objective chance dichotomy should be provided. A very simple example of an epistemic chance is the outcome of a completed coin flip: while we may say that there is a 50% 'chance' that the coin, obscured from view, has landed on tails, we know that the outcome has already been decided. In truth, there is no 'chance' to speak of: the coin has landed on one of two sides, though we lack the requisite knowledge to say which one.[94] As the following discussion details, there are more complex instances of uncertainty where, due to the deterministic nature of the outcome, such a mere epistemic chance exists. Other forms of uncertainty, however, are properly viewed as accompanied by objective chances. As explained below, a genuine objective chance should be seen as existing where — to the best of our knowledge — a variety of outcomes could yet materialise (ie the outcome is, as far as our knowledge permits, indeterministic).

A *Deterministic Events and the Causation Inquiry*

In *Hotson*, the House of Lords clearly classified the plaintiff's avascular necrosis injury as deterministic. According to their Lordships, at the time the defendant negligently failed to provide treatment, the plaintiff either did or did not have sufficient blood vessels intact to allow the injury to be avoided — the die was cast.[95] In other words, there was no true 'objective chance' in issue: the uncertainty surrounding what would have happened to the plaintiff's leg

[91] See below Part IV(C)(3).

[92] See Reece (n 89) 193; Hamer (n 51) 563. Cf Stanford University, *Stanford Encyclopedia of Philosophy* (online at 20 October 2019) 'Causal Determinism' [4.4] <https://plato.stanford.edu/entries/determinism-causal/#Int>.

[93] Reece (n 89) 193.

[94] Ibid.

[95] *Hotson* (n 22) 789–90 (Lord Mackay), 792 (Lord Ackner). See also Reece (n 89) 195–6.

was mere 'epistemological uncertainty'.[96] Accordingly, the decisive causation question — whether the plaintiff's femoral epiphysis would have suffered avascular necrosis even if the defendant had rendered careful treatment — was treated as turning on a question of past fact which, applying the logic of the *Mallett* approach,[97] was properly decided on an all-or-nothing basis on the balance of probabilities. Because it was more likely than not that sufficient blood vessels did not remain intact, the plaintiff failed to establish causation.[98]

Let us compare the approach taken in *Hotson* with the approaches taken in cases such as *Gregg* and *Tabet*. In *Gregg*, Lord Nicholls recognised that *Hotson* had left open the question of the proper approach to be taken where, despite knowledge of the plaintiff's state at the time of the negligence, there was uncertainty as to what would have occurred thereafter.[99] Lord Hope and Baroness Hale also distinguished *Gregg* from *Hotson* on this ground,[100] recognising that the instant case constituted uncharted territory.[101] Baroness Hale opined that there must be situations in which one cannot say that the plaintiff, like in *Hotson*, simply had 'no chance'.[102] In effect, their Lordships contrasted the deterministic nature of the outcome in *Hotson* with the, at least potentially, indeterministic nature of the outcome in *Gregg*. The plaintiff's leg in *Hotson* was fully determined either to suffer avascular necrosis or not; Mr Gregg may not, for all their Lordships knew about the nature of the processes involved, have been fully determined to succumb to or survive his cancer.

On the other hand, upon also considering the determinism issue, Lord Hoffmann reached a different view. His Lordship treated the outcome in

96 Reece (n 89) 197. See also Sandy Steel, 'Rationalising Loss of a Chance in Tort' in Stephen GA Pitel, Jason W Neyers and Erika Chamberlain (eds), *Tort Law: Challenging Orthodoxy* (Hart Publishing, 2013) 235, 254, 258.

97 *Hotson* (n 22) 785 (Lord Mackay), 792 (Lord Ackner). See also above n 59.

98 *Hotson* (n 22) 791–2 (Lord Ackner).

99 *Gregg* (n 1) 188 [38]–[39].

100 Ibid 203–4 [108]–[109] (Lord Hope), 229–30 [209]–[212] (Baroness Hale). See also *Rufo* (n 42) 690 [51] (Santow JA); Stephen R Perry, 'Risk, Harm, and Responsibility' in David G Owen (ed), *Philosophical Foundations of Tort Law* (Oxford University Press, 1995) 321, 337.

101 *Gregg* (n 1) 206 [115] (Lord Hope), 230 [212] (Baroness Hale).

102 Ibid 230 [211].

Gregg as deterministic, deciding that it was analogous to *Hotson*,[103] reasoning as follows:

> [T]he progress of Mr Gregg's disease had a determinate cause. It may have been inherent in his genetic make-up at the time when he saw Dr Scott, as Hotson's fate was determined by what happened to his thigh when he fell out of the tree. Or it may … have been affected by subsequent events and behaviour for which Dr Scott was not responsible. Medical science does not enable us to say. But the outcome was not random; it was governed by laws of causality …[104]

Hence, Lord Hoffmann treated the uncertainty in *Gregg* as mere epistemic uncertainty. According to his Lordship, immediately before the defendant's negligence intervened, the plaintiff was either doomed to die from cancer or destined to survive. On this view, the question was one of past fact to be determined on the balance of probabilities. Because the epidemiological evidence showed that it was more likely than not that patients in the plaintiff's position would die, Mr Gregg failed on Lord Hoffmann's analysis.[105]

Unfortunately, the High Court in *Tabet* did not approach the issue with the same depth of analysis as did the Law Lords in *Gregg*. Both Gummow ACJ and Kiefel J briefly commented that 'past events' were in issue,[106] without any reference to the potential distinction between the type of uncertainty that arose in *Tabet* — where there was no evidence of phenomena indicating that the outcome was fully determined — and that which had arisen in a case like *Hotson*. Curiously, Kiefel J referred to just one French language article, cited in the Canadian case of *Laferrière v Lawson*,[107] in concluding 'what is involved is in truth not a loss of a chance. … What is in issue is a past event'.[108] This was in spite of the insightful English language literature on the relevance of the determinism question, discussed below, which exposes the simplicity of this view.[109]

Unlike Lord Hoffmann, who provided an extensive explication of his reasons for treating the relevant question in *Gregg* as one of past fact, Gummow ACJ and Kiefel J did not ground their views in a deterministic

[103] Ibid 196 [80].

[104] Ibid.

[105] Ibid.

[106] *Tabet* (n 1) 563 [62] (Gummow ACJ), 587 [142] (Kiefel J). See above n 60 and accompanying text.

[107] [1991] 1 SCR 541, 574 (Gonthier J) ('*Laferrière*').

[108] *Tabet* (n 1) 587 [142].

[109] See especially Reece (n 89); Hamer (n 51). See below Part IV(C).

conception of the case. Rather, each conflated the actual deterioration that had occurred in Ms Tabet's condition with the proposition that the Court was therefore confronted with a past event as decisive of the causation inquiry. As Part V below explains, this actual deterioration in the plaintiff's condition is relevant only to whether a court is confronted with a 'closed' or 'open' lost chance case.[110] Their Honours overlooked the key point that, unless they were acceding to a deterministic view, the issue of how the plaintiff would have fared in the absence of the defendant's negligence was one that the law treats as a hypothetical event, not a past event, in line with the *Mallett* and *Malec* approach. This was the point made by Santow JA in his Honour's discussion of the inevitability or otherwise of outcomes in *Rufo*.[111] And, in contrast to Baroness Hale, their Honours did not acknowledge this point and explicitly decided to apply the balance of probabilities approach in any case.[112]

B *The Line between Deterministic and Potentially Indeterministic Events*

The approach of the House of Lords in *Hotson*, paired with the unanimous agreement in *Gregg* that the issue in *Hotson* had been correctly framed, demonstrates that where an event is understood to be deterministic, it will be dealt with as a past event. However, the judgments in *Gregg* also show that there will not always be agreement on where the 'determinism line' is to be drawn.

To understand the law's approach to this line, we must again turn to the assessment of damages stage of the negligence inquiry. Consider the courts' approaches in two cases concerning bodily processes: the English case of *Smith v Leech Brain & Co Ltd* ('*Leech Brain*')[113] and the Australian case of *Wynn v NSW Insurance Ministerial Corporation* ('*Wynn*').[114] In *Leech Brain*, the defendant was found, on the balance of probabilities, to have negligently caused the death of the plaintiff's husband from cancer. The Lord Chief Justice reduced the widow's award to account for the chance that the deceased's pre-existing susceptibility to cancer meant that the harm might have occurred even without the defendant's negligence.[115] Similarly, in *Wynn*, the plaintiff's

[110] See also above n 60.

[111] *Rufo* (n 42) 689 [49] (Santow JA). See above Part III(A).

[112] *Tabet* (n 1) 562 [59], 563 [61] (Gummow ACJ), 589 [152] (Kiefel J).

[113] [1962] 2 QB 405 ('*Leech Brain*').

[114] (1995) 184 CLR 485 ('*Wynn*').

[115] *Leech Brain* (n 113) 416 (Lord Parker CJ). While this portion of the judgment was not extracted in the reports, Stapleton informs us that the chance that the deceased would have

award was discounted to reflect the chance that her pre-existing spinal condition would have curbed her ability to work even if the defendant's negligence had not intervened.[116]

In neither *Leech Brain* nor *Wynn* were the Courts of the view that, because the pre-existing conditions involved bodily processes, their materialisation should be treated as deterministic and therefore past events. Unlike with the ruptured blood vessels in *Hotson*, there was no evidence of phenomena rendering the outcomes fully determined. These outcomes were therefore treated as hypothetical events subject to the approach embraced in *Mallett* and *Malec*.[117] This meant the adoption of a proportionate approach — rather than an 'all-or-nothing' approach — to the chance that the respective negative outcomes would have occurred even in the absence of the defendant's negligence. The crucial insight from these cases can be summarised as follows: where courts do not know of phenomena rendering the outcome of a bodily process fully determined, they treat that outcome as a hypothetical event. In other words, 'potentially indeterministic' outcomes are viewed as hypothetical events.

Once it is understood that, in the assessment of damages, courts have viewed the outcomes of bodily processes that are not known to be fully determined as hypothetical events, the approach promoted by Lord Hoffmann in *Gregg* is shown to be anomalous. If Mr Gregg had been able to persuade the Court that he had sustained some actionable damage, the well-established practice of contingency discounting, exemplified in *Leech Brain* and *Wynn*, leaves us in little doubt that his damages award would have been reduced to take account of the chance that he would have died from cancer in any case.[118] Mr Gregg's succumbing to cancer in spite of the negligence would have been treated as a hypothetical event, rather than a past event. The effect of adopting

succumbed to cancer in any case was assessed at 5%: Jane Stapleton, 'Loss of the Chance of Cure from Cancer' (2005) 68(6) *Modern Law Review* 996, 1005 ('Loss of the Chance of Cure').

116 *Wynn* (n 114) 498–9 (Dawson, Toohey, Gaudron and Gummow JJ). The trial judge had found it probable that the plaintiff's pre-existing spinal condition would not have affected her ability to continue employment until age 60. The chance that the condition would have flared up was a factor in the reduction of her award by 12.5%: at 499–500 (Dawson, Toohey, Gaudron and Gummow JJ).

117 Ibid 499 (Dawson, Toohey, Gaudron and Gummow JJ); *Leech Brain* (n 113) 413 (Lord Parker CJ).

118 See below Part V for further discussion of *Leech Brain* (n 113) and *Wilson v Peisley* (1975) 7 ALR 571 ('*Wilson*').

Lord Hoffmann's view would therefore be to presume determinism at the causation stage where it would not be presumed at the assessment stage.[119]

We can also look to the lost financial chance cases for evidence of the determinism line. An explanation for the recognition of lost financial chances as actionable damage — in addition to the 'value' argument[120] — is that courts are disinclined to conclude that outcomes involving future human action are fully determined.[121] Viewing lost financial chances as actionable damage allows the court to proceed to the assessment of damages stage, where it can adopt a proportionate approach to the hypothetical question of how another party would have acted.[122]

Finally, the High Court's statements in *Alcan Gove Pty Ltd v Zabic* ('*Alcan Gove*'),[123] though in a different context, demonstrate that, once a court is satisfied that phenomena have rendered an outcome fully determined, it will view that outcome as a past fact,[124] susceptible to proof on the balance of probabilities.[125] In *Alcan Gove*, the question was whether certain mesothelial cell changes could be characterised as actionable damage. The Court held that if 'it can be seen that … mesothelial cell changes were the beginning of a continuum that led inexorably to the onset of mesothelioma', these cell changes themselves constitute actionable damage.[126]

[119] Cf Allan Beever, '*Gregg v Scott* and Loss of a Chance' (2005) 24(1) *The University of Queensland Law Journal* 201, who has opined that 'it is clear that the law has traditionally adopted the view that the world is deterministic': at 207.

[120] See above Part II(A), below Part V(C).

[121] *Gregg* (n 1) 197 [82]–[83] (Lord Hoffmann).

[122] Where the *plaintiff's* future actions are in question, however, the balance of probabilities test is applied: see, eg, *Allied Maples Group Ltd v Simmons & Simmons (a firm)* [1995] 1 WLR 1602, 1610 (Stuart-Smith LJ); *Rufo* (n 42) 680 [9] (Hodgson JA), 688 [40] (Santow JA). Stapleton and Hamer have criticised this position: Stapleton, 'Loss of the Chance of Cure' (n 115) 1005; Hamer (n 51) 606. Cf McGregor's defence: Harvey McGregor, *McGregor on Damages* (Sweet & Maxwell, 19th ed, 2014) 384 [10-060].

[123] *Alcan Gove* (n 2).

[124] Ibid 20 [45]–[47] (French CJ, Kiefel, Bell, Keane and Nettle JJ).

[125] See above Part IV(A).

[126] *Alcan Gove* (n 2) 11 [17] (French CJ, Kiefel, Bell, Keane and Nettle JJ).

C *Consistently Distinguishing between Deterministic and Potentially Indeterministic Events*

The approaches in *Hotson*, *Leech Brain*, *Wynn* and *Alcan Gove* — along with that of the majority in *Gregg*[127] — reveal that courts commonly differentiate between the following two circumstances: (i) *deterministic* situations, in which they know of phenomena that have rendered an outcome fully determined (*Hotson*; *Alcan Gove*); and (ii) *potentially indeterministic* situations, in which they do not know of phenomena that have rendered an outcome fully determined (*Leech Brain*; *Wynn*; *Gregg*).[128] In situation (i), courts largely treat the outcome as a 'past event' with there being no more than an illusory 'epistemic chance' of the outcome materialising in a particular way. In situation (ii), courts largely treat the outcome as a 'hypothetical event', recognising the existence of a genuine 'objective chance' that various outcomes could have eventuated.

This distinction has not always been consistently applied, as Lord Hoffmann's judgment in *Gregg* indicates. In order to achieve consistency in the law's approach to chance and, consequently, appropriate responses to plaintiffs' losses, this article advocates explicit recognition of the distinction between these two situations.

In a seminal article, Reece observed a distinction in similar terms, speaking of the second situation as 'quasi-indeterministic', with the chance of a particular outcome occurring a 'quasi-objective chance'.[129] Reece argued that an event should be treated as 'quasi-indeterministic' where:

> [I]t could not have been predicted at any point in the past, it cannot be predicted in the present even given unlimited time, resources and evidence, and we cannot imagine how it would become predictable in the future, even given the success of present research programs.[130]

Reece's thesis marked a breakthrough in highlighting the importance of the determinism issue to the law's approach to proof of events. This article

[127] For, in addition to Lord Nicholls and Baroness Hale, Lord Hope also recognised that this case differed from *Hotson* (n 22) in this respect: *Gregg* (n 1) 203–4 [108]–[109].

[128] I have excluded *Rufo* (n 42) from this discussion, as the intent of this section is to show that even in cases still considered good law, the distinction between deterministic events and indeterministic events can generally be identified. Naturally, *Rufo* would fall under situation (ii).

[129] Reece (n 89) 194.

[130] Ibid. See also Martin Hogg, 'Developing Causal Doctrine' in Richard Goldberg (ed), *Perspectives on Causation* (Hart Publishing, 2011) 41, 50.

embraces Reece's general insights but prefers the distinction between deterministic situations and potentially indeterministic situations articulated above. While there is overlap with Reece's conception, the distinction adopted by this article places the focus squarely on whether the outcome is known to be deterministic, rather than whether it is possible to 'imagine how [the outcome] would become predictable in the future'.[131] One could plausibly 'imagine' how certain bodily processes, such as those in *Leech Brain*, *Wynn* and *Gregg*, could become predictable in the future, yet those courts treated the outcomes of these processes as hypothetical events, rather than past events.[132]

Where a party claims that an outcome was fully determined, and is therefore properly viewed as a past event, it ought to bear an evidentiary burden of establishing as much. For all intents and purposes, proving that an event was indeterministic is impossible.[133] Requiring the party asserting determinism to adduce evidence in support would be analogous to the evidential burden upon a party asserting a difficult to disprove state of affairs, such as where a defendant claims a plaintiff suffered a pre-existing condition.[134] It would not be comparable to any reversal of the *legal* burden of proof, a more radical step that has been clearly rejected in the context of lost chance claims at common law,[135] which was dismissed in the *Review of the Law of Negligence* in Australia,[136] and is now prevented by civil liability legislation.[137] As an example of how such an evidentiary burden would operate, consider its theoretical application in *Hotson*. The defendant in that case would have needed to adduce evidence that, beyond a certain number of ruptured blood vessels, avascular necrosis could not be avoided. The plaintiff would then (as he indeed did) have borne the burden of proving, on the balance of probabilities, that a sufficient number of blood vessels remained intact prior to the defendant's negligence.

While the distinction between deterministic and potentially indeterministic events finds support in the case law, one must nevertheless confront the forceful objection that there is no convincing basis for treating epistemic

131 Reece (n 89) 194.

132 Lord Hoffmann being the exception: *Gregg* (n 1) 196 [79]. See above Part IV(B).

133 Steel (n 96) 272.

134 *Watts v Rake* (1960) 108 CLR 158, 160 (Dixon CJ); *Purkess v Crittenden* (1965) 114 CLR 164, 168 (Barwick CJ, Kitto and Taylor JJ).

135 *Rufo* (n 42) 696 [418]–[419] (Santow JA), quoting *TC v New South Wales* [2001] NSWCA 380, [59] (Mason P).

136 *Review of the Law of Negligence* (Final Report, September 2002) 111 [7.34].

137 See, eg, *Civil Liability Act 2002* (NSW) s 5E.

chances and objective chances differently.[138] Why should it matter whether the reason for which a court cannot conclude what would have occurred is illusory epistemic uncertainty or genuine objective uncertainty? Is the key point not that — owing to limitations in knowledge — the court simply cannot reach a conclusion either way? And, moreover, why draw a distinction if we cannot be satisfied that genuine objective uncertainty truly exists?

There is merit in these arguments, but, ultimately, they must be dismissed. There are two key bases upon which treating epistemic and objective chances differently is the superior approach: (i) conformity with a long line of precedent underpinning the law's approach to proof; and (ii) reflection, as far as we understand reality, of what has been lost.

1 *Conformity with Precedent*

Distinguishing between epistemic and objective chances is preferable, due to its reflection of the predominant approach taken in the case law, as the extensive discussion of precedent above demonstrates. Although Lord Hoffmann would have drawn the determinism line along a different plane in *Gregg*, his Lordship made clear the fundamental principle: where events are viewed as deterministic, the court merely lacks knowledge of a past event, 'and the law deals with [this] lack of knowledge by the concept of the burden of proof'.[139]

Admittedly, one struggles with the intuitive feeling that a plaintiff in the position of Mr Hotson — adjudged in circumstances of epistemic uncertainty to have had a 25% likelihood of avoiding avascular necrosis — has lost something,[140] yet is considered to have lost nothing under this approach. But abandoning the all-or-nothing approach to past events in cases where some epistemic uncertainty exists would require a fundamental departure from the law's firmly established approach in innumerable cases. Imagine that some fully determined events subject to epistemic uncertainty were treated as equivalent to hypothetical events and addressed on a degree of probabilities approach. It would then be difficult, for example, to justify holding a defendant liable for more than 75% of the plaintiff's damages where the court felt only 75% sure that the defendant had, as a matter of past fact, committed

[138] See Steel (n 96) 258, 266–7; Stevens (n 69) 47–8.

[139] *Gregg* (n 1) 196 [79].

[140] See, eg, Steel (n 96) 258; Stapleton, 'Loss of the Chance of Cure' (n 115) 1004–5; SM Waddams, 'Damages: Assessment of Uncertainties' (1998) 13 *Journal of Contract Law* 55, 64. But see below Part IV(C)(2).

the acts that composed the breach of duty.[141] Treating epistemic uncertainty as raising hypothetical questions would sit uneasily with the existing case law and fracture the law's approach to the proof of past events, which holds that it is fair for the plaintiff — the party seeking a change to the status quo and largely responsible for the adducing of evidence — to bear the burden of proving past facts to a balance of probabilities standard.[142]

2 *Reflection of Our Understanding of Reality*

The distinction is also preferable due to its reflection of reality, inasmuch as we understand it. To treat events known to be deterministic, such as the relevant issue in *Hotson*, as hypothetical events would be to willingly adopt a fiction. To treat events not known to be deterministic as hypothetical events is justified as aligned with our understanding of the world's processes.

While there are philosophical arguments for universal causal determinism in a line of thought that dates back to the ancients,[143] there is far from consensus on the issue. It has been forcefully argued that a conviction in universal causal determinism is highly speculative, given the theory 'seems almost entirely, or perhaps entirely, devoid of empirical support'.[144] In similar terms, support for the theory has been labelled 'peculiar in the extreme, because events in the ordinary world are neither sufficiently predictable nor sufficiently under our control that an inference of inviolable regular succession would be warranted'.[145]

In light of the genuine philosophical debate on the question, and the fact that — even if the universal determinists were correct — it would not be humanly possible to know the phenomena rendering outcomes fully determined in many situations,[146] treating all outcomes as deterministic would be a radical leap of faith. Regarding events as hypothetical where there are no known phenomena rendering the outcome fully determined is, unlike in relation to known deterministic events, no fiction: it reflects the world as

[141] See Vaughan Black, 'Not a Chance: Comments on Waddams, the Valuation of Chances' (1998) 30(1) *Canadian Business Law Journal* 96, 97, 100.

[142] Reece (n 89) 204. See also Hamer (n 51) 588.

[143] See Stanford University (n 92); Kenny (n 90) 156.

[144] Dupré (n 90) 184. See also Hamer (n 51) 564; Chris Miller, '*Gregg v Scott*: Loss of Chance Revisited' (2005) 4(4) *Law, Probability and Risk* 227, 234–5.

[145] Paul Humphreys, *The Chances of Explanation: Causal Explanation in the Social, Medical, and Physical Sciences* (Princeton University Press, 1989) 17. See also Hamer (n 51) 564.

[146] Reece (n 89) 194.

best we comprehend it. As far as human knowledge permits, it thereby allows the law to respond to what the plaintiff has lost.

V Making the Implicit Explicit: The Chance-Based Nature of Damages Awards in Negligence

Building upon the foundations established above, this Part first seeks to demonstrate that chance lies at the centre of *all* damages awards in negligence. It argues that the practice of contingency discounting in 'traditional damage' cases — that is, where the plaintiff proves causation of some non-chance-based damage on the balance of probabilities — implicitly results in the plaintiff being compensated for their lost 'objective chance' to avoid the detriment constituting the actionable damage.

It argues that once this is accepted, the drive for consistency and principle in the law of negligence compels the conclusion that lost objective chances should be viewed as actionable damage. Adopting such an approach would not threaten the requirement of proof of causation of actionable damage on the balance of probabilities, nor would it necessarily contradict the Australian civil liability legislation. It would, on the other hand, render logically consistent the approach of the law of negligence to chance, causation and damage. By applying the cogent reasoning of the *Mallett* and *Malec* approach to all hypothetical events, it would address the fundamental problem described in Part III, producing damages awards in lost chance cases that accurately reflect — as best we comprehend them — plaintiffs' losses.

A *Damages Awards as Awards for the Loss of an Objective Chance*

Part III demonstrated that, at the assessment of damages stage, courts refuse to approach what they consider to be hypothetical events on an all-or-nothing basis.[147] Rather, they address these on a 'degree of probabilities' approach that results in an award of damages proportionate to the likelihood that various outcomes would have materialised in the absence of the defendant's breach. As Part IV set out, the law generally recognises — and ought to do so consistently — outcomes that are potentially indeterministic as hypothetical events.[148] In doing so, it views the chance of a particular outcome occurring in

[147] See above Part III(A); *Mallett* (n 39); *Malec* (n 51).

[148] See above Part IV(A) and Part IV(B).

such a situation as a genuine objective chance, rather than an illusory epistemic chance.

The effect of these methods of dealing with uncertainty is that, *already under existing approaches*, traditional damages awards reflect the plaintiff's lost objective chance to avoid the detriment constituting the actionable damage. This has been concealed by the fact that contingency or vicissitude discounting has been overlooked amongst a general judicial insistence that damages are awarded on an all-or-nothing basis.[149] Isolated statements of the kind made by Santow JA in *Rufo* — viz that damages awards relating to future and hypothetical events are 'customarily discounted already for vicissitudes … even where the plaintiff proves on the balance of probabilities that the defendant *did* cause harm in the form of a risk that eventuated'[150] — have but fleetingly removed the veil. Consider the following two cases, which can easily be reframed in terms of awards reflecting the lost objective chance to avoid a detriment.

The case of *Leech Brain* was discussed in Part IV above. Recall that the plaintiff widow received damages for the negligently caused death of her husband from cancer. While the Court accepted that the defendant had caused the detriment — the husband's death — it discounted the award by 5% to account for the chance that he would have died from cancer in any case, due to a pre-existing susceptibility.[151] With the insight from Part IV, we can articulate that the Court viewed the question of the husband's death from his pre-existing susceptibility as a potentially indeterministic outcome, to be approached as a hypothetical event involving objective chance. The application of the 5% discount could therefore equally be framed in the following terms: the husband had been deprived of an objective chance, estimated at 95%, of avoiding the detriment (that is, dying from cancer).

In the High Court case of *Wilson v Peisley* ('*Wilson*'),[152] the defendant had negligently caused a car accident with the plaintiff. As a result of the collision, the plaintiff began to suffer from 'a psychosomatic disorder of a very rare but tragic kind'.[153] In awarding damages to the plaintiff, the trial judge had applied a discount to take into account the chance that the plaintiff would

[149] Stapleton, 'Part 2: The Relationship between Damage and Causation' (n 4) 398. See, eg, *Gregg* (n 1) 233 [223]–[225] (Baroness Hale); *Tabet* (n 1) 562 [59] (Gummow ACJ), 578 [113] (Kiefel J).

[150] *Rufo* (n 42) 689 [49] (emphasis in original). See above Part III(A).

[151] *Leech Brain* (n 113) 416 (Lord Parker CJ). See above n 115.

[152] *Wilson* (n 118).

[153] Ibid 572 (Barwick CJ).

have, due to her pre-existing susceptibilities, suffered the condition in any case.[154] The High Court unanimously agreed that this was the correct approach.[155] Barwick CJ explained that

> whilst the appellant must pay for bringing out [the] condition, what he must pay must, in my opinion, justly reflect the fact that that condition was not merely latent in the respondent but that events, not of an unusual or unlikely kind, could and might in the ordinary course of life have evoked that condition had not the appellant's negligence intervened.[156]

To similar effect, Stephen J held that the trial judge was correct to '[bear] in mind … the possibility that some other relatively mild physical trauma might have precipitated her disease'.[157] The effect of the discount applied in *Wilson* was, as in *Leech Brain*, to compensate the plaintiff in proportion to the objective chance she had lost to avoid the detriment suffered — in this case, a particular form of mental illness.

Some brief comments of Lord Ackner in *Hotson* challenge the view that it is proper to discount awards to account for the objective chance that the detriment constituting the actionable damage would have been suffered in any case. In *Bagley v North Herts Health Authority* ('*Bagley*'), Simon Brown J discounted an award of damages in a stillbirth case to account for the 5% chance that the plaintiff's child would have been stillborn even if the hospital had not negligently denied her an early induction.[158] This accords with the approaches adopted in *Leech Brain* and *Wilson*. However, at the conclusion of his Lordship's judgment in *Hotson*, Lord Ackner opined that Simon Brown J

[154] Ibid 575 (Barwick CJ).

[155] Ibid 574–6 (Barwick CJ), 580 (McTiernan J), 581 (Stephen J). While Mason J dissented on the issue of quantum, his Honour did not disagree with the discounting of the award to take account of this chance: at 590 (Gibbs J agreeing at 580).

[156] Ibid 574. See also the Chief Justice's further comments: at 576. The discount applied in *Malec* (n 51) demonstrates a similar approach, although it is possible to frame the detriment constituting the actionable damage in that case (the contraction of brucellosis) separately from the resulting further injury (a 'neurotic condition') to which the discount was applied: at 645 (Deane, Gaudron and McHugh JJ). The discounts in *Leech Brain* and *Wilson* were clearly applied to reflect the chance that the very detriment constituting the actionable damage would have been suffered in the absence of the negligence: *Leech Brain* (n 113) 416 (Lord Parker CJ); *Wilson* (n 118) 574 (Barwick CJ). These more forcefully undercut any suggestion, such as Lord Ackner's in *Hotson* (n 22), that contingency discounting does not apply to the actionable damage that is the subject of the causation inquiry (see, eg, Lord Ackner's statement, discussed presently): at 772.

[157] *Wilson* (n 118) 581. See also his Honour's further comments at 584.

[158] (1986) 136 NLJ 1014, 1014, cited in *Hotson* (n 22) 772 (Lord Ackner).

had erred in discounting the award in this manner.[159] Lord Ackner insisted that once causation of damage is established, the plaintiff's award must not be discounted to account for the chance that the actionable damage suffered would have occurred in any case.[160]

With respect, Lord Ackner's insistence that Simon Brown J erred contradicts the approach to hypothetical events required under, and justified by the logic in, *Mallett* and *Malec*.[161] Without evidence demonstrating that the outcome was already determined, the question of whether the child would have been stillborn in the absence of the defendant's negligence was not one of past fact. It therefore fell to be taken into account on a degree of probabilities basis, as was the approach adopted in *Leech Brain* and *Wilson*.

Moreover, there is no convincing basis for adopting different approaches to contingency discounting in cases where: (i) the hypothetical detriment would have occurred at substantially the same time and in substantially the same circumstances as the actual detriment (as in *Bagley*); and (ii) the hypothetical detriment would have occurred at a different time or in different circumstances to that of the actual detriment (as in *Leech Brain* and *Wilson*).[162] Such a distinction would result in manifestly dissimilar treatment of like cases. In particular, it would result in discounts more commonly being applied in negligent 'act' cases than in negligent 'omission' cases. With the focus purely upon the likelihood that the plaintiff would have suffered the detriment in the absence of the defendant's negligence — as it was in each of *Leech Brain*, *Wilson* and *Bagley* — the plaintiff's award properly reflects the overall detrimental impact that the defendant has inflicted upon the plaintiff.

159 *Hotson* (n 22) 793.

160 Ibid. This was also the effect of the judgment of McClellan CJ at CL in *Halverson v Dobler* [2006] NSWSC 1307 ('*Halverson*'). The Chief Judge at Common Law did not directly consider contingency discounting in this context, instead framing the issue as whether the lost chance approach, as expounded in *Rufo* (n 42), applied to >50% chances: at [248]. His Honour answered in the negative and therefore applied no discount to reflect the 35% or less chance that the detriment would still have been suffered in the absence of the defendant's negligence: at [249]. The issue was not raised on appeal: *Dobler v Halverson* [2007] 70 NSWLR 151, 175 [136] (Giles JA).

161 See Hamer (n 51) 587–8.

162 Cf the issues raised by *Chappel v Hart* (1998) 195 CLR 232 ('*Chappel*') and *Chester v Afshar* [2005] 1 AC 134 ('*Chester*'). The majority in *Chappel* held it would be correct to discount the plaintiff's damages to account for the chance that she would have suffered the actionable damage in any case and, in line with *Malec* (n 51), only refused to do so because the chance was 'speculative': at 241–2 [19]–[20] (Gaudron J), 262–3 [82]–[84] (Gummow J), 278 [98]–[99] (Kirby J).

This discussion has demonstrated that, as Justice Edelman tentatively suggested extra-curially,[163] the existing approach produces the same awards that would result if the plaintiff's loss of an objective chance to avoid a detriment were framed as the actionable damage. This is an insight with significant implications. If the present approach to the awarding of damages can be recast in this manner, the case for recognising lost objective chances as actionable damage becomes irresistible.

B *Recognising the Loss of an Objective Chance as Actionable Damage*

Let us now consider how recognising the loss of an objective chance as actionable damage would have altered the result in *Tabet*. Recall that the plaintiff suffered a deterioration in her neurological condition after the defendant failed to order a CT scan at the time reasonable care required. The plaintiff nevertheless failed in her negligence action, because she could not prove it was more likely than not that, in the absence of the defendant's negligence, she would have avoided the neurological deterioration. The trial judge held that the plaintiff had a 40% chance of avoiding the deterioration,[164] while the Court of Appeal estimated this chance at only 15%.[165]

Whether the plaintiff would have avoided a deterioration in her neurological condition in the absence of the defendant's negligence was a potentially indeterministic event, as described in Part IV(B). The High Court made no reference to this case being akin to *Hotson*, and given there was no evidence suggesting that there were phenomena that had rendered the outcome fully determined,[166] this was the correct view. The event concerned was of a hypothetical, rather than a past, nature; the plaintiff had an objective chance of avoiding the relevant detriment.

The central objection to recognising the lost chance in *Tabet* as actionable damage was that this would distort the causation inquiry.[167] This claim is encapsulated in Kiefel J's statement that to view a lost chance as actionable damage would 'divert attention from the proper connection between fault and

[163] Justice Edelman (n 85) 11. See also Steel (n 96) who makes a similar observation: at 246.

[164] *Tabet (Trial)* (n 44) [378] (Studdert J).

[165] *Tabet (Appeal)* (n 44) 555 [245] (Allsop P, Beazley and Basten JJA). See the observation at above n 44.

[166] Counsel for the plaintiff in the High Court proceedings, Bret Walker SC, adverted to this distinction between *Hotson* (n 22) and *Tabet*: *Tabet* (n 1) 546 (during argument).

[167] Ibid 586–7 [142] (Kiefel J). See also the comments of Gummow ACJ: at 563 [62]; and Hayne and Bell JJ: at 564 [69].

damage … break[ing] the causal link'.[168] In light of the insights provided in the preceding section regarding the effect of contingency discounting in traditional damage cases, we can now see that this objection is misconceived.

It has just been shown that, as a result of contingency discounting, traditional awards reflect the objective chance which the plaintiff has lost to avoid the detriment constituting the actionable damage. With this acknowledged, the concern that recognising lost objective chances as actionable would divert attention from the connection between fault and damage fades. On the contrary, viewing such lost chances as actionable damage would bring about the same result in cases where that chance lies under 50% as in those where it lies over 50%. Just as the plaintiffs' awards in *Leech Brain* and *Wilson* reflected the (greater than 50%) objective chance that they had lost to avoid their respective detrimental outcomes, Ms Tabet would also have received an award that reflected the (less than 50%) objective chance that she had lost to avoid her detrimental outcome. Far from diverting attention from the connection between fault and damage or shifting an evenly struck balance between plaintiff and defendant,[169] it would ensure — just as in traditional damage cases — that the defendant is held responsible for the damage attributable to them.[170]

Therefore, the plaintiff in *Tabet* ought to have recovered for her loss of an objective chance to enjoy a better medical outcome. It ought to have been sufficient for Ms Tabet to prove, on the balance of probabilities, that the defendant had deprived her of this chance.[171] As observed, according to the trial judge, this chance was 40%, while the Court of Appeal put it at 15%. Whatever the figure adopted — as long as not purely speculative — the Court then ought to have awarded Ms Tabet damages for the loss referable to the neurological deterioration, discounted to reflect the chance that she would have suffered the deterioration even if the defendant's negligence had not occurred. In line with the established approach to the assessment of damages,[172] difficulty in the precise assessment of the magnitude of the chance ought not to have barred relief.

[168] Ibid 586 [142], citing Gonthier J in *Laferrière* (n 107) 591.

[169] See *Tabet* (n 1) 562 [59] (Gummow ACJ), 564 [68] (Hayne and Bell JJ).

[170] In doing so, it would also eschew the decisiveness of an artificial 'hook' on which to hang consequential lost chance claims. Cf Stapleton, 'Cause-in-Fact and the Scope of Liability' (n 41) 423–4; *Gregg* (n 1) 198 [86]–[87] (Lord Hoffmann).

[171] See below Part V(C).

[172] *Commonwealth v Amann Aviation Pty Ltd* (1991) 174 CLR 64, 83 (Mason CJ and Dawson J); *Sellars* (n 12) 349–50 (Mason CJ, Dawson, Toohey and Gaudron JJ). In *Tabet* (n 1),

As discussed at length in Part III, the law's current approach to non-financial lost chance cases rests upon an inconsistent treatment of hypothetical events across the causation and assessment of damages stages. The recognition of lost objective chances as actionable damage sees this inconsistency eliminated. It allows the proportionate approach to be applied to proof of hypothetical events, both where the court is confronted with a greater than 50% chance and a less than 50% chance.[173] In doing so, it acknowledges that the powerful logic behind the approach to hypothetical events in *Mallett* and *Malec* applies with equal intellectual force in both situations. Ultimately, this recognition yields just and principled outcomes by consistently allowing plaintiffs compensation for — as best we understand it — their loss.

C *Retention of Proof of Causation of Actionable Damage on the Balance of Probabilities*

As observed at the outset, it is well established that the tort of negligence places the legal burden upon the plaintiff to prove, on the balance of probabilities, that the defendant caused them actionable damage. This is also a requirement under the civil liability legislation in Australia.[174] The approach advocated by this article would not alter these requirements; it would merely effect a change to the meaning of 'actionable damage'. As Marshall CJ put it in *Matsuyama v Birnbaum*, the lost chance approach is 'not … a theory of causation, but … a theory of injury'.[175]

Proof of causation of actionable damage on the balance of probabilities would be retained in the requirement that the plaintiff establish that the defendant caused them to lose an objective chance of avoiding a detrimental outcome.[176] The value of this chance would then be quantified at the assess-

both Gummow ACJ and Kiefel J adverted to this principle: at 557–8 [39] (Gummow ACJ), 585 [133]–[136] (Kiefel J).

[173] In *Rufo* (n 42), Santow JA explicitly referred to the 'consistency' ensured by accepting less than even chances as actionable damage: at 690 [52]. See also John G Fleming, 'Probabilistic Causation in Tort Law: A Postscript' (1991) 70(1) *Canadian Bar Review* 136, 140; SM Waddams, 'The Principles of Compensation' in PD Finn (ed), *Essays on Damages* (Law Book, 1992) 1, 11–12; Hamer (n 51) 560, 566, 613, 633.

[174] *Civil Liability Act 2002* (NSW) ss 5D–5E. See the observations at above n 3 and accompanying text.

[175] *Matsuyama* (n 73) 832.

[176] This approach was expressly adopted in *Rufo* (n 42) 680 [4] (Hodgson JA), 687–8 [40] (Santow JA), 694 [406] (MW Campbell AJA). See also Luntz (n 69) 11.

ment stage. Such an approach is not radical: it is precisely what occurs in the financial lost chance cases.[177] As made clear in Part II(A), courts have had no problems applying the balance of probabilities standard to these chances; nor should they in non-financial cases.

Importantly, in line with the approach to lost financial chances adopted in *Sellars* and *Badenach*[178] — and consistent with the *Mallett* and *Malec* approach to taking account of chances in the assessment of damages — only objective chances that are more than merely speculative should be taken to constitute actionable damage.[179]

It might also be observed that, in comparison to the but-for inquiry undertaken in relation to proof of traditional actionable damage,[180] the question of whether the defendant's negligence was a necessary condition of the plaintiff's loss of an objective chance is more readily cast as one of past fact (and therefore more appropriately subjected to the balance of probabilities approach under the *Mallett* and *Malec* logic). It may even be that a recasting of all actionable damage in terms of 'deprivation of an objective chance of avoiding a detriment' offers a means of fully rationalising the use of the balance of probabilities test in the causation inquiry. This intriguing issue lies beyond the scope of this article, however.

D *Limiting the Approach to 'Closed Cases'*

Recognition of the loss of an objective chance as actionable damage should be limited to cases in which the detrimental outcome to which the chance refers has materialised. Luntz refers to such cases as 'closed cases'.[181] These are to be distinguished from 'open cases', where the detrimental outcome may or may not yet eventuate.[182] There are three key reasons for which this should be the case.

First, and most fundamentally, this limitation follows the position in traditional damage cases that the risk of some harm occurring does not suffice as

[177] *Sellars* (n 12) 355 (Mason CJ, Dawson, Toohey and Gaudron JJ).

[178] See above Part II(A).

[179] *Malec* (n 51) 643 (Deane, Gaudron and McHugh JJ), applied in *Sellars* (n 12) 350 (Mason CJ, Dawson, Toohey and Gaudron JJ); *Badenach* (n 13) 454 [39] (French CJ, Kiefel and Keane JJ).

[180] See above n 57 and accompanying text.

[181] Luntz (n 69) 4.

[182] Ibid.

actionable damage.[183] It thereby accords with the essential foundation for recognising lost objective chances as actionable damage: treating chance — and, by extension, losses sustained by plaintiffs — consistently in the negligence inquiry. If recovery for lost chances in open cases were allowed, it would open up an area of recovery with no counterpart in traditional damage cases.

Second, restricting recovery in this manner allays any fears that the law of negligence would be transformed into a system of compensation for bare risk creation.[184] As Stevens explains, the legal system has chosen to be concerned with outcomes, rather than with protecting people from bare increases in risk.[185] Viewing lost objective chances as actionable damage only where the detriment to which the chance refers has materialised would retain this position.[186] In the terminology of rights-based approaches, the shift would consist only in the reframing of the existing primary right not to suffer a negligently inflicted detriment.[187]

Third, as Stapleton has noted, more speculative claims would be likely if there were no requirement for some detrimental outcome — in the sense of the plaintiff being 'worse off' as traditionally required — before a claim could be made.[188] Where the law has the opportunity to await some concrete detrimental outcome before intervening, it will have fewer hypothetical questions to answer, and be in a more certain position in relation to those that it must answer. As Luntz has pointed out, this will minimise overcompensation and undercompensation.[189]

Gregg and *Tabet* exemplify the distinction between open and closed cases. In *Gregg*, recall that at the time of trial, the plaintiff was still alive. His claim

[183] Although this was the effect of the exceptional approaches adopted in *Fairchild v Glenhaven Funeral Services Ltd* [2003] 1 AC 32, 32 and *Barker v Corus UK Ltd* [2006] 2 AC 572, 572.

[184] See, eg, Stevens (n 69) 44–5; Weinrib, 'Causal Uncertainty' (n 80) 160.

[185] Stevens (n 69) 44–5. See also Weinrib, 'Causal Uncertainty' (n 80) 160.

[186] This position is consistent with rights theories of tort law, which emphasise the need for an 'outcome of injury' — that is, a detriment beyond mere exposure to the risk of future harm — before it is concluded that a wrong has occurred and a plaintiff's rights have been infringed: see Stevens (n 69) 44.

[187] See Kit Barker, 'Causation and Loss of Chance: A Commentary' (Speech, Supreme Court of Queensland, 27 July 2017). In terms of the dichotomy that Barker presents for loss of chance arguments — (i) identifying a lost chance as a primary right; or (ii) sidestepping traditional rules of causation — the approach promoted in this article adopts (i).

[188] Stapleton, 'Part 2: The Relationship between Damage and Causation' (n 4) 395. See also Hogg, 'Re-Establishing Orthodoxy' (n 57) 21.

[189] Luntz (n 69) 20. Luntz also observed that it will present fewer problems in terms of limitation statutes.

against the defendant was that the latter had caused him to lose a chance to be cured from cancer, defined as survival for 10 years. *Gregg* was therefore an open case, where the detrimental outcome to which the lost chance referred — death from cancer — had not yet materialised. Lord Phillips was the only member of the House of Lords to decide the case on the basis that their Lordships were dealing with an open case.[190] As discussed in Part II(B), his Lordship expressly left the door ajar for recovery in closed cases.[191] With respect, Lord Phillips' approach represents the correct way for courts to address such cases. To allow Mr Gregg to recover for the lost chance pleaded would have been to allow recovery for a bare increase in risk, with no nexus to a detrimental outcome.[192] While this article agrees with much of Lord Nicholls' approach to recognising lost chances as actionable damage, it concludes here that his Lordship erred in recognising the plaintiff's lost chance as already actionable. On the other hand, had Mr Gregg died, *Gregg* would have become a closed case. The plaintiff's lost chance to enjoy a cure from cancer ought then to have been viewed as actionable damage.

Tabet was a closed case. The plaintiff suffered the detrimental outcome when her neurological condition deteriorated. In these circumstances, for the reasons explained, it was appropriate for the Court to recognise her lost chance as actionable damage. Despite counsel for the plaintiff distinguishing *Tabet* from *Gregg* on the open case–closed case basis,[193] Kiefel J referred to Khoury's criticism that recognition of lost chances as actionable damage entails defendants compensating plaintiffs even if no detrimental outcome actually results.[194] Confining the approach to closed cases would clearly prevent this situation.

E *Compatibility with the Australian Civil Liability Legislation*

In *Gett v Tabet* ('*Tabet (Appeal)*'), the New South Wales Court of Appeal opined that subsuming a lost chance of a better medical outcome within the meaning of 'harm' in s 5 of the *Civil Liability Act 2002* (NSW) would be 'at best awkward'.[195] This is a serious objection, to which there are two responses.

[190] *Gregg* (n 1) 225 [190].

[191] Ibid. See above nn 36–7 and accompanying text.

[192] Cf Lord Hope's view: see above nn 40–1 and accompanying text.

[193] *Tabet* (n 1) 539 (BW Walker SC) (during argument).

[194] Ibid 583 [129]–[130].

[195] *Tabet (Appeal)* (n 44) 587 [384] (Allsop P, Beazley and Basten JJA).

The first response begins by recognising that there may well be a prima facie 'awkwardness' to subsuming a 'lost objective chance of avoiding a detrimental outcome' within the definition of 'harm' in the *Civil Liability Act 2002* (NSW) and its equivalents. Though a non-exhaustive list, 'harm' is defined to include conspicuously traditional categories of actionable damage:

(a) personal injury or death;

(b) damage to property; and

(c) economic loss.[196]

Further to this, as Heydon J observed during oral submissions in *Tabet*, the civil liability legislation enacted in Australian jurisdictions has largely been associated with the curtailment, rather than extension, of plaintiffs' rights.[197]

Nevertheless, as Luntz has argued and as the New South Wales Court of Appeal itself recognised in *Tabet (Appeal)*, there is nothing express in the civil liability legislation to prevent recognition of such a lost chance as 'harm'.[198] Fundamentally, the reasoning as set out above in relation to 'actionable damage' at common law also applies to viewing non-financial lost objective chances as 'harm' under these legislative regimes.[199] The same considerations of consistency and principle apply in this context, where it should be recalled that the legislation does not create a new cause of action, but rather operates as a gloss on the already existing tort of negligence.[200]

Second, even if subsuming such lost chances within the legislative definition of 'harm' were too 'awkward' and not supported by the terms of the legislation — or, indeed, if other provisions stood in the way[201] — the approach proposed in this article is a freestanding one. For the reasons outlined throughout, it is advocated as a preferable definition of actionable damage at common law and of any equivalent terms in future legislative reform.

[196] *Civil Liability Act 2005* (NSW) s 5 (definition of 'harm').

[197] *Tabet* (n 1) 541 (during argument).

[198] *Tabet (Appeal)* (n 44) 587 [384] (Allsop P, Beazley and Basten JJA); Luntz (n 69) 11, 13.

[199] See above Part II(A) and Part V(C).

[200] See, eg, *Civil Liability Act 2002* (NSW) s 5A(1).

[201] See, eg, the discussion of the generally problematic s 13 of the *Civil Liability Act 2002* (NSW) in *Halverson* (n 160) [224]–[226] (McClellan CJ at CL).

VI Conclusion

This article has considered the treatment of chance in the law of negligence. Its goal has been to highlight the unjustified inconsistencies in this area that act as a barrier to the principled compensation of plaintiffs' losses. In doing so, it has argued that a lost objective chance of avoiding a detrimental outcome — be it in the financial or non-financial context — should be viewed as actionable damage, where that detrimental outcome has materialised.

With particular reference to the medical negligence context, it has been demonstrated that viewing a lost objective chance to avoid a detriment as actionable damage would not be the radical alteration that it might initially appear. On the contrary, upon considering the law's treatment of past and hypothetical events — informed by notions of determinism — it is evident that this would produce just and principled outcomes. Recognising lost objective chances as actionable damage would bring the law's approach in 'less-than-even chance' cases into line with its approach in 'greater-than-even chance' cases. This would see the powerful logic of viewing hypothetical events as insusceptible of certain proof extended throughout the law of negligence, thereby allowing consistent and principled compensation for loss.