BOOK REVIEWS

Causation in Negligence BY SARAH GREEN [Oxford: Hart Publishing, 2015. xv + 185 pp. Hardcover: £50.00]

Causation in the tort of negligence is a "legal minefield" that any philosopher, scientist or lawyer is to tread "with trepidation" (at p 1). To deal with causation, courts have developed an array of tests with seemingly no coherence. Should courts apply the 'doubling the risk' test or reverse the burden of proof? Or should the *Fairchild* exception apply? In *Causation in Negligence*, Sarah Green ambitiously proposes an analytical framework that "eschews detailed philosophical and theoretical handwringing in favour of pragmatic reasoning" (at p 1). Green claims that her framework, which she calls the Necessary Breach Analysis ("NBA"), provides an accessible way to approaching causal problems.

Chapters 1 and 2 introduce NBA, which retains a 'but for' notion of causation, albeit in aggregate where multiple causes are at play. The NBA comprises two stages (at p 10):

Stage 1: Is it more likely than not that *a* defendant's breach of duty changed the normal course of events so that damage (including constituent parts of larger damage) occurred which would not otherwise have done so when it did?

Stage 2, applied to each defendant individually: Was the effect of *this* defendant's breach operative when the damage occurred?

Chapter 3 elaborates on some basic principles. Liability arises only where the defendant has made a difference to the plaintiff's course of events, and only for that difference. The defendant may also take a victim as found (the 'egg shell skull' rule). Green then explains what she means by "operative", with the criteria bearing much similarity with the doctrines of *novus actus interveniens* and remoteness of damage. A breach is "operative", *inter alia*, if an intervening event has not brought the breach to an end (or has improved the plaintiff's position), and in relation to damage of a reasonably foreseeable type (at pp 46, 47).

Two features of NBA are noteworthy. Firstly, Green is interested in the causal inquiry insofar as it is *legally* relevant and avoids broader accounts of causation like Wright's NESS (Necessary Element of a Sufficient Set) test. Green does not see any need to separate the factual component of causation from the normative since the extra step merely postpones the inevitable question of identifying legally relevant causes. To carry out two distinct exercises is to underestimate judicial competence (at p 44). This narrower concept of causation makes sense given that

judges and lawyers are ultimately concerned with whether the causal requirements of the law have been satisfied, rather than whether the defendant's tort actually caused the plaintiff's harm per se. Lord Hoffmann, in Perspectives on Causation (2011), laments: "On what basis are academic writers entitled to say that judges should take into account a philosophically privileged form of causation which satisfies criteria not required by the law?" (at p 5). Green's approach provides much food for thought for Singapore courts. In Sunny Metal & Engineering Pte Ltd v Ng Khim Ming Eric [2007] 3 SLR(R) 782 (CA), the Singapore Court of Appeal held that the causal inquiry comprised causation in fact and causation in law (at para 52). Causation in fact is "one of cause and effect in accordance with scientific or objective notions of physical sequence" (at para 52), whereas causation in law involves determining the legal cause for the purposes of attributing legal responsibility (at para 54). Green would have dealt with both components concurrently in Stage 2 (at p 44). She argues that it is highly inefficient to pursue a line of causal inquiry which ultimately has no legal relevance (at p 16). That said, Green still seems to demand a threshold factual connection between the defendant's breach and the plaintiff's harm in the form of 'but for' in the aggregate sense.

Secondly, defining the causal requirement as 'but for' in the aggregate sense is highly innovative. To satisfy Stage 1, at least one breach (of a bundle of tortious acts) has to be necessary to divert the plaintiff from her normal course of events (at p 13). This appears to be a straightforward way of dealing with multiple causal factors. In the infamous two hunters scenario (where two hunters simultaneously shoot and kill the plaintiff), the plaintiff would be unable to prove 'but for' causation as each hunter could simply point his fingers at the other. However, under the NBA, it is clear that, but for a breach, the plaintiff would not have been injured at all (at p 73). This achieves an intuitively just outcome and completely circumvents the messy multitude of exceptions that pervade causation.

Green's framework is put to the stress test where she applies the NBA to more complex scenarios in the latter half of her book. Chapter 4 discusses cases of overdetermination, wherein multiple causal factors may substitute each other (at p 58). In the two hunters scenario, Green would say that each shooting was "identical and simultaneous in its qualitative effects" and so both shootings were "severally sufficient" to bring about the plaintiff's death (at pp 61, 62). This satisfies the NBA. Green distinguishes overdetermined factors from pre-empted factors. Pre-empted factors expose the plaintiff to a risk of injury which does not materialise, and cannot be said to be "operative" (at pp 77, 78).

Chapters 5 and 6 address the 'material contribution' and 'material increase in risk' tests. Chapter 5 also touches on the use of epidemiological evidence and the 'doubling the risk' test. Green surveys several landmark decisions like *Bonnington Castings Ltd v Wardlaw* [1956] AC 613 (HL) [*Bonnington*], *McGhee v National Coal Board* [1972] 3 All ER 1008 (HL) [*McGhee*], *Fairchild v Glenhaven Funeral Services Ltd* [2003] 1 AC 32 (HL) [*Fairchild*], *Barker v Corus UK Ltd* [2006] 2 AC 572 (HL) [*Barker*] and *Sienkiewicz v Greif (UK) Ltd* [2011] 2 AC 229 (SC) [*Sienkiewicz*]. Green suggests that the crux of these cases lay in evidential uncertainty. In *Bonnington*, it is simply impossible to "isolate physical effects of individual breaches from one another" as each potential causal factor was operating on the plaintiff concurrently (at pp 94-96). The factor would pass the NBA if it can be shown to be *necessary* for the plaintiff's injury (*ie*, partly caused an indivisible injury or

caused part of a divisible injury) as and when the injury occurred (at p 94). As for cases involving mesothelioma like *Fairchild*, the evidentiary gap is such that we are not even sure of what we cannot know (at p 129). NBA would find liability on the facts of *Fairchild* and *Barker*, but not *McGhee* and *Sienkiewicz*.

A complication arises where there is a pool of tortious and non-tortious factors (in overdetermination cases as well as Fairchild-type situations). Green adopts an arithmetic method of counting the number of potential causal factors. A breach is more likely than not to have made a difference in the plaintiff's course of events so long as the number of tortious factors exceeds that of non-tortious factors (at pp 66, 67, 131). Green reasons that her approach is the next best alternative since it is impossible to evaluate the contributions by the different factors qualitatively in view of evidential uncertainty. As such, Green rejects the finding of liability in McGhee and Sienkiewicz. In both cases, the number of non-breach sources equalled the number of breach sources, so the plaintiff could not prove it was more likely than not that the injury was caused by at least one breach (at pp 134, 135). I find Green's method overly mechanic. Suppose that Arnold suffers from mesothelioma as a result of exposures to asbestos dust, of which three sources are tortious and two non-tortious. Given that mesothelioma may be the result of an accumulation of dust or may be triggered by just one speck of dust, one can hardly conclude that it was more likely than not that at least one tortious source was necessary for Arnold to have suffered from mesothelioma. It is just as speculative to assume that the contributions by all sources are equal. Given that we would never know how much effect each factor would have had on Arnold's fate, it is reasonable to limit NBA to cases which involve only tortious factors. If Arnold's mesothelioma was the result of only breaches by his employers, one can be confident of saying that it is more likely than not that it was a breach that changed the normal course of events.

Chapter 7 relates to the question of recovery for lost chances. Green examines *Hotson v East Berkshire AHA* [1987] AC 750 (HL) [*Hotson*], *Gregg v Scott* [2005] 2 AC 176 (HL) [*Gregg*] and *Chester v Afshar* [2005] 1 AC 134 (HL) [*Chester*]. Green separates the cases into two types: those that concern whether the plaintiff has been denied access to an opportunity which exists independently of the breach, and those in which the injury is inextricably bound up with the breach and concerns whether the plaintiff ever had an opportunity in the first place (at p 154). She argues that *Chester* falls in the former category, whereas *Hotson* and *Gregg* are in the latter. *Hotson* and *Gregg* would have failed the NBA since it was unlikely that the plaintiff was any worse off from the breach. *Chester*, on the other hand, satisfies the NBA because (at p 169)

... the breach *could* have had such an effect [of affecting Chester's ability to take advantage of an independent chance] and *would* have done if, for instance, she could have shown that she would never have undergone the surgical procedure, thereby giving herself a 100 per cent chance of avoiding *cauda equine* syndrome.

This is where I think cracks in the NBA start to show. It seems that affecting the plaintiff's ability to avail herself of the chance of a better medical outcome suffices for the NBA. In other words, the NBA is finding liability simply for denying the plaintiff her autonomy, not for the injury that eventuated. This radically deviates from orthodox requirements. Green justifies her stance by saying that English tort

law "serves corrective ends at the expense of distributive values" (at pp 167, 168). But courts have to explain why they recognise new kinds of loss and they often resort to policy reasons to do so. The Singapore High Court in *Tong Seok May Joanne v Yau Hok Man Gordon* [2013] 2 SLR 18 (HC) rejected *Chester* on the basis that Singapore does not recognise the right of a plaintiff to choose for herself. The High Court concurred with Lord Hoffmann's dissent in *Chester*, saying that the issue is whether the plaintiff would have taken the opportunity to avoid or reduce the risk, and not whether the scenario would have changed in some irrelevant detail (at para 172). So Green may have been stretching the NBA too far to cover *Chester* which should be regarded as an anomaly decided on policy grounds.

Causation in Negligence is a commendable effort to synthesise the "infamously baffling case law" and to construct "a simple analytical formulation which is capable of dealing with all aspects of the causal inquiry in negligence" (at p 1). Each chapter begins with a list of illustrative cases and a summary, which is very helpful. However, it remains to be seen whether the Singapore courts would pick up the NBA. Green, in her insistence that at least a breach must have changed the plaintiff's normal course of events one way or another, eschews a distributive justice view of tort law in favour of corrective justice. Singapore tort law, on the other hand, appears to be quite amenable to invoking policy considerations (see eg, Skandinaviska Enskilda Banken AB (Publ) v Asia Pacific Breweries (Singapore) Pte Ltd [2011] 3 SLR 540 (CA) at para 75). Perhaps tests like 'material increase in risk' and recognising new kinds of harm like loss of autonomy may be more easily rationalised as courts accepting alternative causal requirements for policy reasons.

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