

PROBABILISTIC CAUSATION IN TORT LAW: A POSTSCRIPT

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Introduction

In a paper recently published in this Journal¹ I addressed the problem increasingly faced by some plaintiffs of meeting the traditional standard of proof of causation against negligent defendants in situations where available scientific or statistical evidence cannot tip the balance of probabilities (more probable than not). Thus where a polluter's responsibility for a particular disease or injury, in competition with other natural sources, can only be expressed in terms of statistical or epidemiological evidence short of 50:50, victims would mostly fail under the traditional standard. An even more frequent occasion in modern litigation is the inability of medical experts to explain the aetiology of an injury with a degree of exactitude and confidence postulated by traditional formulas like "reasonable certitude" or "reasonable probability". The inherent limitations of medical knowledge, combined with a tendency of physicians to express outcomes in terms of percentage, create problems of compatibility with legal standards, which are both linguistic and substantive.

Rather than lowering the standard of proof, more controversial have been efforts to circumvent problems of causal indeterminacy by recognizing the mere negligent creation of the risk, or loss of a chance of avoiding it, as sufficient alternatives. Canadian courts have been receptive to pleas for changing the burden of proof against negligent defendants. The Supreme Court of Canada many years ago followed a Californian decision in ruling that where a plaintiff was hit by one of two negligent hunters but was unable to identify which one, the burden was on each of them to exculpate himself.² But even in situations where the defendant's negligence competed with an alternative innocent cause, Lord Wilberforce's speech in *McGhee v. National Coal Board*³ asserted as a sound principle that the burden of proof should shift to him whose negligence had created the risk of that injury. Accordingly, where it could not be established that the worker's dermatitis was caused by his employer's negligent failure to provide after-work showers, rather than by the working conditions (for which no blame

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¹ Probabilistic Causation in Tort Law (1989), 68 Can. Bar Rev. 661.

² *Cook v. Lewis*, [1951] S.C.R. 830, [1952] 1 D.L.R. 1, following *Summers v. Tice*, 33 Cal. 2d 80, 119 P. 2d 1 (Cal. S.C., 1948).

³ [1973] 1 W.L.R. 1, [1972] 3 All E.R. 1008 (H.L. (Sc.)).

attached), it was sufficient that the latter negligently created a risk of dermatitis. As Lord Reid put it: "From a broad and practical point of view I can see no substantial difference between saying that what the defender did materially increased the risk of injury to the pursuer and saying that what the defender did made a material contribution to his injury."⁴

But these tender straws were scattered to the wind by two successive House of Lords decisions in the present more conservative phase of that tribunal. In *Wilsher v. Essex Area Health Authority*⁵ the House emphatically repudiated Lord Wilberforce's indiscretion and dismissed the claim of a new-born baby whose blindness could be attributed as well to its premature birth as to the physician's negligent overdose of oxygen. The guarded medical testimony failed to attain the conventional standard of proof on a balance of probabilities (more likely than not). Not even the fact, which has strong support in American case law, that the defendant's very negligence disabled the plaintiff to prove causality evidently affected the balance of equities.

In the earlier case of *Hotson v. East Berkshire Area Health Authority*⁶ the House also rejected loss of chance of avoiding injury as a substitute for proof of causal injury itself. The plaintiff had suffered a hip injury with a high risk of vascular necrosis. That risk was increased by the defendant's negligent delay in treatment. The Court of Appeal had accepted expert testimony which put the risk of the original "innocent" cause at 75% and that of the malpractice at 25%, and awarded the plaintiff 25% of his damages as the value of his lost chance. This approach also was firmly repudiated by the House of Lords. In dealing with future contingencies it was admittedly proper (indeed, possible only) to assess chances in terms of probability ranging from one to ninety-nine per cent and awarding damages proportionate thereto. But regarding past events, proof had to tip the balance of probabilities. If it does, the event is then treated as a certainty and damages are awarded in full; if it does not, the plaintiff recovers nothing.

Applying this Manichaeian approach, the judges reasoned that the finding of 75% probability that the necrosis was the result of the original fall preempted all consideration of the causality of the physician's negligence. This construction hardly did justice to the argument that the defendant's negligence had destroyed the plaintiff's chance of a successful cure. Implicit in the decision is a refusal to recognize loss of a chance of avoiding injury as a compensable loss, at any rate as a surrogate for proof of causality of physical injury. This conclusion does not sit well with a deterrence point of view, one of the avowed aims of tort law, because over the universe

⁴ *Ibid.*, at pp. 5 (W.L.R.), 1011 (All E.R.).

⁵ [1988] A.C. 1074, [1988] 1 All E.R. 871 (H.L.).

⁶ [1987] A.C. 750, [1987] 2 All E.R. 909 (H.L.).

of such cases, chances lost represent actual losses and we can be statistically certain that a number of patients would have been saved.⁷ Presumably loss of chance remains a compensable loss in cases where a cause of action can be stated independently, as where a plaintiff suffers bodily injury which prevents him from bidding for a contract or where a lawyer fails to heed the statute of limitations for a client who thus loses his chance of winning the claim.

Two recent decisions, one by the Supreme Court of Canada, the other by the High Court of Australia, have since renewed this debate.

*Snell v. Farrell*⁸

The plaintiff underwent eye surgery to remove a cataract. The ophthalmologist was negligent in continuing the operation after signs of retrobulbar haemorrhage became apparent. The patient suffered atrophy of her optic nerve, probably the result of a stroke attributable either to the malpractice or conceivably to an unrelated cause. The courts below found for her on the basis of *McGhee*, namely that the physician's negligence having created a material risk of the injury that occurred, the burden of proof shifted to him to show that it was not the cause of the injury. Before the Supreme Court it was now argued that Lord Wilberforce's rationale in *McGhee* had in the meantime been disavowed by the House of Lords in *Wilsher* and that the trial judge's finding did not pass the test of proof on a balance of probabilities.

Sopinka J., writing for the Court, did not find it necessary to commit himself definitively on Lord Wilberforce's controversial theory in order to uphold the judgment for the plaintiff. In his view, it was an error to think that causation had to be determined with scientific precision. In many medical cases the facts were peculiarly within the defendant's knowledge, where it was well recognized that very little affirmative evidence by a plaintiff was needed to justify the drawing of an adverse inference in the absence of contrary evidence. In such a case it was not strictly accurate to speak of a shifting of the onus of proof; rather, while the legal or ultimate burden remained with the plaintiff, despite the paucity of the evidence and unavailability of *res ipsa loquitur*, an inference of negligence was nonetheless permissible. Medical witnesses may tend to look for certainties,

⁷ France has been prominent in allowing "perte de chance" in such cases. See the forthcoming volume of the Geneva Colloque on New Developments in Tort, May 1990. In the U.S., a number of recent decisions, encouraged by an article by J.H. King, *Causation, Valuation, and Chance in Personal Injury Torts Involving Preexisting Conditions and Future Consequences* (1980-81), 90 Yale L.J. 1353, have also allowed such claims: see J.L. Benson, *The Dilemma of Chance in Medical Malpractice: Should Illinois Recognize a New Cause of Action for "Lost Chance" of Survivability?* (1989), 9 N. Ill. U.L. Rev. 575, at p. 577 n. 6.

⁸ [1990] 2 S.C.R. 311, (1990), 72 D.L.R. (4th) 289.

but a lesser standard was demanded by law. In the present case the trial judge, but for his mistaken belief that a positive medical opinion had to support a finding of causation, would (or, at least, should) have drawn an inference of negligence against the defendant. The defendant was in a better position to observe what occurred and, what is more, his continuing the operation despite evidence of bleeding made it impossible to arrive at an independent opinion.

This may look like the easiest way out of the dilemma of having to choose sides for or against Lord Wilberforce, on top of the looming problem of how to reconcile the Supreme Court's past following of Wilberforce's even more prominent liberal innovation in *Anns v. Merton London Borough Council*⁹ with its recent abject repudiation by the House of Lords in *Murphy v. Brentwood Urban District Council*.¹⁰ Sopinka J., however, was not overawed either by the authority of the House of Lords or by the sacrosanctity of the traditional rule. He said:¹¹

If I were convinced that defendants who have a substantial connection to the injury were escaping liability because plaintiffs cannot prove causation under currently applied principles, I would not hesitate to adopt one of these alternatives [that the plaintiff simply prove that the defendant had created a risk of the injury which occurred or that the defendant has the burden of disproving causation]. In my opinion, however, properly applied, the principles relating to causation are adequate to the task.

Reversal of the burden of proof was clearly justified where the alternative causes were all of negligent origin as in the case of the two hunters, but it was quite a different matter where the other cause was neutral.

How different in tone and spirit from Lord Bridge's unrelenting credo:¹²

But, whether we like it or not, the law, which only Parliament can change, requires proof of fault causing damage as the basis of liability in tort. We should do society nothing but disservice if we made the forensic process still more unpredictable and hazardous by distorting the law to accommodate the exigencies of what may seem hard cases."

Not that Sopinka J.'s formula is free from the vice of uncertainty. It sanctions a benign "interference" at least in medical malpractice cases in order to compensate the parties' inequality in access to evidence, in effect (as virtually admitted by the judge) not much different from a frank reversal of the onus of proof. Who could gainsay Lord Wilberforce's statement "that, at least in the present case [*McGhee*] to bridge the evidential gap by inference seems to me something of a fiction, since it was precisely this inference which the medical expert declined to make"?¹³

⁹ [1978] A.C. 728, [1977] 2 All E.R. 492 (H.L.).

¹⁰ [1990] 3 W.L.R. 414, [1990] 2 All E.R. 908 (H.L.).

¹¹ *Supra*, footnote 8, at pp. 326-327 (S.C.R.), 299 (D.L.R.).

¹² *Wilsher v. Essex Area Health Authority*, *supra*, footnote 5, at pp. 1092 (A.C.), 883 (All E.R.).

¹³ *McGhee v. National Coal Board*, *supra*, footnote 3, at pp. 7 (W.L.R.), 1013 (All E.R.).

*Malec v. J.C. Hutton Pty. Ltd.*¹⁴

This Australian case reopened the *Hotson* issue of awards apportioned to probability. It will be recalled that with respect to future events damages are assessed in accordance with whatever the degree of probability of their occurrence; whereas *Hotson* insisted for proof of causation on a balance of probabilities, with the result that the plaintiff recovered nothing, because the chance of the defendant's negligence having been the cause rather than some other neutral event was less than 50%.

Malec posed a different causal problem, that of supervening causation. The plaintiff contracted brucellosis, an industrial disease, due to the defendant employer's negligence, entailing a neurotic illness. It was found, however, as quite likely that, as from 1982, he would have become unemployable as a result of an unrelated back condition and would have developed a neurotic condition of the same sort from which he was suffering as a result of the brucellosis. The court below awarded him no damages for the economic loss after 1982. In *Jobling v. Associated Dairies Ltd.*¹⁵ it had been held that such a supervening event had to be taken into account in reduction of damages: to ignore the later event would have been incompatible with the established principle of discounting vicissitudes of non-compensable events; here the vicissitude of a developing disease had indeed become a fact. But what degree of certainty had to attain the proof that the "other" cause would have produced the same damage?

The High Court of Australia chose to distinguish between past events which either happened or did not happen, on the one hand, and events which would or would not have occurred or might or might not have occurred, on the other. In other words, it treated hypothetical events the same as future ones because both were conjectural, whereas past events were at least theoretically susceptible of scientific demonstration. With regard to the former, one can only think in terms of degrees of probability of those events occurring. Where proof is necessarily unattainable, it would be unfair to treat as certain a prediction which has a 51% probability of occurring, but to ignore altogether a prediction of 49%. Accordingly, the award of damages should reflect the degree of probability that an event would occur or might have occurred.

This reasoning has far-reaching implications. Does it not apply to all causal inquiries, seeing that they always involve "might have been's"? Causality is usually tested by the short-form question whether the same event would have occurred "but for" the defendant's negligence.¹⁶ Inevitably, the answer is conjectural, since we can never be certain that it would have happened otherwise. On that reasoning Simon Brown J. was right

¹⁴ (1990), 64 A.L.J.R. 316.

¹⁵ [1982] A.C. 794, [1981] 2 All E.R. 752 (H.L.).

¹⁶ See J.G. Fleming, *The Law of Torts* (7th ed., 1987), pp. 173-178.

in *Bagley v. North Herts Health Authority*¹⁷ to discount an award for a stillborn baby because of a five per cent risk that the plaintiff would have had a stillborn child even if the hospital had not been negligent. Yet that decision was castigated in *Hotson* as "propound[ing] a wholly new doctrine which has no support in principle or authority and would give rise to many complications in the search for mathematical or statistical exactitude".¹⁸

Is *Malec* at least reconcilable with *Hotson*? *Hotson* rested on a distinction between past and future events. The House of Lords relied on the finding that, on a balance of probabilities, the avascular necrosis had already occurred before the patient arrived at the hospital. Although that finding was based on only a 75% probability, it was treated as a certainty which could not be affected by a 25% chance of avoiding the necrosis by prompt treatment. The court by this sleight-of-hand avoided the inquiry of what would have happened if the treatment had been prompt. In *Malec* it was also treated as certain that the brucellosis had caused the neurosis, but that was not allowed to preempt the question whether the neurosis would not have happened anyway. Both cases, the first no less than the second, involved "an event which it is alleged would or would not have occurred". By that criterion, it should not matter that one was concerned with alternative, the other with superseding causes. Since both are conjectural, should not the law take account of the degree of probability of either event occurring?

Malec may have settled a narrow issue, but not without stirring a larger one. We are awaiting the next move in the causality game.

¹⁷ (1986), 136 N.L.J. 1014 (Q.B.D.).

¹⁸ *Hotson v. East Berkshire Health Authority*, *supra*, footnote 6, at pp. 793 (A.C.), 992 (All E.R.).