# LYNDA COLLINS & HEATHER MCLEOD-KILMURRAY: THE CANADIAN LAW OF TOXIC TORTS

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Reviewed by Robert Kibugi*

*The Canadian Law of Toxic Torts* is, as pointed out by Profs. Linden and Feldthusen, in the preface, the first Canadian book to deal exclusively with this subject. Much has been researched and written about general torts, and despite years of litigation on liability arising from environmental contamination or toxic products, the subject is just now being put in proper legal context in Canada. At the outset, its helpful to note that this book will form a useful resource for law students, litigators, and government lawyers in Canada, and other jurisdictions where Canadian tort law may constitute persuasive precedent, who are looking to understand how environmental contamination, and toxicity in products fit into the matrix of tortious liability. This generally applies across various torts, such as negligence or nuisance. The book thus presents a distinct analysis of the importance of developing knowledge on how to settle questions of liability that arise in a toxic torts context, and clearly iterates the difficulties that arise in application of regular standards of causation, for instance, because toxic torts marshals scientific evidence and attempts to apply it to a legal standard.

The authors contend that a number of recurring themes permeate analysis of toxic torts law in Canadian context. The book points to the dual existence between law and science, in nearly mutually exclusive galaxies as science is often cautious in drawing conclusions on causation with certainty. Law prefers a balance of probabilities. The authors also highlight the tensions between statutory and common law standards of conduct, especially since mere statutory compliance does not preclude civil liability in torts. The book also points to the fledgling attempts to argue that economic utility may justify tortious activity – in standard of care; or character of the local – in private nuisance. However courts have shown that

* Lecturer, Centre for Advanced Studies in Environmental Law and Policy, University of Nairobi; LL.D (University of Ottawa), LL.B, (UoN) Master of Laws (LL.M), University of Nairobi.

these arguments may be unwelcome as they may pass the burden of proof onto injured plaintiffs, in absence of plaintiff contribution to injury. In any event, defendants are welcome to engage in economic activity so long as they are equally ready to pay the full cost of their activities.

The science of toxic torts is where the legal difficulties assemble, due to the challenging linkage with causation. The book notes that in order to make good law in tort cases, judges must be keenly aware of differences in scientific and legal reasoning processes. The intervening problem is rather basic, but bears tremendous impact: since science can be inherently sceptical, it tends to produce tentative conclusions which when transplanted into a legal setting may appear to a judge as inconclusive, and be rejected – although in reality, the science maybe more than enough to prove causation to a legal standard.

In order to make this point clearly, the book ventures into various science disciplines that are relevant to this discourse, for instance, epidemiology. This studies the distribution of frequencies and patterns of health events within groups in a population, and suggests causal associations between a given exposure and a given illness. Because of this approach, epidemiology does not prove causation to scientific certainty, but can establish causation on a balance of probabilities, in the absence of a counter-explanation of the plaintiff's illness. While courts have often relied on epidemiological evidence, not enough of these studies are carried out, and the authors suggest that tort rules that place the burden of scientific uncertainty on plaintiffs further reduce the likelihood of such costly studies being undertaken. The authors also examine the legal dilemma that arises in other scientific disciplines including toxicology, medicine, and pharmacology.

In a practical sense, either causation, or satisfaction of the general standard of proof will rely on the probative value of the evidence availed to the court. Where liability concerns toxic torts, that evidence is likely to be scientific, and despite the challenge foretold here and in the book, courts must find a methodology to apply this evidence. One approach highlighted by the authors revolves around the weight of evidence approach, also referred to as the "inference to the best explanation." This evaluates the totality of available evidence, including quality and quantity, which really relies on relative plausibility of explanations, application of all relevant available evidence, and application of professional judgment by a scientist to draw a conclusion on the best explanation. By pursuing the best available explanation, the search for an absolute answer is suspended. In terms of probative value, this brings the evidence closer to the "balance of probabilities" standard of proof applicable

in tortious liability claims. The sensibility of this approach becomes evident when the authors address the counter position to science, i.e. the determination on admissibility of scientific expert evidence by a Court of law.

The book relies on *R v. Mohan* (1994 CarswellOnt 66, SCC) where the Supreme Court of Canada established a four criteria test for use in toxic torts cases: (1) relevance, especially to determine if the probative value of the evidence is overborn by prejudicial effect such as where time spent understanding the evidence outweighs its actual value (2) necessity in assisting the trier of fact especially if the trier of fact (especially jury) is unlikely to understand information without expert assistance (3) absence of any exclusionary rule and (4) a properly qualified expert. Using this criteria, its clear that harmonizing legal and scientific evidence standards is key, where the science is to assist in fulfilling a legal standard – because justice depends on the ability of a court to draw a conclusion usable in law.

The authors round up their analysis by proposing an analytical framework through which tortious liability for environmental contamination and toxic products can be addressed in a contemporary context. Although this review has focused on applicability of science to draw legal standards that assist determination of liability to assist injured plaintiffs, the book goes further and examines this application across various torts claims. This includes private nuisance, and negligence. In the latter, the authors engage with challenges questions on the evolution of causation revolving around modification of conventional rules such as the but-for text and material contribution.

As pointed out earlier, this book has been written as a first on Canadian law, but being based on common law concepts and statutory standards, it will be valuable to many readers in legal jurisdictions that apply comparable rules and standards. It is therefore a book that, holistically, should be of interest to, and a companion for readers that want to enhance their conceptual and practical understanding and application tortious liability arising from environmental contamination and toxic products.