



Re: Liability (Oxford) Ltd

Causation

IMC Conference

Oxford

2nd Sept 2026



Lark



- Playful mischief (lark) including satire becomes misinformation. Messaging is the priority regardless of facts. It works because we want it to. Echo chamber effect.
- UK Government Office for Science:
False and Misleading Information: An Evidence Summary and Map for Policy and Practice. May 2026.

[False&MisleadingInformation_RapidReview_v2.docx](#)

“a permanent and embedded feature of the information environment” led by the mischievous use of AI and **reinforcement attention algorithms**. (illusory truth, illusory consensus, selective facts, sensation, fake reasoning, fake empathy...)

Examples of political messaging

(in my opinion)

- PFAS is a ‘forever’ class of substances, known to be toxic at all levels of exposure.
- Dementia is indivisible by cause.
- Climate tipping points are foreseeable.
- Comment
 - Science peer review blocks only the unsupportable. Pick any message you want - except those that are clearly erroneous or unrelated.
 - Do you “prebunk” or debunk?
 - Does your insured amplify or defuse misinformation?
 - Share price and marketing have to respond to messages **and** be honest. Media platforms have no honesty constraint.

Introduction to presentation

Bodily Injury and causation. Informed by experience of the common law.

We seek to explain and attribute the cause of something that has happened. Does it happen? Did it happen?

Definitions: The creaking joints and emerging risks.

Injury, significance, event, proximity, acceleration etc.

The *Holmes v Poeton* correction

Three kinds of indivisible injury

Based on definitions, experience and biology

BI at its simplest

- A significant direct change in biological structure and/or function.

Which directly gives rise to:

- A significant impairment.

Which directly:

- Makes a person significantly worse off.
- Is any of this constructive?
 - E.g., false imprisonment, ageism, injury to feelings.
- Is psychiatric injury any different?
 - No, the test is one of objective function.
 - Psychological states such as joy and sadness are intermediated by subjective interpretation.

Concepts at stake

- Significant
- Cause
- Event
- Autonomy
- Acceleration
- Increased and Doubled risk
- Science

Significant?

- Should be or must be taken into account.
 - More than *de minimis*.
- In science the correct test is whether biological structure or function after the event was more likely than not different to before.
 - The incorrect test is to assume there was no impairment before the event and wouldn't be but for the event. This is the medical science norm.
- In court you might say: is it likely that such a condition would not be objectively noted before the event?
 - Assumes that the condition was clearly detected after the event.

Causes

The universe is replete with potential changes. Things that could happen.

That they don't just happen all at once is usually because there is a barrier or threshold effect.

Legal causation concerns things that have happened.

- It does happen when... informs foreseeability and duty
- It did happen because... specific causation and who done it

Reason can identify which agent led to the exceedance of the relevant threshold. We look for a mechanism or explanation ... which person had control of it?

What is a causal event?

- When A causes E directly via steps B, C, and D you cannot describe A as an indirect cause of E. A was the but-for cause of E. A was proximate to E.
- E was attributed to D which was attributed.... to A

A causal event is a process of change where the initial attributable change is causally continuous with the final attributable change.

- Physical potential energy and chemical potential energy continue to cause change until the barrier to change is greater than the remaining potential.
- Friction stops the car, fires run out of fuel.

Biological events?

- Living things have programmed autonomy.
 - Self-repair, self-damage, self-activation etc.
- Some have instinctive and reasoned autonomy.
- Where the process of change is necessary/direct the previous definition of 'event' works.
 - When your dog escapes through the rotten fence it instinctively digs up your neighbour's priceless orchid. Your neglect of the fence was the proximate cause of the dead orchid.
 - When COVID infection causes artery inflammation LP(A) moves in to suppress the bleeding but causes atherosclerosis and heart disease. Infection could be the proximate cause.

Decision autonomy?

Autonomous robots by definition have the capacity for non-deterministic decision-making. Other robots are merely automated; controlled by human programming.

This means autonomous robots have no species, typical instincts or explicable reasoning.

Q.

Is the decision to authorise the use of the robot in that setting the proximate cause of the harm done? What if the setting changes? What if the robot is adaptive?

Acceleration

Some diseases occur regardless of external causes.

Cancer, Heart disease, Parkinson's, Diabetes, Arthritis.

Unless the event resulted in a specific form of the disease, you cannot say “but for” some negligent event this case of disease would not have occurred.

The event could accelerate the manifestation of the disease. ~ By adding to the process or by reducing resilience.

Damages in proportion to years of healthy life lost.

But if the acceleration appears to double the lifetime risk it can be designated as the sole cause.

Doubled risk

Generic causation

In circumstances where the rate of a specific kind of injury is, with certainty, more than the spontaneous rate in otherwise equivalent peers, it is potentially reasonable to say that an injury caused in those circumstances can sometimes be attributable to those circumstances.

Specific causation

In circumstances where the rate of a specific kind of injury is, with certainty, twice or more the spontaneous rate in otherwise equivalent peers, it is more likely than not that an injury caused in those circumstances is attributable to those circumstances.

Science

Equivalent peers can only be identified if you have a sound causal hypothesis.

Certainty requires that all other reasonable hypotheses have been rejected.

Spontaneous rates cannot be measured if there is uncorrected confounding.

Are the measurement tools reliable, unbiased and actually fitting for the hypothesis?

- Use of uncalibrated proxy variables is common.

- Assumption that unmeasured factors average out to the null.

- Animal tests are usually unrepresentative. Etc. etc etc.

Indivisible disease

Severity of outcome does not depend on the degree of exposure to hazard. Cancer and infections for example.

If you have cancer, it progresses regardless.

So, you cannot say how much of the damage is due to which exposure or even due to no exposure.

Unless an indivisible disease is specific to a given hazard you cannot say what the 'but for' cause was.

If the lifetime risk of disease is more than doubled in the factual circumstances then specific causation can be found.

Not so fast!

You can have a material contribution to an indivisible disease.

If the disease is actually caused in this way then any non-*de minimis* exposure could have caused it.

If you can't say how much was due to this then policy dictates you assign 100% of the damages to any non-*de minimis* exposure.

Holmes v Poeton correction

‘Since anything above de minimis will do, this means that a claimant can succeed even though the injury would have occurred without the defendant’s act.’

Anything which could cause (does cause) the indivisible outcome and is present at more than *de minimis* is a material contribution and attracts 100% of the damages.

This opposes the result in *Wilsher*. Surely such contributions must act in the same way or be of the same nature as the actual cause. Leads to:

even though the injury would have occurred in the same way without the defendant’s act.

Three kinds of indivisible outcome

Health warning. The following is a result of reasoning supported by what I think the tenets of the common law are and by the nature of biology.

If I'm right, Experts would have to be instructed more carefully and for example, neurodegenerative diseases are outside the scope of 100% recovery for material contribution to indivisible disease.

Actively indivisible

The disease process begins because some threshold has been exceeded. It then self-perpetuates and increases in magnitude simply because the threshold has been exceeded. (biological autonomy). The progression is active.

Examples:

Infection occurs when the minimum infective dose (MID) is exceeded. It progresses to its 'fullest extent' regardless of which event added to the MID.

Progressive fibrosis (*Bonnington*) occurs when the density of fibrosis exceeds a certain level.

Cancer exists and is progressive only after 7 or so transmissible 'but for' changes to DNA.

Immediately indivisible

An all or nothing injury which does not progress without further insult. Subsequent increases in magnitude are not caused simply because the threshold has been exceeded.

Examples

Artery occlusion can be added to by many factors each of which has an indistinguishable effect. Once occluded, the subtending tissue dies regardless of which contributions were made to the occlusion. Dead is dead and can't progress.

Extreme fatigue can be added to by many factors. Failure to react to aspirated vomit causes suffocation and brain damage (*Bailey v MOD*). The extent of the brain damage is not attributable to any specific contribution to fatigue. The damage does not progress.

Indivisible acceleration of manifestation

The disease becomes diagnosable only after a threshold is exceeded. Each agent's effects are indistinguishable.

Progress without further insult is a passive effect e.g., of ageing. Progress does not depend on the threshold having been exceeded. But the magnitude does advance.

In the absence of a negligent pre-threshold insult, the diagnostic threshold would have been exceeded later. Magnitude can be increased by further insult.

Examples

- Neurodegenerative disease

Note

Common to all three types of indivisible disease is the exceedance of a threshold.

For a truly progressive disease the exceedance actually causes and perpetuates the resulting evolution of the injury. Indistinguishable material contribution merits 100% of the damages.

For immediately indivisible disease indistinguishable material contributions merit 100% of the immediate damages . Worsening after that is divisible.

For diagnostic thresholds there is acceleration. Magnitude increases afterwards are divisible.

End words

Emerging risks need to be understood in terms of causation factors.

Biological autonomy is deterministic and can be resolved into causation theory. Probabilistic autonomy is non-deterministic so needs a policy framework.

Material contribution to indivisible disease can rightly attract 100% of the damages but Experts don't know how to distinguish the three types unless they are properly instructed.

Countless other points about causation were left out of this presentation!