

IN THE SUPREME COURT OF CANADA
(ON APPEAL FROM THE COURT OF APPEAL FOR BRITISH COLUMBIA)

BETWEEN:

JOAN CLEMENTS, by her Litigation Guardian, DONNA JARDINE

**APPELLANT
(Respondent)**

AND:

JOSEPH CLEMENTS

**RESPONDENT
(Appellant)**

FACTUM OF THE APPELLANT

(Pursuant to Rule 42 of the *Rules of the Supreme Court of Canada*)

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TABLE OF CONTENTS

	<u>PAGE</u>
<u>PART I: STATEMENT OF FACTS</u>	1
The “Weave Instability” and the “Capsizing Event”	2
The Rate of Expulsion of Air from the Rear Tire	4
Incorrect Conjecture in MacInnis’ Evidence	7
Requirements as Set Out in Resurface	9
a. Impossibility	9
b. Factors Outside of the Plaintiff’s Control	12
c. Breaches of the Duty of Care	12
d. Damage within Ambit of the Breach	14
e. Materiality	14
The Trial Judgment	15
The Judgment of the Court of Appeal	16
<u>PART II: POINTS IN ISSUE</u>	17
A. The BCCA’s Application of the Material Contribution Test	17
B. Deference to the Finder-of-Fact	17
C. The Robust and Pragmatic Approach	17
<u>PART III: ARGUMENT</u>	18
A. The BCCA’s Application of the Material Contribution Test	18
The BCCA and The Knutsen Article	18
The Material Contribution Test	19
a. Impossibility	20
b. Factors Outside of the Plaintiff’s Control	20
c. Breaches of Duty of Care	21
d. Damage within Ambit of the Breach	21
e. Materiality	21
The Meaning of De Minimus or Negligible	21
The Road from <i>McGhee</i> to <i>Resurface</i>	23
Clements Analyzed as a Dependency Causation Case	32
Clements Analyzed as a Circular Causation Case	32
Policy	34
a. Deterrence and Public Protection	35
b. The Floodgates Fallacy	35
B. Deference to the Finder-Of-Fact	36
C. The Robust and Pragmatic Approach	38
<u>PART IV: COSTS</u>	39
<u>PART V: ORDER REQUESTED</u>	40
<u>PART VI: TABLE OF AUTHORITIES</u>	41
<u>PART VII: STATUTORY PROVISIONS</u>	43

PART I: STATEMENT OF FACTS

1. The bridge connecting a defendant's carelessness and a plaintiff's harm is called factual causation. In the vast majority of cases that bridge is the traditional, counterfactual "but for" test. Sometimes, in the exceptional case, where it is impossible to prove causation by this test, this bridge is replaced by legal causation, a creature of policy. This is such a case.
2. This case arose as a result of a motorcycle accident that occurred on August 7th, 2004, on Highway 16, approximately 4 ½ kilometres east of the Village of McBride, in British Columbia (the "MVA"). Mr. Joseph Clements, the respondent herein, was the operator of a motorcycle, a large 1998 Harley Davidson Road Glide (the "Harley"), with Mrs. Joan Clements, his wife, and appellant herein, seated behind him.
3. Mr. and Mrs. Clements left Prince George for Edmonton around 10:30 a.m. They encountered heavy rain between Prince George and McBride, so they stopped en route and changed into raingear. They stored their wet gear in two saddlebags, as well as on top of and inside a rear storage bin, called a "Tour-Pak".
4. The couple had lunch in McBride, where they met an acquaintance, Hugo, who they agreed to ride with towards Edmonton. Hugo gave Mr. Clements a visor that was better suited to wet weather.
5. When the parties left McBride the rain had lightened, but it was still "pouring", according to Mr. Clements. The road surface was wet, with standing water in shallow ruts in the highway pavement. Mr. Clements followed Hugo, who passed a large tractor-trailer (the "Semi") and a BMW sports car. While trying to keep up, Mr. Clements passed the Semi, and was concluding his pass of the BMW, when he lost control. The Harley wobbled, developed a 'weave instability' and capsized. Mrs. Clements sustained a severe brain injury and was unable to testify for discovery or at trial.
6. After the MVA, Mr. Clements' engineer, Duane MacInnis, ("MacInnis") inspected the Harley's rear tire and found a small puncture hole from a foreign object (the "Object"). MacInnis posited that the Object was expelled during the passing manoeuvre of the BMW. MacInnis opined that the rear tire's pre-puncture pressure was 35 pounds per square inch ("PSI") and it would reach half pressure, namely 17.5 PSI, in 40 seconds from the time the Object was expelled.

7. There were five factors, inextricably intertwined in time and space, that caused the MVA. Mr. Clements was not culpable for one - the effects of the Object. However, he was culpable for the four other following factors:
 - a. Mr. Clements was driving at a speed of **at least** 120 kph (the posted speed was 100 kph);
 - b. Mr. Clements' speed was too fast given the road and weather conditions at the time;
 - c. The Harley was overweight by **at least** 100 pounds; and
 - d. Weight was unsafely distributed, as too much was stowed above or behind the rear axle.

8. The only issue at trial was causation. The Plaintiff established negligence and a no-evidence motion was properly rejected. She proved that the improperly and over-loaded Harley, driven at an unsafe speed, in the pouring rain, contributed to Mr. Clements' loss of control. Proof of these facts did not require expert testimony. MacInnis testified for the defence. The trial judge rejected considerable portions of MacInnis' evidence. On the totality of evidence, the trial judge found that impossibility was established and that the four tortious factors materially contributed to the MVA.

9. At the British Columbia Court of Appeal ("BCCA"), Mr. Clements submitted that Mrs. Clements was required to tender expert evidence for the trial judge to make findings contrary to MacInnis' expert opinion. This is incorrect. Mr. Clements was required to show that the "but-for" test failed because a non-tortious factor alone caused the MVA, and that use of the "material contribution" test was inappropriate because the tortious factors had negligible effects on the MVA.

The "Weave Instability" and the "Capsizing Event"

10. The wobble motion described by Mr. Clements which precipitated the MVA, was referred to by MacInnis as a "weave instability". At some point during the complex weave motion, the Harley flipped, throwing Mr. and Mrs. Clements to the pavement. Both were knocked unconscious and have no memory of the capsizing event. Upon capsize, the Harley slid a distance of 17.5 metres. This distance was based on police scene measurements, which counsel agreed to.

11. Photographs of the Harley and scale diagrams in the 1997 Harley Davidson Owner's Manual ("Owner's Manual"), collectively show a motorcycle with fairing wrapped around the handle bars, plastic hard cases adjacent to the rear tire, and a multiplicity of metal protrusions, pipes, footrests and engine components in between.

Proceedings at Trial, A.R. Vol. II p. 2 lines 25 - 36
Photographs, A.R. Vol. II p. 166 - 168, 176 and 195; A.R. Vol. III p. 5 and 11 - 13
Owner's Manual, A.R. Vol. III p. 41 - 42

12. In Exhibit 5, the police sketch and notations, reference the "start of gouge marks" beside the number 4 and show numerous gouges from the 4 past the 5 to a sketch of a motorcycle. The gouges to the asphalt from the Harley's various metal parts, are not smooth and continuous. MacInnis admits that there are gouges and scratches to the pavement were from the Harley.

Exhibit 5, A.R. Vol. IV p. 76 - 77
Exhibit 8, A.R. Vol. IV p. 110 paras. 2 - 3

13. Using a constant, sliding deceleration of 0.3 "g", MacInnis determined that the Harley's speed at capsized was about 37 kilometers per hour (kph).

Exhibit 8, A.R. Vol. IV p. 110, para. 3
Proceedings at Trial, A.R. Vol. II p. 44 lines 24 - 39

14. On cross-examination, MacInnis said the following regarding the co-efficient of friction:

Q. This number of point three that you've referred to in your report --

A. Yes sir.

Q. -- what is it?

A. Point three in the case of the motorcycle sliding to rest after the capsized is simply the equivalent of the coefficient to friction of the motorcycle sliding on its side. There are some factors to consider, the first is what kind of surfaces they are, obviously its asphalt. The second is whether the motorcycle is fared [sic] with plastic farings [sic] and this machine had the plastic faring [sic] at the front and also the sides of the plastic saddlebags at the rear, but they were also wrapped with metal and the Harley is notorious for having metal protrusions along the lower portions in particular.

Q. Yes.

A. But a motorcycle that's unfared [sic], can have a fairly high coefficient to friction when it's sliding on its side of about point three five, point four, even in some cases, and a plastic fared [sic] sports bike, which is almost completely wrapped in plastic, has a significantly lower coefficient of friction of about point two. Plastic on asphalt has less

friction than quarter inch plate gouging into the asphalt does. So that's where I estimated point three.

A.R. Vol. II p. 59 line 33 - p. 60 line 13

15. MacInnis also cannot say what speed Mr. Clements could have travelled to prevent the capsizes:

Q. Well at what point does it not become thirty-seven kilometres per hour?

A. Again, this is opinion and has not been analyzed, but there will be some speed above thirty-seven kilometres an hour where the weave instability would not have developed sufficiently before it reached a critical point, which would result in a capsizes and I can-

Q. We don't know where that is.

A. Pardon me?

Q. We don't know where that is.

A. Not really.

Q. Thank you.

A. Except-I just don't know. I can't calculate that.

THE COURT: Mr. MacInnis ... You said at some speed above thirty-seven, there would be some speed above thirty-seven where the weave instability would not—something. You said this was your opinion, not analysis—

A. Would not get fully developed before it passes whatever the critical speed was for this motorcycle. [Emphasis added]

A.R. Vol. II p. 85 line 36 - p. 86 line 12

The Rate of Expulsion of Air from the Rear Tire

16. MacInnis' testimony is contradictory. MacInnis is asked what the purpose of the "Summary" section of his report is, by Mr. Dunn and MacInnis says the following:

A. It's to point out the -- how dire the circumstances were for this rider, having a fully loaded motorcycle on a wet road, at highway speed, and in a steering manoeuvre, of course a lane change, a passing manoeuvre involves a lane change, which of course requires steering. All of that happening with a **rapidly** deflating rear tire, or **fully deflated** rear tire is virtually guaranteed to introduce a weave. [Emphasis added]

A.R. Vol. II p. 53 lines 37 - 45
Exhibit 8, A.R. Vol. IV p. 117 - 118

17. Point 12 of the "Summary" section of MacInnis' report states that, "Any motorcycle traveling at highway speeds, loaded or not, would be hazardous to control with a **suddenly** flat rear tire." [Emphasis added]

Exhibit 8, A.R. Vol. IV p. 118

18. MacInnis' evidence on the rate of air expulsion from the rear tire once the Object was ejected is as follows:

Q. Mr. MacInnis, you use words throughout your report, you use words such as rapidly deflating, suddenly deflating, deflating quickly, and I'm reading just at a glance from page 7 of your report. When you use that type of an adverb, rapidly, suddenly, quickly, can you shape that with any more precision?

A. A blow out is instantaneous and a slow leak with an object in the tire is protracted. This is something between those two, and I've attempted to calculate it and have the numbers for you.

Q. And didn't --

A. Pardon me?

Q. You could not do the calculation --

A. I got a value of forty seconds to half pressure, but that was as close as I could get to a meaningful answer for the deflation in this case.

A.R. Vol. II p. 87 lines 16 - 33

19. At the conclusion of MacInnis' testimony, the following Examination by the Court took place:

Q. I -- counsel brought out your evidence concerning an approximately forty second period from, if I may understand it right, from the ejection of the nail to half pressure.

A. Yes, sir.

Q. And half pressure is more than enough to cause a great deal of instability, et cetera, the way you've described. One would assume.

A. That -- I apologize in advance for complicating it, but the carcass of a tire also has some stiffness by itself, in fact for passenger cars these days you can buy run flat tires.

Q. Yes.

A. So what pressure is necessary, what diminishment of pressure is necessary for the flexibility of the tire to increase to a point where you're having control problems, I'm not quite sure where that is. **It's probably not thirty-four psi, or thirty-two psi**, but by the time you get down to half pressure, just from my own experience of having to refill tires when I notice something unusual happening with my vehicle, then I'll notice it might be down to ten, fifteen, twenty psi from the normal thirty-five, so I can't tell you that seventeen point five psi is precisely where things are going to come unstuck.

Q. You were asked about the event that caused the ejection and it was put to you that you didn't know and you agreed that you didn't, but that you -- the evidence was compelling you felt for your opinion that it came out during or just prior to the event, due to a combination of factors, such as lane change plus higher rotation, plus throttle application increasing the torque on the rear tire.

A. Yes, the torque on the rear tire and the lane change would just -- just increase the forces because you're demanding forces of your tires, so there will be increasing force at the tread, causing increased flexure of the individual tread blocks.

Q. Yes.

A. And then the higher rpm will create higher centrifugal forces just like a cream separator, that combined with the squirming effect of the tire in it's normal operation, seemed to be a good combination for ejection.

Q. And that isn't inconsistent with the 40 second concept?

A. No, that's because as counsel pointed out, the motorcycle has to accelerate back well behind the car before he pulls out to pass, so there will be some time before the car gets up beside the car that it was passing. [note - the slight change in his evidence]

Q. Right.

A. How many seconds depends on what he is doing. So I don't think the nail spontaneously came out the instant that we saw the instability, probably seconds before that, sometime before that, in order for the pressure to diminish to the point where there was a problem. [Emphasis added]

A.R. Vol. II p. 89 line 36 - p. 91 line 2

20. In his report, MacInnis also states that, "Provisional calculations show that the time to half pressure (~17.5 PSI) would be about 40 seconds" (A.R. Vol. IV p. 119 para. 1). However, in the samereport MacInnis states the "instability would have persisted over a distance of about 141 m[eters] and a time of about 6.9 seconds" (A.R. Vol. IV p. 110 para. 4).

21. MacInnis **admits** that the time, post-expulsion would have made a difference. He says that, "If the nail had come out 20 seconds earlier or 20 seconds later during the passing manoeuvre, we may have had a different outcome" (A.R. Vol. II p. 85 lines 14 - 17).

22. The critical evidence of Mr. Clements, at the moment he noted the instability is as follows:

Q. All right, you mentioned pulling out to pass the vehicle or vehicles, can you tell us what happened as you went to pull out?

A. I was making sure that there was no -- nobody coming in the west lane. You could see for quite a distance and there was no vehicles coming. I was taking my time getting out to pass because I didn't have to be in a rush. And I dropped a gear, pulled out, and passed.

Q. At this time, sir, where you described pulling out to pass, dropping a gear and proceeding with your pass, can you tell us whether or not you observed anything unusual or abnormal with your motorcycle?

A. **At that time I noticed nothing.**

Q. In particular, what was the traction like at that time?

A. The traction was good.

Q. As you continued with your pass, what happened?

A. Once I got ahead of the BMW and crossed back in, in front of that vehicle, you hit the yellow lines and they're like slick. I got a little bit of a wobble there so I gave it more gas to straighten out. [Emphasis added]

A.R. Vol. II p. 118 lines 3 - 25

And in cross-examination:

Q. -- You're heading back from the westbound lane into the eastbound lane, you said in your discovery that you're on sort of the yellow centre line and you start to wobble, then you applied the throttle and you knew that you were in trouble at that point. I'm suggesting to you that when that wobble started, right when you were in front of the BMW, you never did regain control after that. It kept getting worse.

A. Yes.

Q. And you were of the view at the time that the reason the wobble started was because of the slickness of the yellow centre line.

A. Yes. [Emphasis added]

A. R. Vol. II p. 146 lines 34 - 47

Incorrect Conjecture in MacInnis' Evidence

23. There are, at minimum, 21 instances in MacInnis' testimony where he used estimates, simplifying assumptions, provisional calculations, approximations or guesses (see A.R. Vol. II p. 42 lines 40 - 44; p. 44 lines 24 - 39; p. 49 lines 43 - 46; p. 50 line 46 - p. 51 line 15; p. 58 lines 21 - 33; p. 60 lines 4 - 13; p. 63 lines 30 - 36; p. 73 line 45 - p. 74 line 15; p. 74 line 45 - p. 75 line 12; p. 76 lines 5 - 19, 44 - p. 77 lines 6, 21 - 26, 29 - 31, 35 - 41; p. 78 lines 26 - 30, 46 - p. 79 line 4; p. 82 lines 27 - 33, 47 - p. 83 line 14; p. 85 lines 36 - 47; p. 87 lines 30 - 32; and p. 89 lines 17 - 27).

24. In addition, MacInnis used incorrect information on key issues in the case, namely, that:

a. The speed at the moment the Object was expelled from the rear tire was 112.5 kph, whereas the trial judge found the speed to be at least 120 kph;

A.R. Vol. II p. 54 line 45 - p. 55 line 2
MacInnis Report, A.R. Vol. IV p. 110 para. 4 line 2
Reasons for Judgment at Trial, A.R. Vol. I p. 12 para. 32

b. The Harley was 5% overweight, whereas the trial judge found that it was more than 100 pounds overweight (namely more than 10%);

A.R. Vol. IV p. 112 para. 5 lines 1 - 2
Reasons for Judgment at Trial, A.R. Vol. I p. 14 - 15 paras. 39 and 41

- c. The distribution of the weight was all aft and high, especially the wet gear;

A.R. Vol. II p. 62 line 37 - p. 63 line 4
Photographs, A.R. Vol. II p.195

- d. From the instant the Object was expelled to half pressure was 40 seconds, however the weave lasted only 7 seconds before capsize;

A.R. Vol. II p. 87 lines 35 - 37
A.R. Vol. II p. 44 line 46 - p. 45 line 10

- e. The basis for his 40 second estimate to half pressure was a couple of personal experiences when he lost tire pressure on his motorcycle (make and model undisclosed), at an unspecified speed, in unknown circumstances;

A.R. Vol. II p. 89 line 36 - p. 90 lines 1 - 14

- f. The capsize speed was calculated using a uniform coefficient of friction and deceleration, clearly overlooking the realities of the Harley skidding, bouncing and gouging to a halt;

A.R. Vol. II p. 58 lines 17 - 41

- g. A multitude of forces had no affect on the weave instability, such as downshifting, giving gas, Mr. Clements fighting the Harley, Mrs. Clements waving her arms, et cetera; and

A.R. Vol. II p. 118 line 21 - p. 119 line 44

- h. An increase in the height of mass increases stability, which is contrary to the Owner's Manual and defies common sense.

A.R. Vol. II p. 51 lines 22 - 31
Owner's Manual, A.R. Vol. III p. 107

25. What survives of MacInnis' testimony, is as follows:

- a. There was some unknown speed above the capsize speed (maybe 37 kph) at which the weave instability would not have capsized the Harley (A.R. Vol. II p.85 lines 36 - 47);
- b. Overloading a motorcycle, particularly at the rear, can cause instability (A.R. Vol. II p. 86 lines 25 - 30);

- c. Speed, weight, and weather were factors that contributed to the MVA (A.R. Vol. IV p. 119, paras. 7 and 8). Clements admitted same (A.R. Vol. II p. 148 lines 16 - 42);
 - d. Instability will increase with speed (A.R. Vol. II p. 79 lines 19 - 21). Clements agreed that high speed increases the influence of any other condition affecting stability and possible loss of control (A.R. Vol. II p. 149 lines 11 - 26);
 - e. A lightly loaded motorcycle is more stable in a weave than a heavy motorcycle with a load at the rear. The additional weight makes recovery more difficult (A.R. Vol. IV p. 116, para. 4);
 - f. A fully loaded motorcycle with a pillion passenger would be particularly difficult to control when it began to weave (A.R. Vol. IV p. 118, point 13); and
 - g. Instability due to a flat rear tire alone increases with increasing speed (A.R. Vol. IV p. 116 para. 8).
26. The trial judge did not accept the central tenet of MacInnis' report, namely, that excess speed and weight made no difference. The trial judge says as follows:

*What is clear from Mr. MacInnis's report as noted above, and I find, is that the increasing speed and increasing load will each result in increasing instability, and both were present here beyond reasonably acceptable limits. Although Mr. MacInnis could not scientifically state what precise effect certain speeds or loads would have on stability, the correlation between them was not in doubt.
In these circumstances, I am unable to accept Mr. MacInnis's opinion that the excess speed and the excess weight were non-contributing factors.*

Reasons for Judgment at Trial, A.R. Vol. I p.23, paras. 61 - 62

Requirements as Set Out in Resurface

a. Impossibility

27. Mr. Clements' account of the seconds during the weave instability that preceded the capsizing disclose the numerous motions and forces involved (emphasis added shows a shift in speed, angular momentum, deceleration, pitch, yaw, or something that affects a dynamic reconstruction):

Q. All right, then what happened?

A. Then I noticed I was getting a wobble from -- from the back end of the bike, and I

slacked off on the gas, didn't really know what was happening at the back of the bike. But as I'm slowing down, **I'm gearing down** and the slower I was getting, the whip was getting worse and **I was trying to control that whip**. I was getting my wife to warn the vehicle behind me, **waving her arms** like telling them to back off, and she's doing that. I'm looking at both sides of the road and I think that the bike's possibly going to go down and **I'm going to do my best to try and control this thing**.

- Q. Okay. Now, sir, you mentioned that as you're slowing down, the whip is getting worse. What do you mean by whip?
- A. Like after I crossed the -- I have to go back a bit, but when I crossed the yellow line getting back in front of the BMW, got a little bit of wobble like that. So okay, **I give it more gas**, try and straighten out, but the front wheel is firm, like it's not sliding or anything, but I'm getting movement from the back end of the bike.
- Q. Okay, and you mentioned movement of the back end now. As **you slowed down**, what happened with the back end of the bike?
- A. It's getting harder to control in my eastbound lane **probably going from the centre line to the white line**.
- Q. The white line is the fog line on the outside of the lane?
- A. The white line is, like, on the ditch side.
- Q. All right, so the movement of the bike is going across your lane, as you mentioned, what happened next?
- A. As **I'm dropping gears to get slowed up**, the whip's continuously getting worse.
- Q. What are you trying to do with the motorcycle?
- A. **I'm trying to keep it straight and I'm trying to get it stopped**.
- Q. So you try to keep it straight going down where?
- A. Going down the eastbound lane.
- Q. All right, so as you mentioned the whip is continually getting worse as you try to keep the motorcycle straight and stop it. What happens next?
- A. As I'm getting slower, now I'm crossing the centre line, I'm taking up more of the highway.
- Q. All right. What happens?
- A. And the I'm yelling at my wife, I'm saying you know, **I'm fighting as hard as I can to keep the bike up**, but then you know, I've been wide awake, **I'm really fighting this thing...** [Emphasis added]

A.R. Vol. II p. 118 line 26 - p. 119 line 31

28. MacInnis was very aware of, and admitted to, the impossibility of a precise reconstruction:
- A. Just to back up a moment or two. As engineers, we like to hang numbers on what we're doing, we like to perform analysis, we like to have facts, we like to have data, we like to have authoritative research that we can base our work on and then we can calculate, we can analyze, we can estimate, we can assume in some cases and come up with numerical values for things like stability. In this case, although I attempted to, **I was simply unable to provide anybody with a numerically and value that was defensible**. So I had to use trends, what happens if you add weight, what happens if you place weight in certain locations on a motorcycle, what in a qualitative sense does

it do to the controllability of the machine, and then look at all the circumstances, understood circumstances, of this incident. [Emphasis added]

A.R. Vol. II p. 50 line 46 - p. 51 line 15

29. Also:

Q. In fact, when you're looking at the very complex forces that apply to a motorcycle when you've got, say a deflating tire, and steering and throttling and braking and all of those types of things, very rapidly with all those variables applying, it becomes very difficult to scientifically say what's going to happen. Would you agree?

A. Yes, that's what I mentioned at the early part of my testimony that as try as we might to hang a number, pick your number that you're looking for, it's --

Q. You can't.

A. -- quickly becomes interactable [sic].

Q. And right at the very top paragraph, the end of that paragraph you say "provisional calculations". Now, first of all what's the difference between a calculation and a provisional calculation?...

A. Yeah. Provisional means you don't have all the information you'd like to have, or all the analytical techniques you would like to have --

Q. Yes.

A. -- so the number must be taken as just that, something that you -- it's probably not too far off but doesn't have the benefit of scientific certainty.

A.R. Vol. II p. 74 lines 3 – 15; p. 74 line 45 - p. 75 line 10

30. MacInnis testifies that simplifying assumptions must be used when attempting to reconstruct what occurred and that people are treated like "rigid objects", so their movements are not accounted for. He conceded that even Professor Cossalter¹, author of the definitive textbook on motorcycle dynamics, would need to make simplifying assumptions (A.R. Vol. II p. 78 line 31 - p. 79 line 21).

31. After agreeing that the effect of an overload of 5% (the finding of fact was 10%) was "mathematically unpredictable", MacInnis states:

Q. But again, being unable to do the mathematics because of the complexity of the model, this is -- could we call it an educated guess?

A. I'd call it an opinion.

Q. Yeah, well it is -- it is that. But again, this is not something that you can in any way mathematically predict or --

¹ Cossalter, Vittore; "Motorcycle Dynamics", Second English Edition, 2006, ISBN 978-1-4303-0861-4

A. That is always our first effort, is to provide a mathematical justification for our findings, not opinions. Engineers don't normally offer opinions in the regular engineering world, only when we run into steam when something is analytically intractable, I think is the word, will we arrive at opinions or conclusions without an analytical basis.

A.R. Vol. II p. 82 line 47 - p. 83 line 14

b. Factors Outside of the Plaintiff's Control

32. Numerous factors outside of Mrs. Clements' control made it impossible for her to prove that Mr. Clements' negligence caused her injury using the "but for" test, including speed, overloading and weight. Also, how the weight was improperly distributed remains unknown. Mr. Clements' actions during the weave cannot be reconstructed, just as weather and road conditions cannot be exactly duplicated. It is not known when the Object was picked up or expunged, or even what the precise object was, so calculating the rate of air loss through the puncture is not feasible.

c. Breaches of the Duty of Care

33. Evidence showed, and the trial judge agreed, Mr. Clements exposed Mrs. Clements to an unreasonable risk of harm in four distinct acts of negligence during the MVA, as follows:

- a. First, Mr. Clements was speeding. Mr. Clements passed Susanne Enders, the BMW driver, who had her cruise control set at 108 kph (A.R. Vol. II p. 20 lines 38 - 40). The speed differential between passing vehicles is typically 19 kph (A.R. Vol. II p. 56 line 9 - p. 57 line 14). The trial judge held the speed was 120 kph or more (Reasons for Judgment at Trial, A.R. Vol. I p. 12 para. 32).
- b. Second, Mr. Clements was over driving the road conditions. He testified as follows:
 - i. While he was passing the BMW it was pouring rain and the road was still wet (Defendant's Discovery, Q. 230; A.R. Vol. II p. 14 lines 8 - 11; and p. 115 lines 23 - 25);
 - ii. The grooves in the pavement retained water such that he could not identify the grooves because water was running out of them, and on a motorcycle one had to be careful to avoid them (A.R. Vol. II p. 115 line 26 - p. 116 line 8);

- iii. He “could have said” to his daughter that he was over driving the road conditions (Defendant’s Discovery, Q. 254 - Q. 256; A.R. Vol. II p. 15 lines 2 - 9);
- iv. The yellow centre line was slick (A.R. Vol. II p. 118 lines 21 - 23); and
- v. He agreed with the following excerpt from the Owner’s Manual:

Do not exceed the legal speed limit or drive too fast for existing conditions. Always reduce speed when poor driving conditions...exist. **High speed increases the influence of any other condition affecting stability and possible -- possibility of loss of control.** [Emphasis added]

Ride at a safe speed, a speed consistent with the type of highway you are on, and always note whether the road is dry, oily, icy or **wet**. Each varying condition on the highway means adjusting your speed and driving habits accordingly. [Emphasis added]

A.R. Vol. II p. 149 lines 8 – 26; and p. 153 lines 9 – 22

- c. Third, Mr. Clements operated an overloaded motorcycle. The Owner’s Manual warns that the Gross Vehicle Weight Rating (“GVWR”) rating should not be exceeded and states, “Overloading, particularly at the rear of a motorcycle can cause instability” (A.R. Vol. III p. 145 para. 4),. Mr. Clements did not know the GVWR, which was 1179 pounds (A.R. Vol II p. 130 lines 19 – 21; A.R. Vol. III p. 44). The weight of the Harley was 715 lbs. (A.R. Vol. III p. 85). Mr. Clements weighed 210 lbs, Mrs. Clements weighed 200 lbs and the gear weighed 150 lbs (Defendant’s Discovery Q. 121, Q. 122 & Q. 127, A.R. Vol. II p. 7 lines 22 – 27 and p. 8 lines 10 - 12). The gas weighed 30 lbs (A.R. Vol. IV p. 112). Using the foregoing numbers, the weight of bike, passengers, gear and gas was 1305 pounds, which is more than 10% above GVWR. These figures represent the findings of fact of the trial judge and are supported by evidence.
- d. Fourth, Mr. Clements rode with an improperly distributed load. The Owner’s Manual states that, “Improper loading can cause vehicle handling problems, leading to personal injury.” (A.R. Vol. III p. 144 para. 1). The photographs of the Harley show gear wrapped in a garbage bag on top of the trunk over the rear axle (A.R. Vol. II p. 195). Mr. Clements agreed with the following excerpts from the Owner’s Manual:

Keep cargo weight concentrated close to the motorcycle and as **low as possible** to minimize the change in the motorcycle's centre of gravity. Distribute weight evenly on both sides of the vehicle and do not load bulky items too far behind the rider.

A.R. Vol. II p. 150 lines 23 - 44

However, MacInnis testified to the contrary (A.R. Vol. II p. 51 lines 22 – 47).

34. MacInnis' opinion regarding weight distribution was contrary to Mr. Clements' evidence (A.R. Vol. II p. 110 lines 1 - 5), and based incorrect facts (A.R. Vol. II p. 51 lines 44 – 47), despite MacInnis acknowledging the importance of weight distribution in his report which states:

Any motorcycle, in the right conditions, can develop instabilities, such as wobble and weave. A heavy motorcycle with a load at the rear is inherently less stable in weave than a lightly loaded motorcycle. The weight of the fully laden motorcycle would make recovery attempts more difficult. [Emphasis added]

A.R. Vol. IV p. 116 para. 4

d. Damage Within Ambit of the Breach

35. The risk Mr. Clements created by the foregoing four breaches was that if an unforeseeable destabilizing event occurred, the likelihood that he could control the Harley was materially diminished. This is precisely what occurred. Mrs. Clements suffered significant injuries, including a serious brain injury, because Mr. Clements exposed her to an unreasonable risk of injury by breaching his duty of care to her. The injuries Mrs. Clements sustained are squarely within the ambit of risk created by Mr. Clements' breaches.

e. Materiality

36. Speed and weather were material factors since the increase of either one augmented the instability of the Harley (A.R. Vol. IV p. 119, paras. 7 and 8; and A.R. Vol. II p. 148 lines 16 - 42).

37. At Discovery, Mr. Clements was asked the following:

Q. Do you agree with me, Mr. Clements, that the speed that you were travelling and the weight that you were carrying were factors that materially contributed to this motor vehicle accident?

A. Yes.

Defendant's Discovery, Q. 304, A.R. Vol. II p. 16 lines 19 – 24

38. He modified this answer at trial stating that he did not understand what the word “material” meant (A.R. Vol. II p. 148 lines 1 - 31).

The Trial Judgment

39. The trial judge made two findings of fact that trigger the causation issue. He held that the accidental deflation of the rear tire induced the weave instability and, that the defendant's want of care was not causally connected to the creation of the weave instability.

Reasons for Judgment at Trial, A.R. Vol. I p. 22 paras. 57 and 58

40. Given these findings, the trial judge correctly frames the question before him as follows:

But can the same be said with respect to the inability of the defendant, with his considerable experience, to recover from that weave instability? That is the question I must answer. Would the defendant have been able to recover from the weave instability, and thereby avoid the plaintiff's injuries, had he not been travelling at an excessive speed well above what the circumstances dictated, an overloaded motorcycle?

Reasons for Judgment at Trial, A.R. Vol. I p. 22 para. 59

41. The trial judge's conclusions that the *excess* speed and the *excess* weight were contributing factors are unassailable (Reasons for Judgment at Trial, A.R. Vol. I p. 23 para. 62). He did not, and was entitled to not, accept MacInnis' opinion that their impact was negligible, and deference is properly given to this finding of fact based on the following:

- a. Common sense supports these findings;
- b. The excerpts from the Owner's Manual supports these findings;
- c. Mr. Clements agreed with the correlation; and
- d. MacInnis' report is based on incorrect facts and erroneous assumptions.

42. The trial judge found that causation predicated on a "but for" analysis was not possible. He found that a correlation between weight, speed and recovery from the weave instability was "incapable of proof" (Reasons for Judgment at Trial, A.R. Vol. 1 p. 23 para. 63). He based this conclusion primarily on MacInnis' evidence (Reason for Judgment at trial, A.R. Vol. I p. 13 para. 39 – p. 17

para. 45; A.R. Vol. II p. 84 line 35 - p. 86 line 23). The trial judge was satisfied that the "impossibility" criterion mandated by *Resurface Corp. v. Hanke*, [2007] 1 S.C.R. 333 ("*Resurface*") was demonstrated and found that causation had been established following the *Resurface* requirements (Reason for Judgment at trial, A.R. Vol. I p. 23 para. 65 – p. 24 para. 67).

The Judgment of the Court of Appeal

43. In the BCCA, Mr. Clements' strongly advocated that the trial judge made incorrect findings of fact and drew improper inferences, especially regarding MacInnis' evidence. However, Frankel J.A. declined to consider whether or not the trial judge made palpable and overriding errors in dealing with the facts, in that, on the basis of the findings that *were* made, those facts did not permit the "material contribution" test to be used.

Reasons of the Court of Appeal, A.R. Vol. I p. 40 para. 37

44. Frankel J.A. adopted an article by Professor Knutsen, "*Clarifying Causation in Tort*", (2010) 33 Dal L.J. 153² ("Knutsen Article", Authorities Tab 25). Knutsen states that impossibility refers only to "logical impossibility", which, in taking the two examples given in *Resurface*, he catalogues as either "circular causation" (*Cook v. Lewis*, [1951] S.C.R. 830, (Authorities Tab 8) or "dependency causation" (*Walker v. York Finch General Hospital*, [2001] 1 S.C.R. 647, ("*Walker*") (Authorities Tab 17). Although specifically referred to in *Resurface* (at para. 25), Knutsen excludes the "current limits of scientific knowledge" as a justification for impossibility. As *Clements* was neither a case of circular, nor dependency causation, the appeal was allowed, and Mrs. Clements' claim was dismissed.

Reasons of the Court of Appeal, A.R. Vol. I p. 47 para. 54 – p. 49 para. 59

² Professor Knutsen acknowledged and thanked Professors Brown, Black and Cheifetz for their contributions.

PART II: POINTS IN ISSUE

45. This appeal raises the following three issues:

A. The BCCA's Application of the Material Contribution Test

- a) Did the Court of Appeal err in restating and narrowing the material contribution test for causation?
- b) If not, is the material contribution test available only in circular or dependency causation?

B. Deference to the Finder-of-Fact

- a) If necessary, did the trial judge make a palpable and overriding error in his findings of fact or inferences?

C. The Robust and Pragmatic Approach

- a) Alternatively, if necessary, could causation be found by using the "robust and pragmatic approach" utilized by Sopinka J. in *Snell v. Farrell*?

PART III: ARGUMENT

A. The BCCA's Application of the Material Contribution Test

- a) **Did the Court of Appeal err in restating and narrowing the material contribution test for causation?**
- b) **If not, is the material contribution test available only in circular or dependency causation?**

The BCCA and The Knutsen Article

46. Mrs. Clements' position is that the BCCA "drastically narrowed the scope of the material contribution exception set out in Hanke, restricting its application to a small subset of cases involving intractable uncertainty."

L.M. Collins, "Causation, Contribution and Clements: Revisiting the Material Contribution Test in Canadian Tort Law", (2011) 19 Tort L. Rev. 86
Authorities Tab 22 p. 87 para.3

47. The Knutsen Article added two phrases that have never been used in Canadian or English causation case law, namely, "circular causation" and "dependency causation". In the already busy causation lexicon, Lord Nicholls said that this is "...an area of the law already afflicted with linguistic ambiguity...", and that "This phraseology tends to obscure...".

Fairchild v. Glenhaven Funeral Services [2002] U.K.H.L. 22 ("Fairchild")
Authorities Tab 9 p. 32 para. 45

48. Knutsen criticizes the "current limitations of scientific knowledge" aspect of the impossibility requirement set out in *Resurfice* and says as follows³:

The Supreme Court's noting in Hanke of "current limits of scientific knowledge" as one possible reason for "but for" causation being beyond the reach of the plaintiff to prove requires some clarification. The statement must be read in the context of what the Supreme Court was trying to say: in order to depart from the standard "but for" test, the test must

³ Numerous scholars disagree with this (see Cheifetz, "Not Clarifying Causation", (2011 June 2) BC Continuing Legal Education Society, a paper to which Knutsen contributed (Authorities Tab 21); Craig Jones, "Reasoning Through Probabilistic Causation in Individual and Aggregate Claims: The Struggle Continues", (2011 June 2) BC Continuing Legal Education Society) (Authorities Tab 24).

be unworkable for circular or dependency causation reasons, neither of which is the fault of the plaintiff.

“Current limits of scientific knowledge” should not be read out of context to mean that the material contribution test is appropriate in any case where the science involved is difficult, complex, or “just not there yet.” Frankly, that is just about any case where personal injury is involved. The science of medicine as it relates to the interaction of disease, medication, and trauma on the body is more of an art than a science. It is constantly evolving. Indeed, one might [sic] argue it will always have current limits that soon get eclipsed by future, unknowable limits. But the Supreme Court’s statement is nothing more than an example of one reason why there may be a logical impossibility in proving causation with the “but for” test. It is an explanatory reason, so to speak, for the existence of circular causation. It is not a reason to turn to the material contribution test. It is certainly not a gatekeeper for the material contribution test. The gatekeeping function is met by the two pre-conditions which must be satisfied in instances of circular or dependency causation.

Authorities Tab 25 p. 11 para. 2 - 3

49. Knutsen’s proposition is inaccurate in four respects. First the “limits of scientific knowledge” is stripped from the test. Second, impossibility becomes “logical impossibility”. Third, the examples become the rule. Fourth, in the circulatory causation spectrum all causes must be tortious, thereby eliminating the consideration of a non-tortious cause.

50. While the appellate standard for overturning a factual finding is “palpable and overriding error”, the standard for overturning a conclusion of law is “correctness”. Regarding the law on causation, Knutsen, and by implication, the BCCA, are incorrect.

Reasons for Judgment of the BCCA, A.R. Vol. 1 p. 51 para. 63

The Material Contribution Test

51. The primary test for causation in negligence remains the “but for” test, even for multi-cause injuries. However, the “material contribution” test is appropriate in those special circumstances that meet the requirements as set out in *Resurfice* as follows:
 - a. it must be impossible for the plaintiff to prove that the defendant’s negligence caused the plaintiff’s injury using the “but for” test;
 - b. the impossibility must be due to factors that are outside the plaintiff’s control;
 - c. the defendant has breached a duty of care owed to the plaintiff, thereby exposing the

- plaintiff to an unreasonable risk of injury;
- d. the plaintiff's injury must fall within the ambit of the risk created by the defendant's breach; and
- e. it would offend basic notions of fairness and justice to deny liability by applying the "but for" approach.

Authorities Tab 14 p. 13 para. 25

52. In addition, the contributing factor is material if it falls outside of the *de minimus* range.

Bonnington Castings, Ltd. v. Wardlaw, [1956] 1 All E.R. 615 ("*Bonnington*")
Authorities Tab 4 p. 618 para. 5

a. Impossibility

53. From the photographs and police notations, showing numerous gouges to the asphalt from the Harley's various metal parts, it is obvious that the deceleration of the capsized Harley was not smooth and continuous. It is also clear from MacInnis' testimony that the Harley's metal components produced at a very different coefficient of friction than the Harley sliding on the plastic fairing and plastic saddlebags.

54. The critical finding of speed at capsize is impossible to calculate. To properly determine the capsize speed the reconstructionist must know how the Harley slid, gouged, and bounced to rest. These events are impossible to duplicate. This impossibility exists not because of deficits in the science of physics, but rather because what really happened cannot now be known.

55. When the dynamics of the MVA are considered, the impossibility of reconstruction becomes readily apparent. Recall all the actions of Mr. Clements in the seconds during the weave instability that preceded the capsize (*supra*. para. 27; A.R. Vol. II p. 118 line 26 - p. 119 line 31) .

b. Factors Outside of the Plaintiff's Control

56. Numerous factors outside of Mrs. Clements' control made it impossible for her to prove that Mr. Clements' negligence caused her injury using the "but for" test, including speed, overloading, improperly distributed weight, Mr. Clements' actions during the weave instability, weather, road conditions, the timing of the pick-up and expulsion of the Object, and the tire's rate of air loss.

c. Breaches of the Duty of Care and d. Damage Within Ambit of the Breach

57. Evidence in support of a breach of duty of care and evidence showing that damage was within the ambit of the breach is found in paragraphs 33 - 35, Statement of Facts, this Factum.

e. Materiality

58. There were numerous contributing factors that fell outside of the *de minimus* range and are therefore, material. Speed, weather, weight and weight distribution were material factors since the increase of any one augmented the instability of the Harley, and materially increased the risk to Mrs. Clements.

The Meaning of De Minimus or Negligible

59. While *Resurface* is sparsely and cleanly written,⁴ it was not created in vacuum. It has a lengthy lineage stemming from England, where the “material contribution” test had been used for years prior. When viewed in context with its progenitors, rich textures of meaning appear.

60. The historical analysis begins with *Bonnington*, which shares a critical issue with *Clements*. In *Bonnington*, the three levels of judiciary wrestled with the elliptical meanings of "material contribution" and "*de minimus*". It is submitted that "*de minimus*", as used by the House of Lords, is identical to the use of "*negligible*" by MacInnis when he considered the excess weight and speed. How slender must the cause be before it is *de minimus*, or negligible? The exact facts are highly probative.

61. In *Bonnington*, Wardlaw worked as a “dresser” in a casting shop for 8 years where he inhaled tiny, invisible silicate particles resulting in pneumoniocosis. The castings moulds were made of sand containing high silicate content. When moulds were removed, some sand adhered to the castings and was removed in the shop by three different machines. One machine was a small, handheld

⁴ This has been the source of considerable criticism. See Cheifetz and Black, "Through the Looking Glass, Darkly: Resurface Corp. v. Hanke, (2007) 45 Alta. L. Rev. 241 – 255 (Authorities Tab 20) [Looking Glass].

pneumatic hammer (which delivered 1800 blows per minute), which Wardlaw operated in close proximity to his face. The other machines were a floor grinder and a swing grinder, and were in a different part of the shop. The dust extraction equipment for the grinders often worked improperly, contrary to the *Grinding of Metals (Miscellaneous Industries) Regulations*, 1925. These regulations did not cover the operation of the hammer.

Authorities Tab 4 p. 616 para. 5

62. At first instance, *Bonnington Castings, Ltd. v. Wardlaw*, (1955) S.C. 320, the Lord Ordinary states that the "...main source of the injurious silica dust which the pursuer inhaled came from the dressing processes..." (the hammer) (Authorities Tab 5, p. 4 para. 3). The court held that the vast majority of the silica particles inhaled by Wardlaw were non-culpable particles produced by the hammer, and that only a small portion of the silica particles were culpable, those coming from the grinders. It was enough to find liability.
63. This argument is identical to the opening position of MacInnis, when he stated that the excess speed and weight of the Harley had negligible effects compared to the effect of the tire deflation.
64. On appeal, in the Court of Sessions, Lord President Clyde noted that there was a substantial risk to Wardlaw since his work required his face and mouth to be in close proximity to the hammer. Lord Russell found that the ductwork removing dust from the swing grinders often became plugged, so dust was thrown off and into the atmosphere of the shop. However, Lord Russell re-iterated that "...only a small quantity of such dust entered into the air from the grinders..."

Authorities Tab 5 p. 20 lines 24 - 25

65. In the House of Lords, Lord Reid stated that, "...much the greater proportion of the noxious dust which he inhaled over the whole period came from the hammers". Lord Keith states that "a much greater measure" of the dust came from the hammer, and the contribution from the floor and swing grinders was "small".

Authorities Tab 5, p. 619 F and p. 622 A

66. In a parallel case with identical facts, *Nicholson and Others v. Atlas Steel Foundry and Engineering Co., Ltd.* [1957] 1 All E.R.776 (Authorities Tab 13 p. 781 para. 4), Lord Cohen described Mr. Nicholson working continuously within a thick cloud of dust, created by his hammer. Here, the inference was that for years Nicholson worked within a cloud of "non-culpable" silica particles, to which the ventilation made very little difference. The material contribution from the culpable silicate particles was very small.⁵
67. In *Clements*, the trial judge was entitled to hold, through inferences and on the totality of the evidence, that an increase in weight and speed made recovery more difficult. The standard of materiality in *Bonnington* and in the present case is not high. Only a small contribution from speed and weight need to be proven. In fact, a much greater measure can be the deflating tire, and the *de minimus* condition of the test is still satisfied.

The Road From *McGhee* to *Resurfice*

68. Next in the lineage is *McGhee v. National Coal Board*, [1972] U.K.H.L. 11 ("*McGhee*") (Authorities Tab 12). The appellant, McGhee, who worked emptying a hot pipe kiln, developed dermatitis. Pipe dust settled on and congealed to his skin during work. This was the non-culpable cause. The respondent failed to provide showers for the men at the end of work. The evidence showed that McGhee would have showered. Because he did not, he bicycled home caked in pipe dust. This was the culpable cause. A "but for" analysis failed because the appellant could not show that, but for the presence of after work showers, he would not have developed dermatitis. Because of gaps in scientific knowledge, neither of the two experts could say that, had showering occurred after work, it was more probable than not that the dermatitis would not have developed.
69. *McGhee* is an important constituent of the test that was ultimately adopted in *Resurfice*. The issue in *McGhee* was whether or not a material increase in risk was sufficient to satisfy the "material contribution" test. Here, Lord Salmon states:

⁵ Cheifetz et. al. in *Looking Glass*, *supra*. note 4, complain that no meaning for material contribution is offered. Also, see Russell Brown, "Material Contribution's Expanding Hegemony: Factual Causation after *Hanke V. Resurfice Corp.*" (wherein Cheifetz and Black are thanked), (2007) 45 Can.Bus. L.J. 432 [Expanding Hegemony] (Authorities Tab 20).

*In the circumstances of the present case it seems to me unrealistic and contrary to ordinary common sense to hold that the negligence **which materially increased the risk of injury** did not materially contribute to causing the injury. [Emphasis added]*

Authorities Tab 12 p. 22 para.5

70. The ratio of the case is found in the following oft-quoted passage from Lord Reid:

But I think that in cases like this we must take a broader view of causation. The medical evidence is to the effect that the fact that the man had to cycle home caked with grime and sweat added materially to the risk that this disease might develop. It does not and could not explain just why that is so. But experience shows that it is so. Plainly that must be because what happens while the man remains unwashed can have a causative effect, though just how the cause operates is uncertain. I cannot accept the view expressed in the Inner House that once the man left the brick kiln he left behind the causes which made him liable to develop dermatitis. That seems to me quite inconsistent with a proper interpretation of the medical evidence. Nor can I accept the distinction drawn by the Lord Ordinary between materially increasing the risk that the disease will occur and making a material contribution to its occurrence.

There may be some logical ground for such a distinction where our knowledge of all the material factors is complete. But it has often been said that the legal concept of causation is not based on logic or philosophy. It is based on the practical way in which the ordinary man's mind works in the every-day affairs of life...

Authorities Tab 12 p. 14 paras. 5 - 6

71. While *McGhee* lies at its core, the *Resurfice* test differs as it includes strict triggering provisions. *McGhee* has weathered heavy criticism, directed primarily at Lord Wilberforce's anomalous judgment reversing the onus of proof, which is not part of the *Resurfice* test.
72. Concern has been expressed that removing factual causation, removes the gatekeeper connecting plaintiff and defendant in a fault based system. It is the 'floodgates' argument. However, in the 55 years since *Bonnington*, the floodgates have **not** opened throughout the Commonwealth. In Canada there have been, as of the filing date of this factum, 67 appellate level cases since *Resurfice* that mention *Resurfice*. Of these, **not a single case** imposes or upholds liability based on the "material contribution" test.

73. There is also concern that nothing is now enough to establish causation.⁶ This is partially accurate since establishing factual causation under the "but for" test can be replaced, in very narrow circumstances, by legal causation. But an inference that this is so for a multitude of cases is clearly mistaken. As with many fundamentals of the law of negligence, legal causation is policy driven. It is implicit in the policy that underlies *Resurface* that legal causation remains tightly constrained.
74. Next in material contribution's lineage is *Wilsher v. Essex Area Health Authority*, [1988] 1 A.C. 1074 ("Wilsher") (Authorities Tab 18). In this case, the plaintiff, who was born 3 months prematurely, suffered numerous afflictions. A sensor to measure arterial oxygen levels (PO2) was negligently inserted, resulting in erroneously low blood oxygenation readings. Consequently, the child had high PO2 levels for an extended period, leading to RLF. However, during his hospital stay, the child suffered from four other afflictions, which may have caused RLF. The plaintiff was successful at trial. The only issue on appeal was causation. The appeal was allowed, and the matter remitted back to trial. On appeal, Lord Bridge delineated the following test, which was affirmed by many lower courts and by the Supreme Court of Canada in *Snell v. Farrell*, [1990] 2 S.C.R. 311 ("*Snell*"), as follows:

*The conclusion I draw from these passages is that McGhee v. National Coal Board [1973] 1 W.L.R. 1 laid down no new principle of law whatever. On the contrary, it affirmed the principle that the onus of proving causation lies on the pursuer or plaintiff. Adopting a **robust and pragmatic approach** to the undisputed primary facts of the case, the majority concluded that it was a legitimate inference of fact that the defenders' negligence had materially contributed to the pursuer's injury... [Emphasis added]*

Authorities Tab 16 p.15 para. 3 - p.16 para. 1

75. It is apparent he was speaking of the judicial exercise of inference drawing from the following:

But where the layman is told by the doctors that the longer the brick dust remains on the body, the greater the risk of dermatitis, although the doctors cannot identify the process of causation scientifically, there seems to be nothing irrational in drawing the inference, as a

⁶ Cheifetz, "Causation in Canada in the Third Millennium: Nothing is Now Enough" 2007, 2008, a continually lengthening 450 page tome on Causation, at http://www.bbburn.com/articles/Resurface_status.pdf.

matter of common sense, that the consecutive periods when brick dust remained on the body probably contributed cumulatively to the causation of the dermatitis. I believe that a process of inferential reasoning on these general line underlies the decision of the majority in McGhee's case.

Authorities Tab 16 p.16 para. 3

76. In *Haag v. Marshall*, [1990] 1 W.W.R. 361 ("Haag"), a solicitors negligence case, the BCCA had an opportunity to consider causation. Lambert J.A. followed *Wilsher*, doubted aspects of *McGhee*, and with prescient foresight foreshadowed *Snell*. These decisions were made before the gatekeepers were added to the test in *Fairchild* and *Resurface*:

But McGhee remains a worthwhile study. And there is a somewhat more cautious principle underlying the decision in that case. However, it is not an "onus" [sic] principle but an "inference" principle. That principle is exemplified in the majority reasons of Mr. Justice Bayda in Nowasco Well Service Ltd. v. Canadian Propane Gas & Oil Ltd. (1981), 122 D.L.R. (3d) 228 (Sask.C.A.), in the unanimous reasons of Mr. Justice McGuigan in Letnik v. Municipality of Metropolitan Toronto, (1988), 49 D.L.R. (4th) 707 (Fed. C.A.), and in the unanimous reasons of Chief Justice Hughes in Dalpe v. City of Edmundston (1979), 25 N.B.R. (2d) 102 (N.B.C.A.), all three of which apply McGhee. I will not set out all the facts in those cases. But it should be noted that in the Nowasco case the garage blew up and in doing so destroyed the evidence of the cause of the blow-up. In the Letnik case the ship sank and was uneconomical to raise. When the ship went down it took the cause of its doing so to bottom. And in the Dalpe case the time of the blockage of the sewer was made impossible to determine by the covering of the manhole.

The "inference" principle derived from McGhee, and from the three Canadian cases to which I have referred, is this: Where a breach of duty has occurred, and damage is shown to have arisen within the area of risk which brought the duty into being, and where the breach of duty materially increased

[Page 13]

the risk that damage of that type would occur, and where it is impossible, in a practical sense, for either party to lead evidence which would establish either that the breach of duty caused the loss or that it did not, then it is permissible to infer, as a matter of legal, though not necessarily logical, inference, that the material increase in risk arising from the breach of duty constituted a material contributing cause of the loss and as such a foundation for a finding of liability.

Authorities Tab 10 p. 8 para. 4 - p. 9 para 2

77. Later in 1990, Sopinka J. stated the following in *Snell*:

I am of the opinion that the dissatisfaction with the traditional approach to causation stems to a large extent from its too rigid application by the courts in many cases. Causation need not be determined by scientific precision...

*The legal or ultimate burden remains with the plaintiff, but in the absence of evidence to the contrary adduced by the defendant, an inference of causation may be drawn although positive or scientific proof of causation has not been adduced. If some evidence to the contrary is adduced by the defendant, the trial judge is entitled to take account of Lord Mansfield's famous precept. This is, I believe, what Lord Bridge had in mind in *Wilsher* when he referred to a "robust and pragmatic approach to the...facts"(p.569).*

Authorities Tab 16 p. 19 para. 3 and p. 21 para. 2

78. From *McGhee* in 1972 to *Snell* in 1990 a number of Canadian cases succeeded under the *McGhee* formulation of causation. *Wilshire*, *Haag* and *Snell* ended that and the jurisprudence between the United Kingdom and Canada diverged. Canada questioned the *McGhee* ratio and was left with *Snell*, whereas the United Kingdom resuscitated *McGhee* with the mesothelioma cases of *Fairchild* and *Barker v. Corus* [2006] U.K.H.L. 20 ("*Barker*") (Authorities Tab 2). It was not until 2007, that the divergence was brought together in *Resurfice*.

79. In *Fairchild* and *Barker*, their Lordships held that *McGhee* altered the parameters of negligence by excising the "but for" requirement of causation and inserting "material contribution". Shifting the bedrock of the tort of negligence is a matter of some gravity. Hence, the many references in *Fairchild*, *Barker* and *Resurfice* to "exceptional circumstances".

Authorities Tabs 9, 2, 12 and 14

80. In *Fairchild*, the plaintiff was exposed to asbestos fibres and developed mesothelioma. The mechanism initiating the genetic process which culminated in mesothelioma was unknown, and the trigger could have been a single asbestos fibre. There were multiple defendants, and the plaintiff was unable to say which defendant was responsible for the particular fibre that led to

mesothelioma. The defendants argued that the "but for" test had not been satisfied. Their Lordships reaffirmed *McGhee*. Lord Nicholls stated:

...Given the medical evidence in McGhee, it was not open to the House, however robustly inclined, to draw an inference that the employer's negligence had in fact caused or materially contributed to the onset of the dermatitis in the sense that, but for that negligence, the dermatitis would not have occurred. Instead, a less stringent causal connection was regarded as sufficient...

...It were best if this were recognised openly.

Authorities Tab 9 p. 32 paras. 1- 2

Lord Rodger continued:

*..A judge applying "a robust and pragmatic approach to the undisputed primary facts" may all too readily stray beyond the realm of inference into the wilderness of "mere speculation or conjecture"...In particular, even though it is always for the judge rather than for the expert witness to determine matters of fact, the judge must do so on the basis of the evidence, including the expert evidence. The mere application of "common sense" cannot conjure up a proper basis for inferring that an injury must have been caused in one way rather than another when the only relevant evidence is undisputed scientific evidence which says that either way is equally possible. In my respectful opinion, therefore, despite the criticism of Sopinka J in *Snell v Farrell* [1990] 2 SCR 311, 33 1f – g, Lord Wilberforce was right to say that using inference to bridge the evidential gap in *McGhee* would have been something of a fiction since it was precisely that inference which the medical expert had declined to make...*

Authorities Tab 9 p. 70 para 150

81. The *Snell* approach is a useful middle ground between the "but for" test and the "material contribution" test. Causation should not be established "in the teeth of" expert testimony to the contrary (Authorities Tab 9, p. 37 para. 70). The trial judge must carefully scrutinize the expert testimony in the case, which is precisely what occurred in the present case. The *Snell* approach does not render *McGhee* erroneous. This court referred to *McGhee* in *Athey v. Leonati*, [1996] 3 S.C.R. 458 ("*Athey*") (Authorities Tab 1 p. 11 para. 13 – p. 12 para. 15) and the imprint of *McGhee* remains within *Resurfice*.

82. In fact, *Cook*⁷, the two hunters' case, is neatly analyzed using a *McGhee/Resurfice* methodology. *Fairchild* expands this principle to include multiple tortious causes. Instead of two hunters simultaneously shooting at Mr. Cook, we have 4 or 5 employers simultaneously shooting asbestos into the plaintiff. It was not known which bullet caused injury, but all defendants were held liable. Even *Barker* makes sense on this analysis if one of the shooters has two guns.

83. Mrs. Clements agrees with the following analysis which describes the foregoing problem:

Barker and Fairchild therefore cast some doubt on Snell's interpretation of McGhee. In addition, they call into question Snell's insistence that McGhee did not change the law, but merely reflected a robust and pragmatic common sense approach to factual causation. Consequently, to the extent that Snell relies on Wilshire's reasoning, it is no longer clear that Snell can be relied on as an accurate statement of the content and meaning of the material contribution test. Moreover, there is some reason to think that Resurfice, by adopting what would appear to be the Fairchild exception to but-for causation, has introduced into Canadian negligence law Fairchild's material increase in risk of harm approach to factual causation in certain exceptional cases.

Fridman, *The Law of Torts in Canada*, 3rd ed. (Toronto: Carswell, 2010)
Authorities Tab 23 p. 413 para. 3

84. The adoption by this court of the test replicates the adoption of similar tests in other jurisdictions. Lord Bingham in his judgment in *Fairchild* refers to judicial pronouncements in Greek (p. 22 para. 26), in Norweign (p. 23 para. 28), Australian (p. 25 para. 30), German (p. 21 para. 25) and Dutch law (p. 22 para. 26). Lord Rodger takes it back to Roman Law. It has also been applied in numerous American jurisdictions. Professor van Gerven, an author of *Cases, Materials and Text on National, Supranational and International Tort Law*, surveyed the issue in Britian, Germany, and France and stated as follows:

In many cases, it will be possible for the victim to show that he or she has suffered injury, that it has been caused by someone who must have been at fault, but the author of that fault will not be identifiable. The best that the victim will be able to achieve is to define a class of persons of which the actual tortfeasor must be a member. Strictly speaking, however, the basic conditio sine qua non test will not be met, since it cannot be said by any member of the class that the injury would not have happened 'but for' his or her conduct, given that in fact any other member could have caused the injury. Nonetheless, all the

⁷ Brown in *Expanding Hegemony* (*supra*, note 5), is highly critical of this analogy used in *Resurfice*.

legal systems studied here have acknowledged that it would be patently unfair to deny recovery to the victim for that reason.

Authorities Tab 9 p. 20 para. 3

85. Reference to “circular” or “dependency” causation or “logical impossibility” do not appear in *Glenhaven* and it is not suggested that scientific impossibility should be discarded. These views appear for the first time in Canadian jurisprudence in the appellate decision of *Clements*.

86. Even in *Snell*, Sopinka J. intimates that *McGhee* is part of Canadian law when he said as follows:

*Causation is an expression of the relationship that must be found to exist between the tortious act of the wrongdoer and the injury to the victim in order to justify compensation of the latter out of the pocket of the former. Is the requirement that the plaintiff prove that the defendant’s tortious conduct caused or contributed to the plaintiff’s injury too onerous? Is some lesser relationship sufficient to justify compensation? I have examined the alternatives arising out of the McGhee case. They were that the plaintiff simply prove that the defendant created a risk that the injury which occurred would occur. Or, what amounts to the same thing, that the defendant has the burden of disproving causation. **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. In my opinion, however, properly applied, the principles relating to causation are adequate to the task.***
[Emphasis added]

Authorities Tab 16 p. 17 para 4 - p. 18 para 1

87. If causation can be inferred using the “but for” test, through the application of a "robust and pragmatic approach" then the *McGhee* exercise becomes unnecessary.

88. If this court endorses the restrictive meaning of *Resurfice* sanctioned by the BCCA, it would render the material contribution exception so narrow as to become inconsequential. It would become an historical curiosity, useful for ink spillers inclined to metaphysics, but useless in cases like *McGhee*, *Fairchild* and *Clements*. There are sound policy reasons to reject this interpretation.

89. *McGhee* drifted out of the legal landscape after *Wilsher* and *Snell* and was replaced by robust and pragmatic inference taking. However, 6 years after *Snell*, *McGhee* reappeared in three Supreme

Court cases: *Athey*, *Walker* and *Blackwater v. Plint*, [2005] 3 S.C.R. 3 (“*Blackwater*”) (Authorities Tab 3).

90. In *Athey*, the plaintiff, with pre-existing back problems was involved in two accidents, two months apart. Several months later, on performing medically ordered exercises, he "popped" a disc in his back leading to surgery. At trial he was awarded only 25% of his damages because of the prior back troubles. Justice Major states the issue as follows:

The respondents' position is that where a loss is created by tortious and non-tortious causes, it is possible to apportion the loss according to the degrees of causation. This is contrary to well-established principles. It has long been established that a defendant is liable for any injuries caused or contributed to by his or her negligence. If the defendant's conduct is found to be a cause of the injury, the presence of other non-tortious contributing causes does not reduce the extent of the defendant's liability...

The "but for" test is unworkable in some circumstances, so the courts have recognized that causation is established where the defendant's negligence "materially contributed" to the occurrence of the injury...

Authorities Tab 1 p. 11 para. 12 and p. 12 para. 15

91. In *Blackwater*, an *Athey* influenced case, the trial judge was presented with the hefty chore of untangling multiple interlocking tortious and non-tortious factors in assessing a complex psychological personal injury case. The trial judge used the appropriate material contribution to injury test, which was affirmed by the Supreme Court of Canada.
92. The contrast between *Athey* and *Resurfice* is instructive. In *Athey*, various culpable and non-culpable agents contributed to the plaintiff's harm. The court held that where the “but for” test was unworkable, causation could be established if the plaintiff proves on a balance of probabilities that the defendant caused or contributed to **injury**. In *Resurfice*, liability can be found in exceptional circumstances, if the defendant materially contributes to **risk**. Whereas *Athey* is similar to *Bonnington*, *Resurfice* is similar to *McGhee*. *Resurfice* applies to the present appeal.
93. The case preceding *Resurfice* was *Walker*. In *Walker*, the plaintiff developed AIDS after receiving a blood transfusion. He sued the Canadian Red Cross Society ("CRCS") for improperly screening

blood donations, and inadequately warning donors of AIDS. The CRCS was negligent, but causation could not be established under the “but for” test since the donor likely would have donated despite adequate warning. Speaking for the full court, Major J. states the ratio as follows:

*...In cases of negligent donor screening, it may be difficult or impossible to prove hypothetically what the donor would have done had he or she been properly screened by the CRCS. The added element of donor conduct in these cases means that the but-for test could operate unfairly, highlighting the possibility of leaving legitimate plaintiffs uncompensated. Thus, the question in cases of negligent donor screening should not be whether the CRCS's conduct was a **necessary condition** for the plaintiffs' injuries using the "but-for" test, but whether that conduct was a **sufficient condition**. The proper test for causation in cases of negligent donor screening is whether the defendant's negligence "materially contributed" to the occurrence of the injury... [Emphasis added]*

Authorities Tab 17 p. 35 para. 88

Clements Analyzed as a Dependency Causation Case

94. *Walker* is important because the Chief Justice in *Resurfice* uses it as an example and the BCCA (and Knutsen) labels it as a "dependency causation" case. Like *Walker*, *Clements* can be viewed as a dependency causation case.
95. Several academics suggest limiting this result to blood donor cases, however, given its reference in *Resurfice*, a broader ratio can be extracted. In *Walker* the “but for” test did not apply since it was impossible to prove what would have happened had the CRCS not been negligent. In *Clements* the “but for” test does not apply because it is impossible to prove what would have happened had Mr. Clements not been negligent. Thus it is a **sufficient condition** to establish liability against Mr. Clements by proving that there existed other tortious causes, so long as these causes were not *de minimus*. This shows that Knutsen’s restrictive test would apply and establish liability. MacInnis testified that he could not say what would have happened had Mr. Clements driven without fault.

Clements Analyzed as a Circular Causation Case

96. Under the BCCA’s interpretation of *Cook* in *Resurfice*, causation cannot be established in *Clements* because circular causation, as defined by Knutsen, limits the example to a contest

between two tortious causes. A contest between a tortious cause and non-tortious causes is excluded. However, the House of Lords in the mesothelioma cases was open to the argument that the principle could be expanded to deal with non-tortious causes.

97. In *Fairchild*, Lord Rodger considered the refinements of *McGhee* when he stated the following:

...the principle applies where the other possible source of the claimant's injury is a similar wrongful act or omission of another person [as in Fairchild], but it can also apply where...the other possible source of the injury is a similar, but lawful, act or omission of the same defendant [as in McGhee]. I reserve my opinion as to whether the principle applies where the other possible source of injury is a similar but lawful act or omission of someone else or a natural occurrence [as in Clements].

Authorities Tab 9 p. 77 para. 170⁸

98. Lord Hoffman considered the above in *Barker*, wherein one plaintiff was contributorily negligent because he worked with asbestos as an independent contractor, and stated the following:

The assistance which can be derived from these various formulations is limited. No one expressly adverted to the case in which the claimant was himself responsible for a significant exposure. Lord Bingham's formulation requires that all possible sources of asbestos should have involved breaches of duty to the claimant; Lord Rodger allowed for a non-tortious exposure by a defendant who was also responsible for a tortious exposure, but reserved his position on any other non-tortious exposure. The most that can be said of the others is that they did not formulate the issue in terms which excluded the possibility of liability when there had been non-tortious exposures. On the other hand, no one thought that the formulations in Fairchild were the last word on the scope of the exception. Lord Bingham said, at p 68, para 34:

"It would be unrealistic to suppose that the principle here affirmed will not over time be the subject of incremental and analogical development. Cases seeking to develop the principle must be decided when and as they arise."

Authorities Tab 2 p. 7 para. 11

99. If such an "incremental and analogical" advance is made, a non-tortious cause can be included. *Clements* can be treated as a case of "circular" causation and the legal causative link is established.

⁸ Jane Stapleton, in "Lords a'Leaping Evidentiary Gaps" (2002) 10 Torts L.J. 3 at 276, (Authorities Tab 26) states that *Fairchild* was not clear as to whether or not the principle applied to non-tortious causes.

100. So where does that leave Mrs. Clements? *Resurfice* holds the key, so long as the example does not become dogma and the common law is incrementally and analogically refined. All the triggering provisions delineated in *Resurfice* are found in *Clements*, so long as the "current limits of scientific knowledge" reference is permitted room to breathe, and so long as the *Cook* and *Walker* examples do not become the inflexible normative rule. *Resurfice* deals affirmatively with this problem. However, to accomplish this, the BCCA decision in *Clements* must be overturned.

Policy

101. Like many principles of the law of negligence, the material contribution to risk principle is grounded in public policy (see *Sam v. Wilson* (2007) B.C.C.A. 622) (Authorities Tab 15).

102. In *Fairchild*, Lord Nicholls describes the delicate balancing involved in constructing such a legal principle:

This balancing exercise involves a value judgment. This is not at variance with basic principles in this area of the law. The extent to which the law requires a defendant to assume responsibility for loss following upon his wrongful conduct always involves a value judgment. The law habitually limits the extent of the damage for which a defendant is held responsible, even when the damage passes the threshold 'but for' test. The converse is also true. On occasions the threshold 'but for' test of causal connection may be over-exclusionary. Where justice so requires, the threshold itself may be lowered. In this way the scope of a defendant's liability may be extended. The circumstances where this is appropriate will be exceptional, because of the adverse consequences which the lowering of the threshold will have for a defendant. He will be held responsible for a loss the plaintiff might have suffered even if the defendant had not been involved at all. To impose liability on a defendant in such circumstances normally runs counter to ordinary perceptions of responsibility. Normally this is unacceptable. But there are circumstances, of which the two hunters' case is an example, where this unattractiveness is outweighed by leaving the plaintiff without a remedy.

Authorities Tab 9 p. 31 para. 40

103. Professor Collins, in "Causation, Contribution and Clements, Revisiting the Material Contribution Test in Canadian Tort Law", framed the issue as follows:

Should the Supreme Court of Canada reinstate the material contribution test as articulated in Hanke, material contribution to risk will once again become a viable

alternative for plaintiffs faced with a burden of intractable scientific uncertainty. The result will be that some defendants will compensate some plaintiffs for injuries which, as science evolves, may later be shown to be unconnected to the defendant's conduct. On the other hand, should the restrictive approach adopted by the Court of Appeal in Clements stand, the converse will be true: plaintiffs actually harmed by a defendant's negligence will receive no compensation (and defendants will experience no correlative deterrent effect). Thus, the Supreme Court in Clements is faced with a necessarily imperfect range of choices, each of which will produce some injustice in some situations. The author has argued that, from the perspectives of compensation, deterrence and fairness to the parties, the principled test of material contribution to risk articulated in Hanke is preferable to the narrow, categorical approach adopted in Clements.

The basic premise is simple: whenever the causal inquiry is thwarted by intractable scientific uncertainty and the defendant has created a risk of the very harm that was ultimately suffered, the negligent risk creator, not the innocent plaintiff, should bear the burden of that uncertainty. Should defendants wish to avoid liability in negligence, the task is not a Herculean one; they need only comport themselves in the manner prescribed by that paragon of common law virtue - the reasonable person.

Authorities Tab 22 p. 93 paras. 4 – 5

a. Deterrence and Public Protection

104. The twenty-first century world is vastly different from Wardlaw's 1950's world in Scotland. We live in a society teeming with an exponentially increasing broth of chemical compounds. With increasing chemicals come increasing chemical interactions, most of which are unknowable at present, and many of which could be potentially harmful. The tort system must allow for the protection and the compensation of victims, and act as a deterrent for companies releasing hazardous compounds into the public arena. If the BCCA's view is upheld emerging class actions involving, for instance, industrial toxins or medications, would be dismissed, likely before trial. There would be less pressure on the companies making such products to comprehensively test for safety. The fear of the catastrophic class action would not exist and our world would be less safe.

b. The Floodgates Fallacy

105. There is concern that if the linkage between risk and harm is excised that any plaintiff could sue any defendant for anything. The litigation floodgates will open and the link between harm and damage will become dysfunctional. One author, Professor Brown, who refers to this as "material

contribution's growing hegemony"⁹, suggests that "basic notions of fairness and justice" would provide judges with "the wiggle room" to "fudge" difficult questions of causation. He espouses a view typical of academics in this camp, namely the following:

...jettisoned that necessary historical connection between wrong and harm by conceiving of harm as the introduction of risk, the court has, for all practical purposes, "dispense[d] as a matter of law with proof of causation." Because unreasonable conduct is inherently risky, proof of the defendant's breach of the standard of care is now, in and of itself, proof of causation. In equating risk with harm, Hanke has transformed causation from an instance of corrective justice to a distributive and arguable superfluous device.

Growing Hegemony (*supra* note 5)
Authorities Tab 19 p. 449 para. 3

106. This material contribution of risk has been around, in one form or another, since *Bonnington* and in 56 years, the floodgates have **not** opened. The 67 post-*Resurfice* cases demonstrate this. Amongst these cases, are decisions dealing with great tragedy - several deal with children being born significantly brain injured, and another looks at severely reduced life expectancy due to a delayed cancer diagnosis. Even Hanke, who was seriously burned, was not extended "wiggle room" or benefit from "fudging".

B. Deference to the Finder-of-Fact

a) Did the trial judge a make palpable and overriding error in his findings of fact or inferences?

107. The law regarding the limits imposed on a trial judge when considering expert evidence is unequivocal. Since *Resurfice*, a trilogy of Alberta Court of Appeal cases have addressed the trial judge's authority to accept or reject portions of expert evidence on causation. The cases are:

- a. *Bowes v. City of Edmonton*, 2007 A.B.C.A. 347 (Authorities Tab 6);
- b. *Klemke Mining Corp. v. Shell Canada Ltd.*, 2008 A.B.C.A. 257 (Authorities Tab 11); and
- c. *Carrier v. Wan*, 2008 A.B.C.A. 318 ("*Carrier*") (Authorities Tab 7).

⁹ Brown acknowledged the contributions of Cheifetz and Black.

108. In each case, the trial judge's treatment of expert evidence on causation was appealed, and in each case, on this point, the appeal was disallowed. The court held that a finding of causation was a finding of fact that could only be overturned on the basis of "palpable and overriding error". In *Carrier*, the court succinctly stated:

As for the evidence on causation, the appellant argues that the trial judge ought to have found that he had proved his case. Causation in either respect was a question of fact, and it is reviewable here only on the standard of palpable and overriding error: (H.L. v. Canada (Attorney General)...[2005] 1 S.C.R. 401. The appellant has not identified any palpable fact-finding error, or one that can be said to have had any material effect on the outcome. Though he offers interpretations and quotations from expert testimony and reports, the trial judge was aware of, and considered, this evidence. Her credibility findings were clearly within her jurisdiction and she was entitled to favour certain expert evidence over other evidence on the basis of the experts' qualifications, of the particular factual assumptions grounding their opinions, and of the objectivity and forthrightness in providing their opinions. On each causation topic, we are unable to interfere with her conclusions. [Emphasis added]

Authorities Tab 7 p. 2 para. 8

109. The expert evidence of MacInnis was irreparably eroded at trial. The trial judge properly rejected the expert's assertion that Mr. Clements would be unable to control the Harley when the rear tire deflated, even if he was driving at the speed limit, in good conditions, on a properly loaded Harley. The judge did not accept MacInnis' opinion that extra speed and weight made no difference. This was a finding-of-fact that was open to the trial judge, and to which, deference should be given.

Reasons for Judgment at Trial, A.R. Vol. 1 p. 22 para. 60 – p. 23 para. 62

110. MacInnis' expert testimony, even if it was factually accurate, was unnecessary because, on the facts alone, the trial judge could draw his own conclusions regarding the effects of weather, speed and weight. Moreover, MacInnis' expert evidence was useless because he was unable to use his expertise to provide the court with any reliable analysis on the causative factors in the MVA. As such, he failed to furnish the court with scientific information that was outside of the experience or knowledge of the trial judge, thereby leaving the court to make its own determination of how weather, speed, weight and weight distribution affected the MVA.

C. **The Robust and Pragmatic Approach**

a) **Alternatively, if necessary, could causation be found by using the “robust and pragmatic approach” utilized by Sopinka J. in *Snell v. Farrell*?**

111. The “robust and pragmatic” approach assists the trier-of-fact in his role of accepting or not accepting a particular expert's opinion. The rules are not immutable. In the words of Sopinka J, “The legal or ultimate legal burden remains with the plaintiff, but in the absence of evidence to the contrary adduced by the defendant, an inference of causation may be drawn although positive or scientific proof of causation has not been adduced.”

Authorities Tab 16 p. 21 para. 2

112. It is submitted that there is one strand of evidence that can prove causation by the traditional test if the trier-of-fact were to use a robust and pragmatic approach. This involves the period of time that elapsed for the rear tire to become flat. This was not a “blowout”.

113. MacInnis' evidence regarding the rate of air expulsion from the tire once the Object was ejected was that 40 seconds to half pressure was as close as he could get for a value. At the conclusion of MacInnis' testimony, the trial judge confirmed that MacInnis' report stated that “provisional” calculations show that the time to half pressure (~17.5 PSI) would be about 40 seconds.

114. However, in the same report MacInnis states the “instability would have persisted over a distance of about 141 meters and a time of about 6.9 seconds” (A.R. Vol. IV p. 110 para. 4). MacInnis admits that the time, post-expulsion would have made a difference (A.R. Vol. II p. 85 lines 14 - 17). Mr. Clements' evidence at the moment he noted the instability is important because he states that traction was good until he hit the yellow line in front of the BMW, which he thought caused the wobble (A.R. Vol II p. 118 lines 3 - 25).

115. Using a robust and pragmatic analytical approach, a key inference can be drawn from this evidence. The air pressure of the tire before the expulsion of the Object is 35 PSI. MacInnis states that at 32 PSI there would be no loss of control. It would take the tire 40 seconds to reach half

pressure (17.5 PSI). It took 1 to 2 seconds for the Object to be expelled from the tire, likely during the passing manoeuvre. When Mr. Clements felt the first wobble, just ahead of the BMW, the air had expelled from the tire for, at most, 2 or 3 seconds. According to MacInnis, it was less than 7 seconds from the first wobble on the yellow line to capsize.

A.R. Vol. IV p. 110 para. 4

116. On these facts, a robust and pragmatic approach leads the trier-of-fact to conclude that the tire puncture made little difference to the MVA. It happened exactly how Mr. Clements repeatedly described it. He was passing, in poor weather, overloaded by at least 100 pounds. His speed was at least 120 kph. When he returned from the westbound to the eastbound lane, his front tire, and likely his rear tire, slipped on the “slick yellow centre line”. MacInnis’ report states that the effect of a suddenly deflating rear tire would be “...similar to the initial movement when encountering an exceptionally slippery portion of the road surface...” (A.R. Vol. IV p. 114 para. 7). Twenty seconds post-puncture (time to half pressure) might have made a difference, but 2 or 3 seconds post-puncture would not have. Clearly, the trial judge was alive to this very issue, when he asked MacInnis, after hearing that the Object was probably ejected during a 2 or 3 second passing manoeuvre, “And that isn’t inconsistent with the 40 second concept?” (A.R. Vol. II p. 90 lines 36 - 37).

117. The rear tire did not rapidly deflate over 2 or 3 seconds, if half-pressure is 40 seconds. MacInnis moved from conjecture to fact making. When the wobble was first noticed by Mr. Clements, the tire was nearly full of air. It still was 7 or so seconds until the motorcycle capsizes. Drawing the inference that after 2 or 3 seconds the air pressure would not be down from 35 PSI to below 32 PSI, does not fly in the teeth of an expert opinion. This inference can be taken from MacInnis' testimony, and using a robust and pragmatic inference it does no injustice to the primary facts.

PART IV: COSTS

118. The Appellant seeks its costs for the within Appeal and in the courts below.

PART V: ORDER REQUESTED

119. The Appellant seeks an Order reversing the judgment of the British Columbia Court of Appeal and affirming the judgment of the Supreme Court of British Columbia.

ALL OF WHICH IS RESPECTFULLY SUBMITTED this _____ day of November, 2011.

DICK BYL

PART VI: TABLE OF AUTHORITIES

TAB	CASES	PARAGRAPH
1.	<i>Athey v. Leonati</i> , [1996] 3 S.C.R. 458; [1996] S.C.J. No. 102.	81, 89-92
2.	<i>Barker v. Corus (UK) plc</i> , [2006] U.K.H.L. 20; [2006] 2 A.C. 572.	78, 79, 82, 98
3.	<i>Blackwater v. Plint</i> , [2005] 3 S.C.R. 3, [2005] S.C.C. 58.	89
4.	<i>Bonnington Castings, Ltd. v. Wardlaw</i> , [1956] 1 All E. R. 615; [1956] A.C. 613 [1956].	56, 61
5.	<i>Bonnington Castings, Ltd. v. Wardlaw</i> , [1955] S.C. 320.	62, 64
6.	<i>Bowes v. City of Edmonton</i> , [2007] A.J. No. 1500, 2007 A.B.C.A. 347.	107
7.	<i>Carrier v. Wan</i> , [2008] A.J. No. 1033, 2008 A.B.C.A. 318.	107, 108
8.	<i>Cook v. Lewis</i> , [1951] S.C.R. 830, 2 W.W.R. 451.	44
9.	<i>Fairchild v. Glenhaven Funeral Services Ltd. & Ors.</i> , [2002] U.K.H.L. 22; [2003] 1 A.C.	47, 76, 78-80, 82, 84, 88, 97, 102
10.	<i>Haag v. Marshall</i> , [1989] B.C.J. No. 1576; [1990] 1 W.W.R. 361.	76, 78
11.	<i>Klemke Mining Corp. v. Shell Canada Ltd.</i> , [2008] A.J. No. 725; 2008 A.B.C.A. 257.	107
12.	<i>McGhee v. National Coal Board</i> , [1972] U.K.H.L. 11; [1972] 3 All E.R. 1008.	68, 69, 71, 76, 78, 79, 81, 82, 86-89, 92, 97
13.	<i>Nicholson and Others v. Atlas Steel Foundry and Engineering Co., Ltd.</i> [1957] 1 All E.R.776.	66
14.	<i>Resurfi v. Hanke</i> , [2007] S.C.J. No. 7, [2007] 1 S.C.R. 333.	42, 44, 48, 51, 59, 69, 71-73, 76, 78, 79, 81, 82, 88, 92-96, 100, 106, 107
15.	<i>Sam v. Wilson</i> [2008] 6 WWR 91, (2007) B.C.C.A. 622.	101
16.	<i>Snell v. Farrel</i> , [1990] S.C.J. No. 73, [1990] 2 S.C.R. 311.	45, 74, 76-78, 81, 86, 89
17.	<i>Walker Estate v. York-Finch General Hospital</i> , [2001] S.C.J. No. 23, [2001] 1 S.C.R. 647.	44, 89, 93-95, 100
18.	<i>Wilsher v. Essex Area Health Authority</i> , [1987] U.K.H.L. 11, [1988] 1 A.C. 1074.	74, 76, 89

TAB	ARTICLES AND TEXTS	PARAGRAPH
19.	Brown, Russell, “Material Contribution’s Expanding Hegemony: Factual Causation After <i>Resurface v. Hanke</i> ” (2007) 45 Can. Bus. L. J. 432.	66, 105
20.	Cheifetz, David B. & Vaughan Black, “Through the Looking Glass, Darkly: <i>Resurface Corp. v. Hanke</i> ”, (2007) 45 Alta. L. Rev. 241 - 255.	59
21.	Chiefetz, David B. “Not Clarifying Causation” in David Cheifetz, Smockum Zarnett Percival, eds., <i>Causation in Tort II</i> (Vancouver: CLE, 2011) 1.4.1.	48
22.	Collins, Lynda Margaret, “Causation, Contribution and Clements: Revisiting the Material Contribution Test in Canadian Tort Law” (2011) 19 Tort L. Rev. 86	46, 103
23.	Fridman, <i>The Law of Torts in Canada</i> , 3 rd ed. (Toronto: Carswell, 2010).	83
24.	Jones, Craig, “Reasoning through Probabilistic Causation in Individual and Aggregate Claims: the Struggle Continues” in David Cheifetz, Smockum Zarnett Percival, eds., <i>Causation in Tort II</i> (Vancouver: CLE, 2011) 3.1.1.	48
25.	Knutsen, Eric S. “Clarifying Causation in Tort” (2010) 33 Dalhousie L. J. 153.	44, 47-50, 94-96
26.	Stapleton, Jane, “Lords a Leaping Evidentiary Gaps” (2002) 10 Torts 3 at 276.	97

PART VII: STATUTORY PROVISIONS

None.