Case Name:

Sparrowhawk v. Zapoltinsky

Between
Kent Sparrowhawk, Jordan Sparrowhawk a Minor by His Next Friend Kent Sparrowhawk, Taylor Sparrowhawk a Minor by His Next Friend Kent Sparrowhawk, and Keirra Sparrowhawk a Minor by Her Next Friend Kent Sparrowhawk, Plaintiffs, and
Kevin Allen Zapoltinsky, Defendant

[2012] A.J. No. 54

2012 ABQB 34

[2012] I.L.R. I-5243

58 Alta. L.R. (5th) 86

5 C.C.L.I. (5th) 123

531 A.R. 10

212 A.C.W.S. (3d) 217

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Docket: 0703 02434

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Alberta Court of Queen's Bench
Judicial District of Edmonton

D.L. Shelley J.

Heard: October 31, 2011.
Judgment: January 13, 2012.

(191 paras.)

Insurance law -- Automobile insurance -- Accident benefits -- Definitions -- Determination of whether Sparrowhawk's jaw injury was a minor injury as defined by the Insurance Act -- Sparrowhawk's vehicle was hit from behind -- Sparrowhawk now suffered from temporomandibular joint disorder (TMD) which caused pain during eating and yawning -- Sparrowhawk's injury most likely involved cartilage damage and, therefore, the injury was not a sprain or strain -- TMD was also not a facet of Whiplash Associated Disorders -- The injury was ongoing, it had impaired normal activities of daily living and no substantial improvement was to be expected -- Sparrowhawk's jaw injury was not a minor injury -- Diagnostic and Treatment Protocols Regulation, s. 1 -- Minor Injury Regulation, s. 1.

Determination of whether Sparrowhawk's jaw injury was a minor injury as defined by the Insurance Act. While stationary, Sparrowhawk's vehicle was hit from behind by a vehicle driven by the defendant Zapoltinsky. The impact was significant and shortly after the collision, Sparrowhawk began experiencing jaw pain. That jaw pain evolved into a condition which caused pain during everyday activities such as eating and yawning. Sparrowhawk took the position that his injury was not a minor injury.

HELD: Sparrowhawk's jaw injury was not a minor injury. The dental expert concluded that Sparrowhawk's injury most likely involved cartilage damage. The experts agreed that cartilage was not a muscle, tendon or ligament and, therefore, injury to the cartilage was not a sprain or strain. The experts also agreed that temporomandibular joint disorder (TMD) was not a facet of Whiplash Associated Disorders (WAD). Furthermore, the TMD caused anomalous wear and damage to Sparrowhawk's teeth and that damage also did not constitute a sprain, strain or WAD injury. The injury was ongoing, it could only have been caused by the motor vehicle collision and it had impaired normal activities of daily living. Finally, no substantial improvement was to be expected.

Statutes, Regulations and Rules Cited:

Alberta Heritage Scholarship Act, RSA 2000, c. A-24, s. 7

Automobile Accident Minor Injury Regulations, N.S. Reg. 94/ 2010,

Canadian Charter of Rights and Freedoms, 1982, R.S.C. 1985, App. II, No. 44, Schedule B, s. 7, s. 15

Chiropractic Profession Act, RSA 2000, c. C-13,

Court Proceedings for Automobile Accidents that Occur on or After November 1, 1996, Ont. Reg 461/96, s. 4.2(1)

Dental Disciplines Act, RSA 2000, c. D-8,

Diagnostic and Treatment Protocols Regulation, Alta. Reg. 122/ 2004, s. 1, s. 1(c), s. 1(g), s. 7(1), s. 7(2), ss. 8-9, s. 11(1), s. 11(2), ss. 12-13, s. 15, s. 16(1), ss. 17-18, s. 19(1), ss. 20-28

Guarantees Acknowledgment Act, RSA 2000, c. G-11, s. 1(b)

Health Professions Act, RSA 2000, c. H-7,

Insurance Act, RSA 2000, c. I-3,

Insurance Act, R.S.N.B. 1973, c. I-12,

Insurance Act, R.S.N.S. 1989, c. 231,

Insurance Act, R.S.O. 1990, c. 18, s. 267.5(5)

Insurance Act, R.S.P.E.I. 1988, c. I-4,

Interpretation Act, RSA 2000, c. I-8, s. 10

Livestock Industry Diversification (Principal) Regulation, Alta. Reg. 255/1991, s. 2(1)

Medical Profession Act, RSA 2000, c. M-11,

Minor Injury Regulation, Alta. Reg. 123/2004, s. 1, s. 1(j), s. 2, s. 3, s. 4, ss. 6-8, ss. 10-12, s. 16(2), s. 16(3)

Natural Gas Price Administration Act, R.S.A. 1980, c. N-3, s. 1

Physical Therapy Profession Act, RSA 2000, c. P-14,

Counsel:

Norm Assiff, for the Plaintiffs.

Damian Shepherd, for the Defendant.

[Editor's note: A corrigendum was released by the Court on January 24, 2012; the corrections have been made to the text and the corrigendum is appended to this document.]

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D.L. SHELLEY J.:--

1. Introduction

1 On March 1, 2005, Kent Sparrowhawk was in his car with his three children (Jordan, Taylor and Keirra), when they were rear-ended by a truck driven by the Defendant, Kevin Zapoltinsky.

2 The parties appear before this court with one unresolved issue: whether a jaw injury caused by the March 1, 2005 collision is a "minor injury", as defined by the *Insurance Act*, R.S.A. 2000, c. I-3, *Minor Injury Regulation*, Alta. Reg. 123/2004 [the "*MIR*"], and *Diagnostic and Treatment Protocols Regulation*, Alta. Reg. 122/2004 [the "*DTPR*"].

2. Evidence and Facts

3 The accident occurred while the Plaintiffs' vehicle was stationary. The impact was significant, and threw the Sparrowhawk vehicle about 30 feet. The Sparrowhawk vehicle was effectively totalled.

4 Mr. Sparrowhawk was subsequently examined by a number of physicians for injuries flowing from the March 1, 2005 accident. Mr. Sparrowhawk testified at trial concerning his post-collision state. Several experts provided evidence concerning Mr. Sparrowhawk's condition, and its classification.

A. Mr. Sparrowhawk

5 In light of the restricted subject of this decision, I will not detail the nature and progression of Mr. Sparrowhawk's injuries other than the injury to his jaw and mouth. Before the accident Mr. Sparrowhawk was in good general health. He testified that the collision impact caused his head to snap back and hit the car seat headrest, then snap forward again. He first noticed his jaw pain very shortly after the collision. This symptom was new. Mr. Sparrowhawk has no history of jaw injury or pain. He describes the pain as just below his ears and accompanied by popping and grinding sounds.

6 Mr. Sparrowhawk explained that, immediately after the accident, he experienced jaw joint pain several times a week. Over time the pain has become more frequent and is now always present. He usually finds his jaw associated pain increases as the day continues, and is aggravated by eating.

7 Post-collision Mr. Sparrowhawk was referred by his family doctor to another physician, Dr. Robert Ferrari. Dr. Ferrari was told about his jaw pain, but said that the injury would heal without treatment. In 2007 he mentioned his jaw issues to his dentist, Dr. Darrin Doan, who provided a splint and instructed on its use. Mr. Sparrowhawk was less than diligent in his use of the splint; he reports the splint caused uncontrollable gagging and was painful.

8 In preparation for this action, Mr. Sparrowhawk was examined in August 2007 by Dr. James Nicas, who suggested a dentist investigate the alleged jaw dysfunction. In March 2009 Dr. Brian Greenhill, an orthopaedic surgeon, examined Mr. Sparrowhawk but declined to opine on the possible jaw injury. Mr. Sparrowhawk was examined in April 2010 by dentist Dr. Martyn Thomas, who diagnosed temporomandibular joint disorder ["TMD"]. Dr. Thomas recommended that Mr. Sparrowhawk purchase a new lower jaw splint. However, Mr. Sparrowhawk has not made that purchase due to its cost.

9 Mr. Sparrowhawk reports that at present he experiences jaw pain daily. He no longer eats hard or chewy foods, though he will eat rare beef even though that causes discomfort. Yawning causes pain. He no longer participates in sporting activities which he formerly enjoyed, such as long distance cycling. He says his speech is less distinct.

10 I have no reason to question Mr. Sparrowhawk's testimony. I conclude that the jaw pain he experienced following the March 2005 collision has evolved into a condition that affects his ability to eat, and causes pain in everyday actions such as yawning and eating.

B. Medical Experts

11 The court received expert medical evidence concerning Mr. Sparrowhawk's collision injuries and their subsequent development.

i. Dr. James Nicas

12 Dr. Nicas, an orthopaedic surgeon, examined Mr. Sparrowhawk in August 2007 and prepared an expert witness statement. Dr. Nicas did not testify at trial. He is a certified examiner, as defined by the *MIR*, and therefore qualified to examine and diagnose minor injuries. He concluded that Mr. Sparrowhawk experienced whiplash, and lumbar spine and knee injury, as a consequence of the collision. Dr. Nicas also diagnosed Mr. Sparrowhawk as having "mild temporomandibular joint strain", but indicated:

> ... Regarding his temporomandibular joints he had mild pain in both temporomandibular joints but I don't think he has had any dental examination and I would suggest he be seen by a dental specialist for this problem.
>
> ...
>
> Impairment of the temporomandibular joint would have to be assessed by a dental specialist.

ii. Dr. Brian J. Greenhill

13 In February 2009, Dr. Greenhill, an orthopaedic surgeon, conducted an examination of Mr. Sparrowhawk. Dr. Greenhill also did not testify at trial. His report includes minimal commentary on Mr. Sparrowhawk's reported jaw dysfunction. The report notes:

> He reports a feeling of tiredness in his jaw. I have no opinion to offer regarding any possible jaw injury. ... In my opinion he is probably now at maximal medical improvement regarding his injuries apart from his jaw. I have no opinion to offer regarding a possible jaw injury.

iii. Dr. Martyn R. Thomas

14 Dr. Martyn Thomas provided an expert report and testified on behalf of the Plaintiffs. He was certified as a dentist with a specific expertise in TMD injuries and their treatment. He confirmed that half his patients have TMD. In his opinion TMD is distinct and different from Whiplash Associated Disorders ["WADs"].

15 Dr. Thomas explained the anatomy and operation of the temporomandibular joint, the jaw apparatus, and its unusual features using description and anatomical models. The temporomandibular joint allows the mandible, the tooth-bearing lower jaw bone, to move relative to the remainder of the skull. The joint involves the mandible and skull temporal bones. Each half of the joint articulates on a disc of cartilage which provides for smooth low-friction movement.

16 The jaw and temporomandibular joint are associated with many muscles, which allow the mandible to move in a number of directions: laterally left to right, forward and back, and rotationally on the joint to allow the mouth's biting and closing movements. Dr. Thomas testified that this complex set of movements is unusual for a body joint, as is the fact that mandible motion in one axis (dorsal/ventral rotation) has a finite range, which ends when the mouth is fully closed. He highlighted a number of the other structures of the jaw, including the powerful cheek masseter muscles that power the biting movement, and the stylomandibular ligament, which runs through the disc-shaped temporomandibular cartilage, and restricts the degree to which the jaw can 'drop open'.

17 The jaw apparatus is in near continual use and movement, as movement in the temporomandibular joint occurs when a person eats, breathes, yawns, and speaks. On average a person moves the temporomandibular joint twenty times a minute.

18 Dr. Thomas stressed that the temporomandibular joint's muscle, bone, cartilage, and ligament components must be considered as a single, functional unit. If dysfunction in any part of the temporomandibular joint's components persists for a significant period of time (more than a few weeks), one can expect that the operation of the entire joint will be affected.

19 Mr. Sparrowhawk was examined by Dr. Thomas on several occasions. He also reviewed Mr. Sparrowhawk's medical and dental records. Dr. Thomas made a number of relevant observations:

1. Mr. Sparrowhawk's jaw moved in an aberrant manner as it opened. Normally, as the jaw opens the mandible moves in a smooth, linear, and consistent trajectory. However, at a certain point Mr. Sparrowhawk's mandible changes direction and moves laterally.
2. Mr. Sparrowhawk's mandible can rotate open to a greater degree than is typical.
3. He observed "crepitation" sounds from the temporomandibular joint using a stethoscope. He described these as clicking and rubbing sounds. Normally the mandible's movement is not associated with any sound. Crepitation occurred every time Mr. Sparrowhawk moved his jaw.
4. He observed an unusual pattern of wear on Mr. Sparrowhawk's teeth, called bruxofaceting, where the corresponding mandible and upper jaw teeth have been worn in a matching manner consistent with abnormal jaw bone position and tooth contact, followed by grinding. Dr. Thomas illustrated this bruxofaceting with casts of Mr. Sparrowhawk's upper and lower mouth and teeth.

20 During his examinations Dr. Thomas touched (palpated) parts of Mr. Sparrowhawk's mouth and Mr. Sparrowhawk reported "myofacial pain", pain in the jaw muscles. In one exam no pain was reported when Dr. Thomas palpated the temporomandibular joint regions. On a second examination pain was reported from those locations. Dr. Thomas testified that Mr. Sparrowhawk explained that sometimes he feels his jaw 'pop out' of position, but that usually occurs later in a day. Dr. Thomas did not express any skepticism or concerns over Mr. Sparrowhawk's reports, and the kinds of jaw operation impairment and limitations that Mr. Sparrowhawk had reported.

21 Mr. Sparrowhawk's temporomandibular joint was x-rayed and that revealed no abnormalities or apparent damage, such as arthritis. In Dr. Thomas' opinion, magnetic resonance imaging ["MRI"] is necessary to visualize damage or abnormality of many temporomandibular joint components, including the joint's two disc-shaped cartilages. These cartilages are not visible on x-rays.

22 In Dr. Thomas' opinion, Mr. Sparrowhawk has suffered damage to the temporomandibular joint and associated jaw apparatus. The unusual degree to which Mr. Sparrowhawk can open his jaw indicated the stylomandibular ligaments had been stretched.

23 The only explanation for the aberrant manner in which the mandible moved as the mouth opened was that some aspect of the joint, either the cartilage or the bones, had been damaged. The crepitation sounds from the joint also indicated injury to one or more of those structures. Dr.

Thomas reasoned that, since the x-rays did not reveal any damage to the bones, it must be the temporomandibular cartilages that are damaged. Dr. Thomas could not conclude whether these cartilages had been torn, perforated or displaced. He confirmed that further investigation with MRI would be helpful to determine whether surgery was appropriate to treat the cartilage damage.

24 On cross-examination, Dr. Thomas was clear that the sounds produced by the temporomandibular joint could not be caused by muscle, ligament, or tendon damage. These sounds were only consistent (in the absence of bone injuries visible by x-ray) with damage or displacement of the temporomandibular cartilages.

25 The abnormal jaw position and associated TMD pain directly caused the bruxofaceting observed on Mr. Sparrowhawk's teeth. Dr. Thomas explained that a person with TMD will often clench their teeth and make chewing movements, including while they are asleep. If the mandible's 'closed' position is aberrant, the normal contact points between the teeth of the upper and lower jaw are not in play. Instead the teeth contact on the bruxofacet locations, which causes tooth wear at those sites. The tooth damage Mr. Sparrowhawk experienced is permanent. In Dr. Thomas' opinion the bruxofacet wearing is a direct consequence of the TMD that followed the March 2005 motor vehicle collision, and the fact that Mr. Sparrowhawk's jaw no longer closes in a normal position. Dr. Thomas also observed that over time the altered tooth bite can be expected to cause Mr. Sparrowhawk's teeth to move in the jaw to different locations and orientations.

26 From his observations Dr. Thomas concluded that Mr. Sparrowhawk probably injured his temporomandibular cartilages as a consequence of the March 2005 collision. That cartilage damage and associated altered jaw motion resulted in Mr. Sparrowhawk's teeth contacting in a manner that directly led to the bruxofaceting tooth damage.

27 Though I have explained Dr. Thomas' conclusion that the March 2005 event affected Mr. Sparrowhawk's stylomandibular ligaments, temporomandibular cartilages, and teeth, I should emphasize that Dr. Thomas was adamant that it is inappropriate to 'dissect out' injury to certain elements of the temporomandibular joint and "craniomandibular complex". Dr. Thomas stressed that any dysfunction to one part of this system can be expected to affect the entire complex. In that sense, the observed cartilage damage and stretched ligament are indications of injury to the joint and jaw as a whole, but do not capture the entire extent of injury and dysfunction. The tooth wear and damage is a reflection and result of that jaw complex dysfunction, and could be characterized as an injury caused by the temporomandibular joint injury.

28 Dr. Thomas also commented on the diagnosis and treatment of TMD and temporomandibular joint injury, as well as the language used in the *MIR* and *DTPR*. Dr. Thomas believed that, beyond a preliminary examination, a physician would not be able to address TMD and temporomandibular joint injury. Diagnosis and treatment of this area of the body falls into the expertise of the dentistry profession. A physiotherapist may assist with early treatment of jaw muscle injury, but nothing further. A chiropractor's techniques have no application in this context. To the contrary, they could damage the temporomandibular joint.

29 In Dr. Thomas' opinion, many elements of the "sprain" and "strain" treatment regimes specified by the *DTPR* have restricted or no relevance to a TMD injury. For example, elevation, compression, or immobilization of the affected body part makes no sense for TMD. Further, the terms "sprain" and "strain" are not used in dentistry. Dr. Thomas was careful to explain that, given that fact, he could not properly attempt to apply those terms as used in the legislation and associated

documentation. Any special meaning to that language was outside his expertise. Dr. Thomas indicated he was not familiar with and did not use the Research Diagnostic Criteria for TMD ["RDC"] classification scheme identified by Defence expert Dr. Kolbinson.

30 In Dr. Thomas' opinion, at this point Mr. Sparrowhawk's jaw dysfunction and tooth damage are permanent. The best possibility is that a splint, a prosthetic that stabilizes jaw resting position and movement, might halt further deterioration of Mr. Sparrowhawk's temporomandibular joint and reduce discomfort. That treatment does not relate to a specific part of the joint and jaw, but the integrated structure as a whole. On cross-examination Dr. Thomas explained that he cannot say with certainty how Mr. Sparrowhawk will progress. He believed that, even with the very best result, Mr. Sparrowhawk will experience intermittent pain when moving his jaw for the rest of his life.

31 Mr. Zapoltinsky suggested that Dr. Thomas' evidence and explanations indicated he was not an unbiased and neutral expert. He also expressed concern that Dr. Thomas had become an advocate for the Plaintiffs. I do not come to that conclusion. In my opinion, Dr. Thomas acted as a cautious expert, who took care to express his ideas clearly and in a consistent manner. His resistance when asked persistently on cross-examination to express opinion in areas that he considered outside his expertise, or to re-characterize his description of the temporomandibular joint as an integrated structure, simply reflects that caution and care.

32 At certain points in Dr. Thomas' testimony he was asked about "soft tissues" and "hard tissues". Other than the fact that soft tissues are not visible in x-ray imaging, I put no emphasis on this language, since these terms are not used in the minor injury legislation.

33 I found Dr. Thomas a credible and reliable witness, particularly given his area of practice. He is the only dentist witness to have examined and then commented on Mr. Sparrowhawk's jaw, jaw joint, and teeth.

iv Dr. Dean Alan Kolbinson

34 Dentist Dr. Dean Kolbinson testified on behalf of Mr. Zapoltinsky. Dr. Kolbinson is a professor at the University of Saskatchewan College of Dentistry, who has close to 30 years of research and clinical experience. He has published peer reviewed literature that examines TMD and its relationship to motor vehicle accidents. His expertise was not challenged. I found Dr. Kolbinson a credible expert witness.

35 Dr. Kolbinson did not examine Mr. Sparrowhawk. Instead, he relied on Dr. Thomas' report and other medical reports to evaluate the nature of Mr. Sparrowhawk's injury. In Dr. Kolbinson's opinion, Dr. Thomas conducted an acceptable exam and investigation of Mr. Sparrowhawk's jaw and mouth. However, Dr. Kolbinson would have preferred further diagnostic imaging (in particular, MRI examination) of the temporomandibular joint and its structures.

36 I do not view Dr. Kolbinson's explanation of the anatomy and operation of the temporomandibular joint as significantly different from that provided by Dr. Thomas. They seemed to disagree as to the degree to which the jaw joint and its associated structures should be viewed as a single, interlinked entity. However, I note that both experts used similar or analogous language, talking for example about "complexes" and "systems". I have concluded that at least some of this apparent discrepancy is a question of semantics, rather than a disagreement in principle. Dr. Kolbinson did acknowledge that injury to one part of the jaw apparatus could precipitate injury to other structures.

37 The testimony of Dr. Kolbinson matched that of Dr. Thomas on many points. Dr. Kolbinson agreed that dentists are the persons who generally assess and evaluate TMD and other mouth disorders and injuries. He said that the terms "sprain" and "strain" are not used by his profession. Certain of the treatments identified in the *DTPR* for sprains and strains had no application for injuries or dysfunction of the temporomandibular joint. Upon review of the "Scientific Monograph of the Quebec Task Force on Whiplash Associated Disorders: Redefining "Whiplash" and Its Management", Dr. Kolbinson agreed that Mr. Sparrowhawk's mouth condition could not be considered a part of or an aspect of a WAD. Dr. Kolbinson did not identify any reason to question Dr. Thomas' conclusion that Mr. Sparrowhawk's mandible moves in an abnormal manner as it opens and closes.

38 Dr. Kolbinson reviewed the x-rays of Mr. Sparrowhawk's mouth and agreed they disclosed no indication of injury to bone, including arthritis.

39 Much of Dr. Kolbinson's testimony related to the crepitation sounds detected by Dr. Thomas when Mr. Sparrowhawk moved his jaw. Dr. Kolbinson divided crepitation into two categories, "coarse" and "fine" crepitation. Coarse crepitation is associated with degeneration of bony joint structures such as what occurs in arthritis, while fine crepitation may be caused by cartilage disc injury. Some crepitation is not associated with any injury at all. Dr. Kolbinson agreed that Dr. Thomas had not used the fine versus coarse crepitation distinction.

40 Dr. Kolbinson emphasized a difference between crepitation and "clicking". The latter has very different causes. Clicking is most commonly caused when a disk displaces in or out of position, or may be caused by an atypical disc shape, such as a bump on the disk cartilage.

41 In Dr. Kolbinson's opinion, the most likely explanation for Mr. Sparrowhawk's reported symptoms were stretched stylomandibular ligaments and muscle pain. Precise diagnosis would require MRI imaging to eliminate other alternative explanations for the alleged joint dysfunction and pain, such as a buildup of fluid within the joint.

42 On cross-examination, the Plaintiffs suggested that crepitation soon after the March 2005 accident would suggest injury to the temporomandibular joint cartilages. Dr. Kolbinson agreed, but observed that the probable cause would shift, depending on the kind of crepitation observed. Dr. Kolbinson agreed that tenderness at the temporomandibular joint could favour damage or dysfunction of the joint cartilages, but could also indicate injury to the stylomandibular ligaments.

43 There was considerable discussion on the use of the RDC to categorize or name Mr. Sparrowhawk's injury. That scheme never uses the terms "sprain" or "strain". I view that evidence as of essentially no value, as the physical nature of any temporomandibular joint and jaw injury and dysfunction is what is critical for this case, not how that disorder might be classified or grouped. Similarly, there was much discussion with Dr. Kolbinson on whether a motor vehicle collision could result in injury to the temporomandibular joint components, including the temporomandibular cartilage, and whether an injury of that kind required a physical impact to the jaw. I consider that theoretical question to be irrelevant here, given my conclusion that the injury to Mr. Sparrowhawk's temporomandibular joint was caused by the March 2005 accident. The crucial question in this case is the nature of Mr. Sparrowhawk's injury, not the general cause of that injury.

44 Ultimately, Dr. Kolbinson indicated that Mr. Sparrowhawk probably had an injured temporomandibular joint. However, as I have previously indicated, I think much of the discussion of whether a 'joint' or a 'joint component' was injured became a matter of semantics. What I consider critical from Dr. Kolbinson's testimony is that he did not think that a cartilage injury had occurred,

though he did not challenge Dr. Thomas' conclusion that Mr. Sparrowhawk's teeth exhibited bruxofacets.

C. Facts - Conclusions

45 I find the following facts on a balance of probabilities:

1. Mr. Sparrowhawk's description of his mouth and jaw dysfunction is accurate and supported by the symptoms observed and reported by Dr. Thomas,
2. Mr. Sparrowhawk's mandible follows an aberrant movement path as it opens and closes, and
3. Mr. Sparrowhawk's teeth exhibit bruxofaceting, a permanent form of tooth damage.

46 Drs. Thomas and Kolbinson agreed and I accept that:

1. TMD injuries are not WAD injuries,
2. dentists are the experts who assess, evaluate, and treat TMD injuries,
3. the terms "sprain" and "strain" are not used by dentists when they diagnose and treat TMD injuries, and
4. some of the treatments for sprains and strains identified in the *DTPR* have no application to TMD and mouth injuries.

47 The chief point of disagreement between the two experts was the possible involvement of temporomandibular cartilage damage in Mr. Sparrowhawk's condition. Both experts agreed that the x-rays of the temporomandibular joints did not suggest any bone injury or degeneration. That eliminates what Dr. Kolbinson thought was the most likely cause of Mr. Sparrowhawk's injury, arthritis.

48 Dr. Thomas identified two indications of joint cartilage injury: Mr. Sparrowhawk's altered mandible movement path and the sounds produced within the joint as the mandible moves. As I understand Dr. Kolbinson's testimony, he did not challenge that the displaced mandible movement path meant something had happened to Mr. Sparrowhawk's temporomandibular joint. Instead, the central criticism by Dr. Kolbinson is that Dr. Thomas has misapprehended the possible nature and cause of the crepitation.

49 I do not reject Dr. Kolbinson's scheme of abnormal temporomandibular joint sounds, which include "coarse" and "fine" crepitation, and "clicking" sounds. My difficulty with his testimony is that it seems to me that evaluating these different sounds would be a highly subjective process, and I question whether Dr. Kolbinson can use Dr. Thomas' notes and testimony to critically evaluate and identify a specific sound and associated joint dysfunction. If Dr. Kolbinson wanted to use temporomandibular joint sounds to characterize Mr. Sparrowhawk's injury, then Dr. Kolbinson ought to have personally examined Mr. Sparrowhawk and listened to those joint sounds. I would have put much stronger weight on Dr. Kolbinson's conclusion if he could have said "I personally listened to those joints move, and I recognized that sound very well. In my experience, that kind of sound is very often associated with this specific injury." I have little basis not to prefer the interpretation and conclusion of Dr. Thomas. I conclude on a balance of probabilities that Mr. Sparrowhawk has experienced some kind of temporomandibular cartilage damage.

50 Mr. Zapoltinsky argues that the absence of MRI data on the state of Mr. Sparrowhawk's temporomandibular joint means Mr. Sparrowhawk cannot prove the nature of injury to that region. I

disagree. Dr. Thomas identified abnormal symptoms, such as uneven jaw movement and crepitation sounds from the joint, and then concluded two kinds of injury may have occurred: injury to the bone or joint cartilage. Dr. Kolbinson agreed those were the probable explanations for these indicia.

51 Dr. Thomas then eliminated one possibility via x-ray. What MRI techniques would provide is further detail of how the cartilage was injured. However, as the following analysis will indicate, for the purpose of the minor injury scheme I need only conclude that cartilage injury has been demonstrated, and I accept Dr. Thomas' conclusions on that point.

52 As I have previously indicated, I place no weight or significance on the RDC classification system and its description of this injury. There clearly was a dispute between the experts on the integration and interdependence of the parts of the temporomandibular joint and jaw apparatus. While this is an interesting question, I do not need to comment further on whether an injury to a part of the temporomandibular joint and associated structures inevitably affects the entire structure. This case can be determined by whether a specific non-muscle, ligament, or tendon structure has experienced injury.

3. Preliminary Issue - Relevance of Non-Hansard Government Communications

53 I delivered the following ruling, and these reasons for it, during the course of the trial. I reiterate it here for the sake of convenience and completeness.

54 The Plaintiffs asked that I interpret the *Insurance Act*, *MIR*, and *DTPR* minor injury scheme in light of a number of letters sent by the Honourable Patricia L. Nelson, who was then the Minister of Finance:

- letter of December 8, 2003 written to Mr. Mike Saunders of Calgary, Alberta,
- letter of March 29, 2004 written to Mr. David Huculak of Edmonton, Alberta,
- letter of May 18, 2004 written to Mr. Donald McFarlane of Calgary, Alberta, and
- letter of June 7, 2004 written to Mr. Joe Nagy of no identified address.

55 These letters responded to inquiries and concerns about the operation of the minor injury legislative scheme. The Plaintiffs asked that I use the commentary in these letters to evaluate legislative intent, similar to the manner in which "Hansard evidence" was used in ***R. v. Morgentaler***, [1993] 3 S.C.R. 463 at 484, 107 D.L.R. (4th) 537.

56 While relevant, any commentary by legislators has restricted weight; in ***Rizzo & Rizzo Shoes Ltd. (Re)***, [1998] 1 S.C.R. 27 at 46, 154 D.L.R. (4th) 193, Iacobucci J. observed:

> Although the frailties of Hansard evidence are many, this Court has recognized that it can play a limited role in the interpretation of legislation. [Emphasis added]

57 Commentary by government actors outside of the legislatures is not generally accepted as an interpretative tool in Canada. The Ontario Court of Appeal, in ***Kennedy v. Leeds, Grenville and Lanark District Health Unit***, 2009 ONCA 685, 99 O.R. (3d) 215, leave refused [2009] S.C.C.A. No. 478, directly evaluated what kinds of 'government documents' are potentially included within the 'Hansard evidence' category. The Court interpreted the scope of smoking ban legislation. While the applicant relied on statements of the Minister of Health to the Legislature and the Legislature's Standing Committee on Estimates, the respondent sought to admit a wide range of public statements by government officials, including government documents, meeting minutes, and an interview on an Ontario radio talk show (paras. 20-21).

58 Armstrong J.A. rejected the non-Hansard materials:

> [27] I do not agree that the material concerning the Ottawa bylaw would be of any relevance or assistance in determining the legislature's intention regarding the definition of "enclosed public place" in the Act. Also, I do not find that either the publications of the Ministry of Health or the transcript of the radio interview with the Chief Medical Officer of Health to be of any assistance. [Emphasis added]

59 A similar conclusion was drawn earlier in ***R. v. Banks***, 2007 ONCA 19 at paras. 62, 84 O.R. (3d) 1, leave refused [2007] S.C.C.A. No. 139:

> The appellants introduced affidavits that contain newspaper reports of comments made by the Premier and other government officials outside the legislature. These comments are inadmissible. Ignoring their hearsay aspect, extra-legislative comments by individual members of the legislature are not admissible to show the legislature's intention: Reference re: Upper Churchill Water Rights Reversion Act 1980 (Newfoundland), [1984] 1 S.C.R. 297 at 319. [Emphasis added]

60 The Court in ***Banks*** appears to reference the following passage from ***Reference re Upper Churchill Water Rights Reversion Act***, [1984] 1 S.C.R. 297 at 319, 8 D.L.R. (4th) 1:

> ... I would say that the speeches and public declarations by prominent figures in the public and political life of Newfoundland on this question should not be received as evidence. They represent, no doubt, the considered views of the speakers at the time they were made, but cannot be said to be expressions of the intent of the Legislative Assembly. Much of the material tendered, concerning such matters as the Newfoundland demands for the recall of power, the background of the negotiations leading up to the development of the Power Contract, and the construction of the production facilities, I view as historical facts that were public knowledge in the Province of Newfoundland and may be considered. I am also of the view that the government pamphlet entitled, "The Energy Priority of Newfoundland and Labrador", may be considered. The purpose of this pamphlet, explained in the pamphlet itself, is to inform the financial community of the Government's reasons for enacting the Reversion Act. It was published by the Government less than one month before the Reversion Act was given Royal Assent, and actually includes a copy of the Act. It is my opinion that this pamphlet comes within the categorization of materials which are "not inherently unreliable or of-

> fending against public policy", to use the words of Dickson J. quoted above, and are receivable as evidence of the intent and purpose of the Legislature of Newfoundland in enacting the Reversion Act. [Emphasis added]

61 Similar commentary is found in ***Ontario Teachers' Federation v. Ontario (Attorney General)*** (1998), 39 O.R. (3d) 140, 53 O.T.C. 69 (Ont. Ct. (Gen. Div.)):

> I take from the foregoing that the categories or "various kinds" of extrinsic evidence that may be admissible in cases of this nature are not closed, but that the general nature of such evidence will be along the lines of those classes referred to. I also note that the extension of the concept to even the admission of excerpts from Hansard is somewhat guarded. In my opinion, it would be an unwarranted extension of the concepts underlying the court's resort to aids such as Hansard, royal commission reports, government policy papers and other such sources bearing upon the history and background of the legislation, to broaden those concepts to apply to the sworn testimony and out-of-legislature views and opinions of ministers and members of the legislature. It would also be inconsistent with the weight of existing authority on the subject ... [Citations omitted, emphasis added]

62 I concluded that the four letters by the Honourable Minister were not useful or admissible interpretative tools in the present matter. These are analogous to the materials considered and rejected by the Ontario Court of Appeal in ***Kennedy v. Leeds, Grenville and Lanark District Health Unit***, and ***R. v. Banks***, and far different from a document formally prepared to inform the public or a part of the public, as in ***Reference re Upper Churchill Water Rights Reversion Act***. The Nelson letters are therefore irrelevant to the analysis that follows.

4. Legislative Scheme

63 This case requires me to interpret two regulations passed under the Alberta *Insurance Act*, the *MIR* and *DTPR*. Together these regulations set diagnostic procedures and treatment and tort recovery limits for certain categories of injuries that result from motor vehicle accidents.

A. Statutory Interpretation

64 The central principle of statutory interpretation is provided by ***Rizzo & Rizzo Shoes Inc. Ltd. (Re)***, [1998] 1 S.C.R. 27 at para. 21, 154 D.L.R. (4th) (most recently applied in ***Canada (Canadian Human Rights Commission) v. Canada (Attorney General)***, 2011 SCC 53 at para. 33). Legislation is interpreted:

> ... by reading the words of the provision in their entire context and according to their grammatical and ordinary sense, harmoniously with the scheme and object of the Act and the intention of Parliament.

B. Judicial Commentary

65 The *MIR* and *DTPR* have received minimal judicial commentary. The Court of Appeal, in ***Morrow v. Zhang***, 2009 ABCA 215, 454 A.R. 221, leave denied [2009] S.C.C.A. No. 341, concluded that the restricted treatment and tort recovery allowed under the regulations did not offend the *Charter of Rights and Freedoms*, ss. 7 and 15. I note that in much of its commentary the Court

of Appeal discusses "soft tissue injuries", rather than the specific categories and kinds of minor injuries indicated by legislation: see for example paras. 3, 18, 72-73, 123, and 131. Neither the *Insurance Act*, nor the *MIR* and *DTPR,* use this "soft tissue" language, but instead provide more specific tissue and symptom-based definitions for minor injuries. I put no significance or weight to the "soft tissue" terminology used by the Court of Appeal in ***Morrow v. Zhang*** and conclude that it was a convenient short-hand method to group and refer to the minor injury category and the symptoms of those injuries.

66 The Court of Appeal interpreted the *MIR* and *DTPR* together and as part of a single legislative scheme: see for example paras. 18, 20, 62, 63, and 119. That interpretation is clearly supported by the cross-references between the two regulations: see, for example, *MIR*, s. 4(2).

67 ***Abbas v. Menhem***, 2010 ABQB 527, concluded that medical evidence of an injury that falls outside the "minor injury" category does not prevent a party from invoking the *MIR* certified medical examination procedure. Subsequently, ***Forth v. Mather***, 2011 ABQB 303, [2011] I.L.R. I-5145, commented on the appropriate response to an allegedly defective certified medical examination report.

68 In ***Kubel v. Alberta (Minister of Justice)***, 2005 ABQB 836, 58 Alta. L.R. (4th) 254, Wittmann A.C.J. (as he then was) concluded that the minor injury definition in the *MIR* was within the province's authority. The applicant had argued that the motor vehicle related injuries caught in the *MIR* / *DTPR* scheme included injuries that were not "minor", and thus the two regulations exceeded the authority provided under the *Insurance Act*. That proposition was rejected, as the injuries covered by the *MIR* and *DTPR* were not inconsistent with the implied limit the flows from the word "minor" (para. 34).

69 In this case I must determine whether or not an injury falls into the "minor injury" category.

C. "Minor Injury" as Defined by the *MIR* and *DTPR*

70 Both the *MIR*, s. 1 and *DTPR*, s. 1 define minor injury in the same manner:

> "minor injury", in respect of an accident, means
>
> (i) a sprain,
> (ii) a strain, or
> (iii) a WAD injury
>
> caused by that accident that does not result in a serious impairment.

71 Sprain, strain, and WAD injury have the same definition in both regulations:

> "sprain" means an injury to one or more tendons or ligaments, or to both;
>
> "strain" means an injury to one or more muscles;
>
> ...

"WAD injury" means a whiplash associated disorder other than one that exhibits one or both of the following:

(i) objective, demonstrable, definable and clinically relevant neurological signs;
(ii) a fracture to or a dislocation of the spine.

72 The *MIR* sets a two-step process to evaluate whether or not an injury is minor. First, a medical professional investigates whether an injury is a sprain, strain, or WAD injury: *MIR*, ss. 4(1), 10(1). If an injury is a sprain, strain, or WAD injury then investigation continues to consider whether the injury has caused serious impairment: *MIR*, ss. 4(1), 10(1). Any sprain, strain, or WAD injury that has not caused serious impairment is a minor injury and a basis for restricted tort damages (*MIR*, ss. 6-7) and a specific treatment regime (*DTPR*, ss. 8-9, 12-13, 17-18, 20-25).

73 The *DTPR* incorporates non-legislation documents as relevant to the diagnosis procedure:

* a sprain or strain is diagnosed "... [w]ith reference to the International Classification of Diseases ...": *DTPR*, ss. 7(1), 11(1); and
* a WAD injury is diagnosed "... [w]ith reference to the Scientific Monograph of the Quebec Task Force on Whiplash Associated Disorders: Redefining "Whiplash" and Its Management, published by Hagerstown, MD: J.B. Lippincott Company, 1995 ...": *DTPR*, s. 15.

The International Classification of Diseases is defined in section 1(g) of the *DTPR* as a reference document published by the World Health Organization (see also *MIR*, s. 16(3)).

74 Each minor injury type has several severity categories that receive different treatment regimes:

* a minor injury strain may be a first, second, or third degree strain (*DTPR*, s. 7(2)),
* a minor injury sprain may be a first, second, or third degree sprain (*DTPR*, s. 11(2)), and
* a minor injury WAD injury may be a WAD I or II type (*DTPR*, ss. 16(1), 19(1)).

75 The *MIR* does not use the *DTPR* categories of injury severity. However, ***Kubel v. Alberta (Minister of Justice)***, at paras. 6-7, concluded that *DTPR* injury severity categories for sprains and strains were relevant to indicate the scope of the *MIR* sprain and strain minor injury categories.

D. Certified Examiners and Health Care Practitioners

76 Where a person is injured in a motor vehicle accident and there is a dispute as to whether an injury is a minor injury, the injured person may be examined by a "certified examiner" to determine whether the injury is or is not a minor injury (*MIR*, s. 8). Assessment involves two steps: 1) whether the injury is a WAD injury, sprain, or strain, and 2) whether the injury has or has not caused "seri-

ous impairment" (*MIR*, s. 10(a)). The opinion of the certified examiner is *prima facie* evidence of whether an injury is or is not a minor injury (*MIR*, s. 12).

77 Section 16(2)(a) of the *MIR* states that a certified examiner must be an active physician, as defined by the *Medical Profession Act*, R.S.A. 2000, c. M-11. That legislation is no longer in force, having been replaced by the *Health Professions Act*, R.S.A. 2000, c. H-7. I presume that a certified examiner must belong to the College of Physicians and Surgeons of Alberta, per Schedule 21 of the *Health Professions Act*.

78 I note that the *DTPR* indicates a broader ranger of "health care professionals" may diagnose minor injuries under that regulation. Section 1(c) states:

> 1(c) "health care practitioner" means
>
> (i) a physician,
> (ii) a registered member as defined in the Chiropractic Profession Act, or
> (iii) a physical therapist as defined in the Physical Therapy Profession Act,
>
> who is entitled to practise their profession in Alberta;

"Physician" is not defined by the *DTPR*. The *Chiropractic Profession Act*, R.S.A. 2000, c. C-13 and *Physical Therapy Profession Act*, R.S.A. 2000, c. P-14 also no longer exist. I presume these two health care practitioner groups also are the current *Health Professions Act* equivalents.

79 The *DTPR* also describes a class of medical professionals called "injury management consultants". These are physicians, chiropractors, and physical therapists (*DTPR*, s. 27(1)) who meet certain criteria, as assessed by the medical professional's college (*DTPR*, s. 27), and are tracked as part of the "register of injury management consultants" (*DTPR*, s. 26-28). Patients are referred to injury management consultants when their injury does not resolve in 90 days (*DPTR*, s. 25(1)) or where patient symptoms warrant further examination (*DTPR*, s. 24). Unlike a certified examiner, an injury management consultant is not required to have knowledge of the International Classification of Diseases (*DTPR*, s. 27(2)).

80 For the purpose of minor injury limits on tort recovery, the courts appear to have a limited role in evaluation of whether or not an injury is a sprain, strain, or WAD injury (*MIR*, s. 4(1)(a)). *MIR*, s. 4(2) instructs that:

> ... the determination as to whether an injury is a sprain, strain or WAD injury <u>must be based on</u> an individual assessment of the claimant <u>in accordance with the diagnostic protocols established under the Diagnostic and Treatment Protocols Regulation</u>. [Emphasis added]

81 Sections 7(1), 11(1), and 15 of the *DTPR* use parallel language to indicate who diagnoses the nature of the injury: "... a diagnosis of a [sprain, strain, or WAD injury] is to be established by <u>a health care practitioner</u> ..." [emphasis added]. Presumably this language means the Legislature intended that this Court must rely on the evidence of one or more "health care practitioners" to determine whether an injury is a sprain, strain or WAD injury.

82 The same restriction does not appear to exist for the *MIR*, s. 4(1)(b) question of whether a sprain, strain, or WAD injury does or does not cause serious impairment. Instead, *MIR*, s. 4(3) directs that a decision-maker "... must take into account ... the claimant's pre-existing medical history ..." [emphasis added], and "... the matters referred to in section 1(j)(i) that relate to the claimant ...".

83 The reference to s. 1(j)(i) seems to isolate *a part* of the serious impairment criteria as mandatory:

> (j) "serious impairment", in respect of a claimant, means an impairment of a physical or cognitive function
>
> (i) that results in a substantial inability to perform the
>
> (A) essential tasks of the claimant's regular employment, occupation or profession, despite reasonable efforts to accommodate the claimant's impairment and the claimant's reasonable efforts to use the accommodation to allow the claimant to continue the claimant's employment, occupation or profession,
>
> (B) essential tasks of the claimant's training or education in a program or course that the claimant was enrolled in or had been accepted for enrolment in at the time of the accident, despite reasonable efforts to accommodate the claimant's impairment and the claimant's reasonable efforts to use the accommodation to allow the claimant to continue the claimant's training or education, or
>
> (C) normal activities of the claimant's daily living,
>
> (ii) that has been ongoing since the accident, and
>
> (iii) that is expected not to improve substantially. [Emphasis added]

84 Read literally, *MIR*, s. 4(3) could be interpreted to indicate that the other elements of "serious impairment" identified in *MIR*, ss. 1(j)(ii) and 1(j)(iii) are not mandatory considerations but, rather, optional criteria that would be relevant under certain, unspecified conditions. However, I conclude that was not the Legislature's intent. An alternative interpretation of *MIR*, s. 4(3)(b) is that provision instructs that serious impairment is evaluated with all three s. 1(j) definition criteria, but that for s. 1(j)(i) a decision maker must only evaluate whichever of the three forms of impairment (workplace, education, and daily living) are relevant for this particular claimant.

E. Related Legislative Schemes

85 Alberta is not the only province that has enacted legislation that specifically addresses certain kinds of injuries that result from automobile accidents. Saskatchewan, Manitoba and Quebec have implemented publicly funded, no-fault schemes. In these provinces, insured drivers who suffer injuries in motor vehicle accidents are not entitled to bring an action against negligent drivers, but are entitled to first party, no-fault benefits from the government funded insurer.

86 New Brunswick (*Insurance Act,* R.S.N.B. 1973, c. I-12) and Prince Edward Island (*Insurance Act*, R.S.P.E.I. 1988, c. I-4) have a system that shares certain features with the Alberta ap-

proach, but with several significant differences. Most importantly, the definitions of "minor injury" are unique. Ontario also has similar legislation which restricts recovery unless an injury exceeds the thresholds of "permanent serious disfigurement" or "permanent serious impairment of an important physical, mental or psychological function": *Insurance Act*, R.S.O. 1990, c. 18, s. 267.5(5). The nature of the injury itself does not matter in these provinces. For example, it makes no difference whether the injury is a sprain, strain, WAD injury, fractured bone or facial scar.

87 Nova Scotia has enacted legislation (*Insurance Act*, R.S.N.S. 1989, c. 231, *Automobile Accident Minor Injury Regulations*, N.S. Reg. 94/2010) that is clearly modelled on the Alberta *Insurance Act* and *MIR*, but has not yet passed an equivalent to the *DTRP*.

88 Each legislative scheme uses unique language to set the types of automobile collision injuries that are the subject of restricted recovery. As a consequence, jurisprudence from other jurisdictions has a restricted application for interpretation of the *MIR* and *DTPR*. However, the courts in other provinces have confronted analogous interpretation issues and, as a consequence, I will, in certain instances, refer to judgments from these other provinces. When I do so, I do not use the non-Alberta cases as precedents but, rather, as useful indications of how a court may approach interpretation of legislation with the same general purpose as the Alberta *Insurance Act*, *MIR*, and *DTPR*.

5. Analysis

89 I conclude that Mr. Sparrowhawk's TMD injury is not a minor injury on three bases.

A. The Injury is Not a Sprain, Strain, or WAD

90 Dr. Thomas concluded that Mr. Sparrowhawk's jaw injury more likely than not involved damage to the TMJ's cartilage. A cartilage was described by the experts as a kind of tissue found in joints that assists in the smooth movement of body parts through that joint's axis or axes of rotation. As previously explained, I preferred Dr. Thomas' evidence on the involvement of cartilage injury in Mr. Sparrowhawk's jaw dysfunction.

91 The experts agreed that a cartilage is not a muscle, tendon, or ligament. Injury to the cartilage is therefore not a "sprain" or "strain": *MIR*, s. 1, *DTPR*, s. 1.

92 Similarly, the experts agreed that TMD is not a facet of WAD; that point was conceded by the parties. Even if that point had been disputed I would conclude that the exclusion of "jaw pain" from WAD I and WAD II symptoms by *DTPR*, ss. 17(a)(vi)(E), 20(a)(vi)(E) meant that the WAD injuries do not include the jaw.

93 I also concluded that Mr. Sparrowhawk experienced a non-minor injury as the TMD caused anomalous wear and damage to his teeth. Dr. Thomas concluded, and I agree, that the bruxofacets visible on Mr. Sparrowhawk's teeth are a direct consequence of his TMD injury. That injury caused anomalous jaw movement and grinding. Mr. Sparrowhawk's pre-injury dental records show no signs of that kind of anomalous tooth wear.

94 As teeth are not muscle, tendon, or ligaments, I conclude the bruxofaceting is also not a "sprain" or "strain", nor is it a WAD injury.

95 On these bases I conclude that Mr. Sparrowhawk's jaw injuries are not minor injuries. If I am incorrect on that point, this analysis will continue to evaluate whether the jaw injury is not a minor injury as the injury has caused serious impairment.

B. The Injury Caused Serious Impairment

96 The *MIR* excludes as minor injuries any injury that causes "serious impairment". Evaluation of serious impairment has five steps:

1. whether a physical or cognitive function is impaired;
2. whether a sprain, strain, or WAD injury is "the primary factor contributing to the impairment";
3. does the impairment cause substantial inability to perform:

a) essential work tasks,
b) essential facets of training or education, or
c) "normal activities of the claimant's daily living";

4. whether the impairment has been "ongoing since the accident"; and
5. whether the impairment is not expected to "improve substantially".

97 Here, the Plaintiffs argue that Mr. Sparrowhawk's TMD has affected his "normal activities of ... daily living".

i. The Injury Impairs a Physical Function

98 Mr. Sparrowhawk reports difficulty with chewing, yawning, and speech. As described and detailed by Dr. Thomas, Mr. Sparrowhawk's jaw now opens in an abnormal manner. I concluded the jaw dysfunction and associated pain is impairment of a physical function.

ii. The Sprain, Strain, or WAD Injury is the Primary Factor Contributing to the Impairment

99 Section 3 of the *MIR* requires that:

> 3. For a sprain, strain or WAD injury to be considered to have resulted in a serious impairment, the sprain, strain or WAD injury must be the primary factor contributing to the impairment.

100 Arguably, "primary factor" could mean the largest contributing cause in a multifactoral injury scenario. Alternatively, a "primary factor" may be analogous to the tort law "but for" test: ***Resurfice Corp. v. Hanke***, 2007 SCC 7 at paras. 21-23, [2007] 1 S.C.R. 333.

101 Here, if I had concluded that Mr. Sparrowhawk's injuries were restricted to the types that may be minor injuries (sprains, strains, and WAD injuries), then I would conclude that those potential minor injuries were the primary cause of Mr. Sparrowhawk's impaired ability to chew, breath, and speak.

102 There was no dispute that the injuries to Mr. Sparrowhawk's jaw muscles and ligaments emerged from the March 2005 collision, and are not a reflection of some pre-existing condition. The only other potential cause suggested by the Defendant is that Mr. Sparrowhawk's failure to use the Doan splint may have contributed to his ongoing injury. I reject that proposition on the basis that

Dr. Doan supplied that splint several years after the 2005 motor vehicle collision, and Dr. Thomas explained that Mr. Sparrowhawk's injury became permanent after a relatively short period of ongoing TMJ dysfunction. In that sense the splint supplied by Dr. Doan is irrelevant to the cause of Mr. Sparrowhawk's jaw impairment.

103 Given my conclusion that Mr. Sparrowhawk's jaw dysfunction and associate impairment could only have been caused by injuries that flowed from the 2005 motor vehicle collision I will not further explore the potential scope of the "primary factor" requirement and leave that issue to a future case with more suitable and relevant facts.

iii. The Injury Creates Substantial Inability to Perform a Normal Activity of Daily Living

104 The Defendant suggests that "substantial inability" should mean more than "difficulty" with a task (i.e., if Mr. Sparrowhawk can still eat hard foods, then he is not 'substantially impaired'). I think that is an incorrect interpretation for this threshold. Is a person who must use canes to walk not 'substantially impaired' because that person can still walk, but with "difficulty"? Can one classify that degree of impairment as a "minor injury"? To illustrate the absurd result of this argument in Mr. Sparrowhawk's scenario, would that mean he does not experience "substantial inability" provided he can consume food with a straw?

105 An analogous threshold has been considered by Ontario courts. The Ontario *Insurance Act*, R.S.O. 1990, c. 18, s. 267.5(5), does not restrict tort recovery where:

> the use or operation of the automobile the injured person has ... sustained ... permanent serious impairment of an important physical, mental or psychological function. [Emphasis added]

106 "Serious impairment" was evaluated in the context of a particular injured person. In ***Meyer v. Bright; Lento v. Castaldo; Dalgliesh v. Green*** (1993), 15 O.R. (3d) 129, 110 D.L.R. (4th) 354 (Ont. C.A.), the court concluded:

> It is simply not possible to provide an absolute formula which will guide the court in all cases in determining what is "serious". This issue will have to be resolved on a case-to-case basis. However, generally speaking, a serious impairment is one which causes substantial interference with the ability of the injured person to perform his or her usual daily activities or to continue his or her regular employment.
>
> ...
>
> Once it is found that there is impairment of an important bodily function the court must then decide whether the impairment is a serious one to the particular person. [Emphasis added]

107 The language used in the Alberta and Ontario schemes to describe the thresholds after which an injury is not 'minor' are different. The Ontario court considers whether "serious impairment" causes "substantial interference"; the *MIR*, s. 1(j) definition of "serious impairment" requires the injury cause "substantial inability". The distinction, if any, between "substantial interference" and "substantial inability" is not obvious. However, I believe I may conclude that both the Alberta and Ontario schemes require something more than trivial interference, and something less than a complete disability.

108 Ontario courts have concluded that "serious impairment" exists where an activity is possible but associated with discomfort. For example in ***May v. Casola***, [1998] O.J. No. 2475 (QL) (Ont. C.A.) the court concluded that:

> ... a person who can carry on daily activities, but is subject to permanent symptoms including, sleep disorder, severe neck pain, headaches, dizziness and nausea which, as found by the motions judge, <u>had a significant effect on her enjoyment of life</u> must be considered as constituting serious impairment. [Emphasis added]

109 Similarly, in ***Brak v. Walsh***, 2008 ONCA 221, 90 O.R. (3d) 34, the Ontario Court of Appeal again applied an "enjoyment of life" test. At para. 7, it concluded that impairment was serious:

> The requirement that the impairment be "serious" may be satisfied even although plaintiffs, through determination, resume the activities of employment and the responsibilities of household <u>but continue to experience pain. In such cases it must also be considered whether the continuing pain seriously affects their enjoyment of life, their ability to socialize with others, have intimate relations, enjoy their children, and engage in recreational pursuits</u>. [Emphasis added]

110 Symptoms that in many ways resemble those experienced by Mr. Sparrowhawk were identified as a serious impairment of an activity of daily living in ***MacPherson v. Webber***, [1996] O.J. No. 1343 at paras. 151-161 (QL) (Ont. Ct. (Gen. Div.)). Jenkins J. concludes at para. 157:

> The second question is whether the bodily function which is permanently impaired is an important one in that it plays a major role in the plaintiff's health, general well-being and way of life. The temporal mandibular joint injury affects the plaintiff's ability to eat, speak and yawn. She has difficulty chewing and has to eat soft foods. She gets pain in her jaw when she speaks at length or when she opens her mouth to yawn. The ability to chew, speak and to a lesser extent yawn is important in the sense that those functions are common to everyone and when they are impaired, the effect is significant.

111 I have previously concluded that the different language used by the Ontario and Alberta schemes means I should not (and do not) assume that the same thresholds for non-minor impairment exist in both schemes. Nevertheless, I generally agree with the Ontario Court of Appeal's contextual approach and that injury should be evaluated broadly when evaluated for its effects on commonplace, day-to-day activities. That approach properly balances legislatively mandated restriction on tort recovery for minor injuries with the direction of the *Interpretation Act*, R.S.A. 2000, c. I-8, s. 10 rule that:

> [a]n enactment shall be construed as being remedial, and shall be given the fair, large and liberal construction and interpretation that best ensures the attainment of its objects.

112 An "activity of daily living" is interpreted broadly, but in the context of the particular injured person. Section 1(j)(i)(A) of the *MIR* directs evaluation of the effect of the injury on "normal activities <u>of the claimant's</u> daily living" [emphasis added]. Not all injured persons may have the same normal activities of daily living. An "activity of daily living" is not restricted to physical actions but also an injured person's ability to interact with others: "... to socialize with others, have intimate relations, enjoy their children ...", or to "... engage in recreational pursuits."

113 I conclude that "substantial inability" exists where an injury:

1. prevents an injured person from engaging in a "normal activity of daily living",
2. impedes an injured person's engaging in a "normal activity of daily living" to a degree that is non-trivial for that person,
3. does not impede an injured person from engaging in a "normal activity of daily living" but that activity is associated with pain or other discomforting effects such that engaging in the activity diminishes the injured person's enjoyment of life.

114 Mr. Sparrowhawk reported and I accept that he experiences difficulty and significant pain for activities such as chewing food and yawning, and that his ability to speak has been somewhat impaired. I agree with the conclusion in ***MacPherson v. Webber*** that there can be no dispute these are 'normal activities' of daily living. I therefore conclude that the "substantial inability" criterion for "serious impairment" has been met.

iv. The Injury has Been Ongoing

115 The *MIR* definition of serious impairment requires that the impairment "... has been ongoing since the accident" (*MIR*, s. 1(j)(ii)). Mr. Sparrowhawk reported jaw pain as one of the initial results of the March 1, 2005 collision. That is supported by his statements to medical personnel who have examined him. That pain persisted and evolved into daily pain which continues to the present.

116 I conclude that the "ongoing" criterion in the definition of serious impairment does not mean "continual" or "uniform", but rather that the impairment persists over time. The degree of dysfunction may be variable. That, again, is consistent with the direction of the *Interpretation Act*, s. 10.

117 Ontario courts have taken a similar approach to the "permanence" requirement in the Ontario *Insurance Act*, which is described by *Court Proceedings for Automobile Accidents that Occur on or After November 1, 1996,* Ont. Reg 461/96, s. 4.2(1) [the "*Ontario Regulation*"] to mean an impairment that has "... been continuous since the incident ...". Morissette J., in ***Nissan v. McNamee*** (2008), 62 C.C.L.I. (4th) 135, 167 A.C.W.S. (3d) 990 (Ont. Sup. Ct. J.), concluded at paras. 30-36 that "permanent" impairment may be intermittent. Similarly, in ***Antinozzi v. Andrews***, 2011 ONSC 3296 at para. 56, the court concluded that "... the variable or fluctuating nature of the Plaintiff's pain does not mean that it is not a continuous impairment."

118 Here, the objective of the legislation is only achieved where an impairment is "ongoing", even when that impairment involves intermittent but persistent dysfunction. Minor injuries include "strains", injuries to muscles. As muscles tire, "strain" related dysfunction can be expected to vary. Here, Mr. Sparrowhawk reports that he typically experiences a daily progression in dysfunction.

119 Mr. Sparrowhawk has now experienced frequent jaw related dysfunction and pain for over six years. Those phenomena emerged on or shortly after the March 2005 motor vehicle collision. I conclude that is "ongoing" impairment, so this criterion is also met.

v. The Injury is Not Expected to Improve Substantially

120 The final requirement for "serious impairment" is that the injury "is expected not to improve substantially". I conclude that "substantial improvement" does not mean "any improvement" but, rather, that the dysfunction cannot be expected to improve to such a degree that the "substantial inability" (*MIR*, s. 1(j)(i)) will cease.

121 Substantial improvement is evaluated on a subjective basis specific to the injured individual. Unlike the Ontario legislation (*Ontario Regulation*, s. 4.2(1)), the *MIR* has no requirement to evaluate the probability of "... substantial improvement when sustained by persons in similar circumstances".

122 This interpretation of "improve substantially" is necessary to give effect to the remedial character of the *MIR* and the minor injury scheme. If substantial improvement includes any improvement that does not remove the "substantial inability" then the clause in s. 1(j)(i) has a secondary role in determining whether sprains, strains, and WAD injuries fall into the minor injury category. The critical question then becomes whether the future state of the impairment is a 'substantially improvement'. Section 1(j)(i) also provides a detailed explanation of how and when an injury has caused substantial inability. It would be peculiar for the Legislature to carefully define "substantial inability" but leave substantial improvement vague, unless substantial improvement was defined by substantial inability.

123 I also conclude that the use of the same word, "substantial", to describe both the inability and improvement was intentional and intended to create symmetry: an injury is not a minor injury if it causes "substantial" inability; "substantial" improvement is sufficient improvement to negate the "substantial" inability.

124 In Mr. Sparrowhawk's case, Dr. Thomas provided the relevant estimate of the jaw injury. Dr. Thomas concluded that, at very best, with an appropriate splint Mr. Sparrowhawk's TMD might stabilize. He would continue to experience jaw pain and difficulty with tasks such as eating, yawning, and speaking. That impairment is permanent. Similarly, the tooth damage and any resulting impairment is permanent.

125 I therefore conclude, on a balance of probabilities, that no substantial improvement can be expected for Mr. Sparrowhawk's impairment: jaw-associated pain and difficulty with eating, yawning, and speech. I therefore conclude that, under *MIR*, s. 4(1)(b), Mr. Sparrowhawk's jaw injury has caused serious impairment (*MIR*, s. 1(j)), and is not a minor injury.

C. The Minor Injury Scheme Does Not Include Dental Injury

126 The Plaintiffs argue that Mr. Sparrowhawk's jaw injury cannot be a minor injury because it is a kind of injury that is only evaluated and treated by dentists. The *MIR* and *DTPR* system to diagnose and categorize injuries as minor or not has no provision for dentists to act as certified examiners (*MIR*), health care professionals (*DTPR*), or injury management consultants (*DTPR*). The Plaintiffs indicate that in June 2011 none of the registered certified examiners were dentists. That is important because the Plaintiffs argue that only dentists investigate, diagnose, and treat jaw and tooth related injuries and dysfunction. That certainly seems to be the case. The two dentists who testified, Drs. Thomas and Kolbinson, agreed that non-dentists do not treat TMD and other jaw and mouth related injuries. Notably, both certified examiners (Drs. Nicas and Greenhill) who examined Mr. Sparrowhawk refused to evaluate his alleged jaw injury and indicated a dental specialist should evaluate that alleged injury.

127 The *MIR* seems to indicate a certified examiner has a comprehensive knowledge of potential minor injuries. *MIR*, s. 16(2) provides a single set of expertise and knowledge criteria for certified examiners, though potentially augmented by qualifications established by the Superintendent of Insurance: *MIR*, s. 16(d).

128 The legislation has no provision for a certified examiner to ask for a 'second opinion' or refer an injured person to a different kind of examination. Instead, if a certified examiner is unable to evaluate an alleged minor injury then the same certified examiner may conduct another examination in the next six months: *MIR*, ss. 11(2)-11(4).

129 The Plaintiffs appear to be correct in their assertion that the *MIR* and *DTPR* do not authorize dentists to act as experts who evaluate whether an injury is or is not a minor injury. The regulations make no reference to the former *Dental Disciplines Act*, R.S.A. 2000, c. D-8. Logically, that would mean that the Legislature concluded that dental expertise was not required to evaluate minor injury status. In drawing that conclusion, I note that the qualifications for certified examiners, health care professionals, and injury management consultants are clearly identified.

130 Further evidence in support of this conclusion is that the two regulations address medical expertise in a different manner. Only physicians can act as *MIR* certified examiners and, for the purpose of tort liability, evaluate whether a motor vehicle related injury is or is not a minor injury. However, the *DTPR* authorizes a broader range of professionals (physicians, chiropractors, and physical therapists) to evaluate whether an injury is a minor injury while treating an injured person, or to act as *DTPR* injury management consultants. That different approach to health professionals in the two regulations suggests that the Legislature carefully evaluated what kinds of health professionals were appropriate to participate in and apply the various parts of the minor injury scheme. If so, the logical implication is that the omission of dentists was intentional.

131 ***Rizzo & Rizzo Shoes Inc. Ltd. (Re)*** states that legislation is interpreted:

> ... by reading the words of the provision in their entire context and according to their grammatical and ordinary sense, harmoniously with the scheme and object of the Act and the intention of Parliament.

Here, the relevant legislation provides no evidence that dental expertise is required to evaluate minor injuries. That leads to a conclusion that any injury which falls exclusively into that domain, such as TMD and tooth damage, cannot be a minor injury. A contrary conclusion makes the minor injury legislation incomplete, which is presumptively not the case.

6. Conclusion

132 There are therefore three independent bases to conclude that Mr. Sparrowhawk's jaw and mouth injuries are not minor injuries:

1. the tooth and cartilage injuries are not muscle, tendon, ligament, or WAD injuries,
2. the jaw injury caused serious impairment, and
3. all injuries treated principally by dentists, such as TMD and tooth injury, are never minor injuries.

7. Other Issues Raised Regarding the Interpretation of the Minor Injury Scheme

133 The parties offered detailed arguments concerning other facets of the *Insurance Act*, *MIR*, and *DTPR* minor injury scheme that involve provisions other than those reviewed above. Much of that argument attempted to interpret the meaning and limits of the injuries that fall in or outside the *MIR* and *DTPR* scheme. For example, the parties:

1. and their experts commented on what was a "sprain" or "strain", and attempted to interpret those terms in relation to their use by medical professionals and within medical references, including the International Classification of Disease and Research Diagnostic Criteria;
2. commented on the uncertain relevance of the fact the International Classification of Disease includes entries that involve jaw injury, including "Sprain and strain of jaw", but also a separate "Temporomandibular joint disorders" category;
3. disagreed on the relevance of the recommended treatment schemes identified in the *DTPR*, their application to a specific injury, and whether those treatments could illuminate the character of minor injuries;
4. argued at what 'anatomical level' a "sprain" or "strain" should be considered (for example, whether a muscle, tendon, or ligament is integral to a larger structure); and
5. disagreed whether certain body areas, such as the mouth and jaw, fall entirely outside the scope of the *MIR* and *DTPR* injury category scheme.

134 In my view these disputed points are part of a larger issue that was not specifically argued by the parties: whether the manner in which minor injuries are identified and described in these regulations is adequate to meet the constitutional requirement that legislation cannot be so vague that it cannot be interpreted.

135 I concluded that Mr. Sparrowhawk's jaw and tooth injuries are not minor injuries without having to determine these issues. I cannot make any conclusions on these specific issues, or on the larger general issue, because I did not receive the specific expert evidence that could allow me to do so. I will nonetheless outline the parties' arguments and briefly comment on these additional issues.

A. Definitional Issues Related to the Legislation

136 To be valid, legislation requires a minimum degree of clarity. Any legislation that does not meet that minimum threshold is unconstitutional as contrary to the principles of fundamental justice: ***R. v. Nova Scotia Pharmaceutical Society***, [1992] 2 S.C.R. 606, 93 D.L.R. (4th) 36. A valid law provides the basis for coherent judicial interpretation, and sufficiently delineates any "area of risk". Thus, "... a law will be found unconstitutionally vague if it so lacks in precision as not to give sufficient guidance for legal debate." (at p. 643).

137 In ***Ontario v. Canadian Pacific Ltd.***, [1995] 2 S.C.R. 1031 at para. 47, 125 D.L.R. (4th) 385, Gonthier J. explained how a court ought to examine whether a law meets this requirement:

> 47 In undertaking vagueness analysis, a court must first develop the full interpretive context surrounding an impugned provision. This is because the issue facing a court is whether the provision provides a sufficient basis for distinguishing between permissible and impermissible conduct, or for ascertaining an "area of risk". This does not necessitate an exercise in strict judicial line-drawing because, as noted above, the question to be resolved is whether the law provides sufficient guidance for legal debate as to the scope of prohibited conduct. In determining whether legal debate is possible, a court must first engage in the interpretive process which is inherent to the "mediating role" of the judiciary ... . Vagueness must not be considered in abstracto, but instead must be assessed within a larger interpretive context developed through an analysis of considerations such as the purpose, subject matter and nature of the impugned provision, societal values, related legislative provisions, and prior judicial interpretations of the provision. Only after exhausting its interpretive role will a court then be in a position to determine whether an impugned provision affords sufficient guidance for legal debate. [Emphasis added, citation omitted]

138 Justice Gonthier approved of comments by Andrew S. Butler, "A Presumption of Statutory Conformity with the Charter" (1993), 19 Queen's L.J. 209, at pp. 225-27, and importantly that:

> In such instances, however, the expectation of legislators will invariably be that the courts will flesh-out the generality of the provisions through interpretation based upon experience.

139 Three factors are particularly relevant (***R. v. Nova Scotia Pharmaceutical Society***, at p. 627):

> Factors to be considered in determining whether a law is too vague include (a) the need for flexibility and the interpretive role of the courts, (b) the impossibility of achieving absolute certainty, a standard of intelligibility being more appropriate and (c) the possibility that many varying judicial interpretations of a given disposition may exist and perhaps coexist ... [Emphasis added]

B. "Sprains" and "Strains"

140 The dental experts were asked whether they use terms such as "sprain" and "strain" to describe jaw injuries, presumably on the basis that these terms have specific and relevant medical meanings.

141 That line of investigation is not directly supported by the legislation. Both regulations define sprains and strains in a similar manner. A "sprain" is an injury to a ligament or tendon; a "strain" is an injury to a muscle. Neither regulation goes on to further define or refine these terms. The regulations do not, for example, say that "a strain is an injury to a muscle, where the term is used in the International Classification of Disease to identify an injury of that type and at that location". The *MIR* and *DTPR* definitions are general, global and without any specific limitation. These regulations do not say that the minor injury category only potentially includes those injuries that medical professionals refer to as sprains or strains. The regulations indicate that the *MIR* and *DTPR* can apply to *any* injury to a muscle, ligament, or tendon. The Legislature had the option of explicitly restricting the meaning of "sprain" and "strain" further, but it did not do so.

142 "Muscle", "ligament" and "tendon" are medical terms for kinds of biological structures. For example, they are defined by J.A. Simpson and E.S.C. Weiner, *Oxford English Dictionary*, 2nd ed. (New York: Oxford University Press, 1989) as:

> Ligament: *Anat*. One of the numerous short bands of tough, flexible fibrous tissue which bind the bones of the body together. By extension applied to any membranous fold which supports an organ and keeps it in position.
>
> Muscle: *Anat*. and *Phys*. Any one of the contractile fibrous bands or bundles having the function of producing movement in the animal body, which conjointly make up the muscular system.
>
> Tendon: A band or cord of dense fibrous tissue forming the termination of a muscle, by which it is attached to a bone or other part; a sinew usually applied to such when rounded or cord-like, broad flat tendons being called *fasciae* and *aponeuroses*.

143 I believe I may take judicial notice that the skeletal system of a vertebrate body, including the human body, includes a diverse complex of muscles, ligaments, and tendons. These elements are integral to the form and movement of the skeleton.

144 Muscles, tendons and ligaments are not restricted to only those locations, but are also involved in many organs. It is commonly understood that the vertebrate heart is largely muscle but also contains tendons as valve components. The eye includes muscles, tendons, and ligaments attached to its exterior but also in the iris and lens focussing apparatus.

145 Beyond these general observations, a proper appreciation of the full distribution and role of muscles, tendons, and ligaments requires expert testimony that was not entered into evidence. The *Oxford English Dictionary* definitions suggest different possible scopes for ligaments and tendons. Did the Legislature intend to include or exclude ligaments that support organs? Are tendons to include or exclude *fasciae* and *aponeuroses*?

146 Expert testimony may or may not confirm that the Legislature's definition of "sprains" and "strains" is problematic when a medical professional attempts to identify whether a particular injury is a "sprain" or "strain". While the experts who testified at trial did comment in general ways on the character and meaning of ligaments, muscles, and tendons, this issue was not explored to a sufficient degree to permit me to comment on the scope of those terms, in the context of this legislation.

C. Does the DTPR Diagnostic Protocol Restrict the Scope of "Sprain" and "Strain"?

147 The Defence took the position that the meaning of "sprain" and "strain" should be interpreted in light of the *DTPR*'s diagnostic procedure and considerations, and certain classification information from third-party sources.

148 Section 4 of the *MIR* sets the procedure to assess whether an injury is a minor injury. The first step is to "determine whether the injury is a sprain, strain or WAD injury" (s. 4(1)(a)). If the injury falls into those categories, then the investigation turns "... to whether the sprain, strain or WAD injury results in a serious impairment."

149 Importantly, s. 4(2) states:

> 4(2) For the purpose of subsection (1)(a), the determination as to whether an injury is a sprain, strain or WAD injury must be based on an individual assessment of the claimant in accordance with the diagnostic protocols established under the Diagnostic and Treatment Protocols Regulation.
> [Emphasis added]

150 As was previously noted, the *DTPR* restricts who determines "whether an injury is a sprain, strain or WAD injury": "diagnosis of a [sprain, strain, or WAD injury] is to be established by a health care practitioner ..." [emphasis added]: *DTPR*, ss. 7(1), 11(1), 15. I previously noted that this strict language presumably means the Legislature intended that a court has no authority to independently evaluate whether an injury is a sprain, strain, or WAD injury, and must rely on the evidence of one or more "health care practitioners".

151 Arguably, the *DTPR* diagnostic protocols could assist understanding the meaning of sprains, strains, and WAD injuries. For WAD injuries that is clearly the case. Section 15 identifies a reference document, the *Scientific Monograph of the Quebec Task Force on Whiplash Associated Disorders: Redefining "Whiplash" and Its Management*, cited earlier. Further, *DTPR*, ss. 16(1) and 19(1) identify specific criteria to identify two categories of WAD injury that potentially fall within the minor injury category:

16(1) If a WAD injury is diagnosed, the criteria to be used to diagnose a WAD I injury are

(a) complaints of spinal pain, stiffness or tenderness;
(b) no demonstrable, definable and clinically relevant physical signs of injury;
(c) no objective, demonstrable, definable and clinically relevant neurological signs of injury;
(d) no fractures to or dislocation of the spine.

...

19(1) If a WAD injury is diagnosed, the criteria to be used to diagnose a WAD II injury are

(a) complaints of spinal pain, stiffness or tenderness;
(b) demonstrable, definable and clinically relevant physical signs of injury, including

(i) musculoskeletal signs of decreased range of motion of the spine, and
(ii) point tenderness of spinal structures affected by the injury;

(c) no objective, demonstrable, definable and clinically relevant neurological signs of injury;
(d) no fracture to or dislocation of the spine.

Notably, these are physical criteria: symptoms and features that may be observed and identified by a medical professional.

152 The *DTPR* provides no analogous definition of the characteristics of "sprain" and "strain". It does, however, instruct that the medical professional diagnose "... with reference to the International Classification of Disease ..." and establish "... a diagnosis of a [sprain or strain]": *DTPR*, ss. 7(1), 11(1). *MIR*, s. 16(2)(c)(iii) makes "knowledge of the application of the International Classification of Disease" a prerequisite for certified examiner status.

153 Arguably, the *DTPR*'s methodology for the diagnosis of sprains and strains indicates a more restricted set of muscle, tendon, and ligament injuries that fall within the minor injury category. That would presumably be a three-part inquiry:

1. is the injury by definition a sprain or strain: an injury to a muscle, tendon, or ligament?;
2. is the injury a sprain or strain as those terms are used in the International Classification of Diseases (*DTPR*, ss. 7(1), 11(1))?; and
3. into what of three severity categories (1st, 2nd, or 3rd degree) does the sprain or strain fall (*DTPR*, ss. 7(2), 11(2))?

154 *MIR*, s. 4(2) directs that "... the determination as to whether an injury is a sprain, strain or WAD injury must be based on an individual assessment of the claimant in accordance with the di-

agnostic protocols established under the Diagnostic and Treatment Protocols Regulation." The preamble to *DTPR* ss. 7(1) and 11(1) implies some role for the International Classification of Diseases:

> With reference to the International Classification of Diseases and using evidence-based practice, a diagnosis of a [sprain or strain] is to be established by a health care practitioner using the following process ... [Emphasis added]

155 The "1st, 2nd, and 3rd degree" sprain and strain categories flow from *DTPR*, ss. 7(2) and 11(2), where the legislation reproduces two tables from *Orthopaedic Physical Assessment* by David J. Magee, (3rd), (1997), pg 19.

156 There is judicial commentary that indicates the meaning of sprain and strain is related to the diagnostic procedures and categories of the *DTPR*. ***Kubel v. Alberta (Minister of Justice)*** at paras. 6-7, references the language of the ss. 7(2) and 11(2) tables to evaluate the kinds of injuries that are minor injuries. In ***Morrow v. Zhang***, the Court of Appeal stressed the interrelationship and co-operative operation of these two regulations.

157 With respect to the analysis in ***Kubel***, a full appreciation of this potential approach (to narrow the scope of sprains and strains and then assign those injuries to categories) would clearly benefit from expert testimony by persons with appropriate medical training. Review of these provisions and the International Classification of Disease appears to indicate certain potential gaps and ambiguities.

i. No Scheme to Assess Tendon Injury Severity

158 First, though a sprain is defined as a tendon or ligament injury, the legislation provides no basis to assess the severity of a tendon injury. The table reproduced from *Orthopaedic Physical Assessment* (in *DTPR*, s. 11(2)) only addresses ligament injury, and makes no mention of tendons at all.

159 Arguably a tendon injury is evaluated in an analogous manner to the tabulated ligament injury severity categories. One apparent issue with that conclusion is the different biological roles of these tissue types. Dr. Thomas indicated ligaments hold together and position the parts of a joint. Tendons attach muscles to bones, while one role of ligaments is to hold together a joint. All three definitions of ligament strain involve "opening of the joint". The apparently different roles of tendons and ligaments suggests a tendon injury may not result in that kind of symptom.

160 In short, the scheme presented to assess ligament injury severity may have poor or no application to evaluate the severity of a tendon injury. If so, a gap exists in the Legislature's scheme to identify, evaluate, and treat sprain injuries.

ii. Injury Severity Schemes Are Potentially Restrictive

161 Beyond the *DTPR*'s apparent failure to provide a mechanism to evaluate the severity of tendon injuries, a second issue arises in relation to the manner in which 1st, 2nd, and 3rd degree sprains and strains are defined. Both the s. 7(2) and s. 11(2) tables include a line titled "Mechanism

of injury". The ligament mechanisms are "Overstretch Overload", while the muscle injury mechanisms are either "Overstretch Overload" or "Overstretch Overload Crushing".

162 Are these the only mechanisms that can cause a "strain" or "sprain" injury? One can imagine other processes that may injure a muscle, tendon, or ligament. A muscle may, for example, experience damage as a consequence of interrupted blood flow. Is that injury automatically outside the minor injury category? That would arguably be the case. Are ligaments and tendons a kind of material that cannot be crushed, or is a crushing injury to those tissues automatically outside the minor injury category?

163 Again, these questions require expert testimony to evaluate the meaning, completeness, and role of the s. 7(2) and s. 11(2) tables in evaluation of minor injury status.

iii. The International Classification of Diseases

164 *DTPR* ss. 7(1) and 11(1) indicate that the International Classification of Diseases has some role in diagnosis of sprains and strains:

> With reference to the International Classification of Diseases and using evidence-based practice, a diagnosis of a [sprain or strain] is to be established by a health care practitioner using the following process ... [Emphasis added]

165 The phrase "with reference to" is used in many Alberta statutes and regulations: for example, the *Guarantees Acknowledgment Act*, R.S.A. 2000, c. G-11, s. 1(b), *Natural Gas Price Administration Act*, R.S.A. 1980, c. N-3, ss. 1(c), (d), (n), and *Alberta Heritage Scholarship Act*, RSA 2000, c. A-24, ss. 7(b)-(c). In these cases "with reference to" appears to mean "in relation to", for example in the *Livestock Industry Diversification (Principal) Regulation*, Alta. Reg. 255/1991:

> 2(1) The following species of big game animals are prescribed [in relation to] section 1(1)(d.1) of the Act ...

166 That meaning is inappropriate for the *DTPR*, ss. 7(1) and 11(1) preamble. Instead, "[w]ith reference to" may instead mean "applying" or "following the scheme of", or perhaps indicate a less restrictive instruction to a health care practitioner that the practitioner should describe a sprain or strain consistently with the International Classification of Diseases, if that is possible or appropriate.

167 Further, an attempt to restrict or define the scope of sprains and strains using the International Classification of Diseases may be problematic. This document is a lengthy index of body injuries, sometimes accompanied by brief descriptions or additional information. Each injury has an associated code.

168 A total of 25 entries identify a "sprain and strain", for example:

> S43.4 Sprain and strain of shoulder joint
> Coracohumeral (ligament)
> Rotator cuff capsule

169 In 21 other instances "sprain and strain" occur as part of a more general category, such as category S43, "Dislocation, sprain and strain of joints and ligaments of shoulder girdle". In this case S43.4 is a subcategory within S43.

170 These categories within the International Classification of Disease suggest that, where a muscle, tendon, or ligament injury is associated with one of these specific "sprain and strain" examples, that injury can potentially fall into the minor injury category. The scope of minor injury to muscles, tendons, and ligaments is restricted to where the International Classification of Disease identifies an injury of that tissue as a "sprain and strain". There are a number of complications to that interpretation of the role of the International Classification of Disease in the minor injury legislative scheme.

171 First, some of the "sprain and strain" categories do not apparently include muscle or tendon. For example, category S83.5 is "Sprain and strain involving (fibular)(tibial) collateral ligament of knee". If a "strain" is a muscle injury, then what is the muscle involved in this category? That suggests either:

1 the term "strain" may have different meanings, and is potentially ambiguous, or

2. the authors of the International Classification of Disease assigned a different meaning to "strain" than the Legislature.

172 In other instances a category discusses what appears to be an injury captured in the "minor injury" definition, but without mention of the sprain or strain terminology. General injury category S46 is "Injury of muscle and tendon at shoulder and upper arm level". Are these sprains or strains? If not, then why? Similarly, general category S86 is entitled "Injury of Achilles tendon", but its subcategories include a wide variety of lower leg muscle and tendon groups, and none are identified as "sprains" or "strains".

173 Sometimes there are apparently overlapping categories that seem to relate to the same injuries. Category S63.5 is "Sprain and strain of wrist". General category S66 is "Injury of muscle and tendon at wrist and hand level". What differentiates a wrist "sprain and strain" and a wrist "injury of muscle and tendon"? How can or should those terms be related to the meaning of "sprain" and "strain" set in the *MIR* and *DTPR*?

174 If the words "sprain" and "strain" have a special medical meaning that allows classification of muscle, tendon, and ligament injuries into or out of the minor injury sprain and strain groups, then that distinction is not obvious (at least to me) from the International Classification of Diseases' entries. It seems that the *MIR*, *DTPR*, and International Classification of Diseases do not use the definitions for "sprain" and "strain" in a consistent manner.

175 The *DTPR* instructs that diagnosis of minor injuries occur "[w]ith reference to the International Classification of Diseases". The *MIR*, s. 16(2)(iii) requires that certified examiners are "... knowledgeable in the application of the International Classification of Diseases" [emphasis added]. If certified examiners are expected to 'apply' the International Classification of Diseases, then inconsistencies or ambiguities may be problematic. Relevant expert evidence may clarify these issues in future cases.

iv. International Classification of Disease and Jaw Injuries

176 I have previously concluded that the omission of dentists from the set of medical experts who apply the *MIR* and *DTPR* means that dental and jaw injuries fall outside the minor injury scheme. The International Classification of Diseases mentions a number of jaw-related injuries such as those identified in Mr. Sparrowhawk. The parties commented on these categories, and their meaning and relevance:

K07 Major anomalies of jaw size

...

K07.6 Temporomandibular joint disorders
Costen's complex or syndrome
Derangement of temporomandibular joint
Snapping jaw
Temporomandibular joint-pain-dysfunction syndrome

Excl.: current temporomandibular joint:

* dislocation (S03.0)
* strain (S03.4)

S03 Dislocation, sprain and strain of joints and ligaments of head

S03.0 Dislocation of jaw
Jaw (cartilage)(meniscus)
Mandible
Temporomandibular (joint)

...

S03.4 Sprain and strain of jaw Temporomandibular (joint)(ligament)

177 Notably, a separate category (K07.6) exists for pain from TMD, but that is presumably different from a "sprain and strain of jaw" (S03.4) which, arguably, only involves the temporomandibular joint ligament. Similarly, Dr. Thomas indicated derangement of the temporomandibular joint (K07.6) would necessarily involve cartilage injury, but how is that distinct from jaw cartilage injury in category S03.0?

178 Neither Dr. Thomas or Dr. Kolbinson was able to provide an explanation for these International Classification of Disease entries. Instead, both indicated that the language of "sprain and strain" is simply not used by dentists.

D. Anatomical Structures, Structure Integration, and Inter-Structure Interfaces

179 The parties also argued that the manner in which the minor injury legislation addresses injuries is poorly suited to certain anatomical structures. The chief example discussed in this case was the temporomandibular joint. Dr. Thomas explained that an attempt to isolate a particular part of that jaw apparatus as being injured was an ultimately futile effort, as any dysfunction to a part of the temporomandibular joint would inevitably implicate and affect other parts of the jaw apparatus. In short, the temporomandibular joint should not be separated into a set of specific substructures for the purpose of injury; an injury to any part here is an injury to the whole.

180 The Defence has observed, with justification, that practically any part of the human body necessarily works in conjunction with other parts. Every joint, with its bones, muscle, cartilage, ligaments and tendons, can be viewed as an integrated whole. Clearly, if one were to interpret body parts in that manner then very few, if any, sprains and strains would be minor injuries. An injury to an elbow ligament would be an elbow injury, not a sprain.

181 That is an absurd result, and would defeat the purposes of the legislation. However, what is not clear is how and where a body structure might be so 'integrated' that it cannot be divided into subcomponents that suffer individual sprains and strains. I have no reason to reject Dr. Thomas' evidence that TMD is an injury of an integrated structure which cannot be properly evaluated as injuries of muscle, tendon, and ligament.

182 Perhaps the temporomandibular joint is unique in the human body; the dental experts provided evidence on the special character of the jaw apparatus. The possible incidence of 'integrated' structures that include muscle, tendon, and ligament therefore requires further expert testimony to evaluate what, if any, other muscle, tendon and ligament injuries cannot be viewed as sprains and strains due to the manner in which an injured tissue operates in a larger anatomical structure.

183 Related to this issue is a second question: what if an injury involves the interface between a muscle, tendon, and ligament, and a second body structure that is not a muscle, tendon, or ligament? For example, if a tendon separates from a bone at their point of contact, is that an injury to the tendon, the bone, neither, or both? The *DTPR*, s. 7(2) and s. 11(2) tables do not seem to address this possibility, but only relate to injury 'inside' a muscle or ligament.

184 The 'integration' of a body part may be particularly relevant when addressing the *MIR*, s. 2 instruction to investigate injuries individually, and the *MIR*, s. 3 serious impairment requirement that a "... sprain, strain or WAD injury must be the primary factor contributing to the impairment."

185 To re-frame this issue: what involvement of a non-muscle, tendon, or ligament is potentially sufficient to remove an injury from the sprain and strain categories? Again, the expert testimony that could clarify this issue was not available in this proceeding.

E. Conclusion

186 I do not know if the manner in which the *MIR* and *DTPR* identify minor injuries is too vague to "... [afford] sufficient guidance for legal debate.": ***Ontario v. Canadian Pacific Ltd.***, at para. 47. The legislation references technical documentation which this Court lacks the expertise to evaluate. These regulations are intended, at least in part, to instruct and guide the action of experts. The knowledge of those experts is thus necessary to interpret the scope and meaning of the minor injury category and the operation of the *MIR* and *DTPR* minor injury legislative scheme.

187 However, my review of the legislation and the referenced documents allows me to make some observations. In response to the submissions of the parties, I draw certain conclusions:

1. the scope of "sprains" and "strains" is potentially extremely broad, and the relevance of the terms "sprain" and "strain" is uncertain in evaluating what kinds of injuries are potentially minor injuries;
2. the relevance and application of the International Classification of Diseases is not clear and obvious;
3. the *DTPR*, s. 11(2) table to evaluate sprain severity does not apparently address tendon injuries;
4. the *DTPR,* ss. 7(2) and 11(2) tables, to evaluate sprain and strain severity, may omit certain injury mechanisms, and the implication of those omissions is uncertain; and
5. there may be circumstances where an injury to a muscle, tendon, or ligament cannot be viewed in isolation:

a) due to the close integration of the muscle, tendon, or ligament in a larger anatomical structure, or
b) as the injury occurs at an interface between the muscle, tendon, or ligament, and a different kind of body tissue.

188 If the *MIR* and *DTPR* are too vague for meaningful application, that vagueness has serious potential consequences to the public interest. The *MIR* restricts recovery in tort for injuries that flow from motor vehicle accidents. The *DTPR* sets limits on the treatment of motor vehicle accident injuries.

189 *MIR*, s. 5(1) deems an injury as minor if the injured party does not undergo diagnosis and treatment according to the *DTPR*. It may be helpful to examine the implications of that presumption in what may be a relevant, albeit hypothetical, scenario. The definition of sprains and strains apparently captures injury to a person's heart. A person whose heart is injured in an motor vehicle accident would arguably be required to follow the diagnosis and treatment regime in the *DTPR*, whether medically appropriate or not, or risk significant restriction of the injured person's rights in tort. That may be an absurd result, depending on the proper construction of the *MIR* and *DTPR* minor injury scheme.

190 That is the extent to which I can comment on the questions raised by the parties on the operation (or non-operation) of the *MIR* and *DTPR* minor injury diagnosis and classification scheme. The possibility that the *MIR* and *DTPR* are vague, and therefore not in accordance with the principles of fundamental justice, is a question for a different proceeding where appropriate expert evidence is available to the Court.

8. Costs

191 If the parties cannot agree on costs they can bring the matter back before me by contacting my assistant within 30 days of receiving this Judgment.

D.L. SHELLEY J.

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Corrigendum
Released: January 24, 2012

The word "course" has been corrected to "coarse" in paras. 39 and 49.

cp/e/qlcct/qljxr/qlcct/qlhcs/qlcas/qlgpr/qlcas

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