

**ONTARIO  
SUPERIOR COURT OF JUSTICE**

BETWEEN:

LILIANA DI CIENZO

Applicant

- and -

HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO

Respondent

**FACTUM OF THE APPLICANT**

December 9, 2019

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**PART I - OVERVIEW**

Driving automobiles is a privilege most adult Canadians take for granted. It is important to their lives and work. While the privilege can be removed because of risk, it must not be removed on the basis of discriminatory assumptions founded on stereotypes of disability, rather than actual capacity to drive safely.

*British Columbia (Superintendent of Motor Vehicles) v. British Columbia (Council of Human Rights)*, [1999] 3 S.C.R. 868 ("*Grismer*")

1. This case is a challenge under s. 15 of the *Canadian Charter of Rights and Freedoms* to sections of Ontario's driver licensing regulation denying monocular (one-eyed) Ontarians the opportunity to be considered for a commercial driver's license. Section 18(3) of *Drivers' Licenses*, O. Reg. 340/94 (the "*Drivers' Licenses Regulation*") prevents any person with one eye from seeking to obtain a commercial license, regardless of whether he or she can drive safely.

2. The applicant, Liliana Di Cienzo ("Liliana") was a bus driver with Oakville transit. Liliana's job was a source of pride, meaning and economic stability. At age 41 Liliana was diagnosed with tear duct cancer and lost her right eye. Her left eye is perfectly healthy. As a result of the loss of her eye, Liliana lost her license, her job and ultimately her livelihood. Her employer provided her with temporary alternative employment which recently ended, and she is now on Employment Insurance.

3. In this case, Liliana is not saying that all monocular drivers must automatically be entitled to a commercial driver's license. All she is saying is that a monocular person must be provided with an opportunity to show that he or she can drive as safely as a person with two eyes. This is exactly what the Supreme Court of Canada said 20 years ago in *Grismer, supra*, a landmark *Human Rights Code* case on vision and driving involving someone with a vision condition much worse than Liliana's. Unfortunately for Liliana, in implementing the discriminatory regulation at issue Ontario sidestepped *Grismer* by "legislating out" of the *Human Rights Code*, thus requiring Liliana to bring this *Charter* challenge.

4. Studies that have looked at the issue of monocular driving have repeatedly failed to identify a meaningful link between monocular driving and increased collisions. Ontario's own studies found the same thing. In particular, in 1998 Ontario commissioned a comprehensive review of the literature on monocular commercial driving which concluded that:

Considering the balance of empirical evidence reviewed in this report, there does not appear to be sufficient evidence to support an outright ban on monocular drivers. There is only one study suggesting that monocular drivers represent a significant safety risk. In contrast, a number of other studies suggest that monocular drivers' driving performance is not substantially different from binocular drivers' driving performance. Even if we

suppose that monocular drivers have a performance disadvantage, completely banning monocular drivers would demonstrably ban many monocular drivers who have or can overcome their disadvantage and be as safe as, or safer than drivers in the general commercial driver population.

...

A monocular waiver program like the one just outlined would in our judgment be consistent with both the public interest and the current empirical evidence on monocular vision impacts on driving performance. [Emphasis added]<sup>1</sup>

5. Ontario ignored and then hid these recommendations. In this litigation Ontario has looked high and low for evidence to support the complete exclusion of monocular drivers from commercial driving. It has come up short. The two experts Ontario retained have given evidence with respect to the challenges of being monocular and the challenges of driving a bus. Neither expert said these challenges could not be overcome. In fact, Ontario's expert Dr. Owsley repeatedly stated that she was not able to answer whether it is possible for a monocular person to drive as safely as a person with two eyes.<sup>2</sup> The answer is that it is possible: many people with one eye are able to adequately compensate for their disability.

6. The fact that monocular drivers are able to drive safely is also supported by the fact that Ontario is the only province in Canada that imposes an outright ban on monocular commercial drivers with no possibility of a waiver or individualized assessment. Furthermore, in Ontario, a patchwork of rules creates exceptions allowing some monocular drivers to hold commercial licenses if they are lucky enough to fall within various grandfathered programs or if they hold a commercial license from another province. Finally, in Ontario monocular people are

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<sup>1</sup> "Monocular Vision and Commercial Vehicle Driving", Ray Engel and Marta Townsend (1998), R's Record, Vol. VII-B, Tab 3(B), at pp. 52-53

<sup>2</sup> Owsley cross-examination, at qq. 137, 144 and 177

permitted to obtain a Class G license with no additional assessment whatsoever. Many do, including Liliana, who drives on a daily basis and has never had an accident.

7. At its core, this case is about overcoming assumptions about disabilities that may at first appear intuitively reasonable but are in fact contradicted by evidence. It is also about recognizing that people can overcome the challenges of living with a disability, and accepting that when they do our laws should not create arbitrary barriers to full participation in society.

## **PART II - FACTS**

### **Background**

8. Liliana was a bus driver with Oakville Transit. This job meant the world to Liliana and gave her immense personal satisfaction. She had a spotless driving record and was not involved in a single accident. At age 41 Liliana was diagnosed with cancer in her right tear duct gland and lost her right eye as part of her treatment. Liliana's left eye is perfectly healthy.

9. Following her treatment Liliana's Class C license was automatically revoked as she did not meet the requirements of s. 18(3) of the Regulation, described below. Liliana wanted a chance to show the Ministry of Transportation that she could drive safely but was denied the opportunity to do so because s. 18(3) is absolute and permits no individualized assessment. As the Ministry confirmed to Liliana's counsel: "... the ministry has no discretionary authority to



issue a licence to any individual who does not meet the legislated mandatory visual requirements."<sup>3</sup>

10. Without a Class C license Liliana could no longer work as a bus driver and ultimately lost her job. Liliana still has a Class G license and drives on a daily basis. She believes that she can drive a bus as safely as, or more safely than, a person with two eyes. Liliana has 20/20 vision and a horizontal visual field of (at least) 160 degrees.<sup>4</sup>

11. The evidence in this case is comprised of affidavits from Liliana, affidavits from three Ontario government employees, Heidi Francis, Elizabeth Weldon and Chris Janusz, and an affidavit from Patrick Phaneuf, a Mississauga Transit employee recruited by Ontario to provide an affidavit. In addition each party retained two experts. The applicant initially retained a Canadian ophthalmologist, Dr. Steve Arshinoff. Ontario then retained a US vision and driving expert, Dr. Cynthia Owsley of the University of Alabama, and a human factors (ergonomics) expert, Dr. Alison Smiley of Human Factors North. In response the applicant retained a US vision and driving and human factors expert, Dr. Eli Peli of Harvard Medical School.

### ***The Drivers' Licenses Regulation***

12. Vision is measured using two metrics: visual acuity and visual field. Visual acuity measures how "sharp" vision is and is expressed as 20/20, 20/40 etc.<sup>5</sup> Visual field is the

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<sup>3</sup> Affidavit of Liliana Di Cienzo, Application Record, Tab 2 at para. 28; November 17, 2015 letter from S. Del Deluca, Application Record, Tab 2(L)

<sup>4</sup> Dr. Arshinoff Report, dated April 4, 2017, Supplementary Application Record, Tab 1(A)

<sup>5</sup> A person with 20/20 vision can see what a person with normal eyesight would see at 20 feet from a target, a person with 20/40 vision can see what a person with normal eyesight would see at 40 feet from a target, and so on.

area over which a person can see and is measured in degrees. Ontario's *Drivers' Licenses Regulation* creates classes of licenses and sets minimum vision standards on both of these metrics for each class of license. Classes A to F are commercial licenses (heavy trucks (Classes A and D) and buses (Classes B, C, E and F)) and Classes G and M are for personal vehicles and motorcycles, respectively. For Classes G and M, the Regulation requires acuity of at least 20/50 and a horizontal field of at least 120 degrees, which Liliana meets.<sup>6</sup> The sections of the Regulation being challenged are ss. 18(3) and (4), which provide:

18 ... (3) An applicant for or a holder of a Class A, B, C, D, E or F driver's licence must have,

(a) a visual acuity as measured by Snellen Rating that is not poorer than 20/30 with both eyes open and examined together and not poorer than 20/100 in the weaker eye, with or without the aid of corrective lenses; and

(b) a horizontal visual field of at least 150 continuous degrees along the horizontal meridian and at least 20 continuous degrees above and below fixation, with both eyes open and examined together.

(4) Where the horizontal visual field of a driver is to be determined, ...

(d) no less than half of the continuous degrees of the horizontal visual field that are required along the horizontal meridian shall be found on either side of the vertical meridian; ...

13. Because Liliana only has one eye she cannot meet the requirement in s. 18(3)(a) that she have visual acuity "not poorer than 20/100 in the weaker eye." With respect to visual field, as set out in further detail below, the visual field of an otherwise healthy binocular person is 200 to 220 degrees and that of a monocular person is 160 to 170 degrees (100 to 110 degrees outward (temporally) and 60 degrees inward (nasally)).<sup>7</sup> In other words, a monocular person has

<sup>6</sup> *Drivers' Licenses Regulation*, ss. 18(1) and (2)

<sup>7</sup> Expert Report of Dr. Alison Smiley dated August 3, 2017, R's Record, Vol. III, Tab 1(C) at p. 8

more than the 150 degree horizontal field required by s. 18(3)(b). Section 18(4) prevents a monocular person from using their full visual field to pass the test by requiring at least 75 degrees on each side of the vertical meridian (the vertical centre line when someone is looking straight ahead), which a monocular person cannot meet.

14. The impact on the visual field resulting from the loss of one eye is not as significant as it might appear at first blush. A diagram demonstrating the visual fields of a monocular person, a binocular person and the licensing standard is attached hereto as **Schedule "C"**. As can be seen, the only difference between a monocular person and the licensing standard is that the monocular person's visual field is shifted slightly (15 degrees) towards the good eye.

15. The legislation provides no possibility for an individualized assessment of a monocular person's actual functional impairment or ability to drive safely. As set out below, this is directly contrary to the Supreme Court of Canada's decision in *Grismer* holding that vision standards for driving which do not permit any individual assessment are discriminatory and unjustified. However, *Grismer* arose in the context of human rights legislation. Ontario has chosen to "legislate out" of the Ontario *Human Rights Code* through s. 19 of the *Drivers' Licenses Regulation*, which provides that s. 18(3) applies despite the *Human Rights Code*. Accordingly, in order to seek a remedy Liliana must proceed by way of a *Charter* challenge.

## How Monocularity Affects Vision

16. The loss of an eye is something that can be compensated for relatively easily. The Canadian Ophthalmological Society notes that most people adapt to the loss of an eye in a period of several months.<sup>8</sup>

17. Monocularity affects vision in three primary ways: (1) it reduces the visual field; (2) it impairs stereopsis (commonly known as depth perception); and (3) it eliminates the effect of "binocular summation" (the enhanced visual performance associated with the brain receiving information from two eyes rather than one).<sup>9</sup>

18. Of these three functional deficits created by monocular vision, only the visual field reduction is relevant to this case. This is because no degree of stereopsis or binocular summation is required to obtain a commercial driver's license.<sup>10</sup> There are many common vision conditions that reduce or eliminate stereopsis and binocular summation. Approximately 30% of binocular individuals are incapable of stereopsis, and the binocular summation effect disappears for many eye conditions causing unequal vision between the two eyes.<sup>11</sup> A person with 20/100 vision in his or her weaker eye (the standard required by the Regulation) will usually see no see better as a result of having the second eye.<sup>12</sup> In fact, counterintuitively, a person with 20/100 vision in one eye may actually have *worse* vision as a result of having the second eye because of

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<sup>8</sup> "Vision Standards for Driving in Canada", Supplementary Application Record, Tab 2(C)

<sup>9</sup> Dr. Peli Report, dated December 28, 2018, Reply Application Record of the Applicant, Tab 1(A) at pp. 2-4

<sup>10</sup> Weldon cross-examination, at qq. 14-16

<sup>11</sup> Dr. Peli Report, dated December 28, 2018, Reply Application Record of the Applicant, Tab 1(A) at pp. 3-4

<sup>12</sup> Dr. Arshinoff Report, dated April 4, 2017, Supplementary Application Record, Tab 1(A) at p. 6

binocular inhibition (the opposite of binocular summation).<sup>13</sup> Accordingly, the fact that monocular people have impaired stereopsis and no binocular summation is of no relevance because there are many people with these impairments who can obtain a commercial license.

19. The fact that the Regulation does not require stereopsis, binocular summation or a full visual field is very important in considering the literature on monocular vision and driving safety discussed below. This literature has largely failed to find any meaningful link between monocular vision and unsafe driving. On top of this, all of the literature has compared monocular drivers to a binocular driving population generally, and not to a population of binocular drivers with impaired stereopsis, binocular summation or visual field. In other words, none of the studies sought to measure whether there is a difference between a monocular driver and the standard imposed by the Regulation.

### **Monocular Driving in Ontario and Beyond**

20. As noted above, monocular driving for passenger vehicles is permitted in Ontario. This includes taxi and Uber drivers. Monocular Ontarians can also operate planes, boats and trains.<sup>14</sup> Having one eye has not stopped people from successfully landing jet aircraft or competing in race car driving and did not stop Admiral Nelson from becoming one of history's greatest naval commanders.<sup>15</sup> And in Ontario, despite the general prohibition on monocular

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<sup>13</sup> Expert Report of Dr. Cynthia Owsley dated May 30, 2019, R's Record, Vol. V, Tab 3(A), p. 123; Peli cross-examination, qq. 369-371

<sup>14</sup> *Canadian Aviation Regulations*, SOR/96-433, Part IV, Division II, s. 424.05(5)(b); *Competency of Operators of Pleasure Craft Regulations*, SOR/99-53, s. 4; *Railway Rules Governing Safety Critical Positions*, TC O 0-17, June 6th, 2000, s. 3; *Canadian Railway Medical Rules Handbook* (April 2019), s. 5.2

<sup>15</sup> "Vision standards for driving in Canada and the United States: A review for the Canadian Ophthalmological Society", Supplementary Application Record, Tab 2(F), p. 199; "Is a one eyed racing driver safe to compete?"

commercial driving, there are various exceptions allowing monocular drivers to drive commercial vehicles on Ontario's roads. These include:

- (a) Drivers of commercial vehicles who hold licenses from other provinces that do permit monocular commercial driving (for example, Quebec).<sup>16</sup>
- (b) Drivers who received waivers of the vision requirements under a waiver program for Class A and D drivers that Ontario ran from 1996-2006. These drivers, half of whom were monocular,<sup>17</sup> were permitted to retain their licenses after the program ended. In 2019, 171 such drivers (presumably around half of whom are monocular) continue to hold commercial drivers' licenses.<sup>18</sup>
- (c) Drivers of heavy trucks and buses who held licenses in 1978 when the current license classification system was introduced. In 2019, 201 such drivers continue to hold commercial drivers' licenses. This includes two Class C drivers who do not meet the current standard of 20/100 in the weaker eye.<sup>19</sup>

21. Ontario is the only province that imposes an outright ban on monocular commercial driving. Quebec allows monocular driving of both trucks and buses as long as the person has had a period of adaption of three months.<sup>20</sup> British Columbia allows monocular commercial driving if the applicant successfully completes an on-road assessment that indicates

Formula one (eye) or two?", Supplementary Application Record, Tab 2(P); *Rigon v. CAMS Limited*, Australia Human Rights and Equal Opportunity Commission (August 28, 2000)

<sup>16</sup> Francis cross-examination, at qq. 318-326

<sup>17</sup> There were 638 drivers in the program: R's Record, Vol. III, Tab 1(E) at p. 80. 319 of these drivers were functionally monocular in that they had visual acuity worse than 20/200: R's Record, Vol. VII, Tab 3(H), p. 692.

<sup>18</sup> Answers to Undertakings from the Cross-Examination of Chris Janusz, August 9, 2019 at p. 5

<sup>19</sup> Answers to Undertakings and Under Advisements from the Cross-Examination of Elizabeth Weldon on August 2, 2019

<sup>20</sup> *Highway Safety Code*, chapter C-24.2, Division II, ss. 6 and 11

that they are capable of compensating for their change in vision.<sup>21</sup> Alberta, Saskatchewan, Manitoba, PEI and Newfoundland all follow the Canadian Council of Motor Transport Administrators ("CCMTA") guidelines which provide for the possibility of individualized assessment where vision standards are not met. The laws in New Brunswick, Nova Scotia and PEI also provide for the possibility of a waiver where the an applicant does not otherwise satisfy the requirements for a license.<sup>22</sup>

22. In the Unites States, interstate commercial licensing is regulated at the federal level by the Federal Motor Carrier Safety Administration ("FMCSA"), which permits monocular commercial driving through a waiver program.<sup>23</sup> Notably, the FMCSA determined that data from an earlier waiver program study "clearly demonstrate the driving performance of experienced monocular drivers in the program is better than that of all CMV drivers collectively" [Emphasis added].<sup>24</sup>

23. Furthermore, the relevant Canadian non-governmental organizations involved in vision and driving safety, including the Canadian Medical Association, Canadian Ophthalmological Society and CCMTA all recognize that even if a driver does not meet a given vision standard for licensing, it is appropriate to conduct an individualized assessment to determine whether the driver can nonetheless compensate for his or her impairment.<sup>25</sup>

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<sup>21</sup> *Motor Vehicle Act Regulations*, B.C. Reg. 26/58, O.C. 1004/58, s. 25(3)(b); *RoadSafetyBC 2016 CCMTA Medical Standards for Drivers With BC Specific Guidelines*

<sup>22</sup> See relevant statutes at Schedule "B".

<sup>23</sup> "Qualification of Drivers; Exemption Applications; Vision", Supplementary Application Record, Tab 2(K)

<sup>24</sup> *Ibid.*, at p. 249

<sup>25</sup> CCMTA "Determining Driver Fitness in Canada", Supplementary Application Record, Tab 2(A) at pp. 92-99; "CMA Driver's Guide", Supplementary Application Record, Tab 2(B) at p. 131; COS "Vision Standards of Driving in Canada", Supplementary Application Record, Tab 2(C)

## Studies Conducted by Ontario's Ministry of Transportation

24. As noted above, between 1996 and 2006 Ontario implemented a waiver program pursuant to which Class A and D drivers who could not meet the vision standards were granted exemptions provided they met certain less onerous standards.<sup>26</sup> The waiver program was put in place in response to an earlier constitutional challenge.<sup>27</sup>

25. In 2006 employees of the Ministry of Transportation prepared a report into the waiver program (the "2006 Waiver Report") following the program's termination. The 2006 Waiver Report did not specifically study monocular drivers and, as discussed below, suffers from significant methodological flaws rendering it unreliable. Nonetheless, since the very start of Liliana's case Ontario has relied on the 2006 Waiver Report, and produced a copy in 2016 with redactions for claimed "public interest immunity privilege". Ontario also included the redacted Report in its application materials, and its affiants swore that the redactions were "minor".<sup>28</sup> These redactions were maintained until August 9, 2019 when, in the middle of the cross-examination of the fifth of Ontario's six witnesses, the unredacted pages were provided.<sup>29</sup>

26. The redactions were anything but "minor". The redactions had hidden the existence of two comprehensive studies conducted by Ontario and its consultants on monocular

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<sup>26</sup> The qualifications for entering the waiver program, all of which Liliana would have met, included having 20/30 vision in the better eye and a 120 degree horizontal visual field, having one year of experience driving with the vision deficiency, and have no more than six demerit points: "Vision Waiver Programs for Commercial Vehicle Drivers Who Do Not Meet Vision Standards: Are These Types of Programs Compromising the Safety of Other Road Users?", R's Record, Vol. IV, Tab 1(C) at p. 36

<sup>27</sup> Letter from Hart Schwartz to Cynthia Owsley dated December 13, 2016, R's Vol. XI, Tab 3(A) at p. 220

<sup>28</sup> Affidavit of Yoassry Elzohairy and Chris Janusz, at para. 11, R's Vol. IV, Tab 1, p. 6

<sup>29</sup> Janusz cross-examination, qq. 105-109



vision and commercial driving. The reports were subsequently produced by Ontario. The studies entirely undermine Ontario's position in this case and call into question the reliability of the evidence it has presented.

27. The first study, "Monocular Vision and Commercial Motor Vehicle Safety" is a detailed five-year study of 880 monocular Ontario drivers completed by the Ontario Ministry of Transportation's Safety Research Office in 1995 (the "1995 Safety Report"). The study compared monocular drivers, binocular drivers with a medical condition, and healthy binocular drivers and found that "there is no difference in collision experience" among the groups and that "there was no clear pattern of collision or conviction history in any of the three groups."<sup>30</sup>

28. The second study, "Monocular Vision and Commercial Vehicle Driving" is a comprehensive literature review commissioned by the Ministry of Transportation and authored by Ray Engel and Marta Townsend in 1998 ("Engel and Townsend (1998)"). The 58-page report is among the most comprehensive, if not the most comprehensive, report on monocular commercial driving ever conducted. The report is extremely helpful to Liliana and confirms many of the arguments she is making, including that the impact of the performance deficit of monocular drivers on driving safety is "probably small,"<sup>31</sup> that a bar on monocular commercial drivers would "bar many drivers who are demonstrably better drivers than many of the drivers who would be left on the road,"<sup>32</sup> and that a waiver program for these drivers would be

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<sup>30</sup> "Monocular Vision and Commercial Motor Vehicle Safety", Ontario Ministry of Transportation Safety Research Office (1995), R's Record, Vol. VII-B, Tab 3(A) at pp. 47-48

<sup>31</sup> "Monocular Vision and Commercial Vehicle Driving", Ray Engel and Marta Townsend (1998), R's Record, Vol VII-B, Tab 3(B) at p. 49

<sup>32</sup> *Ibid.*, at p. 51

"consistent with both the public interest and the current empirical evidence on monocular vision impacts on driving performance."<sup>33</sup> The authors conclude that:

### **6.1 Validity of Monocular Commercial Driver Restrictions**

Considering the balance of empirical evidence reviewed in this report, there does not appear to be sufficient evidence to support an outright ban on monocular drivers. There is only one study suggesting that monocular drivers represent a significant safety risk. In contrast, a number of other studies suggest that monocular drivers' driving performance is not substantially different from binocular drivers' driving performance. Even if we suppose that monocular drivers have a performance disadvantage, completely banning monocular drivers would demonstrably ban many monocular drivers who have or can overcome their disadvantage and be as safe as, or safer than drivers in the general commercial driver population.<sup>34</sup>

29. Ontario kept these studies from Liliana and also appears to have kept them from its own experts. The late disclosure of the studies taints the evidence of all of Ontario's witnesses. Furthermore, the late disclosure prevented the applicant from building her case with the assistance of these documents. It also prevented the applicant from using the reports to challenge the foundation of the expert and other evidence Ontario tendered in this case given that the applicant was not able to cross-examine using these materials. For the one Ontario witness who was cross-examined after the studies were disclosed (Dr. Alison Smiley), counsel for Ontario refused all questions about the studies, including whether the studies would have changed Dr. Smiley's opinion.<sup>35</sup>

30. In addition to the reports on monocular commercial driving, Ontario also prepared documents summarizing the conclusions of the 1996-2006 waiver program, namely, the 2006

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<sup>33</sup> *Ibid.*, at p. 53

<sup>34</sup> *Ibid.*, at p. 52

<sup>35</sup> Smiley cross-examination, at qq. 440-492

Waiver Report noted above and a PowerPoint presentation containing additional information prepared in 2017 in response to this litigation. The findings from the 2006 Waiver Report are less relevant than the 1995 and 1998 reports because the 1995 and 1998 reports specifically studied monocular drivers, whereas the 2006 report considered anyone who met the program requirements. The 2006 report and 2017 analysis are also less reliable than the earlier reports due to quite glaring methodological flaws.<sup>36</sup>

### **US FMCSA Expert Panel on Vision and Commercial Motor Vehicle Driver Safety**

31. As noted above, in the US licenses for interstate commercial driving are regulated federally by the FMCSA. The FMCSA has a waiver program for drivers who do not meet the vision requirements but can drive safely, and numerous monocular drivers have been granted waivers. In 2008, as part of a review of its standards, the FMCSA convened an expert panel (the "Expert Panel") to examine its guidelines for visual disorders. The Expert Panel was comprised of Dr. Frank Berson, Dr. Cynthia Owsley (one of Ontario's experts in Liliana's case) and Dr. Eli

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<sup>36</sup> The problems with this study are too numerous to address in detail here and include:

1. There was no calculation of whether the findings were statistically significant (Janusz cross-examination, at qq. 541 and 707-710).
2. The study used the number of years with a license to measure a driver's exposure to collisions, rather than kilometers drivers, which is acknowledged to be the preferred measure (Janusz cross-examination, at qq. 272-279).
3. The non-waiver pool likely had a greater proportion of inactive (and therefore accident-free) drivers because the waiver drivers were required to renew their licenses every year, whereas the non-waiver drivers were only required to renew their licenses every three to five years (Janusz cross-examination, at qq. 297-305).
4. Non-waiver drivers' years licensed were rounded up, while waiver drivers' years licensed were rounded down, resulting in an inflated calculation of the waiver drivers' collision risk (Janusz cross-examination, at qq. 349-390).
5. Time spent serving a suspension was subtracted from waiver drivers' years licensed but not from non-waiver drivers, thus artificially inflating the exposure measure for the non-waiver drivers (Janusz cross-examination, at q. 461).
6. The waiver pool was possibly skewed to older drivers once Ontario stopped admitting new drivers into the program (Janusz cross-examination, at qq. 711-712).

Peli (one of Liliana's experts). The Panel made a number of recommendations that are directly relevant to Liliana's case and helpful to Liliana's position. The findings were published in a report (the "Expert Panel Report"), in which the Expert Panel:

- (a) Found that the data from the US waiver program (the Vision Exemption Program) showed that monocular waiver drivers had *fewer* collisions than control drivers.<sup>37</sup>
- (b) Recommended the continuation of the Vision Exemption Program (exactly the kind of program that Liliana is asking for in this case).<sup>38</sup>
- (c) Recommended that the visual field requirement of 70 degrees should be continued, that this standard may be adequate, and that an increase of the standard to 120 degrees would be "arbitrary."<sup>39</sup>
- (d) Found that:

**Key Question 1: Is monocular vision associated with an increased crash risk?**

Due to methodological limitation and inconsistency among the findings of different studies, the available evidence is insufficient to determine whether individuals with monocular visions are at increased risk of a crash at this time. The possibility that individuals with monocular vision have an increased crash risk cannot be ruled out. [Emphasis added]<sup>40</sup>

32. Despite the findings of the Expert Panel being self-evidently relevant and helpful to the applicant, Dr. Owsley did not disclose the existence of the panel or the panel's findings

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<sup>37</sup> "Expert Panel Recommendations: Vision and Commercial Motor Vehicle Driver Safety", Third Supplementary Application Record of the Applicant, Tab 1(B) at p. 4

<sup>38</sup> *Ibid.*, at p. 4

<sup>39</sup> *Ibid.*, at p. 5

<sup>40</sup> *Ibid.*, at p. 11

anywhere in her initial expert report in this case. The Expert Panel Report only surfaced after the applicant retained Dr. Peli, who happened to have also been a member of the expert panel.

### **Studies on Monocular Vision and Driving Safety**

33. The question of whether monocular vision impacts driving safety has been studied on a number of occasions. Most studies failed to find a meaningful link between monocular vision and unsafe driving. A table listing the studies collectively assembled by the parties is attached hereto as **Schedule "D"**. Notably, all three of the studies that were performance studies as opposed to statistical studies found that monocular drivers could drive safely.<sup>41</sup> The statistical studies that did draw some link between monocularity and elevated accident rates do not provide compelling evidence to support Ontario's position.<sup>42</sup>

34. On top of this, none of the studies compared monocular drivers to *visually-impaired* binocular drivers who would still be able to obtain a commercial driver's license in

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<sup>41</sup> McKnight (1990), Wood and Troutbeck (1992) and Racette (2005)

<sup>42</sup> Rogers (1992), a California study, found "conditional evidence" that drivers who did not meet the US federal acuity standard experience on average, more traffic accidents and convictions, but also found that there was no difference between "severely impaired" drivers with one eye worse than 20/200 (*i.e.* functionally monocular drivers who would not be eligible for a commercial license in Ontario) and "moderately impaired" drivers with one eye between 20/40 and 2/200 (some of whom would be eligible for a commercial license in Ontario). See p. 161 and 169.

Laberge-Nadeau (1995), a Quebec study, considered a group of visually impaired drivers only 55% of whom were monocular. Within this group, the study looked at eight subgroups: drivers of trucks and taxis in four age brackets. The study concluded that in seven of the eight groups there was no statistically significant increased accident rate. For truck drivers age 35 and younger there was a statistically significant difference. See pp. 3, 54-56, 88-89, 117-118, 131. As explained by Ontario in Dr. Smiley's answers to undertakings, item 13, statistical significance is indicated on the charts in the study with a "\*" and where there is no "\*" the differences are not statistically significant.

Keeney (1981), a Kentucky study, compared binocular drivers to monocular drivers who had been placed in Kentucky's driver limitation program. It is completely unreliable because this program is comprised of people who as a result of already having had multiple motor vehicle motor collisions or having otherwise been identified as having a driving capacity issue. See p. 217. The Expert Panel Report described the quality of the study as "low".

Ontario (for example, binocular drivers with no depth perception). None of the studies compared young, healthy monocular drivers like Liliana to binocular drivers as a whole. And of course none of the studies come close to suggesting that any individual monocular person would not be able to drive safely. Such studies are based on examining monocular drivers as a group, and in any group there will be many drivers who have fewer collisions than the average.<sup>43</sup>

### **Testing of Functional Abilities**

35. There are many ways that Ontario could provide an individualized assessment to determine whether a particular monocular driver has compensated for his or her disability and is able to drive safely. Over 20 years ago Ontario's consultants Engel and Townsend recommended to Ontario that:

The CDL (Commercial Driver License) test, possibly with some added elements tailored to the monocular driver, would be a well established psychometrically sound test to use for the purpose of demonstrating adequate driving performance.<sup>44</sup>

36. Ontario could also use a program similar to those used by other provinces, such as British Columbia, which provides functional testing for monocular commercial drivers. Or Ontario could simply adapt the programs it already has in place. Ontario has a comprehensive vision waiver program for Class G vehicles whereby applicants who do not meet the visual requirements (such as the requirement of a 120 degree visual field) are functionally assessed to

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<sup>43</sup> As Ontario's consultants Engel and Townsend explain at p. 49: "... In fact, even when there is a fairly substantial *average* difference between groups, it is very likely that there is a considerable overlap in the distributions of the two sets of collision data. This means that there are many drivers in the higher collision rate group who had fewer collisions than drivers in the low collision rate group. ..." See also Smiley cross-examination, at qq. 540-544, and Janusz cross-examination, at qq. 261-264.

<sup>44</sup> Engel and Townsend (1998), at p. 53

determine whether they are nonetheless able to drive safely. The program includes both a clinical assessment by an occupational therapist and two or more on-road tests.<sup>45</sup> At the conclusion of the tests, the assessor determines whether the applicant is able to compensate for their disability, if they require further lessons with the driver rehabilitation centre, or if the medical condition is such that it interferes with their ability to drive safely.<sup>46</sup>

37. In addition to the Class G waiver assessments, Ontario already has Driver Certification Programs pursuant to which it authorizes municipalities to train and license commercial drivers who meet the vision requirements. The program involves a comprehensive five-week training program including both a classroom component and an on-road component involving 70 hours behind the wheel of a bus.<sup>47</sup> Patrick Phaneuf of Mississauga Transit, who was responsible for administering this program and issuing driver's licenses, agreed in cross-examination that the training program was designed to test whether or not prospective bus drivers would be able to operate a bus safely and that the program was generally effective in making this determination.<sup>48</sup>

38. Finally, in addition to road tests, occupational therapists and training and assessment programs, the evidence is replete with examples of other ways in which functional ability can be assessed, including driving simulators, driving rehabilitation specialists and assessments by ophthalmologists or other professionals. There are also many ways to tailor

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<sup>45</sup> Affidavit of Elizabeth Weldon, R's Record, Vol. III, Tab 3 at paras. 76-87

<sup>46</sup> Functional Assessment Protocol for Drivers with Visual Field Deficits, R's Record, Vol. X, Tab 2(B) at p. 165

<sup>47</sup> Phaneuf cross-examination, at qq. 53-54

<sup>48</sup> Phaneuf cross-examination, at qq. 47-54 and 66-72

assessments in order to select drivers more likely to be capable and safe, such as requiring an accident-free driving record over a set period of time, a period of adaption to a disability, graduated licensing or remedial treatment.

### **Evidence of Ontario Government Witnesses**

39. The evidence of Ontario's employees provides an overview of Ontario's current and historical licensing regimes and programs. Their evidence provides little information concerning monocular driving, and to the extent it provides any information in this respect should be viewed with skepticism given the non-disclosure in their evidence of Ontario's studies on monocular commercial driving.

40. What Ontario's employees' evidence does reveal about driver licensing in Ontario is the obvious: that driver licensing is a process that accepts a certain level of risk in deciding who should and who should not receive a license, and that if everyone who was a member of a group that had an above-average accident rate was excluded from driving, few Ontarians would be able to drive. For example, in 2014 male drivers accounted for 78.9% of fatal collisions despite representing only 51.4% of drivers.<sup>49</sup> Likewise, both young and old drivers are over-represented in collisions. Ontario places no upper age limit on driving. Instead, drivers over age 80 are subject to a two-year renewal period and a review program that may lead to a road test.<sup>50</sup>

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<sup>49</sup> Weldon cross-examination, at q. 90

<sup>50</sup> Affidavit of Heidi Francis, at para. 26, R's Vol. IV, Tab 2



41. Even people who repeatedly demonstrate unsafe driving behaviour are permitted to have licenses. For example, drivers can be caught exhibiting unsafe driving behaviour leading to demerit points multiple times before facing any licence suspension,<sup>51</sup> and even drivers who are repeatedly caught drinking and driving are given surprisingly brief license suspensions.<sup>52</sup>

### **Evidence of Patrick Phaneuf (Mississauga Transit)**

42. Ontario obtained an affidavit from a transit manager from Mississauga Transit, Patrick Phaneuf, who provided evidence regarding the challenges of driving a bus. While Phaneuf undoubtedly knows how to drive a bus and how to train people to drive a bus, he has no relevant evidence to provide with respect to monocular driving. Phaneuf has never read any scientific or academic literature dealing with the effects of visual field limitation on driving safety other than the driving training course manual,<sup>53</sup> did not review the materials filed by the parties in this case,<sup>54</sup> has no training in occupational therapy, driver rehabilitation, ophthalmology or optometry,<sup>55</sup> has never worked with a monocular driver,<sup>56</sup> and does not know what the visual field of a monocular person is.<sup>57</sup> Not surprisingly, in cross-examination Phaneuf could not answer whether a person with one eye can drive a bus as safely as a person with two eyes.<sup>58</sup> Despite this lack of knowledge, Phaneuf's preconceptions about monocular driving demonstrate the kind of biased attitudes that the *Charter* is intended to protect against: the

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<sup>51</sup> Francis cross-examination, at qq. 82-92

<sup>52</sup> Summary of Provincial and Criminal Impaired Driving Sanctions, Exhibit 1 to Francis cross-examination; Francis cross-examination, at qq. 101-105 and 158-169

<sup>53</sup> Phaneuf cross-examination, at qq. 13-26

<sup>54</sup> *Ibid.*, at qq. 19-20

<sup>55</sup> *Ibid.*, at qq. 28-31

<sup>56</sup> *Ibid.*, at q. 32

<sup>57</sup> *Ibid.*, at q. 128

<sup>58</sup> *Ibid.*, at qq. 137 and 144

favouring of impressionistic assumptions about the abilities of people with disabilities over actual scientific evidence. While undoubtedly unintentional, Phaneuf's evidence reveals precisely this kind of thinking:

27. Q. And, if those academic and scientific studies showed that a monocular driver could drive just as safely as a driver with two eyes, would you accept that conclusion?

A. I don't think it's as simple as that. There's a lot involved in the driving aspect and safety is a first consideration. So, with that in mind, I would have to say no.<sup>59</sup>

### **Expert Evidence**

43. The four experts in this case are consistent on one important fact: none of them suggest that a person with monocular vision cannot drive a commercial vehicle safely. The divergence between the experts is on the question of whether there is any meaningful empirical foundation for the suggestion that monocular drivers as a group are less safe. Dr. Arshinoff and Dr. Peli are clear in their opinions that there is little scientific support for such a conclusion. Conversely, Dr. Owsley and Dr. Smiley simply refer to select studies without actually providing an opinion that monocular drivers as a group are unsafe. And as a result of Ontario not disclosing its own studies, none of the experts knew what we know now: that Ontario's own comprehensive study of monocular commercial drivers confirmed that they did not have an elevated collision rate.

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<sup>59</sup> *Ibid.*, at q. 27

*Dr. Steve Arshinoff*

44. Dr. Arshinoff is an ophthalmologist practising in Toronto. Of the experts in this case he is the only medical doctor and is among the experts therefore uniquely qualified to provide evidence regarding the physiological functioning of the human eye. He concludes:

... Because of her [Liliana's] full visual field and excellent acuity, there is no reason to expect that she would not be safe driving a commercial vehicle (bus or other), as long as she has had a brief period to adapt to her monocularity, which she has had, and as long as she can pass the functional standard. ...

The single outlier from the individual assessment of functional ability within all the driving standards appears to be the exclusion on monocular individuals from obtaining a commercial license, no matter what their functional ability, driving experience, freedom from past crashes, etc. demonstrate. Virtually every document that studied this point concluded that the evidence against monocular drivers is particularly weak [Emphasis added].<sup>60</sup>

45. Dr. Arshinoff's report is also instructive because he places monocularity in its proper context relative to other eye problems. As he explains, a range of common eye disorders, such as glaucoma, cataracts, amblyopia (lazy eye) or strabismus (cross-eyedness), can have functional impacts that are as severe or more severe than monocularity but do not preclude a person from commercial driving. Furthermore, a person with poor vision (as opposed to no vision) in one eye will often see no better than a person with one eye as a result of having the second, impaired eye. This is relevant because it shows that the requirement of a second eye with vision of 20/100 often adds nothing to a person's ability to see. As Dr. Arshinoff explains:

However, a very large number of individuals have decreased vision in one eye, either from amblyopia, previous injury, glaucoma, cataract, macular lesion, or a myriad of other possible disorders. It is medically perfectly clear to ophthalmologists that such patients

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<sup>60</sup> Dr. Arshinoff Report, dated April 4, 2017, Supplementary Application Record, Tab 1(A) at pp. 6 and 35

with monocular or asymmetrical impairment, usually see no better with 2 eyes than they do with their better eye only.<sup>61</sup>

46. Dr. Arshinoff also performed an eye exam on Liliana that confirmed that Liliana's vision in her left eye was excellent: Liliana has uncorrected visual acuity of 20/20 and her horizontal visual field is 160 degrees.<sup>62</sup> There is a dispute between the parties about whether the 160 degree visual field found by Dr. Arshinoff is valid. The issue arises because the machine used to measure visual field, the Humphrey machine, is designed for a binocular person and only measures up to 80 degrees on each side if a person is looking straight ahead. As such, the machine cuts off 20-30 degrees of peripheral vision on each side. To enable the machine to capture Liliana's peripheral vision on her left side, Dr. Arshinoff allowed her to look to the right during the test.<sup>63</sup> There is nothing wrong with this – the adjustment is the only way to capture Liliana's full visual field. This is easily visualized by reference to **Schedule "C"** hereto.

***Dr. Eli Peli***

47. Dr. Peli is a Professor of Ophthalmology at Harvard Medical School and is an internationally recognized authority on vision and driving safety. Dr. Peli opines that:

In summary, there is very little evidence that driving with one eye is limiting the functionality of [the] driver of any vehicle. Direct testing have found no measureable decrement in performance and the epidemiological evaluation fail to reveal even correlation between loss of vision in one eye, which does result in impairment, and an increase in crash rate. Certainly no causality has been demonstrated.<sup>64</sup>

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<sup>61</sup> *Ibid.*, at p. 6

<sup>62</sup> *Ibid.*, at pp. 3 and 6

<sup>63</sup> Arshinoff Response to Dr. Owsley's Submission, dated January 12, 2019, Reply Application Record of the Applicant, Tab 2(A) at p. 4

<sup>64</sup> Dr. Peli Report, dated December 28, 2018, Reply Application Record of the Applicant, Tab 1(A) at p. 22

48. Dr. Peli explains the impairments caused by losing one eye, including the reduction of visual field and loss of stereoscopic vision and binocular summation, and provides evidence similar to that of Dr. Arshinoff with respect to why the impairments other than field loss are irrelevant to this case.<sup>65</sup> In particular, with respect to stereopsis, Dr. Peli confirms that approximately 30% of otherwise normally sighted and binocular individuals are stereoblind (*i.e.* are incapable of depth perception).<sup>66</sup> Likewise, with respect to binocular summation the binocular summation effect disappears for many conditions of unequal vision between the two eyes.<sup>67</sup> Dr. Peli notes that when vision in one eye is as poor as 20/100 (as is permitted under the Regulation) the advantage of binocular summation and most of the other visual functions resulting from having two eyes disappears.<sup>68</sup>

49. Dr. Peli also discusses the Expert Panel Report that was not disclosed by Dr. Owsley in her initial report.<sup>69</sup> Dr. Peli provides a comprehensive critique of the conclusions drawn from Dr. Owsley's review of the various academic studies. He notes that Dr. Owsley has ignored studies contradicting her findings as well as ignoring significant limitations in the studies that she does refer to.<sup>70</sup> Dr. Peli also provides a critique of Dr. Smiley's findings, including that the importance of peripheral vision has likely been overstated in Dr. Smiley's, that the impact of the "A beam" pillar in a bus would have minimal if any impact on vision, and that the diagrams

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<sup>65</sup> *Ibid.*, at pp. 2-4

<sup>66</sup> *Ibid.*, at p. 3

<sup>67</sup> *Ibid.*, at p. 4

<sup>68</sup> *Ibid.*, at p. 6

<sup>69</sup> *Ibid.*, at pp. 9-10

<sup>70</sup> *Ibid.*, at pp. 10-11

provided by Dr. Smiley are incorrect in that they assume that a driver turns his or her head completely to look at a mirror.<sup>71</sup>

***Dr. Cynthia Owsley***

50. The centrepiece of Ontario's case is Dr. Owsley's report. Dr. Owsley is a Professor of Ophthalmology at the University of Alabama Medical School. It is the applicant's position that Dr. Owsley fails to meet the threshold requirement of impartiality to testify as an expert in Ontario.<sup>72</sup> While Dr. Owsley is undoubtedly an expert in the field of vision and driving safety, in this case her initial report shows an alarming lack of candour demonstrating that she either misunderstood or disregarded the proper role of an expert in Canadian litigation.

51. Even if Dr. Owsley's report is admitted, it is at its highest a literature review that identifies some of the relevant studies that have looked at monocular driving (and not those most helpful to Liliana). The core of Dr. Owsley's carefully-worded conclusion is as follows:

12. Two population-based studies that examined the safety of monocular drivers as defined by complete absence of vision or an eye that met the definition of legal blindness found these drivers were approximately 1.4 to 1.9 times more likely to be MVC involved as compared to drivers who are not monocular.

13. The preponderance of the scientific literature on persons with visual field defects and driver safety indicates that visual field defects elevate motor vehicle collision risk.<sup>73</sup>

52. What Dr. Owsley does not say is as important as what she does say. Dr. Owsley does not say that monocular drivers are riskier or more likely to be involved in a collision, and in

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<sup>71</sup> *Ibid.*, at pp. 12-17

<sup>72</sup> *White Burgess Langille Inman v. Abbott and Haliburton Co.*, [2015] S.C.J. No. 23, at para. 32

<sup>73</sup> Expert Report of Dr. Cynthia Owsley dated August 7, 2017, R's Record, Vol. I, Tab 1(C) at p. 11

cross-examination Dr. Owsley repeatedly stated that she was not able to answer whether it is possible for a monocular person to drive as safely as a person with two eyes.<sup>74</sup> All Dr. Owsley actually says about monocular driving is that two studies, Rogers (1992) and Keeney (1981), found monocular drivers were more likely to be involved in a collision. Dr. Owsley does not say whether she agrees or disagrees with the studies and, unlike her statement at her point 13 about visual field defects, does not say that these two monocular studies represent the preponderance of the scientific literature.

53. This is, of course, consistent with the findings of the initially undisclosed Expert Panel Report which Dr. Owsley co-authored, which concluded that "the available evidence is insufficient to determine whether individuals with monocular vision are at increased risk of a crash at this time."<sup>75</sup> Dr. Owsley's view could not credibly have changed between the Expert Panel Report in 2008 and her evidence in this case: the Expert Panel Report was the only publication that Dr. Owsley has ever authored on monocular driving,<sup>76</sup> none of the studies on monocular driving mentioned by Dr. Owsley in her expert report in this case post-date the Expert Panel Report, and when asked in cross-examination whether there was any literature on monocular driving that she had reviewed since the Expert Panel Report that had changed her thinking on the subject her answer was "I don't know."<sup>77</sup>

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<sup>74</sup> Owsley cross-examination, at qq. 137, 144 and 177

<sup>75</sup> "Expert Panel Recommendations: Vision and Commercial Motor Vehicle Driver Safety", Third Supplementary Application Record of the Applicant, Tab 1(B) at p. 11

<sup>76</sup> Owsley cross-examination, at q. 186

<sup>77</sup> *Ibid.*, at q. 282

54. To properly assess the full severity of the non-disclosure of the Expert Panel Report it is important to understand the context in which Dr. Owsley's first report was provided. At the time Dr. Owsley prepared her first report, the evidence of the applicant consisted of Liliana's affidavit, Dr. Arshinoff's report, and a law clerk's affidavit containing the academic and other material on which the applicant intended to rely. The applicant's material did not contain the Expert Panel Report. Dr. Arshinoff is a practising ophthalmologist and not a driving safety academic. Dr. Owsley did not know that the applicant would eventually retain a fellow driving safety academic, Dr. Peli of Harvard Medical School. The fact is that if the applicant had not ultimately retained Dr. Peli, who knew about the Expert Panel Report, there is a very real possibility that this Court could have decided the case relying on Dr. Owsley's report without the Expert Panel Report ever being disclosed.

55. Dr. Owsley's attempts at justifying why she did not disclose the findings of the Expert Panel Report are also concerning. Before Ontario's lawyer refused to allow Dr. Owsley to answer further questions about the Expert Panel Report,<sup>78</sup> Dr. Owsley explained that her report "centres on primary resources,"<sup>79</sup> that it was "on my CV" (it is on page 13 of Dr. Owsley's 41-page CV)<sup>80</sup> and, perhaps most alarmingly, that it was the responsibility of Liliana's counsel to find the report: under cross-examination Dr. Owsley rationalized that it was "open season" for the applicant to raise the report,<sup>81</sup> that the applicant had an "open opportunity" to raise the report,<sup>82</sup> that "I believe this report was going to surface no matter what"<sup>83</sup> and that:

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<sup>78</sup> *Ibid.*, at q. 409

<sup>79</sup> *Ibid.*, at q. 360

<sup>80</sup> *Ibid.*, at q. 393; Curriculum Vitae of Dr. Cynthia Owsley, R's Record, Vol. I, Tab 1(A)

<sup>81</sup> *Ibid.*, at q. 361

<sup>82</sup> *Ibid.*, at q. 362



You are supposed to know about it because that's what due diligence is. If you, already yourself, admitted that it was relevant to your case, and if I were you, I would be wondering why your own experts didn't bring it up. Well, finally Dr. Peli did.<sup>84</sup>

56. There are a number of other troubling features of Dr. Owsley's report. For example, Dr. Owsley's report identifies four studies on the safety of monocular driving, two of which found increased risk and two of which did not. Despite all four studies having limitations she only mentioned the limitations in the studies finding monocular drivers to be less safe.<sup>85</sup>

57. Another example is that Dr. Owsley's first report indicated that: "persons with one eye have a visual field that extends horizontally approximately 140 degrees (assuming the eye is in normal eye health)."<sup>86</sup> In fact, the normal monocular visual field is 160-170 degrees, and as such the field as initially noted by Dr. Owsley is significantly understated. The correct field is basic information known to anyone working in this area.

58. Finally, Dr. Owsley identifies four studies on drivers with visual field defects and states that the studies "strongly support" a link between visual field defects and increased collision rates. However, Dr. Owsley did not mention that three out of the four studies concerned older drivers.<sup>87</sup> The one study that did not involve older drivers (Johnson (1983)) found that monocular visual field loss did not elevate collision rates.<sup>88</sup>

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<sup>83</sup> *Ibid.*, at q. 367

<sup>84</sup> *Ibid.*, at q. 390

<sup>85</sup> Expert Report of Dr. Cynthia Owsley dated August 7, 2017, R's Record, Vol. I, Tab 1(C) at pp. 5-6

<sup>86</sup> Expert Report of Dr. Cynthia Owsley dated August 7, 2017, R's Record, Vol. I, Tab 1(C) at p. 6

<sup>87</sup> Owsley cross-examination, at q. 561-562

<sup>88</sup> Expert Report of Dr. Cynthia Owsley dated August 7, 2017, R's Record, Vol. I, Tab 1(C) at p. 7, "Incidence of visual field loss in 20,000 eyes and its relationship to driving performance", R's Vol. II, Tab 33

*Dr. Alison Smiley*

59. Dr. Smiley is the principal of Human Factors North and is an expert in human factors, also known as ergonomics. Her report provides an overview of the driving task and a description of the differences between driving a bus and a driving a car. The applicant agrees with Dr. Smiley that driving a bus is more difficult than driving a car. Notably, Dr. Smiley does not opine on the differences between driving a bus and driving a truck. When cross-examined, Dr. Smiley agreed that many of the differences she identified between driving a bus and driving a car do not exist when comparing driving a bus to driving a truck. She also agreed that there are a number of things about driving a truck that are harder than driving a bus, such as unloading, backing up, and having to look for longer gaps in traffic given the larger size of a truck.<sup>89</sup>

60. Dr. Smiley also explains the concept of "useful field of view" ("UFOV"), namely, that the visual field from which useful information can be extracted is much smaller than the full field of view. In other words, only a limited portion of the peripheral field of view is used in driving.<sup>90</sup> Dr. Smiley refers to on-road studies showing that drivers will miss many of the targets in their peripheral vision (*i.e.* outside the UFOV) and confirms that as a result, a monocular driver "would **not** be disadvantaged in terms of detecting some targets in peripheral vision compared to a driver with normal binocular driver [Emphasis in original]."<sup>91</sup>

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<sup>89</sup> Smiley cross-examination, at qq. 713-719

<sup>90</sup> Expert Report of Dr. Alison Smiley dated August 3, 2017, R's Record, Vol. III, Tab 1(C) at pp. 4-5 and 14

<sup>91</sup>Expert Report of Dr. Alison Smiley dated August 3, 2017, R's Record, Vol. III, Tab 1(C) at pp. 4-5

61. Dr. Smiley also considers literature on monocular driving, but her review of the literature is very incomplete: Dr. Smiley only reviewed three of the studies on monocular driving. In preparing her report she did not review many of the studies presented by the applicant or Dr. Owsley.<sup>92</sup> And with respect to the Laberge-Nadeau (1995) study referred to in her report, she only reviewed the pages of the study Ontario translated into English for her, which did not include any of the pages showing that there was no statistically significant difference between monocular and binocular taxi drivers' accident rates.<sup>93</sup> Finally, Dr. Smiley was not provided with Ontario's 1995 Safety Report or Ontario's Engel and Townsend (1998) report, and Ontario's lawyer refused to allow her to answer any questions about these reports – including if the information in the reports would have changed her opinion.<sup>94</sup> Given these refusals Dr. Smiley's opinion should be given little weight.

### PART III - ISSUES

62. The applicant submits that the following issues arise on this application:
- (a) How does *Grismer* apply to this case?
  - (b) Does the Regulation violate s. 15 of the *Charter*?
  - (c) Is the s. 15 violation justified under s. 1?

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<sup>92</sup> Smiley cross-examination, qq. 428-432, 496-527 and 548

<sup>93</sup> *Ibid.*, qq. 583-585 and 592-592

<sup>94</sup> *Ibid.*, qq. 440-492

## PART IV - LAW AND ARGUMENT

### ISSUE 1: How does *Grismer* apply to this case?

63. This case presents an unusual legal situation in that there is a Supreme Court of Canada decision, *Grismer*, that is virtually indistinguishable on the facts but which was decided on a different legal basis (the *Human Rights Code* rather than the *Charter*). Terry Grismer was a mining truck driver with homonymous hemianopia ("HH") who could not meet the 120 degree visual field standard for a driver's license in British Columbia. HH is much more severe than monocularly and results in complete visual field loss on either the left or right half of both eyes. Grismer was successful in arguing that an individualized assessment was required.

64. *Grismer* is a strong affirmation of the principles Liliana is advancing in this case because it holds that a requirement to provide individualized assessment is appropriate and does not amount to undue hardship or give rise to an unreasonable level of risk. The principles articulated in *Grismer* in the human rights context transfer easily to the *Charter* proportionality analysis that the Court must undertake in Liliana's case. These principles include:

- (a) That the goal of driver licensing is reasonable road safety, not absolute safety, which is an impossibility (paras. 25-27).
- (b) That individualized assessment is required where some people with a given condition may be able to drive safely, unless doing so would result in expense or danger amounting to undue hardship (paras. 30-38).

- (c) That individualized assessment for people with a condition more severe than monocularity is consistent with reasonable road safety and would not give rise to such hardship (paras. 30, 39-40).

65. The extent to which the human rights principle of reasonable accommodation can be applied to *Charter* cases has been considered by the Supreme Court in a number of cases. In *Eldridge*<sup>95</sup> and *Multani*<sup>96</sup> the Court considered the concept of reasonable accommodation as helpful in conducting the analysis required by s. 1 of the *Charter*, and in particular the minimal impairment test. However, in *Hutterian Brethren*, the Supreme Court drew a distinction between rules put in place by government actors and laws, and held that where the validity of a law of general application is at stake, reasonable accommodation is not an appropriate substitute for a s. 1 analysis.<sup>97</sup> Here, there is no practical difference between the rules imposed by the British Columbia licensing authorities in *Grismer* and the rules imposed by the *Drivers' Licenses* regulation in Ontario: both have an identical effect on the citizen and as such any distinction is largely academic. While in this case it is a law being challenged, common sense dictates that the Supreme Court's direction in *Grismer* must at the very least be considered highly persuasive.

66. There are at least two cases that have considered challenges to driver licensing rules under s. 15 of the *Charter*. In *Hines v. Nova Scotia*, the Nova Scotia Supreme Court considered an absolute ban on truck driving for insulin-dependent diabetics. The Court found that the regulation at issue violated s. 15 and failed each one of the branches of the *Oakes*

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<sup>95</sup> *Eldridge v. British Columbia (Attorney General)*, [1997] 3 S.C.R. 624 at paras 79 and 94

<sup>96</sup> *Multani v. Commission scolaire Marguerite-Bourgeoys*, [2006] S.C.J. No. 6 at paras 52-53

<sup>97</sup> *Alberta v. Hutterian Brethren of Wilson Colony*, [2009] S.C.J. No. 37 at paras 65-71

proportionality test under s. 1.<sup>98</sup> In *MacLennan v. Ontario*, the Ontario Divisional Court considered the rules requiring additional assessments for drivers over 80 years old and found that the rules did not violate s. 15 because it was an individualized program – in other words, exactly the kind of program Liliana is asking for.<sup>99</sup>

**ISSUE 2: Does the Regulation violate s. 15 of the *Charter*?**

67. Section 15(1) of the *Charter* provides that:

Every individual is equal before and under the law and has the right to the equal protection and equal benefit of the law without discrimination and, in particular, without discrimination based on race, national or ethnic origin, colour, religion, sex, age or mental or physical disability.

68. In *Kapp* and *Withler* the Supreme Court has established a two-part test for showing discrimination under s. 15(1):

- (a) Does the law create a distinction based on an enumerated or analogous ground?
- (b) Does the distinction create a disadvantage by perpetuating prejudice or stereotyping?<sup>100</sup>

69. As explained in *Withler*, under the second branch of this test there are two ways for a claimant to demonstrate discrimination:

[35] The first way that substantive inequality, or discrimination, may be established is by showing that the impugned law, in purpose or effect, perpetuates prejudice and disadvantage to members of a group on the basis of personal characteristics within s.

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<sup>98</sup> *Hines v. Nova Scotia (Registrar of Motor Vehilces)*, [1990] N.S.J. No. 223 (S.C.), at p. 8

<sup>99</sup> *MacLennan v. Ontario (Ministry of Transportation)*, 2014 ONSC 2946, at paras. 45-49

<sup>100</sup> *Withler v. Canada (Attorney General)*, [2011] S.C.R. No. 12, at para. 30, *R. v. Kapp*, [2008] 2 SCR 483, at para.

15(1). Perpetuation of disadvantage typically occurs when the law treats a historically disadvantaged group in a way that exacerbates the situation of the group. ...

[36] The second way that substantive inequality may be established is by showing that the disadvantage imposed by the law is based on a stereotype that does not correspond to the actual circumstances and characteristics of the claimant or claimant group. ...

[37] Whether the s. 15 analysis focusses on perpetuating disadvantage or stereotyping, the analysis involves looking at the circumstances of members of the group and the negative impact of the law on them. The analysis is contextual, not formalistic, grounded in the actual situation of the group and the potential of the impugned law to worsen their situation.<sup>101</sup>

70. In *Quebec v. A.*, Justice Abella, writing for the majority on the s. 15 issue, clarified that the second branch of the s. 15 test does not include an additional requirement to show that a distinction perpetuates prejudicial or stereotypical attitudes. Rather:

[325] In referring to prejudice and stereotyping in the second step of the *Kapp* reformulation of the *Andrews* test, the Court was not purporting to create a new s. 15 test. *Withler* is clear that “[a]t the end of the day there is *only one question*: Does the challenged law violate the norm of substantive equality in s. 15(1) of the Charter?” (para. 2 (emphasis added)). Prejudice and stereotyping are two of the indicia that may help answer that question; they are not discrete elements of the test which the claimant is obliged to demonstrate...<sup>102</sup>

71. With respect to the first branch of the *Kapp/Withler* test, the Regulation creates a distinction on the basis of physical disability, an enumerated ground.

72. With respect to the second branch of the test, the Regulation's exclusion of monocular individuals from commercial driver licensing gives rise to both disadvantage or prejudice and to stereotyping. There is no doubt that disabled persons are a historically disadvantaged group: as the Supreme Court noted in *Eldridge*, "It is an unfortunate truth that the

<sup>101</sup> *Withler v. Canada (Attorney General)*, [2011] S.C.R. No. 12 at paras. 35-38

<sup>102</sup> *Québec (Attorney General) v. A.*, [2013] S.C.J. No. 5. See also: *R v. Nguyen*, [2015] O.J. No. 2098 at paras 88-93

history of disabled persons in Canada is largely one of exclusion and marginalization."<sup>103</sup> There can also be no doubt that the Regulation imposes a disadvantage: monocular individuals are denied the opportunity to obtain a commercial driver's license. As Liliana's case shows this disadvantage is severe. Liliana has been excluded from the vocation that she loves and been pushed into a situation of economic precariousness.

73. The Regulation also imposes a disadvantage based on the stereotype that visually impaired people are not able to drive safely. Such assumptions about the visually impaired do not correspond to their actual circumstances given that many visually impaired people, and many monocular people, can drive safely.

### **ISSUE 3: Is the s. 15 violation justified under s. 1?**

74. Section 1 of the *Charter* provides that the *Charter* guarantees the rights set out in it "... subject only to such reasonable limits prescribed by law as can be demonstrably justified in a free and democratic society." As explained by the Supreme Court in *Carter*, in order to justify a violation of the *Charter* under s. 1, a government must:

... show that the law has a pressing and substantial object and that the means chosen are proportional to that object. A law is proportionate if (1) the means adopted are rationally connected to that objective; (2) it is minimally impairing of the right in question; and (3) there is proportionality between the deleterious and salutary effects of the law: *R. v. Oakes*, [1986] 1 S.C.R. 103.<sup>104</sup>

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<sup>103</sup> *Eldridge v. British Columbia (Attorney General)*, [1997] 3 S.C.R. 624, at para. 56

<sup>104</sup> *Carter v. Canada (Attorney General)*, [2015] 1 S.C.R. 331 at para. 94; See also: *R. v. Oakes*, [1986] 1 S.C.R. 103, P.W. Hogg, *Constitutional Law of Canada* (2007), 5<sup>th</sup> ed., Vol. 2 at pp. 38-18



75. The burden of proving each of the elements of the *Oakes* proportionality test lies on the government. This is a process of demonstration, not intuition or deference to the government's choices. As explained by the Supreme Court in *RJR-MacDonald*:

... No matter how important Parliament's goal may seem, if the state has not demonstrated that the means by which it seeks to achieve its goal are reasonable and proportionate to the infringement of rights, then the law must perforce fail.<sup>105</sup>

76. In order to apply the proportionality test it is necessary to define the objective of the law in question because each of the branches of the test is in some way measured against the legislative objective. The objective must not be overstated, because if it is the importance of the objective may be exaggerated and the analysis compromised: *RJR-MacDonald*.<sup>106</sup>

77. Here, the objective of the Regulation, and of driver licensing more generally, is reasonable road safety. The goal is not absolute road safety – absolute safety is an impossibility and is clearly not the legislative goal given that Ontario's licensing regime balances road safety with a host of other objectives. The Supreme Court reached the same conclusion in *Grimser*, noting that motorists have a range of driving abilities and that many people are licensed even though their physical characteristics might make them less safe than the average driver.<sup>107</sup>

78. The applicant concedes that the limitation of the s. 15 right is prescribed by law and that the law has a pressing and substantial objective. The law does not, however, meet any of the three branches of the proportionality test.

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<sup>105</sup> *RJR-MacDonald Inc. v. Canada (Attorney General)*, [1995] 3 SCR 199 at paras. 60 and 128-129

<sup>106</sup> *RJR-MacDonald Inc. v. Canada (Attorney General)*, [1995] 3 SCR 199 para. 144, P.W. Hogg, *Constitutional Law of Canada* (2007), 5<sup>th</sup> ed., Vol. 2 at pp. 38-19 to 38-23

<sup>107</sup> *Grimser*, at paras. 25-27

## (1) Rational Connection

79. At the first branch of the proportionality test Ontario must demonstrate that the measure is rationally connected to the objective. As explained in *Oakes*:

First, the measures adopted must be carefully designed to achieve the objective in question. They must not be arbitrary, unfair or based on irrational considerations. In short, they must be rationally connected to the objective.<sup>108</sup>

80. Here, the Court is faced with the following question: has Ontario proven a rational connection between reasonable road safety and the exclusion of monocular people from commercial driving? Expressed more specifically, has Ontario proven a rational connection between reasonable road safety and the exclusion of people whose visual field meets the 150 degree requirement but is shifted a mere 15 degrees to one side?

81. Considering whether the necessary rational connection exists is a matter of causal relationship.<sup>109</sup> However, given that philosophical, political and social claims are not always amenable to empirical proof, the law recognizes that where the legislative objective is not scientifically measurable, it is possible for a court to find a causal connection on the basis of reason or logic without direct proof.<sup>110</sup> In such cases, a more forgiving standard may be appropriate in assessing the rational connection requirement given that effective answers to complex social problems may not be simple or scientifically measurable.<sup>111</sup> Liliiana's case is not one of these cases.

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<sup>108</sup> *R. v. Oakes*, [1986] 1 S.C.R. 103 at para. 70

<sup>109</sup> *Mounted Police Association of Ontario v. Canada (Attorney General)*, [2015] S.C.J. No.1 at para. 143

<sup>110</sup> *RJR-MacDonald*, at para. 110; *Mounted Police Association of Ontario v. Canada (Attorney General)*, [2015] S.C.J. No. 1 at para. 144

<sup>111</sup> *Canada (Attorney General) v. JTI-Macdonald Corp* [2007] 2 S.C.R. 610, at para. 41

82. In Liliana's case the legislative objective, road safety, is scientifically measured. As such, Ontario should not be permitted to proffer a link between a ban on monocular drivers and road safety on reason, logic or "common sense" alone – direct proof should be required. While a deferential non-scientific standard may be appropriate in cases where the objective is unmeasurable, it cannot be used as a shortcut where measurement is possible or where, as here, the measurements simply do not support the government's position. This is a case where the Court must have a hard look at whether Ontario has met its burden of proving a connection between the ban on monocular drivers and the goal of reasonable road safety.<sup>112</sup>

83. Here, the Province has failed to meet its burden of showing a rational connection. The government has not been able to show such a link because the science has repeatedly failed to find a meaningful link between monocularity and increased crash risk. Ontario's own studies found no connection. Ontario's own expert Dr. Owsley co-authored the Expert Panel Report, which she did not disclose, in which she recommended the continuation of a waiver program for monocular truck drivers and a 70 degree visual field requirement. And Dr. Owsley could not answer whether a person with one eye could drive as safely as a person with two eyes.<sup>113</sup>

84. The existence of a rational connection is also undermined by the fact that Ontario permits monocular people to drive passenger vehicles and permits many monocular people to drive commercial vehicles, including through the 1996-2006 waiver program, the 1978 waiver

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<sup>112</sup> There is an additional reason that proof of a rational connection based on common sense and inferences should not be applied here: it is inappropriate in a disability discrimination case where the applicant's central complaint is that the infringing legislation is itself based on impressionistic inferences that are unsupported by scientific proof.

<sup>113</sup> Owsley cross-examination, at q. 137, 144 and 177

program, and by permitting anyone who holds a license from one of the many jurisdictions that do allow monocular commercial driving to drive in Ontario.

85. Overlaid on all of this is the fact that Ontario has not even attempted to show that the actual deficit between a monocular person and the standard required by the Regulation – a shifting of the visual field by a mere 15 degrees to the left or right – has any impact whatsoever on driving performance or road safety. All of the evidence Ontario has presented compares monocular vision to binocular vision generally, not to what is required by the Regulation. There is no rational connection between reasonable road safety and this very slight difference in the position of a monocular person's visual field.

## **(2) Minimum Impairment (Least Drastic Means)**

86. At the minimum impairment stage of the proportionality test the issue to be considered is whether the goal of the impugned law could be substantially accomplished in a less infringing manner.<sup>114</sup> As explained by Hogg:

... In *R. v. Oakes*, it was described as the second element of proportionality, and it was said to require that the law "should impair 'as little as possible' the right or freedom in question". The idea is that the law should impair the right no more than is necessary to accomplish the desired objective, or, in other words, that the law should pursue the objective by the least drastic means. This branch of the *Oakes* test can also be described as the minimum impairment test, because it insists that the limit on the Charter right be the minimum that is necessary to accomplish the desired objective ... The requirement of least drastic means has turned out to be the heart and soul of s. 1 justification.<sup>115</sup>

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<sup>114</sup> *Alberta v. Hutterian Brethren of Wilson Colony*, [2009] S.C.J. No. 37 at para. 66

<sup>115</sup> P.W. Hogg, *Constitutional Law of Canada* (2007), 5<sup>th</sup> ed., Vol. 2, at p. 38-36

87. In considering minimum impairment, the inquiry considers whether there is an alternative means of achieving the legislative objective in a "real and substantial manner." It is not necessary for the alternative to satisfy the objective to exactly the same degree as the measure at issue. As the Supreme Court explained in *Alberta v. Hutterian Brethren*:

[55] I hasten to add that in considering whether the government's objective could be achieved by other less drastic means, the court need not be satisfied that the alternative would satisfy the objective to *exactly* the same extent or degree as the impugned measure. In other words, the court should not accept an unrealistically exacting or precise formulation of the government's objective which would effectively immunize the law from scrutiny at the minimal impairment stage. The requirement for an "equally effective" alternative measure in the passage from *RJR-MacDonald*, quoted above, should not be taken to an impractical extreme. It includes alternative measures that give sufficient protection, in all the circumstances, to the government's goal: *Charkaoui v. Canada (Citizenship and Immigration)*, 2007 SCC 9, [2007] 1 S.C.R. 350. While the government is entitled to deference in formulating its objective, that deference is not blind or absolute. The test at the minimum impairment stage is whether there is an alternative, less drastic means of achieving the objective in a real and substantial manner. ... [Emphasis in original]<sup>116</sup>

88. Similarly, a legislative scheme will not minimally impair rights where no effort has been made to protect the rights being infringed. In *Dunmore v. Ontario*, the Supreme Court determined that the exclusion of agricultural workers from Ontario's labour relations regime violated ss. 2 and 15 of the *Charter* and that the infringement did not minimally impair these rights. The Court held that a categorical exclusion of agricultural workers could not be justified where no satisfactory effort had been made to protect their right to freedom of association. As explained by the Court: "the legislature must "attempt very seriously to alleviate the effects" of its laws on those whose fundamental freedoms are infringed".<sup>117</sup> In considering whether this has

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<sup>116</sup> *Alberta v. Hutterian Brethren of Wilson Colony*, [2009] S.C.J. No. 37 at para. 55

<sup>117</sup> *Dunmore v. Ontario (Attorney General)*, [2001] 3 SCR 1016 at paras 59-61

been done, it is appropriate to consider legislation in other jurisdictions that has better protected the rights at issue without weakening the legislative objective.<sup>118</sup>

89. These principles were recently strongly reaffirmed in the Supreme Court's landmark case on assisted dying, *Carter v. Canada*, in which the Court emphasized that a government must meet its burden through proof that alternatives are not reasonable and not through mere theory, speculation or intuition. As the Court explained:

[118] Canada also argues that the permissive regulatory regime accepted by the trial judge “accepts too much risk”, and that its effectiveness is “speculative” (R.F., at para. 154). In effect, Canada argues that a blanket prohibition should be upheld unless the appellants can demonstrate that an alternative approach eliminates all risk. This effectively reverses the onus under s. 1, requiring the claimant whose rights are infringed to prove less invasive ways of achieving the prohibition’s object. The burden of establishing minimal impairment is on the government.

[119] The trial judge found that Canada had not discharged this burden. The evidence, she concluded, did not support the contention that a blanket prohibition was necessary in order to substantially meet the government’s objectives. We agree. A theoretical or speculative fear cannot justify an absolute prohibition. As Deschamps J. stated in *Chaoulli*, at para. 68, the claimant “d[oes] not have the burden of disproving every fear or every threat”, nor can the government meet its burden simply by asserting an adverse impact on the public. Justification under s. 1 is a process of demonstration, not intuition or automatic deference to the government’s assertion of risk (*RJR-MacDonald*, at para. 128).<sup>119</sup>

90. The absolute ban on licensing monocular commercial drivers fails the minimal impairment test. The ban is a blunt instrument with no tailoring whatsoever to the specific goal to be addressed. There are many ways to craft a law that could achieve the legislative goal in a

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<sup>118</sup> *Dunmore v. Ontario (Attorney General)*, [2001] 3 SCR 1016 at para. 61

<sup>119</sup> *Carter v. Canada (Attorney General)*, [2015] 1 S.C.R. 331 at paras 102, 118-119

less impairing way, many of which are "ready made" in the sense that they are already in place in Ontario or other provinces. Ontario has simply chosen not to do so. Examples include:

- (a) an assessment by an occupational therapist, driving rehabilitation specialist, ophthalmologist or other appropriate professional;
- (b) a program similar to the programs of the other Canadian provinces who already have individualized assessments for commercial drivers in place;
- (c) a functional assessment similar to that provided under the Class G vision waiver program in Ontario;
- (d) a program similar to the intensive training program administered by the City of Mississauga and other municipalities, as described by Phaneuf;
- (e) a requirement that an applicant have a period of adaption to monocularity;
- (f) a requirement that a monocular person drive a passenger vehicle without incident for a certain period of time; or
- (g) a driving record with no demerit points.

91. As with the other branches of the *Oakes* test, Ontario bears the burden of proving that the Regulation minimally impairs Liliana's right to equality. To do so it must show that none of these options could have substantially accomplished its legislative objective. It has not met this burden.

92. Ontario appears to be taking the position that there is no way to test whether a monocular person will ultimately drive a commercial vehicle safely even if they are able to pass a rigorous test. This ignores the fact that there is no way to determine whether any driver will

ultimately drive safely. It would also lead to the exclusion of people with disabilities from the entire system of driver licensing because by this reasoning, able-bodied people are able to obtain a license by showing their ability to safely operate a vehicle but disabled people are not. Here, what is relevant is whether there is a way to determine that a monocular person is capable of compensating for the limitation created by their disability. The evidence shows that there is.

93. Finally, the government cannot succeed on minimal impairment even if it proves that some risk exists. The risk must rise to such a level that the objective of reasonable road safety cannot be substantially achieved. There is no evidence that permitting individualized assessment for monocular drivers would prevent this objective being achieved, particularly in light of the marginal difference between the standards in the regulation and monocular vision.

### **(3) Proportionate Effect**

94. At the third stage of the proportionality test the court must weigh the deleterious and the salutary effects of the impugned measure and determine whether the violation of *Charter* rights is proportionate to the benefit achieved. Here, this means determining whether the effect of an absolute ban on monocular drivers is disproportionate to its benefit.

95. The third stage of the *Oakes* analysis tests the true extent to which *Charter* rights are valued in Canadian society. In the rational connection and minimum impairment inquiries, the focus is on the extent to which the law is appropriately tailored to its objective. In striking down a law based on one of these two branches of the test a judge is simply making a finding that legislators have acted overbroadly. By the third stage of the proportionality analysis the



judge has already accepted that the legislators crafted a law that is appropriately connected to an important societal objective and that impacts the *Charter* right as little as reasonably possible. The third branch then pits the right directly against the objective and requires the judge to determine which one is more important. As explained by Aharon Barak, Israel's Supreme Court's former President, as cited by Chief Justice McLachlin in *Hutterian Brethren*, the proportionate effect analysis "requires placing colliding values and interests side by side and balancing them according to their weight."<sup>120</sup>

96. The Supreme Court's decision in *R. v. K.R.J.* provides a good example of this balancing. The case involved the retrospective application of a law authorizing judges to impose a ban on contact with persons under 16 on offenders convicted of sexual offences against children. The Court held that the ban failed to meet the third branch of the proportionality test. While noting that public policy decisions must often inevitably be made based on imperfect evidence, the Court reasoned as follows:

[91] Nonetheless, s. 1 mandates that the limitation on the right be demonstrably justified. As Dickson C.J. wrote in *Oakes*, this is a "stringent standard of justification" (p. 136). The retrospective operation of the impugned measure adversely impacts the liberty and security of offenders (relative to the previous version of s. 161), and, importantly, the fairness of criminal proceedings and the rule of law. Although this adverse impact will be experienced only when a judge concludes it is necessary to alleviate the risk the offender poses to children, it remains the case that the deleterious effects of the impugned measure are significant and tangible.

[92] In comparison, the benefits society stands to gain are marginal and speculative.  
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<sup>120</sup> *Alberta v. Hutterian Brethren of Wilson Colony*, [2009] S.C.J. No. 37 at para. 76

<sup>121</sup> *R. v. K.R.J.*, [2016] S.C.J. No. 31 at paras 91-92

97. In this case the negative effects of the violation of the equality rights of disabled persons far outweigh the claimed salutary effects.

98. The negative impacts of the violation are huge. The ability to work in a person's chosen vocation is fundamental to a sense of self-worth and to full participation in society. This has been taken away from Liliana. She has been put into a position of economic instability which may impact her for the rest of her life. Liliana has been denied the opportunity to prove that she is able to drive safely when she sincerely believes that she is able to do so – a belief that is supported by her driving record, the perfect health of her left eye and the studies on the subject of monocular driving, including Ontario's own studies.

99. It is the applicant's position that the benefits achieved through the outright ban are non-existent because the evidence reviewed above shows that the ban does not contribute to road safety. Even if there were some benefit, it would be precisely the kind of "marginal and speculative" benefit that would not outweigh the harm caused. The fact that Ontario allows monocular drivers to drive cars and that other provinces permit monocular commercial driving without issue confirm this.

100. The relatively lower weight of the claimed benefit as compared to the *Charter* right to equality is also supported by the fact that Ontario allows monocular commercial driving under its grandfathered programs. As the Court explained in *Hines*: "the proportionality test fails

when this serious abridgement of rights is measured against a regulation which is not so sufficiently pressing [that there is a grandfather clause]."<sup>122</sup>

101. Likewise, monocular drivers from other provinces can drive commercial vehicles on Ontario's roads. One need look no further than our nation's capital to realize the absurdity of this position: a monocular commercial driver living in Gatineau but working in Ottawa would be permitted to drive on Ontario's roads every day of the week. If Ontario can permit monocular commercial driving for the sake of administrative and economic expediency and interprovincial comity, it can permit monocular commercial driving in order to protect a *Charter* right of fundamental importance to Canadian society.

102. This is not a case where the right to equality and the human dignity that comes with it has been thoughtfully balanced against a competing social objective. Ontario has given no weight to the constitutional rights of members of our community with a physical disability. The discrimination is not justifiable on the facts and is not justifiable under s. 1.

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<sup>122</sup> *Hines v. Nova Scotia (Registrar of Motor Vehicles)*, [1990] N.S.J. No. 223 (S.C.), at p. 8

**PART V - ORDER SOUGHT**

103. The applicant seeks a declaration that the words "not poorer than 20/100 in the weaker eye" in s. 18(3)(a) and the entirety of s. 18(4)(d) of the Regulation are inconsistent with Canada's Constitution and are of no force and effect, together with such other orders as are necessary to permit Liliana an opportunity to seek a Class A to F license.

ALL OF WHICH IS RESPECTFULLY SUBMITTED.

December 9, 2019



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**Neil G. Wilson**  
**Yolanda Song**  
Lawyers for the Applicant



## SCHEDULE “A” – TABLE OF AUTHORITIES

### Cases

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<i>Multani v. Commission scolaire Marguerite-Bourgeoys</i> , [2006] S.C.J No. 6.....	34
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<i>White Burgess Langille Inman v. Abbott and Haliburton Co.</i> , [2015] S.C.J. No. 23.....	27
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## **SCHEDULE “B” – STATUTES**

### *Canadian Charter of Rights and Freedoms*

#### **Rights and freedoms in Canada**

1. The Canadian Charter of Rights and Freedoms guarantees the rights and freedoms set out in it subject only to such reasonable limits prescribed by law as can be demonstrably justified in a free and democratic society.

#### **Equality before and under law and equal protection and benefit of law**

15. (1) Every individual is equal before and under the law and has the right to the equal protection and equal benefit of the law without discrimination and, in particular, without discrimination based on race, national or ethnic origin, colour, religion, sex, age or mental or physical disability.

#### **Affirmative action programs**

(2) Subsection (1) does not preclude any law, program or activity that has as its object the amelioration of conditions of disadvantaged individuals or groups including those that are disadvantaged because of race, national or ethnic origin, colour, religion, sex, age or mental or physical disability.

### *The Constitution Act, 1982*

#### **Primacy of Constitution of Canada**

52. (1) The Constitution of Canada is the supreme law of Canada, and any law that is inconsistent with the provisions of the Constitution is, to the extent of the inconsistency, of no force or effect.



*Drivers' Licenses*, O. Reg. 340/94 under the *Highway Traffic Act*, R.S.O. 1990, c. H.8

18. (1) An applicant for or a holder of a Class M, M1 or M2 driver's licence must have,
  - (a) a visual acuity as measured by Snellen Rating that is not poorer than 20/50, with both eyes open and examined together with or without the aid of corrective lenses; and
  - (b) a horizontal visual field of at least 120 continuous degrees along the horizontal meridian and at least 15 continuous degrees above and below fixation, with both eyes open and examined together. O. Reg. 83/05, s. 10.
  
- (2) An applicant for or a holder of a Class G, G1 or G2 driver's licence must have,
  - (a) a visual acuity as measured by Snellen Rating that is not poorer than 20/50 with both eyes open and examined together with or without the aid of corrective lenses; and
  - (b) a horizontal visual field of at least 120 continuous degrees along the horizontal meridian and at least 15 continuous degrees above and below fixation, with both eyes open and examined together. O. Reg. 83/05, s. 10.
  
- (3) An applicant for or a holder of a Class A, B, C, D, E or F driver's licence must have,
  - (a) a visual acuity as measured by Snellen Rating that is not poorer than 20/30 with both eyes open and examined together and not poorer than 20/100 in the weaker eye, with or without the aid of corrective lenses; and
  - (b) a horizontal visual field of at least 150 continuous degrees along the horizontal meridian and at least 20 continuous degrees above and below fixation, with both eyes open and examined together. O. Reg. 453/10, s. 4.
  
- (4) Where the horizontal visual field of a driver is to be determined,
  - (a) it shall be measured without the aid of extraordinary optical devices that enhance or modify vision or that interfere with the horizontal visual field, such as telescopic lenses, prism lenses or sidebar prisms;
  - (b) the continuous horizontal visual field shall not include the natural blind spot;
  - (c) the visual field representation must include the central visual fixation point at its centre;
  - (d) no less than half of the continuous degrees of the horizontal visual field that are required along the horizontal meridian shall be found on either side of the vertical meridian; and
  - (e) the continuous degrees of the horizontal visual field that are required above and below fixation shall be continuous throughout the required continuous degrees along the horizontal meridian. O. Reg. 38/18, s. 5.

19. The examinations and qualifications required of an applicant for or a holder of a driver's licence by sections 14, 16 and 17, subsection 18 (1), clause 18 (2) (a), subsections 18 (3) and (4) and sections 21.1 and 21.2 apply despite the *Human Rights Code*. O. Reg. 453/10, s. 5; O. Reg. 38/18, s. 6.

## British Columbia

*Motor Vehicle Act Regulations* B.C. Reg. 26/58, O.C. 1004/58 under the *Motor Vehicle Act*, [RSBC 1996] Chapter 318

### **Application for license**

s. 25

(3) For the purpose of determining an applicant's driving experience, driving skills, qualifications, fitness and ability to drive and operate any category of motor vehicle designated for that class of driver's licence for which the application is made, the applicant must ...

(b) submit to one or more, as the superintendent may specify, of the following: a vision test; medical examinations; other examinations or tests, other than as set out in paragraph (a), ...

*RoadSafetyBC 2016 CCMTA Medical Standards for Drivers With BC Specific Guidelines*

#### 22.6.5 Loss of stereoscopic depth perception or monocularly – All drivers

- RoadSafetyBC will not generally request further information for **non-commercial drivers**
- RoadSafetyBC may request an ICBC road test for **commercial** drivers
- RoadSafetyBC may find non-commercial drivers fit to drive if
  - sufficient time (typically 1 to 3 months) has elapsed since their loss of stereoscopic depth perception to allow them to adjust and compensate for their change in vision.
- RoadSafetyBC may find commercial drivers fit to drive if
  - they successfully complete an ICBC road test that indicates they are able to compensate for their change in vision

### Alberta, Saskatchewan, Manitoba

<https://www.alberta.ca/assets/documents/tr-electronic-medical-report.pdf>

<https://www.sgi.sk.ca/medical-conditions>

<https://www.mpi.mb.ca/Pages/medical-fitness-review.aspx>

CCMTA *Determining Driver Fitness in Canada*, March 2017

### **5.3 Principle 3 - Individual assessment**

#### *Principle*

Driver fitness determinations will be based on the individual driver's characteristics and abilities rather than the presumed group characteristics and abilities of people with that medical condition.

#### *Discussion*

A Supreme Court of Canada decision has established the requirement to individually assess drivers. *Grismer* held that each driver must be assessed according to the driver's own personal abilities rather than presumed group characteristics. The driver fitness standards outlined in Part 2 are, however, based on presumed group characteristics of individuals with each medical condition. However, consistent with the decision in *Grismer*, driver fitness authorities must make driver fitness determinations on an individual basis. This means that the standards are the starting point for decision-making but they may not apply to every individual. This is because, in some situations, individuals who would otherwise not be fit to drive have learned strategies, or utilize devices, to compensate for their functional impairment. For example:

- a driver with limited peripheral vision may use the strategy of turning their neck to the left and right to ensure they have a full field of view, or
- a driver who is unable to use their lower limbs may have their vehicle modified for hand controls.

Conversely, an individual who on the face of the standard would be fit to drive may be found unfit. For example:

- a driver with a visual defect that can be compensated for may lack insight into the impact that their medical condition has on their driving and therefore would be at risk of not compensating properly. Because of their lack of insight, this driver would not be fit to drive.

## Quebec

*Highway Safety Code*, chapter C-24.2

**83.** The Société must refuse to issue a licence or to change the class of or add another class to a licence if the applicant

- (1) does not meet the requirements for the issue of a licence of the class applied for;
- (2) according to a report of an examination or assessment carried out under section 64, 73, 76.1.2, 76.1.4 or 76.1.4.1 or a report referred to in section 603, suffers from an illness or deficiency or is in a condition which, under the medical or health standards established by regulation, is essentially inconsistent with the driving of a road vehicle corresponding to the class of licence applied for;

*Regulation respecting the health of drivers*, under the *Highway Safety Code*, chapter C-24.2 r. 40.1, s. 619, pars. 2 and 8

### **Division II**

#### **Illness and Deficiency of the Eye**

**4.** Visual acuity of less than 6/9 with both eyes open and examined together is essentially inconsistent with driving a road vehicle of Class 1 to Class 4.

[...]

**6.** A field of vision of less than 150 continuous degrees along the horizontal meridian and less than 10 continuous degrees above fixation and less than 20 continuous degrees below fixation, with both eyes open and examined together, is essentially inconsistent with driving a road vehicle of Class 1 to Class 4.

[...]

**11.** Sudden loss of the use of an eye or occlusion of an eye because of diplopia within the central 40 degrees is essentially inconsistent with driving a road vehicle for a period of 3 months following the beginning of monocular vision.

*Regulation respecting licences*, under the *Highway Safety Code*, chapter C-24.2 r. 34, s. 619, pars. 1, 3, 4 to 4.2, 5 to 5.2, 6 to 6.4, 7 and 23, and ss. 619.2 and 619.3

**28.1.** Class 1 authorizes the driving of

- (1) a combination of road vehicles consisting of a truck tractor having 2 axles and a net mass of 4,500 kg or more and hauling one or more trailers or semi-trailers;

- (2) a combination of road vehicles consisting of a truck tractor having 3 axles or more and hauling one or more trailers or semi-trailers; and
- (3) a combination of road vehicles consisting of a truck complying with the standards of section 28.3, hauling a trailer or semi-trailer the net mass of which is 4,500 kg or more and used solely for transporting the machinery, implements or fixtures with which it is permanently equipped or hauling any other trailer or semi-trailer having a net mass of 2,000 kg or more.

Class 1 authorizes the driving of a combination of road vehicles described in the first paragraph equipped with a manual transmission or an air braking system or the driving of a road train as defined in the Special Road Train Operating Permits Regulation (chapter C-24.2, r. 36), if the indication or indications to that effect are entered in the licence holder's file.

**28.2.** A class 2 licence authorizes the driving of a bus designed to transport more than 24 passengers at a time.

That class authorizes the driving of a road vehicle described in the first paragraph that is equipped with a manual transmission or an air braking system if the indication or indications to that effect are entered in the licence holder's file.

**New Brunswick**

*Regulation 83-42 under the Motor Vehicle Act, O.C. 83-170*

[...]

**22(1)** Driver's licences shall be of the following classes and shall, if issued to an individual, authorize him to operate any of the types of vehicles specified therein and no other:

[...]

(h) Class 2 - authorizes a person to drive

(i) any motor vehicle which the holder of a Class 3, 4 or 5 licence may operate, and

(ii) any bus with a capacity of more than twenty-four passengers;

(i) Class 1 - authorizes a person to drive

(i) any motor vehicle which the holder of a Class 2, 3, 4 or 5 licence may operate,

(ii) any truck tractor,

(iii) any truck tractor towing a semi-trailer,

(iv) any truck tractor towing a semi-trailer and a trailer,

(v) any truck tractor towing a trailer equipped with air brakes, and

(vi) any truck towing a trailer equipped with air brakes.

[...]

**27(1)** An applicant for the following classes of licence shall meet the following conditions:

(a) an applicant for a Class 1 or Class 2 driver's licence shall have

(x) no corrected visual acuity of less than 20/30 in the best eye and worse than 20/50 in the weakest eye,

(xi) no horizontal visual field of less than 120 degrees in each eye as determined by confrontation tests,

(xii) no colour recognition disability as to impair the ability to accurately identify the colours red, green and amber,

(xiii) no evidence of monocular or aphakic condition,

**27(2)** The Minister may waive any of the conditions set out in subsection (1) as they pertain to a particular applicant for any class of licence if

(a) he is satisfied that a hardship would result in an applicant being denied a particular class of licence because of failure to meet the conditions set out in subsection (1), and

(b) the applicant presents evidence satisfactory to the Minister that he has the ability to safely operate the particular type of vehicles which the class of licence for which he has made application would allow the operation thereof

**27(3)** The Minister may refer any application pursuant to subsection (2) to a medical review board, and, in addition, may request the applicant to present, either to himself or to the medical review board, satisfactory medical opinion evidence as to the applicant's ability to operate a motor vehicle.



**Nova Scotia**

*Classification of Drivers' Licenses Regulations* made under subsection 66(1) of the *Motor Vehicle Act* R.S.N.S. c. 293 O.I.C. 82-956 (August 3, 1982), N.S. Reg. 174/82 as amended to O.I.C. 2015-96 (March 31, 2015, effective June 1, 2015), N.S. Reg. 124/2015

1 Drivers' licenses shall be classified according to the type of vehicle operated:

**Class 1**

**Permits the operation of**

- (a) semi-trailer and tractor trailer combinations;
- (b) all type of vehicles in Classes 2, 3, 4, 5 and 8.

**Does not permit the operation of**

- (a) vehicles with air brakes, school bus or school purpose buses, motorcycles and motor-driven cycles without appropriate endorsement.

**Class 2**

**Permits the operation of**

- (a) buses having seating capacity of more than 24 passengers;
- (b) all types of vehicles in Classes 3, 4, 5 and 8.

5 An applicant for the following Classes of license must meet the following conditions:

- (a) An applicant for a Class 1 or 2 license shall have
  - (vii) visual acuity, with or without correction, of not less than 6/9(20/30) best eye and no worse than 6/15(20/50) in weakest eye,
  - (viii) horizontal visual fields of not less than 120 degrees in each eye by confrontation tests,

15 (1) The Registrar of Motor Vehicles may issue a class of driver's license to a person who does not fully satisfy the conditions established in these regulations subject to any conditions deemed appropriate by the Registrar.

(2) A driver's license shall not be issued under subsection (1) unless the Medical Advisory Committee on Driver Licensing advises the Registrar that the person does not represent an unacceptable safety risk for the class of vehicle operated by the person.

## Prince Edward Island

*Driver's Licenses Regulations*, PEI Reg EC550/02 under the *Highway Traffic Act*, RSPEI 1988, c H-5, s 69.

### 1. Classes of licenses

The following classes of driver's licenses are prescribed and, subject to the Act and these regulations, the holder of a driver's license of one of these classes is authorized to operate only the types of vehicles specified below for that class:

- (a) Class 1 - authorizes a person to drive
  - (i) any motor vehicle which the holder of a Class 3, 5, 8, and 9 may operate,
  - (ii) any truck-tractor,
  - (iii) any truck-tractor towing a semi-trailer,
  - (iv) any truck-tractor towing a semi-trailer and a trailer;
- (b) Class 2 - authorizes a person to drive
  - (i) any motor vehicle which the holder of a Class 3, 4, 5, 8 and 9 may operate,
  - (ii) any bus with a capacity of more than 24 passengers, including a school bus;

[...]

### Requirements for license

- 3 (3) The Registrar shall not issue a Class 1, 2, 3, 4, 5, 6 or 8 driver's license to any applicant who holds a Class 7 license unless the driver applicant
- (b) has complied with the medical and vision reporting cycles and meets the medical standards for Class 1, 2, 3 and 4 as prescribed by the most recent edition of the manual, *Medical Standards for Drivers*, published by the **Canadian Council of Motor Transport Administrators**.

### Waiver of standards

- (4) The Registrar may waive any of the medical standards pertaining to a particular applicant for any class of driver's license where
- (a) immediately preceding October 1, 1985, the applicant held an operator's license or a chauffeur's license that authorized the applicant to drive a motor vehicle that now requires the class of driver's license for which the application is made;

(b) the Registrar is satisfied that an applicant would suffer a hardship if denied a particular class of driver's license because of a failure to meet a prescribed standard; and

(c) the applicant presents evidence satisfactory to the Registrar that the applicant can safely drive a motor vehicle that requires the class of driver's license for which the application has been made.

## Newfoundland and Labrador

*Highway Traffic Driver Regulations, 1999 under the Highway Traffic Act (O.C. 98-729)*

### **Classes of licence**

3. (1) There are established, as described in subsection (2), different classes of driver's licence for the province.

(2) The registrar may issue to a person who meets the requirements for holding that particular class of licence, a

- (a) class 1 driver's licence which shall permit the holder to operate semi trailer trucks and other classes of driver's licence as shown by the endorsement of the registrar on the licence;
- (b) class 2 driver's licence which shall permit the holder to operate buses which carry more than 24 passengers and other classes of driver's licence as shown by the endorsement of the registrar on the licence;

[...]

### **Medical**

12. The registrar shall not issue a driver's licence to the persons referred to in paragraphs (a) and (b) unless the driver has undergone a medical examination and filed with the registrar a certificate from a qualified medical practitioner or a qualified nurse practitioner and completed in accordance with medical standards fixed by the "CCMTA Medical Standards for Drivers" made by the Canadian Council of Motor Transportation Administrators

*Canadian Aviation Regulations, SOR/96-433*

Part IV – Personnel Licencing and Training: Standard 424 – Physical and Mental Requirement  
(amended 2007/12/30)

DIVISION II - MEDICAL CERTIFICATE

**424.05 *Medical Standards Flexibility - Limitations and Restrictions***

(1) Under special circumstances such as monocular or paraplegic applicants, flexibility may be applied and the permit or licence issued or validated where the following conditions are met:

(a) Accredited medical conclusion indicates that the applicant's failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the permit or licence applied for is not likely to affect air safety. The Licensing Authority shall be satisfied that any relevant ability, skill or experience of the applicant has been given due consideration.

(b) The permit or licence is endorsed with any special limitation or limitations when the safe performance of the permit or licence holder's duties is dependent on compliance with such limitations or restrictions.

(c) The applicant complies with any required conditions.

(2) The Civil Aviation Medical Examiner shall report to the Regional Aviation Medical Office any individual case where, in his judgement, already demonstrated ability, skill and experience of an applicant compensates for a failure to meet a prescribed medical standard without adversely influencing the safe performance of his duties when exercising the privileges of the permit or licence. The exercise of flexibility in this case is the joint responsibility of Civil Aviation Medical Division and Transport Canada Aviation, Personnel Licensing Branch.

(3) Where flexibility is applied, the privileges of the permit or licence may be restricted. In some cases where flexibility is applied it shall be necessary to have a practical flight test as part of the evaluation. An applicant shall be flight tested under conditions which are compatible with the privileges granted by the permit, licence or ratings held.

**(4) Practical Test**

(a) A practical test is in addition to all other standard medical requirements together with the licensing standards of skill, knowledge and experience for the permit or licence applied for.

(b) A practical test will only be conducted when requested by the Regional Aviation Medical Officer (RAMO) or Aviation Medical Officer and approved by the Regional Director Aviation Licensing (RDAL).

(c) A practical test shall only be requested when it is necessary to obtain an accurate evaluation of the applicant's capabilities.

...

(5) The following are examples of the most common cases, but not limited to these cases, where a practical test shall be required before flexibility of the Medical Standards is applied:

[...]

**(b) Monocular Applicants**

1. (i) A monocular applicant is an applicant who has lost the use of one eye or whose central vision is such that it cannot be corrected to at least 20/200 (6/60). A monocular applicant shall be granted the issue or revalidation of those permits or licences, for which a Category 3 or lower medical is required, provided that the following conditions are met:

(A) on the initial request for flexibility, the applicant has undertaken an eye examination by an ophthalmologist whose report indicates that with respect to the better eye:

(I) the vision is not less than 20/200 (6/60) corrected to 20/30 (6/9) or better and the equivalent spherical error is not greater than plus or minus 5 diopters;

(II) the function of the eye and its adnexae shall be normal in all other respects;

(B) the applicant, following an adequate period of adaptation, has satisfactorily completed a practical (monocular) test conducted by the person designated by the RDAL demonstrating his ability to fly the type of aircraft in which the permit or licence is sought in a competent manner while maintaining an adequate look-out for other traffic and obstructions; and

(C) the licensing authority's medical advisors have recommended the issue of a permit or licence; and

(D) an eye specialist's report is required at each renewal of the permit or licence.

- (ii) The practical test of flying ability shall confirm that the applicant has achieved sufficient adjustment to his monocular condition to perform the duties of a private pilot safely and with the degree of competence normally required and shall be required for:

(A) issue of a permit or licence to a monocular person;

(B) the first renewal after loss of binocular vision if the permit or licence was previously issued; and

(C) subsequent renewals where the eye specialist's report indicates significant deterioration of visual capability since the previous report.

- (iii) The practical test is:

(A) required in addition to the medical examination for the issue of a Student Pilot Permit to monocular applicants; and

(B) considered, in conjunction with the medical examination reports, when assessing the visual acuity of the applicant for the Permit;

(iv) Evidence of a satisfactory practical test, is in the form of signed statement by the person conducting the test, confirming that the applicant is competent to perform the normal and emergency manoeuvres appropriate to the type of aircraft in respect of which the permit or licence is sought:

(A) in a competent manner; and

(B) while maintaining an adequate look-out for other traffic and obstructions.

(v) The validity of a Medical Certificate shall be for the period normally applicable to the permit or licence, except for the Pilot Licence - Glider and Pilot Permit-Recreational which shall be valid for the same period as the Private Pilot Licence.

(vi) Monocular pilots may obtain a night rating subject to the following conditions:

(A) the applicant has completed the night and instrument flight time normally required for a night rating for a private pilot licence; and

(B) a flight instructor designated by the RDAL has certified that the applicant has been flight tested and been found to be capable of performing at night the normal and emergency manoeuvres appropriate to the type of aircraft in a competent manner while maintaining an adequate look-out for other traffic and obstructions.

*Railway Rules Governing Safety Critical Positions, TC O 0-17, June 6th, 2000*

### **3. Definitions**

A "Safety Critical Position" is herein defined as:

1. any railway position directly engaged in operation of trains in main track or yard service; and
2. any railway position engaged in rail traffic control.

Any person performing any of the duties normally performed by a person holding a Safety Critical Position, as set out in section 3 above, is deemed to be holding a Safety Critical Position while performing those duties.

*Canadian Railway Medical Rules Handbook (April 2019)*

### **5.2 Monocular Vision**

For the present purposes, a monocular individual is a person who has lost the use of one eye or has a visual field in one eye that is less than 40 degrees in any direction. A monocular individual may be deemed as acceptable for a SCP provided that the following conditions are met:

**5.2.1** A report by an eye care professional indicates that, with respect to the worse eye, the condition is stable and unlikely to affect the better eye;

**5.2.2** With respect to the better eye:

- the vision is corrected to 6/9 or better;
- the visual field is within acceptable limits. The minimal acceptable visual field limits are defined as:
  - horizontal meridian of 90°
  - vertical meridian of 90 °
  - oblique meridians of 90°
  - a continuous visual field within the above limits.
- colour vision is adequate under binocular viewing conditions;
- the eye's adnexa are normal in all other respects.

**5.2.3** The individual, following an adequate period of adaptation, has satisfactorily completed a practical test (\*) conducted by a person designated by the CMO demonstrating his/her ability to



perform his/her duties in a safe manner while maintaining an adequate lookout for other traffic and obstructions

*(\*) A practical test or adaptation may not be necessary in all cases. Demonstrated ability to perform tasks similar to those in a SCP that were gained through past work experience may be sufficient.*

*Competency of Operators of Pleasure Craft Regulations, SOR/99-53*

**Competency**

4 (1) Subject to subsection (2), a person is competent to operate a pleasure craft

(a) if the person has received a mark of at least 75 per cent on a test and has been issued a Pleasure Craft Operator Card;

(b) if the person had successfully completed a recreational boating safety course in Canada before April 1, 1999 and has a Boating Safety Course Completion Card or other written proof of that completion; or

(c) in the case of a pleasure craft rented from a rental agency or from a representative of a rental agency,

(i) if the person meets the condition set out in paragraphs (a) or (b), or

(ii) if the person and the agency or representative complete and sign, before the pleasure craft is operated, a rental boat safety checklist that contains the information referred to in section 8 and the person operates the pleasure craft only during the rental period.

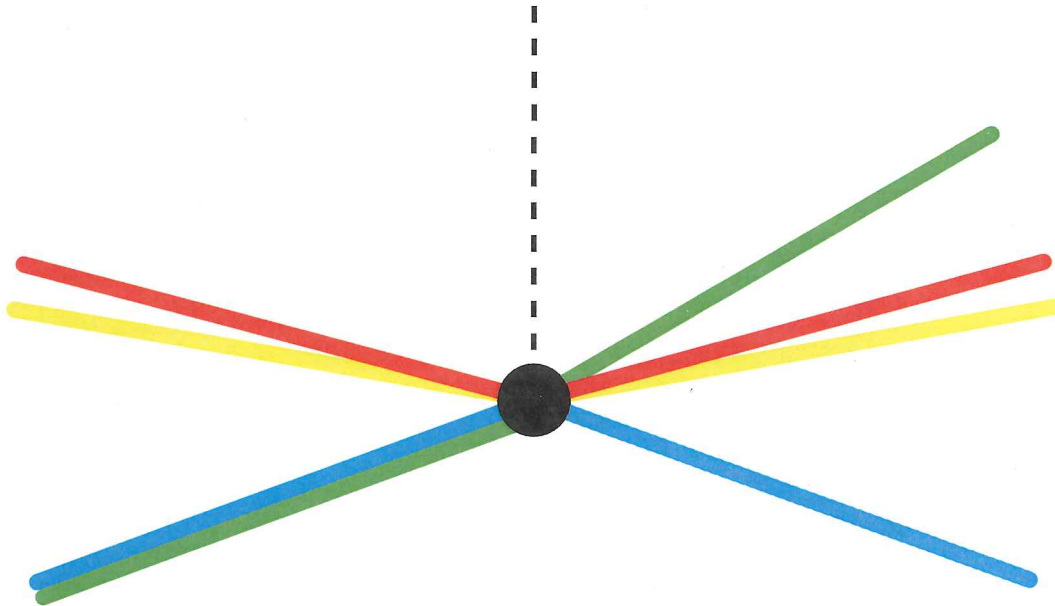
(2) A person who is not a resident of Canada is competent to operate a pleasure craft if the person

(a) has proof of competency as set out in subsection (1); or

(b) has been issued a certificate or other similar document that meets the requirements of the person's state or country.

C

## SCHEDULE "C" – VISUAL FIELD DIAGRAM



- 150° – Binocular Field Permitted by Regulation
- 170° – Full Monocular Field (110° left, 60° right)
- 220° – Full Binocular Field
- 160° – Maximum Field Measurable by Humphrey Machine
- - - Vertical Meridian



**SCHEDULE "D" – INDEX OF STUDIES**

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3. Keeney A.H., Garvey J.L., Bruncker G.F. "Current experience with the monocular drivers of Kentucky." *Proceedings of the 15th Conference of the American Association of Automotive Medicine*. 1981; 25: 215-221; R's Record, Vol. II, Tab 27
4. Laberge-Nadeau, C., Desjardins, D., Messier, S., Maag, U., Ekoe, J.M., and Joly, P. *Impact sur la securite routiere des normes medicale et optometriques pour la conduite d'un vehicule routier: Rapport final*. Publication #95-51 du Laboratoire sur la securite des transports du CRT, Universite de Montreal, 1995; R's Record, Vol. III, Tab 1(F)
5. McKnight A.J., Shinar D., Hilburn B. "The visual and driving performance of monocular and binocular heavy-duty truck drivers." *Accident analysis and Prevention*. 1991; 23(4): 225-237; ); Supplementary Application Record, Tab 2(J)
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8. Rogers P.N., Janke M.K. "Performance of visually impaired heavy-vehicle operators." *Journal of Safety Research*. 1992; 23: 159-170; R's Record, Vol. II, Tab 25
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LILIANA DI CIENZO  
Applicant

-and-

HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO  
Respondent

Court File No. CV-16-561356

**ONTARIO  
SUPERIOR COURT OF JUSTICE**

PROCEEDING COMMENCED AT TORONTO

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