IV. Basic Concepts

A. Blood Alcohol Concentration: Absorption and Elimination

A detailed discussion of how BAC is proven takes place in Chapter 18, Proving Blood Alcohol Concentration Through Breath Samples: Approved Instruments and Certified Evidence, but you need to have an understanding of what BAC is and how it changes.

BAC may be established in a number of ways, most commonly through the analysis of breath or blood samples. The analysis, for *Criminal Code* purposes, will give a result expressed in "milligrams of alcohol, per one hundred milliliters of blood." Section 320.14(1)(b) criminalizes having equal to or more than 80 milligrams of alcohol in 100 millilitres of blood.

An individual's BAC changes predictably. After consumption, alcohol is rapidly absorbed into the blood. The body begins to eliminate alcohol through excretion and metabolism (sweat, urine, etc.). The speed at which the human body absorbs and eliminates alcohol is well understood. While rates of absorption and elimination vary between individuals, they do so within a predictable range. Evidence about this can be provided by expert toxicologists.[7] Toxicologists, given information about an individual's height, weight, and sex, can accurately predict BAC at a later time if they know how much alcohol an individual has consumed. They can also "read back" from a known BAC and advise on what an individual's BAC would have been at an earlier time.

Breath samples are typically seized by the police, usually at a detachment, by having the accused blow into an "approved instrument." Blood samples are drawn by a doctor or nurse, either in response to a police demand or for medical purposes. These samples are analyzed by the approved instrument, by hospital staff, or by a toxicologist, which establishes the individual's BAC.

B. The Canadian Alcohol Per Se Limit of 80 Milligrams of Alcohol per 100 Millilitres of Blood

Different countries use different alcohol *per se* limits. Some jurisdictions use 80, others 50, and others have even lower legal limits. An individual does not have to be falling down drunk to pose a risk to others on the road. It is a criminal offence to operate a conveyance while one's ability to operate is impaired by alcohol or a drug. Scientific studies have demonstrated that an individual's ability to operate a vehicle is impaired long before visible symptoms of impairment are noticeable. Links between

7 See e.g. MD Holzbecher & AE Wells, "Elimination of Ethanol in Humans" (1984) 17:4 Can Society of Forensic Science Journal 182; AW Jones, "Evidence-Based Survey of the Elimination Rates of Ethanol from Blood with Applications in Forensic Casework" (2010) 200:1-3 Forensic Science Intl 1.

alcohol consumption and deficits in vehicle operation have been established for at least 60 years and were being discussed as early as 1904.[8]

Skills essential to safe driving, such as reaction time or the ability to engage in multiple simultaneous tasks, are affected long before someone begins to show visible signs of intoxication, such as slurred speech. Most toxicologists agree that all individuals studied show signs of impaired driving ability at a BAC of 50 milligrams of alcohol in 100 millilitres of blood.[9] Impairment can often be observed at lower BACs and is more significant at 80 milligrams of alcohol in 100 milliliters of blood.[10] Crown attorneys often ask toxicologists to testify about links between impairment and BAC, but toxicologists may agree that they cannot directly apply studies to the individual before the court and that individuals will vary in the level of their impairment.

As a result, Canada, like most jurisdictions, criminalizes those who put the public at risk by operating a conveyance with a BAC equal to or above a particular alcohol *per se* limit. Canada has chosen the limit of 80 milligrams of alcohol in 100 millilitres of blood.

V. Changes and Their Justification

Bill C-46 repealed section 253 of the *Criminal Code* and replaced it with section 320.14(1)(b). Although the old and new offences both target those who operate motor vehicles with a *per se* limit of alcohol in the blood, the offences are significantly different.

The language in section 253 had been in existence since 1969. Drinking and driving charges are the most litigated *Criminal Code* offences, taking up significant courtroom time. The law has been complex and difficult to understand for even the most experienced practitioners.

According to the legislative summary underlying Bill C-46, public safety remains the principle concern underlying drinking and driving legislation in Canada. The "80 and over" offence was changed in an effort to simplify the legislation, address complexity in language, reduce trial time required for drinking and driving cases, and simplify methods of proof.[11] Defence groups take the position that constitutional

8 Teri L Martin et al, "A Review of Alcohol-Impaired Driving: The Role of Blood Alcohol Concentration and Complexity of the Driving Task" (2013) 58:5 Journal of Forensic Sciences 1238.

9 *Ibid*.

10 *Ibid*.

11 Parliamentary Information and Research Service, Legal and Social Affairs Division, "Legislative Summary of Bill C-46: An Act to Amend the Criminal Code (Offenses Relating to Conveyances) and to Make Consequential Amendments to Other Acts," by Maxime Charron-Tousignant & Dominique Valiquet, Publication No 42-1-C46-E (Ottawa: PIRS, 1 June 2017); Government of Canada, "Legislative Background: Reforms to the Transportation Provisions of the Criminal Code (Bill C-46)" (Ottawa: Department of Justice, May 2017) [Legislative Background].

challenges to parts of this legislation will increase the workload for both Crown counsel and the courts.

In this part of the chapter, we will discuss the main differences between the old section 253 and new section 320.14(1)(b) offence. These are:

- simplifying the offence, by making the times of offence and testing the same;
- criminalizing bolus drinking;
- criminalizing intervening drinking; and
- criminalizing readings of "80."

A. Simplifying the Offence, by Making the Time of Offence the Same as the Time of Testing

Section 320.14(1)(b) eliminates a central problem for the Crown under the old section 253 offence.

Section 253 required the Crown to prove an individual's BAC at the time of driving. Unfortunately, breath or blood samples cannot be seized at the time of driving. Samples can be seized only after driving has ended. The body eliminates alcohol over time, meaning BAC will change between the time of driving and time of seizure. As a result, the Crown needed some evidentiary link between BAC at the time of tests and BAC at the time of driving.

This evidentiary link was established in one of two ways. The first was by retaining an expert toxicologist who could "read back" the BAC from the time the sample was taken to the time of driving. This way was expensive and time-consuming.

The second way was by using the presumptions of accuracy and identity contained in the old section 258(1)(c) of the *Criminal Code*.[12] These were presumptions that: the breath tests accurately set out the accused's BAC; and that BAC at time of driving was the same as at the time of the tests. The Crown had to prove a number of preconditions for the presumptions to apply, including that the samples were taken "as soon as practicable."

Failing to prove the preconditions deprived the Crown of the presumptions. This meant that although the evidence was admissible, the presumptions didn't apply.[13] If the Crown couldn't fill the evidentiary link, an acquittal would follow. Much drinking-and-driving litigation hinged on whether the Crown could prove the preconditions for the presumptions of accuracy and identity.

Section 320.14(1)(b) resolves the central problem by making the time of offence and time of seizure (testing) the same. As a result, the Crown no longer needs a

12 *R v St Pierre*, [1995] 1 SCR 791, 1995 CanLII 135 at paras 23-30.

13 *R v Gundy*, 2008 ONCA 284, [2008] OJ No 1410 (QL) at paras 28, 29, 31, 35; *R v Myrick*, 1995 CanLII 9856, 130 Nfld & PEIR 144 (CA); *R v Deruelle*, [1992] 2 SCR 663, 1992 CanLII 73 at paras 16-17; *R v Moerman*, 2013 ONSC 5620 at para 13.

mechanism to "read back" the blood alcohol concentration at time of testing to the time of the offence. The need to call a toxicologist, or the need for an evidentiary presumption no longer exists.

The key to this change is use of the terminology in section 320.14(1)(b) of being 80 or over "within two hours after ceasing to operate." In most cases, testing or seizure takes place within two hours of the time of operation. As we will see in Chapter 18, where samples are taken more than two hours after operation, courts are required to statutorily read back the accused's BAC. As a result, the time of testing or seizure is the same as the time of the offence. This means the old presumptions of accuracy and identity are repealed, as they are now redundant, simplifying the offence.

B. Criminalizing Bolus Drinking

The new "80 or over" offence criminalizes bolus drinking. Quite simply, being "under 80" at the time of operation will no longer be a defence.

Under the old legislation, a claim of bolus drinking involved an accused arguing that he or she consumed alcohol shortly before driving and that the alcohol had not been fully absorbed into the accused's bloodstream during driving. Thus, although the accused was "over 80" at the time of the test, he or she was under 80 at the time of driving and entitled to an acquittal.

The Supreme Court of Canada in *R v St-Onge Lamoureux* noted that bolus drinking cases and drinking immediately after an accident involves behaviour that demonstrates "significant irresponsibility with regard to public safety or a pathological reaction by the accused."[14] It is arguable that drinking rapidly immediately before driving is a form of risk-taking behaviour that puts the public in more danger than merely drinking and driving. From a Crown perspective, these changes are welcome and represent a beneficial development that will promote public safety.

The Canadian Bar Association, in its submissions on Bill C-46 to the Parliamentary Standing Committee, expressed concern that these changes risk criminalizing innocent individuals who are not actually operating a motor vehicle when their blood alcohol concentration is "over 80."[15] The Supreme Court of Canada, however, in *R v Malmo-Levine*,[16] has ruled that the "harm principle"—the notion that Parliament can criminalize only behaviour that causes societal harm—is not a fundamental principle of justice that could give rise to a breach under section 7 of the *Canadian Charter of Rights and Freedoms*.[17] If counsel are examining the constitutionality of this

14 2012 SCC 57 at para 90, [2012] 3 SCR 187.

15 Canadian Bar Association, Criminal Justice Section, "Bill C-46—Impaired Driving Act" (September 2017) at 10-11, online: <http://www.ourcommons.ca/Content/Committee/421/JUST/Brief/BR9085168/br-external/CanadianBarAssociation%20-e.pdf>.

16 2003 SCC 74.

17 Part I of the *Constitution Act, 1982*, being Schedule B to the *Canada Act 1982* (UK), 1982, c 11 [Charter].

legislation, they will need to review a number of documents, beginning with historical Supreme Court of Canada decisions addressing drinking and driving, *Malmo-Levine*, and materials dealing with the Parliamentary history behind Bill C-46.

C. Criminalizing Intervening Drinking

In a number of reported cases, individuals involved in traffic accidents either consume alcohol at the scene or leave the scene and consume alcohol at another location prior to a breath test.[18] This has been referred to as the "intervening drink defence."

Intervening drinking, knowledge of which often lies exclusively with the accused, can be used to undermine the results of a breath test. Intervening drinking is cause for concern, given the widespread understanding that drinking and driving is illegal, that there is a legal obligation to remain at the scene of an accident, and that police investigate traffic accidents. The inference is that individuals engaging in this behaviour are doing so to disguise their criminal drinking and driving. As a matter of common sense, drivers would be aware that drinking after an accident may undermine the Crown's reliance on breath tests.[19] The new "80 or over" offence criminalizes this behaviour.

The Canadian Bar Association has argued that drinking to defeat a breath test was already criminal: it amounted to the offence of obstructing justice contrary to section 129 of the *Criminal Code*. The association suggests that the new section 320.14(1)(b) offence may operate to catch innocent drinking, and as such, the legislation is overbroad.[20] Defence counsel may argue that "innocent drinking" would include individuals who decide to calm their nerves by having a drink after an accident without the intention of interfering with breath readings. Defence counsel may also argue that the limited nature of the section 320.14(5) defence, which may require toxicological evidence, may increase the risk of convicting the innocent.

Crowns would likely respond that explanations such as, "I drank to calm down" should neither be accepted nor amount to a defence. The Supreme Court in *St-Onge Lamoureux* described such behaviour as significantly irresponsible, cavalier, or pathological, and noted that courts should not condone or grant legitimacy to such behaviour.[21] Parliament believes the legislation is constitutional. The use of language criminalizing being "80 or over" within two hours is in widespread use in 16 American states.[22] Crowns will likely argue that the defence in section 320.14(5) does avoid criminalizing the innocent.

18 See e.g. *R v Mudryk*, 2013 ONCJ 465 at paras 326-43.

19 See e.g. *R v Pelletier*, 2015 SKPC 165 at para 23; *R v Tanjangco*, 2017 ONCJ 591.

20 Canadian Bar Association, Criminal Justice Section, *supra* note 15.

21 2012 SCC 57, [2012] 3 SCR 187 at para 90.

22 Legislative Background, *supra* note 11 at 14.

Lastly, Crowns might point out that while section 129 of the *Criminal Code* criminalizes drinking to defeat a breath test, the consequences of a conviction under section 129 include neither minimum fines nor mandatory prohibition orders, nor do they engage the consequences under provincial highway safety legislation. As a result, section 129 does not provide the same protection for the public as does a conviction under section 320.14(1)(b).

D. Criminalizing Readings Between 80 and 89

The old section 253 offence criminalized being "over 80." The new offence criminalizes being "80 and over." This change addresses the practice of truncation and ensures that all readings of 80 and over are criminalized.

Qualified technicians have a standard practice of truncating blood alcohol concentration results when completing a certificate of qualified technician. As an example, the police report results of 89 mg of alcohol in 100 mL of blood as "80." The old offence is "over 80." The new offence is "80 or over," which means that truncated "80" readings will now result in a charge.

The Canadian Bar Association has expressed concern about this, arguing that the purpose of truncation was to address the margin of error in the instrument. The CBA recommended further study before passing this change.

If you must address this issue, consult with a toxicologist, as approved instruments may already be set up to report results in a manner favourable to the accused.

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