Commonwealth Association of Legislative Counsel

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Editorial Policies

The Loophole is a journal for the publication of articles on drafting, legal, procedural and management issues relating to the preparation and enactment of legislation. It features articles presented at its bi-annual conferences. CALC members and others interested in legislative topics are also encouraged to submit articles for publication.

Submissions should be no more than 8,000 words (including footnotes) and be accompanied by an abstract of no more than 200 words. They should be formatted in MSWord or similar compatible word processing software.

Submissions and other correspondence about *The Loophole* should be addressed to —

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Editor's Notes

This first issue of 2018 addresses linguistic diversity in legislation.

It begins with Nicky Armstrong's paper on ***Mathematics in Legislation***. This might seem like an unlikely combination. After all, legislation is supposed to be written in a natural language that people can read and understand. What would mathematics (which uses a specialized artificial language) have to do with writing legislation? Nicky answers this question with a host of examples of mathematical concepts and formulae providing remarkably effective ways of dealing with policy concepts that are largely mathematical in nature. She also provides much helpful guidance on how these concepts should (and should not) be deployed in legislation.

From mathematics, we turn next to legislation written in more than one natural language. Felix Uhlmann and Stefan Höfler (***Multilingual Legislative Drafting in the Swiss Cantons: Blessing or Burden***) introduce us to the Swiss legislative drafting systems that produce laws in German, French, Italian and Romansh. The various Swiss Cantons use three different drafting systems described as co-drafting, co-revision, co-editing. In a sense, Switzerland is a microcosm for multilingual drafting, exemplifying the range of possible approaches and the circumstances in which one or other of them is most appropriate.

The next two articles move into a rather different linguistic world, beyond languages and legal systems based in Europe to legal traditions of indigenous communities in countries where European systems were implanted by colonialism.

Thomas Ahlfors (***Challenges related to the incorporation of Inuit Qaujimajatuqangit into legislation***) takes us to Canada's northern territory of Nunavut, which is largely peopled by the Inuit. This territory has three official languages: English, French and Inuktut. Thomas's article considers both the linguistic and conceptual challenges of integrating the Inuit notion of "*Inuit Qaujimajatuqangit*" (which translates as "that which Inuit have long known to be true") into the legislation of Nunavut.

Briar Gordon (***Reflecting an indigenous perspective in legislation: the challenge in New Zealand***) takes us to the warmer climes of New Zealand and that country's legislative journey to include the Māori perspective of the world, *te ao Māori*, in the statute law of New Zealand. Her article provides a compelling account of the history of British-Māori relations, notably the Treaty of Waitangi, and the legislative techniques that have been used to unite two quite distinct languages and culture in legislation.

Finally, 2018 promises to be a year rich in legislative drafting conferences with three being planned for Jersey, Washington and Ottawa. Details are provided on the next page.

John Mark Keyes

Ottawa, January, 2018

Upcoming Conferences

Fifth Annual International Conference on Legislation and Law Reform

The Fifth Annual International Conference on Legislation and Law Reform will be held at American University's Washington College of Law in **Washington, DC, on Thursday and Friday, April 12 and 13, 2018**.

The conference will focus on how laws are written in the United States and around the world at the international, national, and subnational levels. The conference has proved to be an excellent opportunity for legislative experts from around the world to meet and exchange knowledge and perspectives on a topic of great importance to governance: the drafting and reform of laws.

The agenda for the 2018 conference is nearly final, and over 20 speakers are confirmed hailing from across the world, including Australia, Belgium, China, Ethiopia, Ghana, the Netherlands, South Africa, Sweden, Uganda, the United Kingdom, and the United States.

The standard registration price is $275US. This includes two days of programming, two breakfasts, two lunches, and an evening reception. There are discounted prices for Federal Bar Association members and law students.

To register, and for a preliminary version of the agenda, please visit the conference website: www.ilegis.org. Any queries about the conference may be sent to info@ilegis.org.

Delivering Brexit: Legislative Sprint or Marathon? – Europe Regional Conference

The first CALC conference for the Europe region is being planned to take place in **Jersey mid-September 2018** (likely 20-21 September) with optional social activities the following weekend. The theme of the conference is Brexit from a drafters' perspective with particular emphasis on how it might affect territories outside of the UK. Though it is a regional conference we will be pleased to have delegates from the overseas territories and anyone else interested in this important and topical matter. The proposed topics:

- Examining the sprint: reflecting on the withdrawal legislation
- The longer journey: legislating post-Brexit
- Brexit: how are the Crown Dependencies and the Overseas Territories placed in the race?
- Land borders with the EU: legislative implications
- Drafting instructions: coping with the hiatus (with reference to key areas such as customs and taxation, immigration, trade, financial services and agricultural and fisheries)
- Henry VIII takes up the baton: Brexit and powers
- Statutory Interpretation post-Brexit.

Anyone interested in presenting a paper related to one or more of these themes is asked to send a brief abstract and short biography to Lucy Marsh-Smith (L.MarshSmith@gov.je) by **31 March 2018.** Further details about the conference will be available at http://www.calc.ngo/conferences.

Charting Legislative Courses in a Complex World – CIAJ Legislative Drafting Conference

The 19th Legislative Drafting Conference of the Canadian Institute for the Administration of Justice (CIAJ) will take place **13-14 September 2018 in Ottawa** on the theme of *Charting a Legislative Course in a Complex World*. The starting point will be what drives complexity in legislation, notably complex policy. Professor Robert Geyer, a noted scholar in this area from Lancaster University in the UK, will kick off the conference with a keynote address to be followed by two case-studies of complex legislative subjects: withdrawal from international trade agreements (notably Brexit) and the legalization of cannabis. The conference will also include workshops on law-making outside the usual processes for making statutes and delegated legislation, legislative revision (particularly in light of judicial decisions invalidating legislation), techniques for moving legislative files forward when they are stalled by policy issues, drafting for clients in small jurisdictions having limited policy-making resources and the interaction of legislation with indigenous legal traditions. Further details about the conference and how to register for it will soon be available at https://ciaj-icaj.ca/en/.

Mathematics in Legislation

Nicky Armstrong[1]

Abstract

This article looks at the use of mathematical symbols and formulae in legislation. It outlines considerations of clarity, precision and usability to be borne in mind when deciding whether to use them instead of words written in sentences. It also provides guidance on drafting and formatting mathematical formulae illustrated with many examples of how they should be used.

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What is mathematics

Mathematics is the study of number, quantity, shape and space and their interrelationships. It can be broadly divided into four basic disciplines: arithmetic, algebra, geometry and calculus. Mathematics first arose out of the need to do calculations relating to commerce. It was then applied to the wider physical world, allowing for the development of scientific disciplines such as physics, chemistry and astronomy, which in turn led to the further development of mathematics, and in turn further developments in other sciences.

[1]Parliamentary Counsel, Parliamentary Counsel Office, New Zealand.

Mathematics is now used in all fields of science and, in fact, in almost all aspects of everyday life.

Uses of mathematics in legislation

The use of mathematics in legislation began with legislation governing commerce and, not surprisingly, laws imposing taxation. Most mathematics in legislation is still directed at calculating monetary amounts. For example:

- calculating taxes, fees, charges, penalties
- calculating the amount of payments (for example, social security payments, superannuation benefits)
- calculating the value of things
- calculating discounts and rebates
- providing for interest to accrue
- indexation
- pro rating amounts
- determining comparative proportions
- dividing amounts (for example, distribution of deceased estates, division of property on dissolution of marriage).

However, other fields of activity are now increasingly regulated in ways that involve the application of mathematical concepts. Legislation in these fields, especially subsidiary legislation, often needs to incorporate mathematical and scientific calculations that are more complex than those involved when dealing with money. For example:

- environmental protection and pollution control
- climate change, emissions trading schemes, etc.
- power generation and distribution
- radiation safety
- agricultural chemical controls.

As legislative policy becomes ever more complex, the amount of legislation that needs to incorporate mathematical calculations is increasing, and the mathematics involved is becoming increasingly complex. The question for legislative counsel is how to deal with it.

Legislative expression of calculations

I first looked into the question of the use of numbers in legislation when I was working in Western Australia. There, until about 1980, legislation was written almost entirely in words. Numerals were used for section numbers but only rarely for anything else. Any mathematical calculations were almost always expressed in words. It was not until the beginning of the plain language movement that numerals were adopted for general use. More recent advances in technology have allowed greater scope for the use of formulae and other non-sentence structures in legislation.

Other jurisdictions seem to have followed a similar path, some more quickly than others.

The basic objective of using plain language in drafting is to enhance the clarity, precision and usability of legislation. For most of us, most of the time, plain language means plain English (or Māori, or French, etc. – but in any event, plain words). But when it comes to expressing mathematical concepts, I would like to suggest that plain English – or plain words – may not be the appropriate language.

Mathematical notation is a writing system for recording mathematical concepts. It was developed precisely because ordinary language (words and sentences) was inadequate to express anything beyond very simple mathematical concepts. Even relatively simple mathematical concepts can be difficult to express in words. The more complex the concepts, the more inadequate words are for expressing them.

As legislative counsel, we are responsible for ensuring the clarity, precision and usability of the legislation we draft. I would therefore suggest that, when faced with the need to incorporate a mathematical concept into the law, we have a professional obligation to consider whether the use of a formula might be the best approach.

As with most aspects of drafting, there is no hard and fast rule about when a formula should, or should not, be used. The question is, what will produce the best results in terms of clarity, precision and usability of the legislation?

If the calculation is simple and can be written clearly and precisely in words, there may be no need to use a formula. For a calculation involving only one arithmetical operation, words may well be perfectly adequate.

Example 1 Single arithmetical operation

13 Assessing the value of unexplained wealth

The value of the respondent's unexplained wealth is the amount equal to the difference between:

(a) the total value of the respondent's wealth; and

(b) the value of the respondent's lawfully acquired wealth.

However, even if the calculation is simple, if there is a possibility of it being misread, then a formula might be preferable. In example 2, from the word version it is possible to work out that the amount required to be paid is

(credit + interest + enforcement + termination) – **[**payments + rebates**]**

but it could be misread as

(credit + interest + enforcement + termination) – payments + rebates.

Paragraphing the amounts would no doubt improve readability, but a simple formula can remove any possibility of doubt.

Example 2 Simple calculation capable of being misread

75 Debtor's right to pay out contract

The amount required to pay out a credit contract is the total of the amount of credit, the interest charges payable up to the date of termination, the reasonable enforcement expenses, and any early termination charges provided for in the contract less any payments made under the contract and any rebate of premium under section 138.

Rewritten as a formula:

75 Debtor's right to pay out contract

The amount required to pay out a credit contract is to be calculated using the formula:

$$p = (a + b + c + d) - (e + f)$$

where:

p = amount required to pay out the contract

a = amount of credit

b = interest charges payable up to the date of termination

c = any reasonable enforcement expenses

d = any early termination charges provided for in the contract

e = any payments made under the contract

f = any rebate of premium under section 138.

Even if the maths involved in a calculation is simple, a formula might be preferable if the calculation is long. The calculation in example 3 only involves addition, subtraction and multiplication, but it would take up many pages if it were written out in words.

Example 3 Simple, but long, calculation

25 Partial and permanent disablement

If a person who is or was at any time a Member becomes entitled to a benefit under regulation 41 the benefit is to be increased by adding to it an amount calculated in accordance with the formula:

$$b = \left[r \times \frac{m}{12} \times \frac{c}{2.5} \times \frac{10}{100}\right] + \left[(r - e) \times \frac{f}{12} \times \frac{c}{2.5} \times \frac{10}{100}\right] + \left[r \times \frac{n}{12} \times \frac{c}{2.5} \times \frac{6}{100}\right]$$

where:

b = amount to be added to benefit under regulation 41

r = Member's final remuneration

m = number of complete months during which person was a Member

c = Member's average contribution rate

e = annual amount of remuneration that the Board considers the Member has the capacity to earn after becoming disabled

f = if Member was a Member when he or she ceased to be an eligible worker, then f = number of complete months from day on which Member ceased to be an eligible worker to the end day

otherwise, f = zero

n = if Member is a transferee police officer, then f = number of complete months from Member's 50th birthday to the day on which he or she became a Member

otherwise, f = zero.

There are some concepts that are relatively simple in mathematical terms, but that are difficult, or at least wordy, to describe. Indexation of amounts in line with Consumer Price Index is one such concept. Example 4 shows how a formula might make the provision easier for a reader.

Example 4 Indexation by Consumer Price Index

7 Indexation of certain amounts

An amount that a provision of this Act describes as applying in accordance with this section is ... the nearest whole number of dollars to the amount obtained by varying the amount applying at the commencement of the preceding financial year by the percentage by which the March CPI varies from the March CPI for the preceding financial year ... (with an amount that is 50 cents more than a whole number of dollars being rounded off to the next highest whole number of dollars).

Rewritten as a formula:

7 Indexation of certain amounts

(1) An amount that a provision of this Act describes as applying in accordance with this section is ... the amount determined in accordance with the following formula:

$$a = \frac{c_c}{c_p} \times a_p$$

where:

a = amount, in dollars, to be applied in accordance with this section

c_c = March CPI for the current financial year

c_p = March CPI for the previous financial year

a_p = amount that applied in accordance with this section at the commencement of the previous financial year.

(2) An amount determined under subsection (1) is to be rounded to the nearest whole number, with an amount of 50 cents rounded upwards.

Then there are calculations that are mathematically complicated. This is what mathematical notation was invented to deal with. If a calculation involves anything more complicated than the basic arithmetical functions of addition, subtraction, multiplication and division, then I would strongly recommend the use of a formula. Many of the calculations in what might be described as scientific or technical legislation fall into this category. Examples 5 to 7 show calculations involving logarithms, statistics and trigonometry (I have yet to find calculus in legislation, but it might well be out there).

Example 5 Calculation involving logarithms

15 Determination of noise level

An A-weighted sound pressure level must be calculated from the measured values of the A-weighted sound pressure levels from the following formula:

$$LpA = \frac{10 \log_{10}}{n} \sum_{i=1}^{n} 10^{0.1 LpA_i}$$

where:

LpA = A-weighted sound pressure level

LpA_i = A-weighted sound pressure level at the i-th measured position, in decibels

n = total number of measured points

Example 6 Calculation involving statistical functions

2 Conditions on registration of irradiating apparatus

In clause 1, the coefficient of variation means the ratio of the standard deviation to the mean value of a series of measurements calculated as follows:

$$c = \frac{s}{\bar{x}} = \frac{1}{\bar{x}} \left[\frac{\sum_{i=1}^{n} (x_i - \bar{x})^2}{n - 1} \right]^{\frac{1}{2}}$$

where:

c = coefficient of variation

s = estimated standard deviation

$\bar{x}$ = mean value of measurements

n = number of measurements

x_i = i-th measurement.

Example 7 Calculation involving trigonometry

8 Parallel Runways – Sidestep Procedures

Sidestep procedures shall have a visual segment ceiling not less than that derived from the following formula:

$$v = x + \frac{d}{\cos 30°}\ 318.4 + f$$

where:

v = visual segment ceiling (feet)

x = ceiling for final segment C/L intercept of 30°
Values are:

CAT A: 300

CAT B: 330

CAT C: 435

CAT D: 540

d = distance between parallel runways in nautical miles

f = factor (in feet), for:

CAT A: 48

CAT B: 82

CAT C: 118

CAT D: 153.

When considering whether to use a formula, the question of clarity, comprehension and usability needs to be addressed from the perspective of the users of the legislation – the people have to comply with the legislation, and those who have to enforce and administer it – not that of the legislative counsel.

Many legislative counsel baulk at the idea of using formulae because of a general fear of mathematics. There is a perception that if you can describe the calculation in words, that will somehow avoid the need to understand the mathematics. A few moments of thought should expose the flaw in this reasoning. If the policy being implemented requires a mathematical calculation be incorporated into the legislation, it is going to remain mathematical whether it is written in words or as a formula. So like it or not, the legislative counsel is going to have to deal with it.

A legislative counsel's decisions about whether to use a formula and how to construct it are always subject to the constraints of technology. While we have come a long way from the restrictions of typewriters and type-set printing, the options for using formulae are not

unlimited. Even if legislation is drafted in a format that would allow freedom to draft equations as the legislative counsel thinks best, the need for web publication in multiple formats often imposes limits on what can be done.

For example, PCO NZ's practice is for formulae to be written in a single line format as this avoids some of the formatting issues and makes formulae recognisable to screen reading technology used by people with vision impairment.

So while I encourage legislative counsel to consider the use of formulae, I recognise that some of the suggestions in this paper may be ruled out by the limitations of technology and office practices for dealing with them.

Things to consider when dealing with calculations

When writing a calculation, there are a number of issues that need to be considered, regardless of whether the calculation is written as a formula or in words.

Units of measurement

The units of measurement for both the result of the calculation and for each variable need to be considered.

If a variable represents an amount that is simply a number, not a measurement of something, then there is no unit of measurement (for example, variable 'k' in example 10).

If there are 2 or more variables representing a similar kind of thing, they will usually be measured in the same units, but not always. A calculation involving money, for example, might require some variables to be in dollars and others in cents.

The unit of measurement of the result of a calculation will often follow necessarily from the units of the variables, but even so it may be helpful to include it.

Units of measurement don't always need to be specified. It might be self-evident given the nature of the variable – the population of a region is, obviously, measured in numbers of people. The relevant units might be determined by other legislation – a jurisdiction's currency legislation usually provides that monetary amounts are taken to be in the local currency.

In addition to the variables, make sure that numerical amounts included directly in the calculation are expressed in the appropriate units. For example, in example 8, land tax is imposed at the rate of 0.10 cents for each dollar of value over $300 000. As the result (amount t) and other variables are all expressed in dollars, the tax rate must also be in dollars ($0.001), not cents.

Example 8 Tax rate in dollars not cents

34 Land tax

The land tax in respect of the land for the relevant financial year is to be calculated in accordance with the formula:

$t = 0.001 \times (v - 300\,000)$

where:

t = the amount of tax payable in dollars

v = the value of the land in dollars

On some occasions it may be necessary to explain how values are to be converted into the relevant units. The obvious example of this is the conversion of foreign currency.

Example 9 Conversion to appropriate units of measurement

85 Conversion to Australian currency

(1) Where, for the purposes of determining the amount of royalty payable for a mineral, it is necessary to convert an amount ... to Australian currency, the conversion is to be calculated using the average of the RBA rates for the quarter in which the shipment date for the mineral occurred.

(2) In this regulation:

RBA rate means the daily representative rate used by the Reserve Bank of Australia.

There are a number of drafting options for identifying units of measurement.

If a formula is being used, the units of measurement can be identified in the opening words or in the definitions of the variables, as in example 10.

Example 10 Units of measurement

4 Mass limits for combinations

The total mass of a road train or B-double and any load must not exceed the amount calculated using the formula:

$$a = \frac{k \times m \times r \times t}{16}$$

where:

a = total mass of vehicle and load in kilograms

k = if vehicle has a single drive axle, k = 0.055

if vehicle has a single drive tandem axle group, k = 0.053

m = number of tyre revolutions per kilometre specified by the tyre manufacturer for the tyres fitted to the driving axle or axles

r = overall gear reduction between engine and drive wheels

t = maximum engine net torque in newton-metres.

The units of measurement are not part of the calculation so should not be included in the formula itself.

Example 11 Units of measurement incorrectly in formula

6 Earners' levy

The person must pay an earners' levy calculated using the following formula:

$$\$v = \frac{\$23\,000 - \$e}{100} \times 1.4320$$

where:

v = amount of earners' levy

e = earnings as an employee.

Another option is to identify the units of measurement in a separate provision. This is an option for both formulae or calculations written in words. This could be useful if the legislation involves a large number of calculations involving the same kind of variables measured in the same units, particularly if you also need to prescribe procedures for how measurements are to be taken.

Example 12 Separate measurement provision

7 Measurements

(1) The height of a cabinet is to be measured:

(a) from the bottom of the cabinet at its lowest point:

(b) to the highest point of the cabinet.

(2) The width of a pole is to be measured at the widest point of the pole (not including any headframe, antenna, or ancillary equipment).

(3) The height of a pole is to be measured from ground level to the highest point of the pole (not including any headframe, antennas, or ancillary equipment).

(4) All measurements are to be made in meters to 2 decimal places.

If a calculation is written in words, the units of measurement can be incorporated into the text. The need to identify units of measurement, especially if there are different units for different variables, may add sufficient complexity to the wording to justify using a formula.

Rounding

Another issue that needs to be considered is whether the result of a calculation, or any of the variables, needs to be rounded. Rounding can be achieved in various ways, including:

- rounding up (or down) to the nearest ... whole number/ $100 / multiple of 5 etc.
- rounding to the nearest ... whole number / $100 etc.
- rounding to a specified number of decimal places.

In the latter 2 cases, you may need to provide for midpoint amounts (see example 4).

In some cases, the nature of the variable will negate the need for rounding. For example, the number of people in a region, measured in numbers of people, will necessarily be a whole number.

The way in which a variable is defined may also have the effect of rounding. For example, if a variable is expressed as being in whole units (for example, whole dollars or whole months), that will have the effect of rounding down to the nearest whole unit (see variables ‘s’ and ‘t’ in example 20).

The drafting options for dealing with rounding are much the same as those for identifying units of measurements. A separate ‘rounding provision’ may be used, either for a particular calculation (see example 4) or as a general provision covering all calculations in the legislation.

Example 13 Rounding rules

17 Rounding of amounts

The result of any calculation of a monetary amount made under these regulations must be rounded to 2 decimal places, with numbers at the midpoint or greater being rounded up and other numbers being rounded down.

If a formula is used, provision for rounding can be included in the definitions of the variables.

Example 14 Rounding of variables

10 Security deposit for mining lease

The amount of the security deposit payable under section 9 is to be calculated using the formula:

$d = a \times w \times 100\,000$

where:

d = amount of deposit

a = area of land subject to the lease, in hectares, rounded down to the nearest multiple of 10

w = weekly wage entitlement at the relevant date of the lowest paid labourer of the workforce of the Company rounded up to the next whole dollar.

Rounding should not be incorporated into the formula itself.

Example 15 Rounding incorrectly in formula

236 Amount of duty payable

If the dutiable value of the vehicle exceeds $20 000 but does not exceed $45 000, the amount of duty is r% of the dutiable value, where r is determined in accordance with the following formula:

$$r = \left[2.75 + \left(\frac{d - 20000}{6666.66}\right)\right]$$

(rounded to 2 decimal places)

where:

d = dutiable value.

If a calculation is written in words, the rounding requirements can be incorporated into the text. But again, the need to do so may add sufficient complexity to the wording to justify using a formula (see example 4).

Ascertaining the value of variables – when, how and by whom

When, how and by whom the value of a variable is to be ascertained also needs to be considered.

A calculation made in accordance with legislation will be made at the time the provision operates. The value of each variable will also be the value at that time. If the value of a variable is to be calculated as at some other time, this must be stated.

Example 16 Time of determination of variables

75 Minister may transfer Crown land in fee simple subject to conditions

If conditional tenure land is used in breach of any condition … the Minister may recover from the holder of the freehold in the land …:

(a) if the fee simple .. was transferred under section 73 for a discounted price, an amount calculated using the following formula:

$$a = \left[\frac{(v - d)}{v}\right] \times r$$

where:

a = amount the Minister may recover

v = unimproved value of the land at the time the discounted price was paid

d = discounted price

r = unimproved value of the land at the time of the recovery

Consideration also needs to be given as to how the value of a variable is to be ascertained.

Sometimes it is self-evident so an explanation is not required – such as the number of wheels on a vehicle. Sometimes the value of the variable is to be found or determined by a process set out elsewhere, in which case reference to that process might be included. In other cases, an explanation of how the value is to be ascertained, and by whom, may be needed.

Example 17 How variable is to be determined

12 Determination of amount of levy

The amount by way of levy that is payable in respect of waste to which this Part applies that is received at a licensed landfill during a return period is the amount calculated using the formula:

$a = (v \times r) - s$

where:

a = amount of levy (in dollars)

v = number of cubic metres of waste received at the landfill during the return period determined in accordance with regulation 26

r = if first day of return period is before 1 July 2010, then r = 7

otherwise, r = 9

s = amount determined by the Director-General to be the costs reasonably incurred by the licensee in complying with regulation 27 during the return period.

In this regard, remember that the monetary value of something is not a matter of fact – it has to be determined by someone, and it changes over time.

Negative values

The possibility of negative or zero values for each variable, each component of the calculation and for the result also needs to be considered.

For variables, the first question is whether what is represented by the variable is capable of having a negative value. Clearly, you cannot have a negative number of people or period of time. But if a variable is something that is capable of being negative, how that is to be dealt with needs to be considered.

For example, if the calculation includes a variable for temperature, what is intended to be included in the equation if the temperature is negative? It might be, for example:

- the actual temperature, whether positive, negative, or zero
- the amount, if any, by which the temperature exceeds zero (so that if the temperature is negative, the value for the variable is zero)
- the amount of the difference between zero and the temperature (so that if the temperature is -10, the value of the variable is 10).

Example 19 provides an interesting example where the value for one variable ('n') might be positive or negative, and the value of another variable ('b') differs depending on whether 'n' is positive or negative.

The possibility of a calculation giving a negative result also needs to be considered.

For example, if a calculation involves indexing an amount in line with the Consumer Price Index, the possibility that this might give a negative result needs to be borne in mind. In the definition in example 18, paragraph (a) is included so that the CPI rate to be used for the purposes of the regulations cannot be below zero even if the CPI figure calculated using the formula is negative.

Example 18 CPI rate not to be negative

5 Interpretation

In these regulations:

CPI rate, for a financial year, means the greater of:

(a) zero; and

(b) the rate equal to C in the formula:

$$c = \frac{n_t - n_p}{n_p} \times 100$$

where:

n_t = Consumer Price Index number for the quarter ending on the 31 March immediately preceding the start of that financial year

n_p = Consumer Price Index number for the quarter ending on the previous 31 March.

Example 19 shows an instance where different consequences flow depending on whether the result calculated using the formula is positive or negative.

Example 19 Allowing for negative results

24 Balancing

(1) The out of balance charge in respect of a distribution access agreement for a month is determined by applying the following formula:

$$c = n \times b \times \frac{1}{100}$$

where:

c = out of balance charge for the month

n = sum of adjusted net amounts for the group of connections in respect of the agreement for all of the half hours falling within the month

b = if n is negative, then b = out of balance (sell) fee for the month

if n is positive, then b = out of balance (buy) fee for the month.

(2) If the out of balance charge for a month is negative, then ...

(3) If the out of balance charge for a month is positive, then ...

How to use formulae

A formula is not just a convenient way of arranging words or a pictorial representation of a calculation. It is a mathematical proposition written in mathematical language. That language uses symbols to represent quantities, operations and functions. Each symbol has a precise meaning and, as with any other language, there are rules about how the symbols are to be used. Some of these rules are strictly adhered to, others are more matters of convention. While conventions do not have to be adhered to, doing so is likely to reduce the risk of being misunderstood.

Mathematical symbols

This paper is not intended as a maths lesson, but if you are going to use a formula, you need to know what the various mathematical symbols are and how to use them.

+ − × ÷ **=** *addition, subtraction, multiplication, division, equals*

These are the basic arithmetical symbols, which will be familiar to most people.

As a matter of convention, to multiply 2 variables together it is not necessary to use the multiplication symbol × (so for example m × n can be written as mn). While a multiplication symbol is not necessary, including one might be valuable for the sake of clarity.

This is also why mathematical notation ordinarily uses variables consisting of only one letter. I will come back to this point later.

Example 20 Use of multiplication sign

6 Statutory rebate in relation to prescribed insurance charges

The prescribed manner of ascertaining the statutory rebate is by applying the following formula:

$$y = \frac{ps\,(s + 1)}{t\,(t + 1)}$$

where:

y = amount of the statutory rebate

p = amount of insurance charges

s = number of whole months in the unexpired portion of the period for which insurance was agreed to be provided

t = number of whole months for which insurance was agreed to be provided.

This formula could be written as

$$y = \frac{p \times s \times (s + 1)}{t \times (t + 1)}$$

> < ≥ ≤ *greater than, less than, greater than or equal to, less than or equal to*

As far as I have been able to find, these symbols are not used very often in formulae in legislation, but there is no reason why they shouldn't be. Examples 36, 38 and 40 show how they might be used.

% *percentage*

The % symbol indicates a rate or proportion per hundred of something, but it is not a mathematical function symbol so should not be used in a formula. If a percentage is to be included in a formula, it should be expressed as a number (whether as a fraction or a decimal).

Example 21 Percentage

27 Determination of amount of levy

The amount of the levy for waste received at a category 64 landfill during a return period is the amount calculated using the formula:

$$v = (w \times 92\%) \times r$$

where

v = amount of levy (in dollars)

w = number of tonnes of waste received at the landfill during the return period determined in accordance with regulation 25

r = rate for the return period

Written with the 92% as a fraction:

$$v = \left(w \times \frac{92}{100}\right) \times r$$

or as a decimal:

$$v = (w \times 0.92) \times r$$

m^2 superscripts

A superscript is used to indicate an exponent – that a value is to be multiplied by itself. The superscript number indicates how many times the value is to be multiplied. For example:

m^2 (m squared) $= m \times m$

m^3 (m cubed) $= m \times m \times m$

m^n (m to the power of n) $= m \times m \times m \times \ldots \times m$ (n times)

Example 22 shows a simple example of the use of a value squared. See examples 5 and 6 for more complex situations.

Example 22 Use of exponents

73 Geothermal royalties

If the diameter of the bore is more or less than 100 mm, the annual royalty shall be calculated in accordance with the following formula:

$$b = \frac{r^2}{2\,500} \times a$$

where:

b = the annual royalty for the bore

r = radius in millimetres of the bore

a = annual royalty under section 72 for a bore of 100 mm diameter.

$\sqrt{\ }$ **square root**

This symbol indicates the reverse of an exponent – the number which, if multiplied by itself the requisite number of times, is equal to the number under the symbol. For example:

$\sqrt{A}$ (square root of A) eg: $\sqrt{9} = 3$ ie [$3 \times 3 = 9$]

$\sqrt[3]{A}$ (cube root of A) eg: $\sqrt[3]{125} = 5$ ie [$5 \times 5 \times 5 = 125$]

$\sqrt[n]{A}$ (nth root of A)

Example 23 Use of square root

13 Industry size modification

The Corporation must calculate the weighting using the following formulae:

(a) if the liable earnings of the levy payer in the experience period are $2 000 000 or less:

$$w = 0.05 \times \sqrt{\frac{e}{2\,000\,000}}$$

where:

w = weighting

e = liable earnings of the levy payer in the experience period

(b) …

m_n *subscripts*

A subscript is used to identify the occurrence of a variable on a particular occasion. In example 24, 'p' is the variable for the prescribed charge and there are 2 occurrences of this –

one for seniors, the second for pensioners; and 'd' is the variable for days and there are 3 occurrences of this – days in the charge period, days as a senior, and days as a pensioner.

Example 24 Use of subscripts

40 Rebates to registered persons

If a person is an eligible senior for a part of the charge period and an eligible pensioner for another part of the charge period, the rebate to be allowed shall be determined using the following formula:

$$r = \left(p_s \times \frac{d_s}{d_c}\right) + \left(p_p \times \frac{d_p}{d_c}\right)$$

where:

r = rebate to be allowed

p_s = prescribed charge for eligible seniors

p_p = prescribed charge for eligible pensioners

d_c = number of days in the charge period

d_s = number of days during charge period that person is an eligible senior

d_p = number of days during charge period that person is an eligible pensioner.

∑ *summation*

The summation sign (which is the Greek letter sigma) indicates the addition of an unknown number of values.

To demonstrate this, consider the areas of rectangles. If you have only one rectangle, the area is length ('*l*') times width ('w'). If you need to add together the area of a known number of rectangles, you can set them all out in a formula. If you need to provide for an unknown number of rectangles, you will need the summation symbol ∑.

If there is 1 rectangle

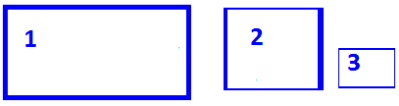
$a = l \times w$

If there are 2 rectangles

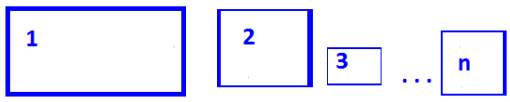
$a = (l_1 \times w_1) + (l_2 \times w_2)$

If there are 3 rectangles

$a = (l_1 \times w_1) + (l_2 \times w_2) + (l_3 \times w_3)$



If there are an unknown number (n) of rectangles



$$a = \sum_{r=1}^{n} (l_r \times W_r)$$

Example 25 Use of summation sign

8 Previous month's weighted average price

The weighted average price for a particular kind of motor fuel supplied from a declared terminal during the previous month is calculated (to the nearest 0.1 cent/litre) by using the formula:

$$a = \frac{\sum_{n=1}^{t} (p_n \times v_n)}{w}$$

where:

a = weighted average price in cents/litre

t = total number of transactions used to calculate the weighted average price

p_n = price in cents/litre for the n^{th} transaction used to calculate the weighted average price

v_n = volume in litres of the n^{th} transaction used to calculate the weighted average price

w = total volume in litres of all the transactions used to calculate the weighted average price.

Variables

A variable is a symbol (usually a letter) used to represent an unknown element in a formula.

It is likely to be helpful to a reader if the variable chosen has some relationship with the value it represents (rather than just using a, b, c, etc.).

Example 26 Meaningful variables

38 Retirement benefit

If a Member who is 55 or over ceases to be a worker, the Board is to pay the Member a benefit of an amount calculated using the formula:

$$b = r \times \frac{m}{12} \times \frac{c}{5} \times \frac{20}{100}$$

where:

b = amount of benefit

r = Member's final remuneration

m = number of complete months in the Member's membership period

c = Member's average contribution rate.

It is a convention of mathematics to use only one letter as a variable. This is not an unbreakable rule but, as with the rules of grammar, adhering to the conventions reduces the risk of being misunderstood.

And as with the rules of grammar, there are usually reasons for conventions. In this case, while 2 or 3 letters, or a letter and number, may seem helpful, it can be confused with multiplication or exponents. The formula in example 27 is particularly confusing because it uses multi-letter variables and relies on the mathematical convention of not using multiplication signs. There are several alternative formulae that are likely to be less confusing.

Example 27 Confusing use of multi-letter variables

17 Definitions

In this subdivision:

actual periodic deduction, for the employer for a periodic return period, means the greater of zero and the amount worked out using the following formula:

$$apd = \frac{fme}{g} - \frac{1}{4}\left(tw - \frac{fme}{g}\right)$$

where:

apd = actual periodic deduction in dollars

f = number of days in the period for which the employer pays, or is liable to pay, taxable wages

m = number of months in the period

e = (maximum deduction per month) 8 500

g = total number of days in the period

tw = amount of taxable wages paid or payable in the period.

Alternative formulae

Same variables but with multiplication signs:

$$apd = \frac{f \times m \times e}{g} - \frac{1}{4}\left(tw - \frac{f \times m \times e}{g}\right)$$

Single letter variables:

$$d = \frac{f\,m\,e}{g} - \frac{1}{4}\left(w - \frac{f\,m\,e}{g}\right)$$

Single letter variables and multiplication signs:

$$d = \frac{f \times m \times e}{g} - \left[\frac{1}{4} \times \left(w - \frac{f \times m \times e}{g}\right)\right]$$

Multi-letter variables are often tempting when a formula calls for multiple variables representing the same kind of thing (such as the number of days in period 1 and the number of days in period 2). The use of subscripts, explained above in relation to example 24, may be a solution in such cases. The formula in that example originally appeared with multi-letter variables as shown in example 28.

Example 28 Subscripts to replace multi letter variables

40 Rebates to registered persons

If a person is an eligible senior for a part of the charge period and an eligible pensioner for another part of the charge period, the rebate to be allowed shall be determined using the following formula:

$$r = \left[pcs \times \left(\frac{ds}{cy}\right)\right] + \left[pcp \times \left(\frac{dp}{cy}\right)\right]$$

where:

r = rebate to be allowed

pcs = portion of the prescribed charge for eligible seniors;

pcp = portion of the prescribed charge for eligible pensioners

cy = number of days in the charge period

ds = number of days during the charge period that the person is an eligible senior

dp = number of days during the charge period that the person is an eligible pensioner.

Using single letter variables with subscripts:

$$r = \left(p_s \times \frac{d_s}{d_c}\right) + \left(p_p \times \frac{d_p}{d_c}\right)$$

A variable is, by definition, a symbol for something. The rules of mathematical language allow for variables to be letters, figures, or other symbols, but not words or strings of text that have a linguistic meaning. The practice of using text variables, as shown in example 29, is, I suggest, misguided. The fact that a sentence is made up of letters and punctuation marks does not mean that any string of letters and punctuation marks qualifies as a sentence. So too, arranging words around mathematic symbols is not sufficient to make a formula.

Example 29 Text instead of variables

19 Amalgamated loan from a previous year treated as dividend if minimum repayment not made

The formula for the minimum yearly repayment for a year of income is:

$$\frac{\text{Amount of the loan not repaid by the end of the previous year of income} \times \text{Current year's benchmark interest rate}}{1 - \left[\frac{1}{1 + \text{Current year's benchmark interst rate}}\right]^{\text{Remaining term}}}$$

where:

Current year's benchmark interest rate is the benchmark interest rate for the year of income for which the minimum yearly repayment is being worked out.

Remaining term is the difference between:

(a) the number of years in the longest term of any of the constituent loans that the amalgamated loan takes account of; and

(b) the number of years between the end of the private company's year of income in which the loan was made and the end of the private company's year of income before the year of income for which the minimum yearly repayment is being worked out.

Written as a formula:

$$m = \frac{u \times b}{1 - \left(\frac{1}{1 + b}\right)^{(y_2 - y_1)}}$$

where:

m = minimum yearly repayment

u = amount of the loan not repaid by the end of the previous year of income

b = benchmark interest rate for the year of income for which the minimum yearly repayment is being worked out

y_2 = number of years in the longest term of any of the constituent loans that the amalgamated loan takes account of

y_1 = number of years between the end of the private company's year of income in which the loan was made and the end of the private company's year of income before the year of income for which the minimum yearly repayment is being worked out.

Order of calculation

There is a mathematical convention about the order in which mathematical operations should be carried out. That is, a formula should be resolved:

Parentheses first (and if parentheses are enclosed within other parentheses, work from the inside out), then

Exponents, then

Multiplication and **D**ivision (from left to right), then

Addition and **S**ubtraction (from left to right).

(Sometimes known as "**P**lease **E**xcuse **m**y **d**ear **A**unt **S**ally".)

When constructing a formula, legislative counsel can rely on this convention, although it might be helpful to readers to use brackets clarifying the order of some operations.

Example 30 Order of calculation

$$s = a \times b - c \times d$$

According to Aunt Sally, this would be worked out as:

$a \times b$

then $c \times d$

then subtract the latter from the former.

Brackets aren't necessary, but including them might be helpful:

$$s = (a \times b) - (c \times d)$$

If there are 2 or more sets of brackets inside each other, they are resolved from the inside outwards. It is helpful to use different kinds of brackets for each level of parenthesis. The usual sequence is first ( ) , then [ ] and then { }.

Example 31 Brackets

$$t = \frac{a - b}{c}$$

$$t = \frac{(a - b) + (c + d)}{e}$$

$$t = \left[\frac{(a - b) + (c + d)}{e}\right] \times (f + g)$$

$$t = \left\{\left[\frac{(a - b) + (c + d)}{e}\right] \times (f + g)\right\} + \left[h + \frac{(j + k)}{m}\right]$$

The formula, the whole formula and nothing but the formula

Consistency in drafting approach will significantly improve comprehension and usability. If all definitions in a law are structured the same way, a reader can tell at a glance which provisions are definitions. If a provision is divided into paragraphs, comprehension will be maximised if each paragraph is of the same general nature and flows correctly from the opening words. Structuring calculations is no different.

So it is suggested that, in writing a calculation, use mathematical notation or words, not a hybrid. For example:

- avoid including non-mathematical elements such as units of measurement (see example 11) and rounding (see example 15) in a formula
- avoid using text as variables (see example 29)
- avoid mixing non-mathematical sentence structures (such as paragraphing) into a formula (see example 32).

Example 32 Paragraphing used mid-formula

53 Interpretation

A reference to the "prescribed amount" is, in relation to an employer, a reference to the sum of the amounts calculated in accordance with the following formulae:

$$\frac{t}{(t-m)} \left[\begin{array}{l} \text{the greater of:} \\ \text{(a)} \quad \frac{30\,000\,e}{184} - \frac{2}{3} \times \left\{ t + m - \frac{30\,000\,e}{184} \right\} \\ \text{and} \\ \text{(b)} \quad \frac{13\,500}{184} \end{array} \right]$$

And

$$\frac{z}{(z+p)} \left[\begin{array}{l} \text{the greater of:} \\ \text{(a)} \quad \frac{36\,000\,f}{182} - \frac{2}{3} \times \left\{ z + p - \frac{36\,000\,f}{182} \right\} \\ \text{and} \\ \text{(b)} \quad \frac{16\,200}{182} \end{array} \right]$$

If you have 2 or more related calculations, be consistent – if you use a formula for one, use formulae for all (see example 33).

Example 33 Multiple related calculations

236 Amount of duty payable

(1) The amount of duty payable on the grant or transfer of a licence for a vehicle is worked out under this section (rounded down to the nearest 5 cents).

(2) For the grant or transfer of a licence for a vehicle that is not a heavy vehicle, the amount of duty is:

(a) if the dutiable value of the vehicle does not exceed $20 000 – 2.75% of the dutiable value; or

(b) if the dutiable value of the vehicle exceeds $20 000 but does not exceed $45 000 – r% of the dutiable value, where r is determined in accordance with the following formula:

$$r = \left[2.75 + \left(\frac{dv - 20\,000}{6666.66}\right)\right]$$

where dv = dutiable value; or

(c) if the dutiable value of the vehicle exceeds $45 000 – 6.5% of the dutiable value.

(3) For the grant or transfer of a licence for a heavy vehicle, the amount of duty is the lesser of:

(a) 3% of the dutiable value; and

(b) $12 000.

With all calculations written as formulae

236 Amount of duty payable

The amount of duty payable on the grant or transfer of a licence for a vehicle is the amount determined as set out in the following Table (rounded down to the nearest 5 cents).

Type of vehicle	**Dutiable value ($v)**	**Amount of duty ($d)**
Not a heavy vehicle	$v \leq 20\,000$	$d = \frac{2.75}{100} \times v$
	$20\,000 < v \leq 45\,000$	$d = \frac{\left[2.75 + \left(\frac{v - 20\,000}{6666.66}\right)\right]}{100} \times v$
	$v > 4\ 5\,000$	$d = \frac{6.75}{100} \times v$

Heavy vehicle	$v \leq 400\,000$	$d = \frac{3}{100} \times v$
	$v > 400\,000$	$d = 12\,000$

Having part of the calculation as a formula and part as text is likely to be confusing. If you choose to use a formula, as far as possible, put the whole calculation into the formula (see examples 34 and 35).

Example 34 Part only of calculation in formula – simple

58 Children's allowance

The rate per week at which an allowance is payable under this item is $4.00 plus the amount calculated in accordance with the formula

$$\frac{r}{n}$$

where:

r = rate of reversionary pension that was payable …to the surviving widow or widower at the date of her or his death

n = the greater of 4 and the number of children of the judge to whom an allowance is payable under this item.

With whole calculation in the formula:

The rate per week at which an allowance is payable under this item is the amount calculated in accordance with the formula:

$$b = 4 + \frac{r}{n}$$

where …

Example 35 Part only of calculation in formula – complex

2 Influencing factor

The influencing factor for noise received on noise sensitive premises is to be determined as follows:

(a) using an appropriate land use map, 2 concentric circles, having radii representing 100 metres and 450 metres, and centred on the measurement point on the noise sensitive premises are to be drawn;

(b) subject to subclause (2) the land within the circles that is:

(i) Type A – industrial and utility premises; or

(ii) Type B – commercial premises,

is to be identified as such by reference to one or more appropriate land use maps; and

(c) the area of each type of premises is to be calculated as a percentage of the full area of each circle and used to determine the Influencing Factor to the nearest dB in accordance with the following formula:

Influencing Factor in dB =

1/10 (sum of Type A percentages for both circles)

\+ 1/20 (sum of Type B percentages for both circles)

\+ the lesser of the transport factor and 6.

As a single formula:

2 Influencing factor

(1) The influencing factor for noise received on noise sensitive premises is to be determined in accordance with the following formula:

$$f = \left[0.1 \times \left(\frac{a_1}{100\pi} + \frac{a_2}{2025\pi}\right)\right] + \left[0.05 \times \left(\frac{b_1}{100\pi} + \frac{b_2}{2025\pi}\right)\right] + t$$

where:

f = influencing factor (in dB)

a_1 = area of industrial and utility premises in circle 1 (in m^2)

a_2 = area of industrial and utility premises in circle 2 (in m^2)

b_1 = area of commercial premises within circle 1 (in m^2)

b_2 = area of commercial premises within circle 2 (in m^2)

t = lesser of 6 and the transport factor determined under section 1.

(2) In subsection (1):

circle 1 means a circle, with a radius of 100 m, centred on the measurement point on the noise sensitive premises

circle 2 means a circle, with a radius of 450 m, centred on the measurement point on the noise sensitive premises.

If the calculation is subject to exceptions, special cases, alternatives, limitations, etc. consider including them in the formula. A reader who works out his calculation using a formula will likely not be pleased to then discover that he has to work through multiple exceptions etc. only to find that he has to redo the calculation with modifications, or that the formula didn't apply to him at all.

Providing for alternative or limitations may be as simple as modifying the definition of a variable. In example 36, imposing a $150 000 cap on the remuneration to be used in the calculation can be done by defining the variable to be the lesser of the member's remuneration and $150 000.

Example 36 Imposing a cap on a variable

17 Retirement benefit

If a member becomes entitled to a benefit under regulation 16, the amount of the benefit is to be calculated in accordance with the formula:

$$b = r \times \left(\frac{m}{12} \times \frac{c}{5} \times \frac{2}{10}\right)$$

where:

b = amount of the benefit

r = member's remuneration

m = number of months of employment

C = member's contribution rate.

With $150 000 cap on remuneration:

$$b = r \times \left(\frac{m}{12} \times \frac{c}{5} \times \frac{2}{10}\right)$$

where:

r = the lesser of:

(a) the member's remuneration; and

(b) $150 000

m = number of months of employment

c = member's contribution rate.

Or written more mathematically, r can be defined:

r = if $s \leq 150\,000$, then $r = s$
if $s > 150\,000$, then $r = 150\,000$

s = member's remuneration

In more complex cases, it may be necessary to modify the formula to incorporate exceptions, special cases, etc. The Heaviside unit step function may be of assistance here. In very simple terms, this is a mathematical function that makes it possible for cause elements of a formula to appear, or disappear, or turn inside out, by multiplying them by 1, 0, or – 1.

The basic mathematical rules you need to remember in this regard are:

- something multiplied by 1 = itself

- something multiplied by 0 = zero
- something multiplied by –1 = –itself
- something divided by itself = 1
- (A – B) can also be written as – 1 x (B – A)

Example 37 shows the use of the step function to include in a formula a component that only applies in a certain case – when the member is a police officer. If the member is a police officer, 'p' will be one, and the extra component will be included. If the member is not a police officer, 'p' will be zero and, as anything times zero is zero, the extra benefit will be zero. In this example, 'p' is the "step constant" that effectively turns the extra component on or off.

Example 37 Adding a component that only applies sometimes

From the formula in example 36, to add an extra component that only applies if the member is a police officer.

$$b = \left(s \times \frac{m}{12} \times \frac{c}{5} \times \frac{2}{10}\right) + [p \times (m \times 1\,000)]$$

where:

p = if the member is a police officer, then p = 1

if the member is not a police officer, then p = 0

Example 38 shows how a step constant can be used when the result to be calculated is the greater of 2 amounts. In an example as straightforward as this, using such a complex looking formula may hinder rather than help comprehension. However, I have included it to show how the step function can work.

Example 38 Result to be greater of 2 amounts

25 Rubbish collection fee

The monthly fee for collection of rubbish is to be the greater of:

(a) $10; and

(b) the amount calculated in accordance with the formula:

$$b = r \times n$$

where:

r = local council rate per bin

n = number of bins emptied during the month

We start with monthly fee (m) = greater of a and b

So if $a \geq b$ then $m = a$

if $a < b$ then $m = b$ *and as b is greater than a, this can also be written as* $m = a + (b - a)$ *(which is a + the amount by which b exceeds a)*

The red equations show that:

m is always at least a, and

when b is greater than a, m is a plus the extra bit of (b - a)

So the formula becomes:

$$m = a + [\, k \times (b - a) \,]$$

with k being the step constant that causes the (b - a) component to appear or disappear.

If a ≥ b, we want (b - a) to disappear, so we make k = 0, then $m = a$

If a < b, we want (b - a) to appear, so we make k = 1, then $m = a + (b - a)$

So by putting in the values from the beginning (a = $10, b = r x n) the formula becomes:

$$m = 10 + \{\, k \times [\, (r \times n) - 10] \,\}$$

where:

m = monthly fee

r = local council rate per bin

n = number of bins emptied during the month

k = if $10 \geq r \times n$, then k = 0

if $10 < r \times n$, then k = 1

Example 39 shows how 2 similar equations for slightly different scenarios can be combined. The complexity of the definition of A may have contributed to the decision to use 2 formulae. However, incorporating the content of that definition into the formula overcomes the need for this.

Example 39 2 similar equations and use of step function

29 Dutiable value of certain dutiable transactions relating to corporation or unit trust scheme property on winding up

The dutiable value of a dutiable transaction that is a transfer of corporation or unit trust scheme property is:

(a) in relation to a corporation – determined in accordance with the following formula:

$$v = a \times \frac{w}{y}$$

where:

v = dutiable value

a = the greater of:

(i) the amount (if any) by which the value, when the winding up begins, of all the assets distributed, or to be distributed, to the shareholder exceeds the value, at that time, of the shareholder's entitlement to the net assets of the corporation; and

(ii) the amount that is the total of:

(I) the amount (if any) owing to the shareholder that the shareholder has released the corporation from paying in the relevant period; and

(II) the amount (if any) of any liability that the shareholder has assumed or discharged on behalf of the corporation in the relevant period

w = unencumbered value of all dutiable property the subject of the transfer

y = unencumbered value of all property the subject of the transfer

(b) in relation to a unit trust scheme – determined in accordance with the following formula:

$$v = a \times \frac{w}{y}$$

where:

v = dutiable value

a = the greater of :

(i) the amount (if any) by which the value, when the winding up begins, of all the assets distributed, or to be distributed, to the unit holder exceeds the value, at that time, of the unit holder's entitlement to the net assets held by the trustee of the unit trust scheme as trustee of that trust; and

(ii) the amount that is the total of:

(I) the amount (if any) owing to the unit holder that the unit holder has released the trustee of the unit trust scheme from paying in the relevant period; and

(II) the amount (if any) of any liability that the unit holder has assumed or discharged on behalf of the trustee of the unit trust scheme in the relevant period

w = unencumbered value of all dutiable property the subject of the transfer

y = unencumbered value of all property the subject of the transfer.

Combined as a single formula

The dutiable value of a dutiable transaction that is a transfer of corporation or unit trust scheme property is to be determined in accordance with the following formula:

$$v = \langle\, (d - e) + \{\, k \times [\, (r + a) - (d - e)\,]\, \}\, \rangle \times \frac{w}{y}$$

where:

v = dutiable value

d = the value, when the winding up begins, of all the assets distributed, or to be distributed, to the transferee

e = the value, when the winding up begins, of the transferee's entitlement to the net assets of the corporation or trustee

r = the amount (if any) owing to the transferee that the transferee has released the corporation or trustee from paying in the relevant period

a = the amount (if any) of any liability that the transferee has assumed or discharged on behalf of the corporation or trustee in the relevant period

k = if (d - e) ≥ (r + a), then k = 0
if (d - e) < (r + a), then k = 1
w = unencumbered value of all dutiable property the subject of the transfer
y = unencumbered value of all property the subject of the transfer.

Example 40 is about superannuation for certain Australian judges. The amount of pensions payable is complicated and varies depending on many factors. The pension calculations are set out in 2 sections in a mixture of words and equations. The first alternative version shows how you might reduce each section to a single formula. The second alternative shows how you might combine them both into one formula. The formula is complex, but a judge wanting to know what he is entitled to can see easily from the list of variables what information he needs to be able to make the calculation, and armed with that information he can simply plug the numbers into the formula.

Example 40 Judges pensions

6A Rate of pension – judge's surcharge debt account not in debit

(1) This section applies to a judge if the judge's surcharge debt account is not in debit when a pension becomes payable to him or her.

(2) If the judge is entitled to a pension because of subsection 6(1) or (2) or paragraph 6(2A)(a), the annual rate of the pension is 60% of the appropriate current judicial salary.

(3) If the judge is entitled to a pension because of paragraph 6(2A)(b), the annual rate of pension is worked out by using the formula:

$$\frac{ab}{10}$$

where:

a means 60% of the appropriate current judicial salary

b means the lesser of:

(a) the sum of the total number of years (including a fraction of a year) of his or her service as a judge and the total number of years (including a fraction of a year) that the Attorney-General certifies to be the period, or aggregate of the periods, (if any) of leave in respect of that service due to the judge immediately before his or her retirement; and

(b) 10.

(4) If the judge is entitled to a pension because of subsection 6(2D), the annual rate of that pension is the lesser of:

(a) 0.5% of the appropriate current judicial salary for each completed month of his or her service as a judge; and

(b) 60% of the appropriate current judicial salary.

6B Rate of pension – judge's surcharge debt account in debit

(1) This section applies to a judge if the judge's surcharge debt account is in debit when a pension becomes payable to him or her.

(2) The annual rate of the pension to which the judge is entitled is:

(a) if the period of his or her service as a judge does not include a period of exempt service – the rate worked out by using the formula:

$$bp \times \left(1 - \frac{scs1 + scs2 + \ldots + scsy}{y}\right)$$

(b) if the period of his or her service as a judge includes a period of exempt service that is less than his or her qualifying period for a pension – the rate worked out by using the formula:

$$\left(bp \times \frac{e}{q}\right) + \left[bp \times \left(1 - \frac{e}{q}\right) \times \left(1 - \frac{scs1 + scs2 + \ldots + scsy}{y}\right)\right]$$

(c) if the period of his or her service as a judge includes a period of exempt service that is equal to or longer than his or her qualifying period for a pension – a rate equal to bp;

where:

bp (basic pension) means the annual rate of the pension that would be payable to the judge if his or her surcharge debt account were not in debit when the pension becomes payable

e means the number of years in the judge's period of exempt service

q means the number of years in the judge's qualifying period for a pension

scs1 means the rate of superannuation contributions surcharge that applies to the judge for financial year 1 included in the relevant period in relation to him or her, and scs2 and scsy each have a corresponding meaning

relevant period, in relation to a judge, means:

(a) if the judge's period of service as a judge began before 21 August 1996 – the part of the period of service that began on that date; or

(a) otherwise – the judge's period of service as a judge; or

y means:

(a) if paragraph (b) does not apply – the number of financial years included in the relevant period in relation to the judge; or

(b) if the judge becomes entitled to a pension because the Attorney-General certifies under section 6(2) that the judge's retirement is due to permanent disability or infirmity – the number of financial years included in the qualifying period for a pension in relation to the judge, less the number of years in the judge's period of exempt service.

Alternative 1

6A Rate of pension – judge's surcharge debt account not in debit

(1) This section applies to a judge if the judge's surcharge debt account is not in debit when a pension becomes payable to him or her.

(2) The annual rate of pension is calculated in accordance with the formula:

$$b = s \times \frac{r}{200} \times \frac{n}{10}$$

where:

b = basic pension

s = current judicial salary

r = if judge entitled to pension under section 6(1), (2), or (2A), then r = 120

if judge entitled to pension under section 6(2D), then:

if m < 120, then r = m

If m ≥ 120, then r = 120

m = complete months of service as a judge

n = if judge entitled to pension under section 6(1), (2), or (2A)(a), or (2D), then n = 10

if judge entitled to pension under section 6(2A)(b), then:

if y ≥ 10, then n = 10

if y < 10, then n = y

y = years of service as a judge plus years of leave certified by Attorney-General to be due to judge immediately before retirement.

6B Rate of pension – judge's surcharge debt account in debit

(1) This section applies to a judge if the judge's surcharge debt account is in debit when a pension becomes payable to him or her.

(2) The annual rate of the pension to which the judge is entitled is to be calculated in accordance with the formula:

$$p = \left(b \times \frac{k}{q}\right) + \left\{\left[b \times \left(1 - \frac{k}{q}\right)\right] \times \left(1 - \frac{\sum_{n=1}^{f} c_n}{f}\right)\right\}$$

where

p = annual rate of pension

b = basic pension calculated in accordance with the formula in section 6A(2)

k = if e < q, then k = e

if e ≥ q, then k = q

e = years in period of exempt service

q = years in qualifying period

f = if judge entitled to pension under section 6(2), then f = q - e

otherwise, f = number of financial years in period of service on and after 21 August 1996

c_n = rate of superannuation contributions surcharge that applies to the judge for the n^{th} financial year

Alternative 2

6A Rate of pension

The annual rate of the pension to which the judge is entitled is to be calculated in accordance with the formula:

$$p = \left[\left(s \times \frac{r}{200} \times \frac{n}{10}\right) \times \frac{k}{q}\right] + \left\{\left[\left(s \times \frac{r}{200} \times \frac{n}{10}\right) \times \left(1 - \frac{k}{q}\right)\right] \times \left(1 - \frac{\sum_{n=1}^{f} c_n}{f}\right)\right\}$$

where:

s = current judicial salary

r = if judge entitled to pension under section 6(1), (2), or (2A), then r = 120

if judge entitled to pension under section 6(2D), then:

if m < 120, then r = m

If m ≥ 120, then r = 120

m = if z ≥ 120, then m = 120

if z < 120, then m = z

z = completed months of service

n = if judge entitled to pension under section 6(1), (2), (2A)(a), or (2D), then n = 10

if judge entitled to pension under section 6(2A)(b), then

if y ≥ 10, n = 10

If y < 10, n = y

y = years of service as a judge plus years of leave certified by Attorney-General to be due to judge immediately before retirement

k = if q = x, then k = x

if q ≠ x, then:

if e < q, then k = e

if e ≥ q, then k = q

q = if judge's surcharge debt account is in debit when pension becomes payable, then q = years in qualifying period

otherwise, q = x

e = years in period of exempt service

f = if judge entitled to pension under section 6(2), then f = q - e

otherwise, f = number of financial years in period of service on and after 21 August 1996

c_n = rate of superannuation contributions surcharge that applies to the judge for the n^{th} financial year.

Example 41 is an example of a provision set out in words using a step by step method statement approach, which is an approach that has been adopted in some jurisdictions, particularly in tax legislation. It has been explained as intended to enable a taxpayer to understand how the calculation is being made.

It would be of interest to know whether taxpayers and their advisers do in fact find this approach easier to understand, and whether they find it valuable to understanding the method. Personally, as a taxpayer, I am more interested in finding out, as quickly and painlessly as possible, how much tax I have to pay and would prefer a single formula. But no doubt there are as many opinions on that as there are taxpayers. The alternative version in Example 41 shows how the calculation might be shown as a formula.

Example 41 Method statement approach

5B Working out an employer's *fringe benefits taxable amount*

(1A) Subject to subsection (1D), an employer's ***fringe benefits taxable amount*** for a year of tax is the sum of the subsection (1B) amount and the subsection (1C) amount.

(1B) The ***subsection (1B) amount*** is the amount worked out using the formula:

$$\left(\begin{array}{c}\text{Type 1}\\ \text{aggregate}\\ \text{fringe benefits}\\ \text{amount}\end{array}\right) \times \frac{\text{FBT rate} + \text{GST rate}}{(1 - \text{FBT rate}) \times (1 + \text{GST rate}) \times \text{FBT rate}}$$

(1C) The ***subsection (1C) amount*** is the amount worked out using the formula:

$$\left(\begin{array}{c}\text{Type 2}\\ \text{aggregate}\\ \text{fringe benefits}\\ \text{amount}\end{array}\right) \times \frac{1}{(1 - \text{FBT rate})}$$

Increase in fringe benefits taxable amount for year of tax 2000-2001 and later years

(1D) If any benefits provided in respect of the employment of an employee of an employer are exempt benefits under section 57A, the employer's ***fringe benefits taxable amount*** for the year of tax beginning on 1 April 2000 or a later year of tax as worked out under subsection (1A) is increased by the employer's aggregate non-exempt amount for the year of tax concerned.

How to work out aggregate non-exempt amount

(1E) An employer's ***aggregate non-exempt amount*** for the year of tax is worked out as follows.

Method statement

Step 1. For each employee, add:

(a) the individual grossed-up type 1 non-exempt amount (see subsection (1F)) in relation to the employer for the year of tax; and

(b) the individual grossed-up type 2 non-exempt amount (see subsection (1G)) in relation to the employer for the year of tax.

The result is the ***individual grossed-up non-exempt amount*** for the employee.

Step 2. If:

(a) the employer is a government body and the duties of the employment of one or more employees are as described in paragraph 57A(2)(b) (which is about duties of employment being exclusively performed in or in connection with certain hospitals); or

(b) the employer is a public hospital; or

(c) the employer provides public ambulance services or services that support those services and the employee is predominantly involved in connection with the provision of those services; or

(d) the employer is a hospital described in subsection 57A(4) (which is about hospitals carried on by non-profit societies and associations);

subtract $17,000 from the individual grossed-up non-exempt amount for each employee of the employer referred to in paragraph (c), (ca) or (d), or each employee referred to in paragraph (b), for the year of tax. However, if the individual grossed-up non-exempt amount for such an employee is equal to or less than $17 000, the amount calculated under this step for the employee is nil.

Step 3. If step 2 does not apply in respect of one or more employees of the employer:

(a) reduce the individual grossed-up non-exempt amount for each such employee for the year of tax beginning on 1 April 2000 to zero; and

(b) reduce the individual grossed-up non-exempt amount for each such employee for a later year of tax by $30 000, but not below zero.

Step 4. Add together the amounts calculated under steps 2 and 3 in relation to the employees of the employer. The total amount is the employer's aggregate non-exempt amount for the year of tax.

Individual grossed-up type 1 non-exempt amount

(1F) For the purposes of step 1 in the method statement in subsection (1E), the ***individual grossed-up type 1 non-exempt amount*** of an employee in relation to the employer for the year of tax is:

$$\left(\begin{array}{c}\text{Type 1 individual}\\ \text{base}\\ \text{non-exempt}\\ \text{amount}\end{array}\right) \times \frac{\text{FBT rate} + \text{GST rate}}{(1 - \text{FBT rate}) \times (1 + \text{GST rate}) \times \text{FBT rate}}$$

Individual grossed-up type 2 non-exempt amount

(1G) For the purposes of step 1 in the method statement in subsection (1E), the ***individual grossed-up type 2 non-exempt amount*** of an employee in relation to the employer for the year of tax is:

$$\left(\begin{array}{c}\text{Type 2 individual}\\ \text{base}\\ \text{non-exempt}\\ \text{amount}\end{array}\right) \times \frac{1}{(1 - \text{FBT rate})}$$

Working out the type 1 individual base non-exempt amount

(1H) An employee's ***type 1 individual base non-exempt amount*** in relation to the employer for the year of tax is worked out by adding the amounts worked out under step 3 of the method statement in subsection (1K) and step 3 of the method statement in subsection (1L).

Working out the type 2 individual base non-exempt amount

(1J) An employee's ***type 2 individual base non-exempt amount*** in relation to the employer for the year of tax is worked out by adding the amounts worked out under step 4 of the method statement in subsection (1K) and step 4 of the method statement in subsection (1L).

Working out the subsection (1K) amounts

(1K) An employee's ***subsection (1K) amounts*** for the year of tax are worked out as follows.

Method statement

Step 1. Work out under subsection 135Q(3) for each of the employer's employees the amount that would be the employee's individual fringe benefit amount for the year of tax in respect of the employee's employment by the employer if subsection 135Q(1) were amended:

(a) by omitting "or 58"; and

(b) by omitting "one of those sections" from paragraph (b) and "those sections" from paragraph (c) and substituting in each case "that section".

Step 2. Identify the benefits taken into account in step 1 that are GST-creditable benefits (see section 149A).

Step 3. So much of the amount worked out under step 1 that relates to the benefits identified under step 2 is the **step 3 of subsection (1K) amount** for the individual.

Step 4. The remainder of the amount is the **step 4 of subsection (1K) amount** for the individual.

Working out the subsection (1L) amounts

(1L) An employee's ***subsection (1L) amounts*** for the year of tax are worked out as follows.

Method statement

Step 1. Work out for each employee his or her share (if any) of the amounts that, if section 57A did not apply, would be the taxable values of the excluded fringe benefits for the year of tax in respect of the employee's employment by the employer if those benefits were not excluded fringe benefits, but disregarding benefits:

(a) that constitute the provision of meals or entertainment as defined in section 37AD (whether or not the employer made an election under section 37AA); or

(b) that are car parking fringe benefits; or

(c) whose taxable values are wholly or partly attributable to entertainment facility leasing expenses.

Step 2. Identify the benefits taken into account in step 1 that are GST-creditable benefits (see section 149A).

Step 3. So much of the amount worked out under step 1 that relates to the benefits identified under step 2 is the step 3 of subsection (1L) amount for the individual.

Step 4. The remainder of the amount is the step 4 of subsection (1L) amount for the individual.

(2) In this section:

FBT rate means the rate of fringe benefits tax for the year of tax.

GST rate means the rate of goods and services tax payable under the *A New Tax System (Goods and Services Tax) Act 1999* for the year of tax.

type 1 aggregate fringe benefits amount means the employer's type 1 aggregate fringe benefits amount for the year of tax worked out under subsection 5C(3).

type 2 aggregate fringe benefits amount means the employer's type 2 aggregate fringe benefits amount for the year of tax worked out under subsection 5C(4).

Alternative version using formulae

5B Working out an employer's fringe benefits taxable amount

(1) An employer's **fringe benefits taxable amount** for a year of tax is the amount calculated using the formula:

$$f = (a_1 \times s) + (a_2 \times t) + \sum_{e=1}^{n} (g_e - z_e)$$

where:

f = employer's fringe benefits taxable amount for the year

a_1 = the employer's type 1 aggregate fringe benefits amount for the year of tax worked out under section 5C(3)

a_2 = the employer's type 2 aggregate fringe benefits amount for the year of tax worked out under section 5C(4)

$$s = \frac{(r_f + r_g)}{[(1 - r_f) \times (1 + r_g) \times r_f]}$$

$$t = \frac{1}{(1 - r_f)}$$

r_f = rate of fringe benefits tax for the year of tax

r_g = rate of goods and services tax payable under the *A New Tax System (Goods and Services Tax) Act 1999* for the year of tax

n = number of the employer's employees

$$g_e = [(k_e + h_e) \times s] + \{[(p_e - k_e) + (q_e - h_e)] \times t\}$$

p_e = employee's adjusted individual fringe benefit amount as defined in subsection (3)

k_e = so much of p_e as relates to the benefits taken into account in calculating p_e that are GST-creditable benefits under section 149A

q_e = employee's section 57A amount as defined in subsection (4)

h_e = so much of q_e as relates to the benefits taken into account in calculating q_e that are GST-creditable benefits under section 149A

z_e = if employee is a hospital employee as defined in subsection (2):

if $g_e \geq 17\,000$, then $z_e = 17\,000$

if $g_e < 17\,000$, then $z_e = g_e$

if employee is not a hospital employee:

if $g_e \geq 30\,000$, then $z_e = 30\,000$

if $g_e < 30\,000$, then $z_e = g_e$.

(2) An employee is a **hospital employee** if:

(a) the employer is a government body and the duties of the employee are as described in section 57A(2)(b); or

(b) the employer is a public hospital; or

(c) the employer provides public ambulance services or services that support those services and the employee is predominantly involved in connection with the provision of those services; or

(d) the employer is a hospital described in section 57A(4).

(3) An employee's **adjusted individual fringe benefit amount** is the amount that would be the employee's individual fringe benefit amount for the year of tax in respect of the employee's employment by the employer if subsection 135Q(1) were amended:

(a) by omitting "or 58"; and

(b) by omitting "one of those sections" from paragraph (b) and "those sections" from paragraph (c) and substituting in each case "that section".

(4) An employee's **section 57A amount** is the employee's share (if any) of the amounts that, if section 57A did not apply, would be the taxable values of the excluded fringe benefits for the year of tax in respect of the employee's employment by the employer if those benefits were not excluded fringe benefits, but disregarding benefits:

(a) that constitute the provision of meals or entertainment as defined in section 37AD (whether or not the employer made an election under section 37AA); or

(b) that are car parking fringe benefits; or

(c) whose taxable values are wholly or partly attributable to entertainment facility leasing expenses.

Conclusion

As legislative counsel, we are responsible for ensuring the clarity, precision and usability of the legislation we draft. I therefore suggest that, when faced with incorporating a calculation into the law, we have a professional obligation to consider whether mathematical notation might be the best language to use. That language was, after all, invented precisely because ordinary language (words and sentences) was inadequate to express anything beyond simple mathematical concepts.

I would encourage legislative counsel to use formulae for anything other than the very simplest calculations.

If you choose to use a formula, do so with care – just as you would when writing a sentence. Consider things like units of measurement, rounding and negative values. Make sure you use variables and symbols correctly. Most importantly, when you are structuring your formula, think of the users of your legislation – what will make their life easiest?

Multilingual Legislative Drafting in Swiss Cantons: Burden or Blessing?

Felix Uhlmann[1] and Stefan Höfler[2]

Abstract

This article is about drafting multilingual legislative texts in three cantons of Switzerland that have German and French as their official languages and a fourth canton that has German, Italian and Romansh as its official languages. Three drafting models are variously used in these cantons: co-drafting, co-revision and co-editing. The article describes each of these models and assesses their effects both in terms of the volume (quantity) and the quality of legislation produced.

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Introduction

It is quite well known that, on the federal (national) level, Switzerland has three official languages: German, French and Italian.[3] A fourth language, Romansh, is considered a national language but does not have the status of an official language.[4] All three languages are equally authentic: all legislation is produced in German, French and Italian and each language version of a legislative text has the same legal force.[5] What is less commonly known is that multilingual legal systems also exist on the cantonal (state) level: three cantons (Berne, Fribourg, Valais) use German and French as official languages and one canton (Grisons) uses German, Italian and Romansh.[6]

The models of legislative drafting employed in multilingual systems may be distinguished by the stage at which the second (and third) language comes into play: It may happen at the stages of conceptualization and composition (co-drafting), during the revision of the texts (co-revision) or only for the final editing (co-editing).

This paper will discuss the different models implemented by the Swiss Confederation and in the aforementioned cantons, identify their advantages and shortcomings and compare them to legislative drafting in cantons with only one official language. It will explore the impact of multilingualism on the quality and the amount of legislation.

Background

One should start out with some statistical background. Switzerland is small, and the cantons (states) of Switzerland are obviously even smaller. Switzerland has roughly 8.5 million inhabitants; the cantons with more than one official language have around one million (Berne) and around 200'000 to 300'000 (Fribourg, Grisons, Valais), respectively. German is the main language spoken in the Confederation; it has roughly three times as many speakers as French and seven to eight times as many as Italian. In the cantons of Berne and Grisons, German is even more dominant (compared to French in Berne and to Romansh and Italian in Grisons). In the remaining two multilingual cantons (Fribourg and Valais), French is the

[3] Article 70(1) BV (Bundesverfassung der Schweizerischen Eidgenossenschaft of 18 April 1999, SR 101 – Federal Constitution of the Swiss Confederation).

[4] Article 70(1) BV (Bundesverfassung der Schweizerischen Eidgenossenschaft of 18 April 1999, SR 101 – Federal Constitution of the Swiss Confederation).

[5] Article 14(1) PublG (Bundesgesetz über die Sammlungen des Bundesrechts und das Bundesblatt of 18 June 2004, Publikationsgesetz, SR 170.512 – Federal Act on the Compilations of Federal Legislation and the Federal Gazette, Publications Act).

[6] Article 6 KV/Bern (Verfassung des Kantons Bern of 6 June 1993, SR 131.212 – Constitution of the canton of Berne), Article 6 KV/Freiburg (Verfassung des Kantons Freiburg of 16 May 2004, SR 131.219 – Constitution of the canton of Fribourg), Article 3 KV/Graubünden (Verfassung des Kantons Graubünden of 18 May/14 September 2003, SR 131.226 – Constitution of the canton of Grisons), Article 12 KV/Wallis (Verfassung des Kantons Wallis of 8 March 1907, SR 131.232 – Constitution of the canton of Valais).

dominant language: it is spoken by approximately twice as many inhabitants as German (cf. Fig. 1).

	Total	German	French	Italian	Romansh
Switzerland	6'907'818	**4'424'920**	1'567'197	581'381	(40'394)
Berne	854'618	**724'055**	88'335		
Fribourg	250'113	69'583	**170'378**		
Grisons	167'918	**125'468**		22'405	26'702
Valais	279'810	71'397	**189'523**		

Figure 1: Inhabitants (15 years and older) and Main Languages, Federal Statistical Office, 2015

From a legal standpoint, it is undisputed and usually granted by the respective constitution that all official languages are equal.[7] Courts often turn to the second or third language in case of ambiguous wording.[8] It should also be noted that the question of official languages in the legislative process is not a politically charged issue. While there have been numerous decisions by the Swiss Supreme Court on the use of languages in schools,[9] on billboards[10] and in corresponding to authorities,[11] to our knowledge so far there has been no Supreme Court case that concerned the process of legislation.

Swiss legislation is predominantly prepared by the administration as part of the executive branch. The civil servants are not professional legislative drafters, but governmental lawyers

[7] For the legal status of Romansh in the Federal Constitution see FRANÇOIS AUBERT/PASCAL MAHON, Petit commentaire de la Constitution fédérale de la Confédération suisse du 18 avril 1999, Schulthess, Zurich/Basel/Geneva, 2003, Article 70 comment 2-8; EVA MARIA BELSER/BERNHARD WALDMANN, in Bernhard Waldmann/Eva Maria Belser/Astrid Epiney (eds.), Bundesverfassung, Basler Kommentar, Helbing Lichtenhahn, Basel, 2015, Article 70 comment 17-24; GIOVANNI BIAGGINI, Bundesverfassung der Schweizerischen Eidgenossenschaft, Kommentar, Orell Füssli, Zurich, 2007, Article 70 comment 3-8; REGULA KÄGI-DIENER, in Bernhard Ehrenzeller/Benjamin Schindler/Rainer J. Schweizer/Klaus A. Vallender (eds.), Die schweizerische Bundesverfassung, St. Galler Kommentar, Schulthess/Dike, Zurich/Basel/Geneva/St. Gallen, 2014, Article 70 comment 17-26; RAINER J. SCHWEIZER/JÉRÔME BAUMANN/JAN SCHEFFLER, Grundlagen und Verfahren der mehrsprachigen Rechtsetzung im Bund, in Rainer J. Schweizer/Marco Borghi (eds.), Mehrsprachige Gesetzgebung in der Schweiz, Dike, Zurich/St. Gallen, 2011, p. 19 f.

[8] See ANDREAS LÖTSCHER, "Multilingual Law Drafting in Switzerland," in Günther Grewendorf/Monika Rathert (eds.), *Formal Linguistics and Law*, (De Gruyter, Berlin, 2009), at 379ff.

[9] See, for example, BGE 139 I 229; BGE 125 I 347; BGE 122 I 236; BGE 100 Ia 462; BGE 91 I 480.

[10] See, for example, BGE 116 Ia 345.

[11] See, for example, BGE 136 I 149; BGE 121 I 196; BGE 110 II 401; BGE 106 Ia 299.

with some special knowledge and practice in legislative drafting.[12] Draft laws are transmitted to Parliament in all official languages, which means that the process of translation mainly takes place during the preparatory work within the administration.

Co-drafting, Co-revision, Co-editing

In the drafting of multilingual legislation, translation may come into play at different stages of the process: during the stage of conceptualization and composition (co-drafting), during the revision of the texts (co-revision) or only for the final editing (co-editing).[13] All three forms of drafting multilingual legislation are found in Switzerland, although co-revision is most common.

Co-revision means that the first draft is written in the working language of the individual or group responsible for this task, but the draft is translated into the other language(s) early so that the process of revision can be carried out for all language versions together.[14]

Co-revision allows for the first draft to be handed over to a specialized translator who will then discuss any ambiguities with the original drafter. The translator may be part of the drafter's administrative unit or belong to a specialized unit; private entities are rarely used. Often, the translators have a legal background. Because it happens early on in the process, translation improves the quality of drafting as it can still have an impact on the wording of the original text.[15]

The process of translation may be followed up by further reviews and revisions. On the federal level, an Internal Drafting Committee ("*Verwaltungsinterne Redaktionskommission*") reviews and revises the original draft as well as its translation into the other main language (German or French). For each draft, the Committee will be composed of a German-speaking and a French-speaking linguist from the Federal Chancellery and a German-speaking and a French-speaking lawyer from the Federal Office of Justice. In this bilingual setting, the Committee reviews all proposals for constitutional amendments, acts of Parliament and important secondary legislation. Its suggestions for the

[12] FELIX UHLMANN/STEFAN HÖFLER, "Professional Legislative Drafters – New Ideas for Switzerland?", in Felix Uhlmann (ed.), *Professional Legislative Drafters, Status, Roles, Education*, (Dike: Zurich/St. Gallen, 2016), at 144.

[13] REBEKKA BRATSCHI/MARKUS NUSSBAUMER, Mehrsprachige Rechtsetzung, in Ekkehard Felder/Friedemann Vogel (eds.), Handbuch Sprache im Recht, De Gruyter, Berlin/Boston, 2016 at 371ff.; STEFAN HÖFLER/MARKUS NUSSBAUMER/HELEN XANTHAKI, "Legislative Drafting," in Ulrich Karpen/Helen Xanthaki (eds.), *Legislation in Europe, A Comprehensive Guide for Scholars and Practitioners*, (Hart: Oxford/Portland, Oregon, 2017) at159ff.

[14] See URS ALBRECHT, Die mehrsprachige Redaktion in der Bundesverwaltung, LeGes 2001/3 at 99 ff.; ANDREAS LÖTSCHER, above n. 8 at 384 f.; GEORG MÜLLER/FELIX UHLMANN, Elemente einer Rechtssetzungslehre, 3. ed., Schulthess, Zurich/Basel/Geneva, 2013, note 162 f.; RAINER J. SCHWEIZER/JÉRÔME BAUMANN/JAN SCHEFFLER, above n. 7 at 31.

[15] GEORG MÜLLER/FELIX UHLMANN, above n. 14, note 163; RAINER J. SCHWEIZER/JÉRÔME BAUMANN/JAN SCHEFFLER, above n. 7 at 33f.

German and the French versions of the text are drafted in parallel within the commission, which means that from this point on, one can no longer call one of the language versions the "original" and the other the "translation".[16]

Co-drafting from the very start is less common in Switzerland, but some cantons and the Confederation have repeatedly applied it. The canton of Berne has tested two different forms. In some cases, laws were jointly drafted in both languages by a group composed of one German and one French speaking civil servant (or one bilingual civil servant) – which would be the typical form of co-drafting. In another case, the revision of the cantonal constitution, two independent drafts were written in German and French, translated and then compared to each other.[17]

Co-editing means that a draft is prepared in one language and is only translated for final editing. This process is found for translation into Italian (federal level)[18] and Italian and Romansh (Grisons)[19] but otherwise, it is not typical for Switzerland because a draft law usually must first pass an internal review by other administrative units (or at least the units concerned) and must then be published for consultation by the public. Internal and external consultations require translation, which means that a draft going to Parliament will have passed the translators' office already three times. This gives ample room for correction based on the feedback of translators. There are fewer safeguards in the parliamentary phase, but at least on the federal level the bicameral system ensures some time for proper translation (and the benefits that may come from it).

It is interesting to see that the majority language tends to be overrepresented as the language of first drafts. In the canton of Berne, for instance, one would expect roughly one tenth of first drafts to be written in French but it seems that almost 99 percent are in fact prepared in German.[20] On the federal level, the data are less conclusive but a recent study shows that less than ten percent of first drafts were written in French and none in Italian – simple proportionality would suggest these numbers to be much higher. Yet, a substantial number

[16] For more details see URS ALBRECHT, above n. 14 at 99ff.; ANDREAS LÖTSCHER, above n. 8 at 384ff.; RAINER J. SCHWEIZER/JÉRÔME BAUMANN/JAN SCHEFFLER, above n. 7 at 32ff.

[17] For more details see GÉRARD CAUSSIGNAC, Mehrsprachige Rechtsetzung, ius.full 2006 at 154ff.; GÉRARD CAUSSIGNAC, La rédaction législative bilingue dans le canton de Berne, LeGes 2001/3 at 59ff.; GÉRARD CAUSSIGNAC/DANIEL KETTIGER, Rédaction parallèle au Canton de Berne/Koredaktion im Kanton Bern, LeGes 1991/3 at 77ff.; PHILIPPE GERBER, Rédaction bilingue d'une Constitution cantonale. L'exemple du projet de Constitution bernoise, LeGes 1992/3 at 75ff.

[18] JEAN-CHRISTOPHE GEISER, La rédaction multilingue en Suisse, in Charles-Albert Morand (ed.), Légistique formelle et matérielle, Presses Universitaires D'Aix-Marseille, Aix-en-Provence, 1999 at 213; RAINER J. SCHWEIZER/JÉRÔME BAUMANN/JAN SCHEFFLER, above n. 7at 31ff.

[19] For more details see WALTER FRIZZONI, Die mehrsprachige Gesetzesredaktion im Kanton Graubünden, LeGes 2001/3 at 85ff.

[20] GÉRARD CAUSSIGNAC, Mehrsprachige Rechtsetzung, above n. 17 at 155.

of first drafts were composed in more than one language (one sixth), which might lead to a more balanced result if taken into account.[21]

One may assume that the dominance of the majority language is explained by factors outside the sphere of drafting, such as the composition of the work force of civil servants. Still, one should keep in mind that the formally equal treatment of languages in the process of co-revision may easily lead to a first draft in only one language in practice.

Qualitative Effects

It is interesting to see that the need for translation is widely regarded as a benefit in Switzerland. Articles in law reviews may be somewhat biased in this point and not properly represent the burdens of the daily work with translations, but it is noticeable that there is hardly any critique of translation. It is safe to assume that a lot of drafting flaws are detected during translation.

One important prerequisite for translation to have such positive effects is that there is sufficient feedback from the translators. This means not only that in case of doubt the translator should come back to the drafter but also that the drafter should read the translation to make sure that his or her draft was properly understood. Any mistranslation might provide important pointers to passages in the original draft that need revision: if the translator got it wrong, other readers may too. Similar discrepancies may also be detected during public consultation when it turns out that the participants have understood a governmental proposition differently.[22]

However, at the federal level, this form of check and double-check mainly works for the two major languages (German and French). Translations into Italian usually come very late in the process and tend to be somewhat neglected.[23] It is maybe telling that the benefit of translations is generally praised and that the only ones that have attracted some concerns stem from the canton Grisons. This trilingual canton has traditionally attained high drafting standards – but it seems that translations come very late in its legislative process and that they pose rather a problem than a benefit.[24] Of course, to be fair, one should also keep in mind that it is quite a burden for a small canton to translate every legal norm into two further languages, which, moreover, are only spoken by roughly 50,000 inhabitants (in total, not each).

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[21] BARBARA GRÜTER, In welcher Sprache entstehen die Gesetze des Bundes?, LeGes 2015/2 at 354ff.

[22] See JÉRÔME BAUMANN/ARNO BERTHER/MARCO BORGHI/PIA JANCZAK/ANDREAS LÖTSCHER/GIANPIERO RAVEGLIA/FEDERICA DE ROSSA GISIMUNDO/JAN SCHEFFLER/RAINER J. SCHWEIZER, Mehrsprachige Gesetzgebung in der Schweiz: Thesen und Empfehlungen, in Rainer J. Schweizer/Marco Borghi (eds.), Mehrsprachige Gesetzgebung in der Schweiz, Dike, Zurich/St. Gallen, 2011 at 390; RAINER J. SCHWEIZER/JÉRÔME BAUMANN/JAN SCHEFFLER, above n. 7 at 34.

[23] RAINER J. SCHWEIZER/JÉRÔME BAUMANN/JAN SCHEFFLER, above n. 7 at 31.

[24] See WALTER FRIZZONI, above n. 19 at 87.

It may also be added that all reports from co-drafting univocally describe positive experiences. Co-drafting is officially recommended by the federal drafting manual ("*Gesetzgebungsleitfaden*").[25] Even if one presumes that usually only very experienced drafters have taken part in such projects, and hence the good results may also be explained by a positive selection process, the necessity to think of a problem in more than one language is a distinctive benefit. Unfortunately, in times of more limited administrative resources and increasing as well as cursory production of norms, these benefits tend to get neglected.

There is another external development posing a possible threat to the positive effects of co-revision. Traditionally, Swiss students learn at least one other national language, meaning that the German-speaking students learn French and that the French-speaking students learn German, often as their first foreign language. Not surprisingly, this tradition has come under pressure as employers (and students) rank English much higher than French or German. Still, Swiss civil servants are quite knowledgeable of a second language (and may even consider a bilingual working place as distinctively attractive), which ensures that there is sufficient exchange between drafters and translators and between drafters speaking different languages. If the level of knowledge of a second national language will drop, so will the benefits from co-revision.

Quantitative Effects

There is little study of whether the "burden" of translation influences the quantity of new norms produced. In 2015, a study conducted for the canton of Grisons found a significant disparity among the amounts of legislation produced by the Swiss cantons.[26] The study looked not only at the absolute amount of norms in a canton, but also at the stability of the legislation over time. For this purpose, all norms were classified as belonging to the constitutional, the legislative (Parliament) and sub-legislative level (Government).

If one looks at the number of characters that make up the corpus of laws of each canton, one can easily see that the canton of Geneva (GE) has roughly four times as many norms as some rural cantons (cf. Fig. 2). Disparities are most plausibly explained by size of the canton (the bigger the more) and its legislative tradition (once many laws, always many laws). It is also evident that French-speaking cantons have a larger amount of legislation than the rest of

[25] Gesetzgebungsleitfaden des Bundesamtes für Justiz, Leitfaden für die Ausarbeitung von Erlassen des Bundes, 3. ed., Berne, 2007, note 997.

[26] SIMON LÜCHINGER/MARIUS ROTH/MARK SCHELKER/FELIX UHLMANN, Qualitätsmessung der Rechtsetzung im Kanton Graubünden, (Empirische Grundlagen, Phase I), Lucerne/Fribourg/Zurich, 2015, https://www.rwi.uzh.ch/de/oe/ZfR/forschung/projekte/p02.html. See also SIMON LÜCHINGER/MARK SCHELKER, 2016, Regulation in Swiss Cantons: Data for One Century, CESifo Working Paper, Nr. 5663, <https://ssrn.com/abstract=2719532>; FELIX UHLMANN, Wer hat und wer macht wie viel? – Rechtsbestand und Rechtsetzungsaktivität in den Schweizer Kantonen, LeGes 2017/2 at 371ff.

Switzerland. (The factor that French and Italian texts are somewhat longer due to linguistic reasons does not play a major role; at the federal level it counts for under 5 %).[27]

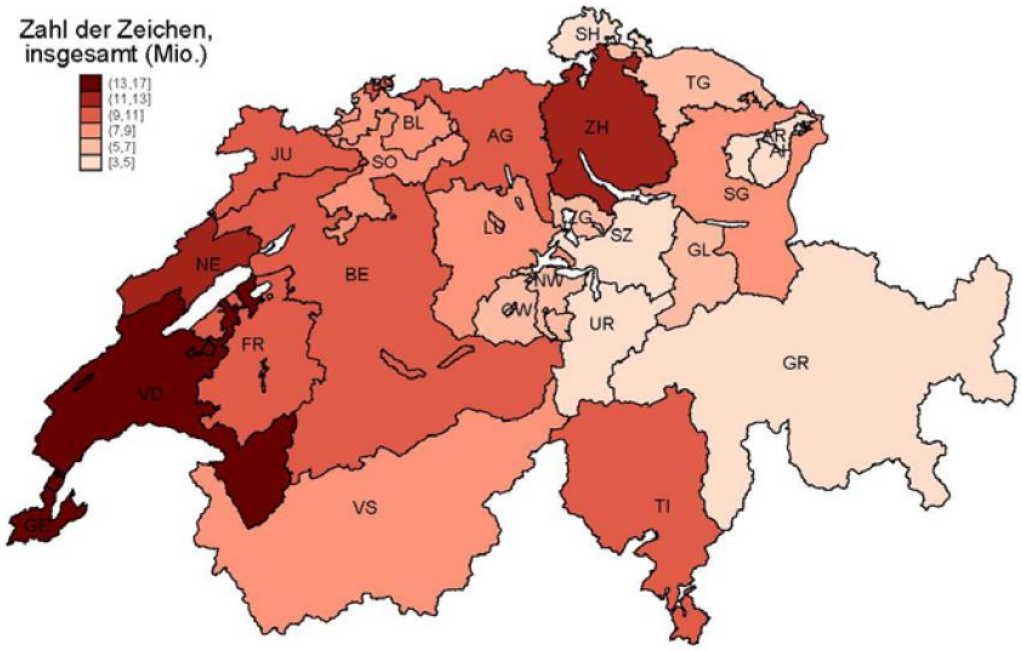

Figure 2: Number of characters used in cantonal legislative texts (mio.), SIMON LÜCHINGER/MARIUS ROTH/MARK SCHELKER/FELIX UHLMANN, above n. 26 at 14.

The data are inconclusive on the question whether the need for translation reduces the number of norms. One might say that the large canton of Berne has fewer norms than Zurich, maybe because of the need for translation. Also, Valais and Fribourg seem to have fewer norms than Geneva, Vaud and Neuchâtel, but this may as well be explained by their proximity to the German-speaking part of Switzerland. Grisons, the largest canton area-wise, but lightly populated, is reluctant to produce norms, but this again might be due to tradition and the population size. Hence, it must remain speculative whether translation has fostered (or hindered) the production of norms in Switzerland. It is certainly not a decisive factor.

There are, unfortunately, no studies on the duration of the legislative process if a text has to be translated. Experience und manuals on the legislative process suggest that it indeed influences the time lime of a project,[28] but is probably not a decisive factor. Translation often goes hand in hand with other necessary checks. It should also be noted that the legislative

[27] SIMON LÜCHINGER/MARIUS ROTH/MARK SCHELKER/FELIX UHLMANN, ibid. at 6.

[28] See, for example, Gesetzgebungsleitfaden des Bundesamtes für Justiz, above n. 25, note 999.

process is still comparatively slow (but accelerating) in Switzerland, so that the time for translation is hardly felt.

In conclusion, translations are a benefit to the legislative process but only if properly embedded in the process and if there is a real exchange between translators and drafters.

Challenges related to the incorporation of Inuit Qaujimajatuqangit into legislation

Thomas Wilhelm Ahlfors[1]

Abstract:

There are many jurisdictions that legislate in more than one language. The challenges this presents are magnified when the languages have very different cultural and linguistic origins, as in the Canadian Territory of Nunavut where the official languages are English, French and the language of the indigenous people of the territory, the Inuit. This article focuses on the particular challenges of integrating into the legislation the Inuit concept of Inuit Qaujimajatuqangit, *which literally translates in English as "that which Inuit have long known to be true." These challenges entail matters of both language and policy requiring that legislative counsel be ready to ask tough questions to get to the bottom of the policy goals, and that policy officials be ready to concretely explain those policy goals and their expected outcomes.*

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[1] Legislative Counsel, Government of Nunavut. The views expressed in this article are solely those of the author and do not necessarily represent those of the Government of Nunavut.

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Introduction

One of the main tools that Legislative Counsel use every day is language. Our goal is to use language that accurately reflects the underlying policy, is legally precise and unambiguous, and is as accessible as possible. Definitions are an integral part of our work, whether we are using a term with its common or technical meaning or we provide a definition that more accurately reflects what a term is to mean in a piece of legislation. Most, if not all, Commonwealth jurisdictions also have Interpretation Acts that define key terms used throughout the statute book.

The language we use reflects the context in which that language developed. The history of the English language is intertwined with the history of the English-speaking world, and further in the past with the history of the various peoples that settled the British Isles. English, the language of the common law, developed terms over the centuries that are difficult to accurately translate even into French, such as 'trust', 'estate' (in property law), or even the term 'common law' itself. However, English and French still developed in relatively similar European contexts, and it is possible to explain these terms using the French language, even though it may take more than a few words to do so. Further, due to official bilingualism in Canada, generally accepted French terms have been found to reflect the English concepts, such as 'fiducie' for 'trust' and 'domaine' for 'estate', even though those French terms do not have quite the same meaning as their English counterparts. The same has generally happened for French Civil Law terms that have been difficult to translate to English.

A very different situation, however, can arise at the intersection of two languages that developed in such vastly different contexts that not only is it difficult to find equivalent terminology in the other language, but it is also difficult to explain terminology from one language using the available vocabulary of the other language. In short, one language simply isn't equipped to explain, let alone translate, terminology from the other language. This is

the conundrum one is faced with trying to answer in English – or for that matter in French – what should be a relatively easy question:

"What is Inuit Qaujimajatuqangit?"

Inuit Qaujimajatuqangit literally translates as "that which Inuit have long known to be true".[2] This literal translation is lacking, as it evokes the concept of traditional knowledge – and in fact *Inuit Qaujimajatuqangit* is often translated as "Inuit traditional knowledge". However, both the words 'traditional' and 'knowledge' evoke, at least in the mind of most English readers, something that is only a part of *Inuit Qaujimajatuqangit*.

First, the English word 'knowledge' is generally distinct from skills, beliefs, laws, values, culture, social organization and behaviour. In order to begin understanding the full extent of *Inuit Qaujimajatuqangit*, 'knowledge' cannot to be understood so restrictively, but rather much more holistically and seamlessly as everything which is passed on from generation to generation.[3]

Second, the English word 'traditional' evokes something from the past that is immutable and unchanging. However, while *Inuit Qaujimajatuqangit* is rooted firmly in the past, it is ever changing – each generation adds content to *Inuit Qaujimajatuqangit* as it passes it on the next generation. And in some cases, external influences of colonialism have muted certain aspects of *Inuit Qaujimajatuqangit*, such as its traditional spiritual dimensions that were challenged by missionaries and are no longer practiced or passed on to the same extent as in the past.[4]

The English phrase that most closely captures the concept of *Inuit Qaujimajatuqangit* would be 'Inuit worldview', where the concept of 'worldview' is given as broad and liberal an interpretation as can be. Some descriptions that have been used in the past are:

- [*Inuit Qaujimajatuqangit*] is a living technology. It is a means of rationalizing thought and action, a means of organizing tasks and resources, a means of organizing family and society into coherent wholes.[5]

[2] Elders have stated that for this literal translation to be correct, the term should be "*Inuit Qaujimajaatuqangit*". Thank you to Archie Angnakak of the Government of Nunavut for this clarification. However, this paper will use the officially accepted "Inuit Qaujimajatuqangit".

[3] For a treatment of these concepts, see Frank James Tester and Peter Irniq, "*Inuit Qaujimajatuqangit*: Social History, Politics and the Practice of Resistance" (2008), 61 *Artic* (Suppl 1) 48 at 48-49.

[4] Ibid., at 53

[5] Jaypeetee Arnakuk, 2000, as quoted in Shirley Tagalik, *Inuit Qaujimajatuqangit: The role of indigenous knowledge in supporting wellness in Inuit communities in Nunavut* (National Collaborating Centre for Aboriginal Health: Prince George, BC, 2009). Accessed at https://www.ccnsa-nccah.ca/docs/health/FS-InuitQaujimajatuqangitWellnessNunavut-Tagalik-EN.pdf.

- All aspects of traditional Inuit culture including values, world-view, language, social organization, knowledge, life-skills, perceptions and expectations.[6]
- The Inuit way of doing things: the past, present and future knowledge of Inuit Society.[7]
- Inuit beliefs, laws, principles and values along with traditional knowledge, skills and attitudes are what the Government of Nunavut and Elders refer to as *Inuit Qaujimajatuqangit*.[8]

Most Nunavut statutes using the term *Inuit Qaujimajatuqangit* do not define it.[9] The definition of *Inuit Qaujimajatuqangit* that has been included in two statutes is "traditional Inuit values, knowledge, behaviour, perceptions and expectations".[10] As discussed above, the use of the word 'traditional' is not ideal, given that *Inuit Qaujimajatuqangit* is something that continues to live and evolve. Further, as discussed below, such a broad concept is of limited value in statutes.

In Nunavut courts, there has been no judicial consideration of the term – in fact, the term did not appear in any reported Nunavut court judgment until a 2017 judgment, which provides an excellent introduction to the following question:

"Why is *Inuit Qaujimajatuqangit* important?"

Nunavut is a beautiful, wonderful land. It is a great place to live.

Nunavummiut are deservedly proud of their ancient heritage and history.

All of us who live here are enriched by *Inuit Qaujimajatuqangit*.[11]

Nunavut – which means "our land" in Inuktut, the Inuit language – has a unique history. Its unforgiving land and climate have been the home of the Inuit for over a millennium. The Inuit lived a semi-nomadic lifestyle, whereby they would move from camp to camp based on the seasons and the movements of wildlife, which was their main source of sustenance and clothing. While there was earlier contact with European and North American whalers,

[6] Anonymous, 2008, as quoted in George W. Wenzel, "W. From TEK to IQ: Inuit Qaujimajatuqangit and Inuit Cultural Ecology" (2004), 41 *Arctic Anthropology* 238 at 240.

[7] Mike Bell, *Nunavut literacy development in the context of Inuit Qaujimajatuqangit (IQ) (Inuit Traditional Knowledge): A discussion paper*.(Inukshuk Management Consultants: Yellowknife, 2002). Accessed at http://epub.sub.uni-hamburg.de/epub/volltexte/2013/24024/pdf/nunavut_literacy_development.pdf .

[8] *Inuit Qaujimajatuqangit Education Framework for Nunavut Schools*., at slide 20. Accessed at http://kugluktukhighschool.ca/1iq-foundationdoc.pdf.

[9] *Legislative Assembly and Executive Council Act*, S. Nu. 2002, c. 5, *Nunavut Elections Act*, S. Nu. 2002, c. 17, *Human Rights Act*, S. Nu. 2003, c. 12, *Official Languages Act*, S. Nu. 2008, c. 10, *Education Act*, S. Nu. 2008, c. 15, *Inuit Language Protection Act*, S. Nu. 2008, c. 17, *Plebiscites Act*, S. Nu. 2013, c. 25.

[10] *Wildlife Act*, S. Nu. 2003 c. 26, s. 2 and *Family Abuse Intervention Act*, S. Nu. 2006, c. 18, s. 1.

[11] *R. v Mikijuk*, 2017 NUCJ 2, para. 17.

fur traders and missionaries, this semi-nomadic lifestyle persisted until after the Second World War.

After the war, the Canadian government set out to colonize and settle the Inuit living in the Canadian Arctic. The changes were drastic. Within a short time, not much more than a decade during the 1950s and 1960s, the Inuit went "from scattered hunting camps to settlements steeped in the organizational logic and material realities of high modernism".[12] Children were forced to go to school, often away from their families in residential schools where they were not allowed to speak their language or practice their culture. The effect on the Inuit way of life and *Inuit Qaujimajatuqangit* in general was significant, and understandably many Inuit were not happy with their way of life being replaced by one imported from southern Canada. The entire transformation is still within the living memory of Inuit Elders.

A decade later, in the 1970s, the Inuit of Nunavut, as the traditional users and occupiers of the land, started negotiations for a land claim with the Canadian government. These negotiations culminated in 1993 in the Nunavut Land Claims Agreement (NLCA) in which the Inuit of Nunavut ceded their aboriginal title to the lands in exchange for an array of constitutionally protected rights and benefits, including fee simple title to about 352,000 square kilometres of land (larger than the land area of the entire British Isles), of which about 36,000 square kilometres include subsurface rights.

Among the terms of the agreement was a commitment by Canada to establish a new territory with its own public government:

> The Government of Canada will recommend to Parliament, as a government measure, legislation to establish, within a defined time period, a new Nunavut Territory, with its own Legislative Assembly and public government, separate from the Government of the remainder of the Northwest Territories.[13]

Further, the agreement provides that the Inuit have a right to participate in the development of social and cultural policies in Nunavut:

> 32.1.1. Without limiting any rights of the Inuit or any obligations of Government, outside of the Agreement, Inuit have the right as set out in this Article to participate in the development of social and cultural policies, and in the design of social and cultural programs and services, including their method of delivery, within the Nunavut Settlement Area.
>
> 32.2.1. Government obligations under Section 32.2.1 shall be fulfilled by Government:

[12] See above, note 3 at 57.

[13] Nunavut Land Claims Agreement, Section 4.1.1.

> (a) providing Inuit with an opportunity to participate in the development of social and cultural policies, and in the design of social and cultural programs and services, including their method of delivery, in the Nunavut Settlement Area; and
>
> (b) endeavouring to reflect Inuit goals and objectives where it puts in place such social and cultural policies, programs and services in the Nunavut Settlement Area.[14]

In the lead-up to the creation of Nunavut on April 1, 1999, there was much discussion about how the new government would include *Inuit Qaujimajatuqangit* within its operations. The second Commissioner's address[15] to the Legislative Assembly said a "commitment to incorporate *Inuit Qaujimajatuqangit* is a basis for all government decisions and actions".[16] The first government of Nunavut included as part of its mandate the following guiding principle:

> *Inuit Qaujimajatuqangit* will provide the context in which we develop an open, responsive and accountable government.[17]

Finally, the Truth and Reconciliation Commission of Canada, which examined the legacy of the residential school system mentioned above, recommended that:

> In keeping with the United Nations Declaration of Rights of Indigenous Peoples, we call upon the federal government, in collaboration with Aboriginal organizations, to fund the establishment of Indigenous law institutes for the development, use, and understanding of Indigenous laws and access to justice in accordance with the unique cultures of Aboriginal peoples in Canada.[18]

Ultimately, the incorporation of *Inuit Qaujimajatuqangit* into governance and legislation is necessary for the people of Nunavut, of whom 85% are Inuit, to govern themselves in a culturally relevant and appropriate manner. That imperative brings us to the main question of this paper:

> "How is *Inuit Qaujimajatuqangit* incorporated into legislation?"

The challenge of incorporating into legislation a term that is so broad it defies proper definition in the English language was identified by a Special Committee of the Legislative

[14] Ibid, sections 32.1.1 and 32.1.2.

[15] Similar to the Speech from the Throne in the Commonwealth realms

[16] Nunavut Hansard, 2nd Session, 1st Assembly, May 12, 1999 at 3.

[17] Bathurst Mandate, Government of Nunavut, August 1999 at 4. Accessed at http://nni.gov.nu.ca/sites/nni.gov.nu.ca/files/05%20Bathurst%20Mandate_Eng.pdf.

[18] Truth and Reconciliation Commission of Canada: Calls to Action, #50 (Truth and Reconciliation Commission of Canada: Winnipeg, 2015). Accessed at http://www.trc.ca/websites/trcinstitution/File/2015/Findings/Calls_to_Action_English2.pdf.

Assembly of Nunavut to review the *Education Act*, which uses the term "*Inuit Qaujimajatuqangit*" 43 times:[19]

> To date, *Inuit Qaujimajatuqangit* in the government is a broadly interpreted and conceptual approach which is difficult to incorporate into legislation and implement in daily operations. It was noted that formal legislation has its roots in western culture and often takes on a highly-defined and prescriptive structure. A number of contributors argued that the effectiveness of the legislation was compromised by attempts to integrate *Inuit Qaujimajatuqangit* within specific sections of the Education Act. It was pointed out that requiring the incorporation of *Inuit Qaujimajatuqangit* within specific legislative contexts in the Education Act without clear and precise definitions, activities, or measurements to assess the success of that implementation was impractical and ineffective.[20]

The Committee further recommended that "specific references to the incorporation of *Inuit Qaujimajatuqangit* in Nunavut's education system within the *Education Act* be removed from the legislation".[21] In March 2017, the Minister of Education introduced a Bill to remove most of the references to *Inuit* Qaujimajatuqangit, but *Inuit* Qaujimajatuqangit will remain a foundational principle:

> Inuit societal values and *Inuit Qaujimajatuqangit*
>
> 1. (1) The public education system in Nunavut shall be based on Inuit societal values and the principles and concepts of *Inuit Qaujimajatuqangit*.
>
> *Inuit Qaujimajatuqangit*; guiding principles and concepts
>
> (2) The following guiding principles and concepts of *Inuit Qaujimajatuqangit* apply under this Act:
>
> (a) *Inuuqatigiitsiarniq* (respecting others, relationships and caring for people);
>
> (b) *Tunnganarniq* (fostering good spirit by being open, welcoming and inclusive);
>
> (c) *Pijitsirniq* (serving and providing for family or community, or both);
>
> (d) *Aajiiqatigiinniq* (decision making through discussion and consensus);
>
> (e) *Pilimmaksarniq* or *Pijariuqsarniq* (development of skills through practice, effort and action);
>
> (f) *Piliriqatigiinniq* or *Ikajuqtigiinniq* (working together for a common cause);
>
> (g) *Qanuqtuurniq* (being innovative and resourceful); and

[19] See Appendix A for some examples.

[20] Special Committee to Review the *Education Act*: Final Report, November 2015 at 10. Accessed at: http://assembly.nu.ca/sites/default/files/Report%20of%20the%20Special%20Committee%20to%20Review%20the%20Education%20Act%20-%20November%202015%20-%20English.pdf.

[21] Ibid.

(h) *Avatittinnik Kamatsiarniq* (respect and care for the land, animals and the environment).

Duty of all

(3) It is the responsibility of the Minister, the district education authorities and the education staff to ensure that Inuit societal values and the principles and concepts of *Inuit Qaujimajatuqangit* are incorporated throughout, and fostered by, the public education system.[22]

This type of application or interpretation provision, including a list of specific principles and concepts of *Inuit Qaujimajatuqangit*, exists in other Nunavut legislation, though more recently these principles and concepts have been called "Inuit societal values" to more accurately describe them in English. Statutes that contain provisions like this include the *Wildlife Act*, the *Child and Family Services Act* and a new *Public Health Act* (not in force as of March 2017). Further, the *Official Languages Act* and the *Inuit Language Protection Act* oblige the Languages Commissioner to act in accordance with a similar list of principles and concepts of *Inuit Qaujimajatuqangit*. This type of approach creates a unique set of challenges.

First, such a listing of concepts and principles is limitative in that it appears to include only a small subset of the totality of *Inuit Qaujimajatuqangit*. By excluding from such a listing all the other aspects of *Inuit Qaujimajatuqangit*, the legislation is certainly more specific, but is also very limited in incorporating the totality of *Inuit Qaujimajatuqangit*.

Second, as can be seen above, there are a number of Inuit language terms that have English descriptions in brackets. However, these English descriptions can be deceiving. For example, the first in the list above is *Inuuqatigiitsiarniq*, with the following description in English: "respecting others, relationships and caring for people". Respect of others in the context of Inuit culture and custom is not necessarily achieved or expressed in the same manner as respect of others in southern Canadian culture. For this provision to have its full intended meaning, the English reader not only has to understand the English description, but also understand the context in which the Inuit language principle developed.

Subsection 3(2) of the *Wildlife Act* goes a step further by providing that the Inuit language may be used to interpret this type of provision:

The Inuit Language

3. (2) The Inuit Language, or the appropriate dialect of the Inuit Language, may be used to interpret the meaning of any guiding principle or concept of *Inuit Qaujimajatuqangit* used in this Act.[23]

[22] Bill 37, *An Act to Amend the Education Act and Inuit Language Protection Act*, 3rd Session, 4th Leg, Nunavut, 2017.

[23] S. Nu. 2003 c. 26.

It is not clear if such a provision would pass muster under Nunavut's *Official Languages Act*,[24] which requires authoritative versions of legislation in both English and French – can an Act enacted in English and French allow or oblige resort to another language for interpretational purposes?

Third, this type of provision leaves it to the reader of legislation to apply the appropriate principles and concepts of *Inuit Qaujimajatuqangit*. This can work where the reader either has a thorough knowledge of the applicable principle or concept and an understanding of how to apply it to situations as they arise, or has the time and ability to gather information and advice respecting the applicable principle or concept before taking action. Therefore, this type of application or interpretation provision can be useful in legislation when two criteria are met:

- there is broad discretion on the decision-maker, whereby the legislation gives the decision-maker the necessary freedom and latitude to design a decision that accords with the listed concepts and principles; and
- the decision-maker has sufficient time and ability to design a decision that accords with the listed concepts and principles, and to consult those with knowledge of those concepts and principles before making the decision, if necessary.

Some different approaches from the present and past

As indicated above, application or interpretation provisions have their limits, and there exist a few other approaches to the incorporation of *Inuit Qaujimajatuqangit* into legislation.

Direct Reference

A number of Acts that are the responsibility of the Legislative Assembly[25] have provisions similar to those being repealed from the *Education Act*. However, unlike the *Education Act*, these Acts do not have an application or interpretation provision. Some examples are provided in Appendix B.

These provisions presuppose that those taking any action under them have a fulsome understanding of how *Inuit Qaujimajatuqangit* applies to the specific situations faced by them. Ideally, these types of provisions should be reserved for situations where the person to whom the provision applies does have such an understanding, or is able to consult sufficiently to gain a sufficient understanding. Therefore, such a provision would ideally not be used where the rights or obligations of a private citizen are at stake, as the private citizen

[24] S. Nu 2008, c. 10.

[25] In Nunavut, not all Acts have responsible Ministers – some Acts are the direct responsibility of the Legislative Assembly as a whole.

may have a difficult time determining the extent of those rights and obligations without sufficient knowledge of *Inuit Qaujimajatuqangit*.

Purpose clauses

Two pieces of legislation include purpose clauses referencing *Inuit Qaujimajatuqangit* or Inuit societal values:

> *Human Rights Act*
>
> Purpose
>
> 2. The purposes of this Act are to acknowledge within the framework of *Inuit Qaujimajatuqangit* that the Government, all public agencies, boards and commissions and all persons in Nunavut have the responsibility to guarantee that every individual in Nunavut is afforded an equal opportunity to enjoy a full and productive life and that failure to provide equality of opportunity threatens the development and well-being of all persons in the community.[26]
>
> *Unlawful Property Forfeiture Act* (not in force as of March 2017)
>
> Purpose
>
> 2. The purpose of this Act is to promote safe and healthy communities in accordance with Inuit societal values by providing civil remedies that will
>
> (a) prevent people who engage in unlawful activities and others from keeping property that was acquired as a result of unlawful activities;
>
> (b) prevent property from being used to engage in unlawful activities; and
>
> (c) allow for the disposition of property derived from or used to engage in unlawful activities to socially useful purposes such as providing assistance for victims of crime and funding community-based wellness programs.[27]

Purpose clauses that include a reference to *Inuit Qaujimajatuqangit* or Inuit societal values should be limited to legislation designed from the start to accord with *Inuit Qaujimajatuqangit* or Inuit societal values. Therefore, it should generally be used only in totally new Acts, as older Acts may not have been developed taking them into consideration.

Purpose clauses also do not add much to the actual rules in the legislation, but rather explain the reason for the existence of the rules. This may help a judge or decision-maker understand the reason behind a specific rule and perhaps aid in interpreting an ambiguous provision, but it cannot override an otherwise clear provision of the law.

[26] S Nu 2003, c. 12.

[27] S Nu 2017, c. 14.

Extending common law to include elements of Inuit Qaujimajatuqangit

The *Unlawful Property Forfeiture Act* also has another kind of provision that provides an effective defence against forfeiture that an owner can use with respect to property used by another as an instrument of unlawful activity:

> Reasonable action
>
> 15. For the purposes of subsection 13(3) and paragraph 14(2)(b), reasonable action to prevent property from being used to engage in unlawful activity includes, but is not limited to,
>
> …
>
> (c) taking action that, in accordance with traditional Inuit societal practices, was reasonable in the circumstances to prevent the property from being used to engage in unlawful activity.

This type of provision is unique in Nunavut, in that it specifically allows a defence against legal action based on what is effectively an element of *Inuit Qaujimajatuqangit*. This basically extends the common law concept of reasonableness to import Inuit concepts of reasonableness, and it does beg the question whether the common law of Nunavut should, as a whole, be more accommodating of *Inuit Qaujimajatuqangit*.

This type of provision is useful in the judicial or quasi-judicial context, particularly where there are clear differences in Inuit and non-Inuit norms of behaviour that could have an effect on the outcome of a specific matter. The above provision, for example, brings to mind the fact that Inuit, particularly in smaller communities, have a sharing culture that is much more vibrant than in mainstream southern Canada, and therefore as a matter of common practice do not necessarily exercise the same level of control over their private property as someone in southern Canada would be expected to exercise.

Recommendatory bodies

A new type of provision with respect to *Inuit Qaujimajatuqangit* was introduced in March 2017 as part of a Bill for a new *Corrections Act*. That Act, if passed by the Legislative Assembly, would create an Inuit Societal Values Committee, made up mostly of members from outside the correctional system, with functions as follows:

> Powers
>
> 59. (1) The Committee may
>
> (a) receive and hear submissions and suggestions from individuals and groups concerning the incorporation of Inuit perspectives, Inuit societal values and Inuit traditional knowledge in the corrections system, and in particular in programs offered in the corrections system;

(b) receive requests from the Director or the Investigations Officer under subsection (3);

(c) recommend policies and practices to better incorporate Inuit perspectives, Inuit societal values and Inuit traditional knowledge in the corrections system; and

(d) recommend new correctional programs or amendments to existing correctional programs to better incorporate Inuit perspectives, Inuit societal values and Inuit traditional knowledge in the corrections system.

…

Director's and Investigations Officer's request

(3) The Director and the Investigations Officer, individually or jointly, may submit a request to the Committee respecting any matter on which the Director or Investigations Officer requires the input of the Committee.[28]

This type of committee may be particularly useful in contexts that are foreign to the traditional Inuit worldview. Imprisonment was not practiced in traditional Inuit legal systems, and therefore direct comparisons with the past are impossible to make. On the other hand, preventing the recurrence of wrongdoing was part of traditional Inuit legal systems.[29] A committee is able to take a longer term, independent look at the integration of Inuit perspectives, societal values and traditional knowledge into the imported corrections system. A committee, however, would likely be less useful where an urgent response to a situation is needed.

This type of approach is new, and time will tell how effective it will be – or even if it will be enacted into law by the Legislature. However, it will most likely be effective in similar contexts where the goals of the traditional approach and the imported approach are similar, but the methods vastly different. A committee may be able to find ways to bring the imported methods closer to the traditional methods, hopefully thereby improving on the ability to reach the shared goals.

Recognition of traditional Inuit law

As indicated above, the Inuit did have a system of laws based on custom. These were not written, as the Inuit did not have a system of writing until the arrival of the missionaries. The laws were passed down from generation to generation. However, only one part of that traditional legal system has been directly incorporated by legislation into Nunavut's legal system: custom adoption. This incorporation pre-dates the creation of Nunavut, with the passing of the Northwest Territories *Aboriginal Custom Adoption Act* in 1994, which

[28] Bill 40, *Corrections Act*, 3rd Session, 4th Leg, Nunavut, 2017.

[29] Mariano Aupilaarjuk; Marie Tulimaaq; Joamie Akisu; Emile Imaruittuq; Lucassi Nutaraaluk, *Interviewing Inuit Elders: Perspectives on Traditional Law* (Nunavut Arctic College:1999) at 46.

Nunavut inherited when it was created in 1999. The key provisions of this Act as well as the provisions of the *Vital Statistics Act* that it amended can be found in Appendix C. Inuit custom adoption has also received some judicial treatment, and a description of the custom can be found in the Nunavut Court of Justice decision *S.K.K. v. J.S.*,[30] excerpts of which can also be found in Appendix C.

The legislation and case law respecting Inuit custom adoption indicate how *Inuit Qaujimajatuqangit*, including traditional Inuit law, is difficult to square with the imported legal system. The use of the word 'adoption' takes on a very different meaning for Inuit than it does for mainstream southern Canadians. Parentage for the Inuit can considerably more fluid. Therefore, care has to be taken when using an English word for an Inuit word or concept – the Inuit word or concept may contain nuances that are quite different from the nuances of the English word.

This difficulty was underscored in the recent Nunavut Court of Justice decision *R.A., as Guardian ad litem for her minor child, I.A v. S.K. and D.K.*, which decried the lack of clarity surrounding some of the key elements of Inuit custom adoption, such as consent and the rights of birth and adoptive parents and of the adopted child.[31]

Role of Legislative Counsel

What then, is the role of legislative counsel in incorporating *Inuit Qaujimajatuqangit* into legislation?

One of the key roles of legislative counsel is to take policy and transpose it into effective legislation. To do so, they often have to ask probing questions to determine the details of the policy goals and the means of attaining those goals. That role should not be any different with respect to *Inuit Qaujimajatuqangit*. Therefore, legislative counsel should first of all encourage policy officials to consider, during the policy development process, how *Inuit Qaujimajatuqangit* informs the various policy goals and the means of attaining those goals.

Ideally, policies would be developed in such a way that the requirements of *Inuit Qaujimajatuqangit* are seamlessly built into them. This would mean that simply by following the rule set out in legislation, the requirements of *Inuit Qaujimajatuqangit* would be met; there would be no need to refer to *Inuit Qaujimajatuqangit* directly, as the law would inherently be compatible with *Inuit Qaujimajatuqangit*. To the extent it is possible, this approach is not only desirable, but is in some cases required by the Nunavut Land Claims Agreement, which, as indicated above, requires the Government to "[endeavour] to reflect Inuit goals and objectives where it puts in place … social and cultural policies, programs and services in the Nunavut Settlement Area."[32]

[30] 2002 CanLII 53332.

[31] 2017 NUCJ 5.

[32] See above, n.14.

Where such seamless incorporation is not possible, either because situations need to be analysed on a case-by-case basis for compatibility with *Inuit Qaujimajatuqangit*, or because the requirements of *Inuit Qaujimajatuqangit* with respect to a certain subject-matter aren't sufficiently clear or known to policy officials, it may be necessary to resort to one of the existing legislative approaches discussed in this paper, or to develop other approaches. However, care should be taken in determining which approach to use, as they each have their strengths and weaknesses. If an improper approach is used, it may either make the provisions related to *Inuit Qaujimajatuqangit* ineffective, or, as indicated by the Special Committee of the Legislative Assembly of Nunavut to review the *Education Act*, compromise the effectiveness of legislation.[33]

Conclusion

It is not impossible to incorporate *Inuit Qaujimajatuqangit* into legislation, though of course in some areas of the law that are particularly removed from traditional Inuit life (securities legislation comes to mind, for example), avenues for incorporation may be very limited. However, in order to effectively incorporate *Inuit Qaujimajatuqangit* into legislation, sufficient policy work must be done to ensure that its incorporation is sufficiently clear and effective. Legislative counsel cannot, and should not, be doing this policy work, but they should ensure that the instructions being provided by policy officials are sufficiently clear and precise to be successfully transposed into effective legislation. As with any other area of policy, legislative counsel must be ready to ask tough questions to get to the bottom of the policy goals, and policy officials must be ready to concretely explain those policy goals and their expected outcomes.

Ultimately, as the saying goes, what happens in vagueness stays in vagueness. Vagueness in legislation creates difficulties for everyone involved: citizens, government officials, lawyers and judges. Incorporating *Inuit Qaujimajatuqangit* into legislation without creating vagueness may be difficult, but that difficulty should be dealt with head-on in order for the laws of Nunavut to be developed in a manner that respects the traditions, way of life and worldview of the majority of its citizens.

Appendix A – Examples of references to *Inuit Qaujimajatuqangit* in the *Education Act*

Bill 37, introduced March 2017, would repeal all provisions below

> Inuit Qaujimajatuqangit
>
> 8. (3) The Minister shall establish the curriculum in accordance with and base it on Inuit societal values and the principles and concepts of Inuit Qaujimajatuqangit and respect for Inuit cultural identity.

[33] See above, n. 20.

Inuit Qaujimajatuqangit

21. (2) A district education authority shall supervise a home schooling program in accordance with Inuit societal values and the principles and concepts of Inuit Qaujimajatuqangit.

Inuit Qaujimajatuqangit

37. (2) The district education authority shall develop its registration and attendance policy in accordance with Inuit societal values and the principles and concepts of Inuit Qaujimajatuqangit, particularly the principles of Tunnganarniq and Pijitsirniq.

Inuit Qaujimajatuqangit

38. The district education authority and the education staff shall implement the registration and attendance policy of the district education authority in accordance with Inuit societal values and the principles and concepts of Inuit Qaujimajatuqangit, particularly the principles of Tunnganarniq and Pijitsirniq.

Inuit Qaujimajatuqangit

61. (2) The school rules shall be developed in accordance with the principles and concepts of Inuit Qaujimajatuqangit, particularly the principles of Inuuqatigiitsiarniq and Piliriqatigiinniq.

Inuit Qaujimajatuqangit

84. (3) A district education authority shall develop a school calendar in accordance with the principles and concepts of Inuit Qaujimajatuqangit, particularly the principles of Pijitsirniq and Aajiiqatigiinniq.

Specific additional duties of teachers

98. In addition to anything else a teacher is required to do under this Act, he or she shall

…

(b) teach his or her students in a manner that is consistent with Inuit societal values and the principles and concepts of Inuit Qaujimajatuqangit and respect for Inuit cultural identity;

Appendix B – Direct reference to *Inuit Qaujimajatuqangit*, without a definition

Section 197 of the *Plebiscites Act* (Section 230 of the *Nunavut Elections Act* is equivalent):

Nature of agreement

197. (1) A compliance agreement is an agreement whereby a person who is alleged to have committed an offence agrees, in exchange for the stay of any prosecution in respect of the offence, to one or more of the following:

…

(c) to seek atonement in accordance with Inuit Qaujimajatuqangit;

…

Section 21 of the *Nunavut Elections Act*:

Factors for constituency boundaries

21. (1) A Boundaries Commission shall establish the boundaries of constituencies on the basis of the following factors:

…

(f) Inuit Qaujimajatuqangit;

…

Sections 16 and 40 of the *Legislative Assembly and Executive Council Act*:

Parliamentary privilege

16. (1) The Legislative Assembly and the members hold, enjoy and exercise those and similar privileges, immunities and powers that are now held, enjoyed and exercised by the House of Commons of the Parliament of Canada and by the members of that House of Commons.

Part of the law of Nunavut

(2) The privileges, immunities and powers referred to in subsection (1)

…

(d) shall be exercised taking into consideration Inuit Qaujimajatuqangit.

Inuit Qaujimajatuqangit

40. (7) In exercising its powers and carrying out its duties, the Management and Services Board shall give due consideration to the cultures and traditions of Nunavut and to Inuit Qaujimajatuqangit.

Appendix C – Aboriginal custom adoption

Aboriginal Custom Adoption Recognition Act:

Whereas aboriginal customary law in Nunavut includes law respecting adoptions;

And desiring, without changing aboriginal customary law respecting adoptions, to set out a simple procedure by which a custom adoption may be respected and recognized

and a certificate recognizing the adoption will be issued having the effect of an order of a court of competent jurisdiction in Nunavut so that birth registrations can be appropriately altered in Nunavut and other jurisdictions in Canada;

…

Application for certificate

2. (1) A person who has adopted a child in accordance with aboriginal customary law may apply to a custom adoption commissioner for a certificate recognizing the adoption.

(emphasis added)

Vital Statistics Act:

Substitution of registration of birth where custom adoption

(2.1) Where, at the time of the registration of a custom adoption or at any time after that, there is in the office of the Registrar General a registration of the birth of the person adopted, the Registrar General, on production of evidence satisfactory to the Registrar General of the identity of the person, shall cause

(a) the substitution of a new registration of the birth that is in accordance with the facts contained in the certificate recognizing the custom adoption and that includes the names of the birth parents as set out in the original registration of birth; and

(b) the original registration to be withdrawn from the registration files.

(emphasis added)

S.K.K. v. J.S., 2002 CanLII 53332, explains Inuit custom adoption as follows:

[52] Based upon the oral history of Elders, the evidence of others and the legal rights and obligations, there are two classifications of custom adoption:

- Traditional or pure custom adoption where biological and adoptive parents meet and there is a clear indication of an intention and an agreement to adopt the child – the adoptive parents take on all the rights, responsibilities and obligations towards the child and those rights, responsibilities and obligations are extinguished vis-à-vis the biological parents (unless the agreement is to the contrary). The terms of the agreement must be examined carefully to determine if right to apply for child support continues after the custom adoption.
- Pragmatic or practical custom adoption where someone undertakes the care of a child because neither parent is willing or able to care for the child. There is no agreement or intention between the biological parents and the caregiver. The caregiver does not take on the rights, responsibilities and

> obligations for the child from the biological parents. The biological parents continue to have rights, responsibilities and obligations to the child and cannot take advantage of the goodwill of the caregiver. It may be that if there is a practical custom adoption, the child has more than one set of parents who have legal responsibility for their care.

[53] If there are two kinds of custom adoption existing at the present time, it will be difficult for Custom Adoption Commissioners to determine which kind of custom adoption exists. It is easier from the Commissioner's analytical standpoint to have both traditional custom adoption and practical custom adoption considered to be 'custom adoption' – that declaration is for the benefit of the child. When the question of parental rights or obligations arise then it is necessary to examine more closely the initiating circumstances in determining whether rights and/or obligations of the biological parents have been extinguished or are ongoing. If there is at the initiation of the adoption, the intention and agreement to adopt between all the parents (biological and adoptive), then there is a traditional custom adoption. The adoption has finality similar to an adoption under the Adoption Act (subject always to the actual terms of the agreement). If any of those elements of a traditional custom adoption are missing, then although the Custom Adoption Commissioner may register a custom adoption, the rights and obligations of the biological parents may still exist and we would call that a practical custom adoption.

Reflecting an indigenous perspective in legislation: the challenge in New Zealand

Briar Gordon[1]

Abstract

This article seeks to demonstrate how New Zealand parliaments have sought to reflect the indigenous perspective in legislation of general application in the (almost) 178 years since the Treaty of Waitangi was entered into by the British Crown and the Māori tribes of New Zealand. This approach has gained momentum since 1975, when the Waitangi Tribunal was set up to make recommendations to the Crown on the practical application of the principles of the Treaty of Waitangi. The Treaty has been incorporated into many general statutes where the subject matter may have particular relevance to Māori, enabling the courts to scrutinise the Crown's actions in light of the terms of the Treaty and its principles. Many Māori cultural concepts have been imported into the language of the general law through the use of words and phrase ***in te reo Māori*** *(the Māori language). The general law has been overridden in favour of Māori interests (particularly as it relates to natural resources and in the context of settling Māori claims under the Treaty), including by conferring legal personality on certain natural resources. The first steps towards a bilingual statute book have also been taken.*

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Table of Contents

Introduction: Scope and Structure

My focus in this paper is on the inclusion of the Māori perspective of the world, *te ao Māori*, in the statute law of New Zealand, as an aspect of the way in which society, through its legislation, provides recognition for the indigenous perspective. It is not a paper about equality under the law, but about how New Zealand legislators reflect, in the statute book, elements of the cultural context of Māori, the indigenous people of New Zealand.

New Zealand comprises people from many ethnic and cultural backgrounds.[2] When we or our forebears arrived, all of us but Māori were *tauiwi* (foreigners). The early settler government had some appreciation of certain areas of distinctive Māori culture, but as the flow of migrant settlers began to swamp the Māori population, at least from the 1890s, those distinctions were easily subsumed in the developing assimilationist policies designed to meet the colonists' need for land. However, in the last 30 to 40 years a trend has emerged in our statute law that reflects Māori cultural concepts, but it is moot whether the same is true of *tikanga Māori*, a custom-based system of precepts and practices that guide the right way of doing things.

The Māori people are traditionally a tribal society, but there was always considerable movement between tribes, as by strategic marriages. An *iwi* (tribe) comprises a number of

[2] Statistics New Zealand, 2013 Census: approximately 75% of the total population of 4.5 million identifies as being of European heritage, 15% as being of Māori heritage (ca 600,000), 12% as being of Asian heritage, and 7% as being of Pacific heritage.

In relation to *te reo Māori* (the Māori language) Statistics New Zealand, 2013 census data NZ Social Indicators – Culture and Identity show:

- 21% of persons identifying as Māori are able to hold a conversation about everyday things in the language – in the age group 80-84 years, the figure is 46%, but in the group 10-19 years, it is 19% (2013 census)
- across the total population aged 10-19 years, the ability to hold that conversation is down to less than 5%, reducing to 3.73% for the whole population of all ages.

hapū (subtribes), and a *hapū* comprises several *whānau* (families).[3] An *iwi* and its *hapū* are largely defined by their *whakapapa* (descent lineage), and their areas of traditional interest (*rohe*). For Māori, *tūpuna* (ancestors) and the land are critical to who people are. Tribal loyalties, particularly in rural areas, remain strong to this day, though Māori are highly mobile and integrated into the wider community.

There is one law applying in New Zealand: we have not yet addressed the question of a bijural legal system. Our present approach is rather that of a fused jurisdiction in which we include Māori concepts within a largely western paradigm, often defining the Māori words with English words and concepts.

In what follows, the background of history is sketched in as an important element in making sense of our current directions.

Structure

This paper covers the following matters:

- Historical background: the beginnings of the nation state
  - Assimilation and representation
- Twentieth century developments:
  - Protest and establishment of the Waitangi Tribunal
  - Incorporation of the Treaty of Waitangi in legislation
- *Te reo Māori* in legislation of general application
  - *Tikanga*: a Māori legal system
  - Terms relevant to the environment
  - Terms depicting relationships and status
  - Family relationships: *whanaungatanga*
- Treaty settlement statutes
  - Legal personality: *Te Urewera and Te Awa Tupua*
  - Dual language legislation

Beginnings of the nation state

Before the advent of any official involvement of Europeans in New Zealand, there was one law in New Zealand, its first law, *tikanga Māori*.[4] From the end of the 18th century there

[3] The *iwi* of New Zealand comprise 10 groups based on the canoes that came to New Zealand in the historic past. For the purposes of distributing fisheries assets to iwi, the iwi and notional populations of Māori as at 2004 are listed in Schedule 3 of the *Maori Fisheries Act 2004*. Not all Māori identify with an iwi.

[4] Justice Joseph Williams "Lex Aotearoa: An Heroic Attempt to Map the Māori Dimension in Modern New Zealand Law" [Henry Harkness Lecture, Waikato University] (2013), 21 *Waikato Law Review* 1 at 21 refers

came European explorers, sealers, whalers, and traders. Māori engaged with them, whether under duress or willingly and enthusiastically. But with this development there also came lawlessness, especially given the ease with which muskets were acquired from traders for intertribal warfare.[5] From 1814, missionaries also had a significant influence, often as part of the anti-slavery movement gathering support in the first decades of the century.

The first official intervention of the British in New Zealand, mainly in the north of the North Island, came about in 1832—the Governor of the Colony of New South Wales appointed an official British Resident, James Busby, to represent British law and order in New Zealand. Busby, a New South Wales settler−viticulturist, had no real "teeth" with which to deal with "the sorry picture of anarchy, bloodshed, and ruin" that existed in parts of the country during the 1830s.[6] By Letters Patent issued in June 1839, New Zealand became a dependency of the Colony of New South Wales, and the laws of that colony were extended to New Zealand. Meanwhile, the plans of the New Zealand Company to establish a colony in New Zealand set alarm bells ringing in England, hastening the Colonial Office to despatch William Hobson of the Royal Navy in 1839 with instructions from Lord Normanby, Secretary for War and the Colonies, to establish the colony of New Zealand.

A defining point in New Zealand's story occurred when Hobson secured, as he had been instructed to do, the voluntary transfer of sovereignty from Māori to the British Crown through the signing on 6 February 1840 of the Treaty of Waitangi. This did not serve to establish the colony, but was an important step in legitimising the settlement of the land. There were initially 43 Māori signatories at Waitangi, but over 500 chiefs from across the country ultimately endorsed it over a period of about 5 months.[7] It is said that at Waitangi Hobson greeted each chief with the words "*Hei iwi tahi tatou*", "We are one people", suggesting that a monocultural society had been created by the act of cession and conferral of equal citizenship.

Importantly, the Queen, in the words of the Treaty, recognised the status of Māori as independent tribes occupying the whole country, the proprietors of the territory over which sovereignty was ceded to the British Queen. Examination of the words of the Treaty, however, reveals inconsistencies in what each party may have understood the effect of the Treaty to be. Whatever was intended or understood by the English version of this document, it is arguable that the Treaty in its two versions suggests that a pluralist framework was

to this law as "the law of Kupe", the ancestor credited in mythology as being one of the two Pacific navigators who discovered Aotearoa as a place to settle the peoples of various Pacific Islands.

[5] R D Crosby, *The Musket Wars: A History of Inter-iwi Conflict 1806–45* (Reed: Auckland, 1999).

[6] A H McLintock, *Crown Colony Government in New Zealand* (Government Printer: Wellington, 1958) at 17.

[7] This brief historical synopsis is indebted to Claudia Orange, *The Treaty of Waitangi* (Bridget Williams Books: Wellington 1987), chapters 3 and 4; Michael King, *Penguin History of New Zealand* (Penguin: Auckland, 2003), chapter 11 and Matthew Palmer, *The Treaty of Waitangi in New Zealand's Law and Constitution* (Victoria University Press: Wellington, 2008).

envisaged under which two forms of political and legal authority would co-exist: that of the Chiefs on the one hand, and the Governor on the other.

Article 1, in the English version, states that:

> the Chiefs … cede to Her Majesty the Queen of England absolutely and without reservation all the rights and powers of Sovereignty which [they] respectively exercise or possess, or may be supposed to exercise or to possess over their respective Territories as the sole Sovereigns thereof.

Under the Māori version, they gave to the Queen of England:

> *te Kawanatanga katoa ō rātou wenua* (absolutely for ever the government of all their lands)

Article 2, in the English version, guaranteed the private property rights of the Chiefs:

> the full exclusive and undisturbed possession of their Lands and Estates Forests Fisheries and other properties which they may collectively or individually possess so long as it is their wish to retain the same in their possession.

Article 2 also gave to the Queen "the exclusive right of Preemption over such lands as the proprietors thereof may be disposed to alienate", ensuring that, at the time of its purchase, native title over the land was extinguished.

In the Māori version, the Queen agreed to protect the Chiefs, subtribes, and all the people of New Zealand in their use of their lands:

> *tino rangatiratanga ō rātou wenua o ratou kāinga me ō rātou taonga katoa* (in the unqualified exercise of their chieftainship over their lands, villages and all their treasures):[8]

The powers ceded by Article 1 and the undertakings of Article 2 are not synonymous in the two language versions. Government or management of lands is a less expansive concept than the cession of full sovereignty, though what the Chiefs understood by "sovereignty" is uncertain.[9] Private property and ownership referred to in Article 2 seem not to have been concepts within *te ao Māori* (the Māori world). Their view of material possessions focused on *kaitiakitanga* (guardianship or stewardship) and on preserving those possessions for future generations. That view appears to be reflected in the Māori version.

[8] Translation of the Māori text by Professor Sir Hugh Kawharu, published in *He Tirohanga ō Kawa kit e Tiriti O Waitangi* (Te Puni Kōkiri, 2001) 12. See http://tiritiowaitangi.govt.nz/treaty/translation.pdf.

[9] The notes Sir Hugh prepared on the Māori version emphasise that many of the terms of the Treaty would have been unfamiliar to Māori, at least in the sense that the English version suggests was intended. This issue is considered in detail in D F McKenzie, *Oral Culture, Literacy and Print in Early New Zealand: the Treaty of Waitangi* (Victoria University Press with Alexander Turnbull Library Endowment Trust: Wellington, 1985).

Article 3 of the Treaty provided Māori with the Queen's protection and conferred on Māori "all the Rights and Privileges of British Subjects" ("*Ngā tikanga katoa rite tahi ki ana mea ngā tangata o Ingarani*").

Assimilation and representation

It was not until the Letters Patent were issued under the *New Zealand Government Act 1840* (Imp) on 16 November 1840 ("the Charter of 1840") that New Zealand became a separate Crown Colony. British statutes and common law applied in New Zealand from that time, as far as was consistent with the circumstances applying in New Zealand. An Executive and a Legislative Council were authorised, the latter with authority to enact subordinate legislation "for the Peace, Order, and good government" of the colony.[10] Though neither was a representative body, the Charter itself placed a limitation on the Crown's exercise of its prerogative, including the protection of property rights under applicable ancient laws. While the Charter conferred on the Governor the power to make grants of "waste land" to private persons or to "bodies politic or corporate in trust for public uses of our subjects", it also stipulated that:

> … nothing in these our letters patent contained shall affect or be construed to affect the rights of any aboriginal natives of the said colony of New Zealand, to the actual occupation or enjoyment in their own persons, or in the persons of their descendants, of any lands in the said colony now actually occupied or enjoyed by such natives.[11]

The *Constitution Act 1852* (Imp) granted "a Representative Constitution to the Colony of New Zealand", setting up a central bicameral Parliament for New Zealand[12] and, until 1876, provincial governments that had local law-making powers. In particular, the 1852 Act acknowledged that Māori had their own system of laws and customs that were to be allowed to continue, providing that:

> … the Laws, Customs, and Usages of the aboriginal or native Inhabitants of New Zealand, so far as they are not repugnant to the general Principles of Humanity, should for the present be maintained for the Government of themselves, in all their Relations

[10] A H McLintock, above n. 6 at 98–105; Ross Carter "Regulations and Other Subordinate Legislative Instruments: Drafting, Publication, Interpretation and Disallowance", New Zealand Centre for Public Law, Victoria University of Wellington, Occasional paper No 20 (December 2010) 1–6.

[11] "Charter for erecting the Colony of New Zealand and for creating and establishing a Legislative Council and an Executive Council, and for granting certain powers and authorities to the Governor for the time being of the said Colony", British Parliamentary Papers, Vol 3 (correspondence and papers relating to New Zealand, 1835−42, Irish University Press) at 31−33.

[12] The Parliament, called the General Assembly, consisted of the Governor, the House of Representatives (the representative body), and the Legislative Council (an appointed Upper House): *Constitution Act 1852*, 15 and 16 Vict, cap 72, 30 June 1852, s 32.

> to and Dealings with each other, and that particular Districts should be set apart within which such Laws, Customs, or Usages should be so observed.[13]

In 1852, a property-based franchise was introduced for men who met the property qualification). That qualification was restrictive for Māori in light of the collective nature of traditional Māori land tenure and only about 100 qualified[14]. In 1867, the franchise was extended to all men (and, in 1893, to all women) irrespective of property or race. Shortly afterwards, the *Māori Representation Act 1867* was enacted, which provided for four dedicated seats for Māori. Each member would be representative of Māori in a Māori electoral district, and each district was to have its own Māori electoral roll.

The presence of Māori Members of Parliament raised the need for a translation service in the House of Representatives. From 1867, the Standing Orders of the Legislative Council required procedural guidance to be provided in Māori as well as in English, and the requirement also extended to selected sessional papers of interest to Māori, the speeches given by the Māori members, and Bills of special relevance to Māori. Those requirements were not, it appears, matched in practice by either House of the General Assembly. In 1868, it was reported to the House that only 3 enactments had been translated since 1865,[15] though it also appears that no Bills were provided in Māori for the purposes of the debates until 1872−73.[16] By the end of the 19th century, Standing Orders no longer included the requirement. And it was not until 1985 that the right to address the Speaker in either language was restored.

Despite the development towards a democracy for Māori and settlers, events in the 1850s also crystallised lines of demarcation. The growing determination of the Government to maintain and expand the colony led to it taking measures aimed at overcoming Māori unwillingness to sell land. Hostilities broke out in many regions between Māori and British-backed Government forces. Statutory measures were adopted to enable the Government to wage war in the event of rebellion and to confiscate the lands of defeated Māori.[17]

Another step in the struggle to acquire land for settlement was the establishment of the Māori Land Court. Its role was to investigate and determine ownership of land that was to be returned after the wholesale confiscation following the defeat of the tribes in the hostilities of the 1860s. The Court was empowered to extinguish native title in favour of a

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[13] *Constitution Act 1852*, 15 and 16 Vict, cap 72, 30 June 1852, s 71.

[14] Michael King, above n. 7 at 203.

[15] Phil Parkinson, "Strangers in the House": the Maori Language in Government and the Maori Language in Parliament 1865−1900 (2001) 32(3) *Victoria University of Wellington Law Review Monograph*, 11−13.

[16] These were the Native Councils Bill, the Native Lands Bill, and the Native Reserves Bill: Phil Parkinson, ibid.. Parkinson gives details of the translations made available later in the century, highlighting the unsatisfactory nature of the translations, particularly on account of the coining of "Maorish" language, neologisms which needed to be defined as to meaning.

[17] The *Suppression of Rebellion Act 1863* and *New Zealand Settlements Act 1863*.

Crown grant or freehold title, and by that means to facilitate its sale. This usually involved eliminating the rights of multiple owners in favour of a limited ownership. Bit by bit, Māori traditional ways with land were brought into some sort of conformity with the English way of doing things through a series of Māori land laws, despite the earlier recognition of native title applying in New Zealand.[18] The trend was also seen in the codification of other areas of the law, such as the law of Māori succession, law regulating (and later abolishing) the practice of the *tohunga* (Māori traditional healers), and laws providing for "Native" schools.

Twentieth century developments

Māori concerns about land loss continued, particularly in relation to the *raupatu* (confiscations of land) after the hostilities of the 1860s. The Government took steps in the 1920s and 1930s to deal with the concerns by establishing two commissions of inquiry. They both pointed to the inequity of the *raupatu* policy, but positive action was delayed by the economic circumstances of the country and then by 2 world wars. In the 1940s and 1950s, however, successive governments entered into monetary settlements with iwi by way of lump sums and annuity payments, though without conceding the return of land.[19]

For the purposes of this paper, however, we need to fast forward to 1975, when a *hikoi* (march) of over 5000 marchers took place from North Cape to Wellington to protest land sales. The *hikoi*, galvanised by Whina Cooper from the northernmost settlement of New Zealand, Te Hapua, went under the banner "Not one more acre of Māori land", and presented a 60,000-strong petition to Parliament on the matter. That *hikoi* had a significant impact in New Zealand, including political and legal consequences.

Waitangi Tribunal

One response to the *hikoi* was the establishment in that year of the Waitangi Tribunal, a quasi-judicial body with the powers of a commission of inquiry to hear and determine Māori claims of breaches of the Treaty of Waitangi by the Crown or its agents.[20] This jurisdiction and, more particularly, the extension in 1985 of the Tribunal's jurisdiction back to 1840[21] provided an important platform for Māori grievances to be considered and adjudicated on by

[18] As early as 1841, the Chief Justice of the new colony had recognised that a distinctive land tenure system applied in Māori society and exhorted officials to pay attention to those traditional norms when attempting to purchase land. In 1847, the Judicial Committee of the Privy Council held that the law of aboriginal title and the obligations flowing from it were applicable in the colony: *Queen v Symonds* (1847) NZCPP 387. That view has continued to be endorsed by the New Zealand courts as in *Proprietors of Wakatu v Attorney-General* [2017] NZSC 17, [104]–[107] per Elias CJ; [510-511] per Glazebrook J.

[19] Richard Hill, "Settlements of Major Maori Claims in the 1940's: Preliminary Historical Investigation" (Department of Justice: Wellington, 8 November 1989), accessed at www.nzcpr.com/wp-content/uploads/2013/01/Richard-Hills-Report.pdf

[20] *Treaty of Waitangi Act 1975*.

[21] *Treaty of Waitangi Amendment Act 1985*, s 3.

way of "recommendations on claims relating to the practical application of the Treaty".[22] The Tribunal has been required to adopt what has been called "a presentist lens informed by the principles of the Treaty", that is, a contextual understanding of those principles as formulated by the courts under legislation.[23]

Although the Tribunal has no enforcement powers, except in limited circumstances, several thousand claims have been lodged over the intervening 40 years, ranging widely over matters such as the loss of land, environmental degradation, the loss of *te reo Māori* (the Māori language) under government education policies, the social dislocation of Māori families through urbanisation and detribalisation, Māori electoral arrangements, intellectual property claims, unfair housing policies, prejudicial health policies and practices, and an overall loss of cultural knowledge. In short, in breaching the Treaty, the Crown has stood accused of creating a cultural vacuum and inequality of opportunity for Māori.

The findings of the Tribunal have been a catalyst for significant changes in government policy and conduct, as Crown agencies have sought to act consistently with the principles of the Treaty. The compelling evidence of the Tribunal's findings has also been the genesis of major settlements between the Crown and tribal entities. Those findings have established a context for the Crown and Māori to focus on the cultural and economic rebuilding of the Māori people and their tribes, and on reconciliation with the Crown.

Incorporation of the Treaty in legislation

Legislation has been an important element in the shift in government understanding of, and response to, the Treaty, not least because it enabled the courts to intervene.

In the 1980s, a new economic direction was to result in the corporatisation of many government enterprises, including those owning and operating critical infrastructure assets. Under the *State-Owned Enterprises Act 1986*, the State would pass its assets to Crown-owned statutory bodies to manage and return dividends to the Crown. The proposed legislation referred to and acknowledged the overriding relevance of the Treaty in the implementation of that Act:

> Nothing in this Act shall permit the Crown to act in a manner that is inconsistent with the principles of the Treaty of Waitangi.[24]

That level of incorporation of the Treaty into the Act was accepted as sufficient to confer jurisdiction on the courts to examine the Crown's proposals under the Act in light of the courts' interpretation of the principles of the Treaty. In the litigation that followed enactment of the *State-Owned Enterprises Act 1986*, the courts were required to consider the scope of

[22] Long title to the *Treaty of Waitangi Act 1975*.

[23] David V Williams "Legal History in Developing New Zealand Common Law Following *Paki (No 2)*", *New Zealand Law Review* (2016) 755 at 786.

[24] *State-Owned Enterprises Act 1986*, s 9.

the principles by which Crown action under the legislation was to be measured. In each of the landmark cases heard in relation to that Act, the applicants successfully established that the Crown would be in breach of the principles of the Treaty were it to corporatise the assets, effectively privatising them, without considering whether there were valid Māori claims to those assets.[25]

A similar provision was included in the *Conservation Act 1987*:

> This Act shall so be interpreted and administered as to give effect to the principles of the Treaty of Waitangi.[26]

The inclusion of those provisions marked a turning point in how the Government would conduct its business, though the formulation has given rise to considerable uncertainty as to what "principles" are relevant in a given situation.

A year or two later, a different and "weaker" form of the so-called "Treaty clause" was drafted, requiring the principles to be taken into account rather than "given effect to". That has not altered the need for the courts to interpret the scope of the principles in context.[27]

In 2000, there was a deliberate change to the drafting of Treaty clauses. The legislation is now required to flesh out the way in which the principles of the Treaty or the Treaty obligations were to be met in the context of the particular statute.[28] That change was endorsed by the Law Commission in its submission to Parliament on the New Zealand Public Health and Disability Bill, the first Bill to reflect this change. The Law Commission noted that the undefined term "principles of the Treaty" was not one of legal art and expressed concern that there was no agreement as to what the principles were. The

[25] *New Zealand Maori Council v Attorney-General* [1987] 1 NZLR 641 (the Lands case), *New Zealand Maori Council v Attorney-General* [1989] 2 NZLR 142 (Forests case), *Tainui Maori Trust Board v Attorney-General* [1989] 2 NZLR 513 (Coal case).

[26] *Conservation Act 1987*, s 4. This provision was at the heart of two judicial review cases concerning the exercise of a statutory discretion. In each case, the issue related to whether Māori ought to have been given preferential treatment in the granting of concessions, on the basis of the Treaty principle, developed by the courts, of active protection of the economic position of Māori: *Ngāi Tahu Maori Trust Board v Director-General of Conservation* [1995] 3 NZLR 553 (CA); *Ngāi Tai ki Tamaki Tribal Trust v Minister of Conservation* [2017] NZHC 300.

[27] Examples are section 8 of the *Resource Management Act 1991* and section 8 of the *Hazardous Substances and New Organisms Act 1996*.

[28] The New Zealand Health and Disability Bill, introduced in 2000, was the first legislation to reflect the new approach. As enacted, a Treaty clause provided:

> In order to recognise and respect the principles of the Treaty of Waitangi, and with a view to improving health outcomes for Maori, Part 3 provides for mechanisms to enable Maori to contribute to decision-making on, and to participate in the delivery of, health and disability services.

principles would have to be ascertained on a case by case basis by the courts, leaving the courts "to invent the meaning that Parliament had failed to articulate."[29]

Te reo Māori in legislation of general application

Despite the proactive work of the Waitangi Tribunal and the courts, concern continued to be expressed that *tikanga Māori* was near invisible in New Zealand law in the 20th century. One response to the criticism has been to incorporate Māori words and phrases into legislation. This provides an inclusive way to recognise that there is a relevant (and potentially distinctive) Māori perspective in the law of New Zealand.[30] The impact of this approach has been significant, particularly where the courts have had to interpret and apply those terms.

One issue for drafters is whether Māori terms included in legislation ought to be defined, to clarify the scope and intent of the Māori term used. The use of definitions has not been uniformly welcomed by Māori who are concerned about attempts to lock in the meaning of Māori words, or give them a narrow or misleading meaning. However, the vocabulary of *te reo Māori* is more restricted than that of English, and words often have to bridge many contexts, including those that are not part of Māori custom or are now being used outside their traditional context. In such circumstances, it is both prudent and helpful, in the interests of certainty, to include a definition. Where the purpose of this is to make the language accessible by way of a translation, the risk is that the meaning given may be "lost in translation", the subtleties of meaning may be obscured, or the connotations of a word in the two languages may differ. For example, *kaitiakitanga* (guardianship) was initially used in the *Resource Management Act 1991* as if it were equally applicable to all New Zealanders. Māori opposed this implication of the drafting. Only they can be *kaitiaki* (guardians) and exercise *kaitiakitanga*. The statutory definition has accordingly been amended to record the distinction.[31] The question with which we grapple is whether we should be defining Māori words to restrict meaning or just to translate.

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[29] New Zealand Law Commission, *Māori Custom and Values in New Zealand Law* (NZLC SP9, 2001) paragraphs 352–353. The same position was taken by Matthew Palmer, "The Treaty of Waitangi in Legislation" [2001] *NZ Law Journal* at 207-212.

[30] New Zealand Law Commission (2001), above n. 30, paragraph 117 notes the push from Māori for Māori custom law to be included and applied in the law of New Zealand.

[31] *Resource Management Act 1991*, s 2: "**kaitiakitanga** means the exercise of guardianship by the tangata whenua of an area in accordance with tikanga Maori in relation to natural and physical resources; and includes the ethic of stewardship". Another example comes from the *National Library of New Zealand (Te Puna Mātauranga o Aotearoa) Act 2003*, where the word *taonga* (used but not defined in the Act) was proposed in order to express the intrinsic value of the entire collection of the National Library of New Zealand. Some works in the collection are writings of importance to Māori (mainly because they were written to or by their *tūpuna* (ancestors)), so they are "treasures" in a cultural sense, but to assign that status to those documents for all New Zealanders, or to all of the written documentation held in the National Library, would have been patently wrong and possibly offensive to Māori. *Taonga* are uniquely Māori. Accordingly, the distinction was observed by referring, in sections 3, 7, 12, and 17, to the "documentary heritage and taonga" in reference to the intrinsic status of the collection.

Tikanga: a Māori legal system

A Māori term found frequently on the statute book is *tikanga* or *tikanga Māori.* It is usually defined in legislation to mean Māori customary values and practices or Māori protocols and culture. The definitions do not do justice to the true scope of the concept. In essence, the word denotes the whole system of Māori customary law - "all accepted Māori principles".[32] It expresses the right way to do things. If an element of tikanga is breached, imbalance is the result. A breach is an affront to courtesy and even to morality.[33]

The concept has certain core elements, such as *whanaungatanga* (kinship), *mana* (authority, the source of rights and obligations of leadership), *utu* (reciprocity), and *kaitiakitanga* (guardianship),[34] but for Māori scholars and elders the term has a vast penumbra of meanings.[35] Given the scope of this term and its application, there is room for doubt as to whether instructors instructing on its use and drafters using it actually realise the breadth of the possibilities for interpretation, or the complexity that the decision maker faces working within this paradigm. The definition does little to narrow its application.[36]

The courts have, in a variety of contexts, affirmed the requirement of the common law that consideration of *tikanga*, ascertained by expert evidence, is a source of law within New Zealand's legal system and is required where Māori values are brought into play.[37]

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[32] New Zealand Law Commission, "The Taking into Account of Te Ao Maori in Relation to Reform of the Law of Succession", Working Paper by Professor Pat Hohepa and Dr David V Williams (December 1996) at 5.

[33] The stem of the term *tikanga* is *tika, adjective meaning correct.* The term *tikanga* is used in over 70 statutes. Judge Annis Somerville has analysed the usage of tikanga in the legislation before the Family Court: "Tikanga in the Family Court – the gorilla in the room" (2016), 8 *New Zealand Family Law Journal* 157.

[34] New Zealand Law Commission (2001), above n. 29 and Hirini Moko Mead, *Tikanga Māori: Living by Māori Values* (Huia Publishers: Wellington, 2016) give a scholarly as well as practical explanation of tikanga. Justice Joseph Williams "Lex Aotearoa", above n. 4 considers the role of tikanga in New Zealand's current legal system and of tikanga Māori as a foundation for a future bijural legal system in New Zealand, with concepts and language incorporated into our statute law as part of an integrated and mainstream legal system.

[35] It took over 100 pages for the Honourable Justice Sir Taihakurei Durie to elucidate the concepts of tikanga for the benefit of the judiciary confronted with its usage in legislation. Unpublished paper (1994), referenced in New Zealand Law Commission (2001), above n. 29.

[36] Curiously, the term *tikanga* has also been used in a narrow technical context, as in *Te Ture mō Te Reo Māori 2016 Māori Language Act 2016* to translate the English terms "rules of court" and "generally accepted accounting practice" (GAAP), and to refer to the formal procedures of a board.

[37] *Takamore v Clarke* [2012] NZSC 116, a case concerning traditional burial rites; *Re Denis Wiremu Tipene* [2016] NZHC 3199, the first case to decide a grant of customary marine title under the *Marine and Coastal Area (Takutai Moana) Act 2011*, an Act in which *tikanga* is the benchmark for evidence relevant to determining customary rights to the foreshore and seabed of coastal New Zealand. In a paper delivered to the Commonwealth Law Conference, Melborune, March 2017, the Right Honourable Dame Sian Elias, Chief Justice of New Zealand, drew attention to commentary on the *Takamore* case to the effect that, in its decision, the Supreme Court had avoided giving effect to *tikanga* in favour of statute law as the law of the land pertaining to Māori (accessed at www.courtsofnz.govt.nz/speechpapers/CLCM23M.pdf).

Those steeped in the law of *tikanga* recognise the fluidity of the concept. This makes it a difficult term in the context of laws of general application or in law that requires decisions from judges, or from local authorities and other functionaries who must determine what constitutes tikanga in any given situation. Interpretation of the term requires expert, usually oral, evidence of custom and practice.[38] The challenge for legislators in New Zealand is to provide for tikanga, when appropriate, as a further set of values and norms within the common law paradigm, in a way that is coherent in the statutory context, while being meaningful within the Māori context.

Māori terms relevant to the environment

Te reo Māori was first used chiefly in environmental statutes of general application. The Conservation Act 1987, for example, created a mechanism called *Ngā Whenua Rahui kawenata* (land managed by closing it off).[39] The use of this name would be recognised under tikanga as a guide to how and when the mechanism of traditional closure of an area that had become *tapu* (sacred) would apply for the protection of traditional values.

The inclusion of *kaitiakitanga* in section 7(a) of the *Resource Management Act 1991*, defined to mean guardianship, acknowledges the importance in tikanga Māori of caring for natural resources, including the *mauri* (spirit, life force) of the resource. That provision requires decision makers to have particular regard to the interests and cultural obligations of a Māori community to care for a particular natural resource or place because of its cultural importance, for example, for *mahinga kai* (food gathering) or customary arts such as weaving and carving. In a case concerning one of New Zealand's largest ports, the customary obligations and rights of the *tangata whenua* to care for and gather food in accordance with their tradition from certain shellfish beds in the harbour had to be considered when developing proposals to dredge the harbour. The court would not permit development to proceed to the detriment of the *tangata whenua* interests in the food resources and without due regard to the value and obligations of *kaitiakitanga*. The solution provided for both interests. The port extensions were made, while the *iwi* obligations as *kaitiaki* of the resource were respected, enabling them to exercise *kaitiakitanga* to achieve protection of the *mauri* of those shellfish beds as well as their physical presence.[40]

The *Resource Management Act 1991* also makes it a matter of national importance that "the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, *waahi tapu*, and other *taonga*" (section 6) is recognised and provided for in all decision-

[38] New Zealand law follows the approach to oral history evidence set out by the Supreme Court of Canada in *Delgamuukw v Province of British Columbia* [1997] 3 SCR 1010: that a unique approach is required, recognising the *sui generis* nature of aboriginal rights and according "due weight to the perspective of aboriginal peoples".

[39] *See* s 27A, inserted in 1993.

[40] *Ngai Te Rangi Iwi Trust v Bay of Plenty Regional Council* [2011] NZEnvC 402, upheld in the High Court in *Ngāti Ruahine v Bay of Plenty Regional Council* [2012] NZHC 2407.

making under that Act. *Waahi tapu*[41] (though not defined in that Act) usually refers to a site sacred to the relevant Māori community, perhaps as the burial place of an ancestor or as the place of a battle.

The *Heritage New Zealand Pouhere Taonga Act 2014* protects historic heritage of the natural and built environment. It takes a bolder approach to *wāhi tapu* in that it spells out the supernatural dimension in defining it to mean "a place sacred to Maori in the traditional, spiritual, religious, ritual, or mythological sense" and also by including the term *wāhi tūpuna*, meaning "a place important to Māori for its ancestral significance and associated cultural and traditional values". Those definitions enable a very broad approach to protecting places of heritage importance to Māori.

Terms depicting relationships and status

A class of terms often incorporated into legislation describes the status of people and the relationships between people and places. These terms are critical to the operation of *tikanga*, but their use in legislation has given rise to difficulties in interpretation and implementation.

One of the most difficult terms is *mana*, recorded in the Oxford English Dictionary at least from the 1980s as meaning authority, power, prestige, or in the secondary sense of supernatural power. Given that recognition, drafters do not include a definition of the term in legislation, unless the sense is intended to diverge from that of the dictionary.

In the scheme of *tikanga*, *mana* determines the place of a person in the social group. It is the source of the rights and obligations of leadership, and the manifestation of authority or prestige.[42] Two enactments require the governing bodies they establish to be aware of "mana Māori and the elements in the care of Māori cultural property which only Maori can provide."[43]

Mana is used in the term *mana whenua*, defined in the *Resource Management Act 1991* to mean customary authority exercised by an *iwi* or *hapū* in an identified area. The term *tangata whenua*, in turn, is defined as the *iwi* or *hapū* that, in relation to a particular area, holds *mana whenua*. The Waitangi Tribunal has criticised the use of these terms in statutes that require the Crown or statutory agencies to build a relationship with Māori, for example, by consultation. Wherever there are *iwi* or *hapū* with interests in the same territory or resources, the claim to hold *mana whenua* is controversial. The conflict became particularly stark for the Crown and the local authority on the remote Chatham Islands where two tribal groups claim *tangata whenua* status over the same territory and therefore the exclusive right to be consulted under the *Resource Management Act 1991* and the *Conservation Act 1987*.

[41] Also spelled *wāhi tapu*.

[42] Mead, above n. 34 at 33–34; Williams, above n. 4 at 3.

[43] *Auckland War Memorial Museum Act 1996*, s 12(2)(c); *Museum of Transport and Technology Act 2000*, s 13(2)(c).

The statutory definition omits a critical element, the nature of the customary authority implied by the term *mana whenua.*

The Tribunal's conclusion was that "the infusion of Māori words has muddled the statutory intent" and that the reference to *mana whenua* in the statute is "out of kilter with cultural ethics".[44] The recommendation to the Crown was to remove the term from the statute book and use other words to express the legislative intent.

Despite that recommendation, the term has continued in use in the *Resource Management Act 1991* and more recently in the *Heritage New Zealand Pouhere Taonga Act 2014* (for the sake of consistency with the *Resource Management Act 1991*).[45]

In the *Local Government (Auckland Council) Act 2009*, the term *mana whenua* is used as the title of a collective of 13 *iwi* in the Auckland area who grouped themselves as "*mana whenua* groups" to establish a representative board for the purpose of working with the Auckland Council on matters of significance for the *iwi*. In this context, the concept of *mana whenua* affirms the customary links among the members of the groups and provides a rationale for the relationship required among those groups and with the local authority.

The term *tangata whenua*, other than as defined in conjunction with *mana whenua*, seems to mean no more than "Māori", identifying the people as people of the land. In some contexts, that will clearly be the Māori people of a particular area, but in other contexts it is used without that limitation and applies as a synonym for Māori. The phrase "Māori as *tangata whenua"* appears to imply an explanation for particular recognition being accorded to Māori.[46]

Family relationships: whanaungatanga

An important element of tikanga Māori is the system of *whanaungatanga*, the source of obligations and rights based on familial or *whakapapa* relationships (descent, lineage) going back to the foundation of a tribe.[47] *Whanaungatanga* governs how personal relationships are organised and maintained. The term has not been used in any statute of general application, but its core element, *whānau* (family) has. A *whānau* is a group wider than the nuclear family of many Western cultures. It will typically include 2 or more generations along with the families of siblings. Each level of the organisational pyramid has persons recognised for their mana. Family law statutes, in particular, have long included references to *whānau* as

[44] Waitangi Tribunal, *Rekohu: A Report on Moriori and Ngati Mutunga Claims in the Chatham Island* (2001) 13.2–13.2.5.

[45] *Heritage New Zealand Pouhere Taonga Act 2014*, s 6 (which replicates the definitions of the *Resource Management Act* 1991); *Wellington Town Belt Act 2016*, ss 3, 4.

[46] *Arts Council of New Zealand Toi Aotearoa Act 2014*, s 3(2)(b).

[47] Williams, above n. 4 at 3.

well as to "family" and "family group", presumably for inclusivity and to denote a cultural distinction.[48]

The *Children, Young Persons, and Their Families (Oranga Tamariki) Legislation Act 2017* gives effect to a new "Vulnerable Children" policy in the context of *oranga tamariki*, the welfare or well-being of children. This Act considerably extends the use of the Māori language in its novel definitions of certain key terms:

> ***mana tamaiti (tamariki)***, in relation to a person who is Māori, means their intrinsic worth, well-being, and capacity and ability to make decisions about their own life
>
> ***whakapapa***, in relation to a person, means the multi-generational kinship relationships that help to describe who the person is in terms of their mātua (parents), and tūpuna (ancestors), from whom they descend
>
> ***whanaungatanga***, in relation to a person, means—
>
> (a) the purposeful carrying out of responsibilities based on obligations to whakapapa:
>
> (b) the kinship that provides the foundations for reciprocal obligations and responsibilities to be met:
>
> (c) the wider kinship ties that need to be protected and maintained to ensure the maintenance and protection of their sense of belonging, identity, and connection.[49]

Treaty settlement statutes

An important aspect of government policy since the mid-1990s has been the settlement of Treaty of Waitangi claims. A settlement is a contractual arrangement negotiated between the Crown and a Māori claimant group, usually a large natural kin-based group, a tribe or iwi. The intent is to settle on a final basis the historic grievances of an *iwi* against the Crown for breaches of the Treaty of Waitangi, whether by omission or commission, before September 1992.[50] Settlements also require a statute to give effect to certain elements of the settlement, in particular where this is necessary or expedient to override existing legislation, as well as to provide a privative clause that gives effect to the government's intention that settlements

[48] *See*, for example, the *Children, Young Persons, and Their Families Act 1989*, ss 4(b) and (c), 5(a) and (c); the *Sentencing Act 2002*, ss 8, 10; the *Care of Children Act 2004*, ss 5 and 47; the *Mental Health (Compulsory Assessment and Treatment) Act 1992*, s 5; the *Health Act 1955*, s 92ZO (a provision inserted in 2017). Iwi and hapū are recognised as well as whānau in the 1989 Act, s 13(2)(b) and(c).

[49] *Children, Young Persons, and Their Families (Oranga Tamariki) Legislation Act 2017*, 2017 No 31, section 7.

[50] That date relates to the settlement date of the first settlement, a pan-Maori settlement of claims related to Māori traditional fishing rights that were significantly truncated when New Zealand instituted a quota system for fisheries management.

are final. These statutes, by convention, involve cross-party political "understandings", and the Bills are largely insulated from a number of rules affecting the legislative processes.[51]

In reaching a settlement with an *iwi*, the Crown exercises its legitimate executive powers to enter into a binding contract, a deed of settlement. Legislation, though not needed for all elements of the settlement, is needed to ensure the successful implementation of the settlement and to give the Crown some security that the settlement is final.[52] Given that a binding contract lies behind the proposed legislation, and the purpose of the Act is expressly stated as being to give effect to that contract, there is a fetter in practice on Parliament's role in scrutinising the settlement legislation. Members appear to accept that legal innovations and unusual drafting solutions are at times required to reflect the Māori perspective.

Māori words and phrases are used liberally in settlement statutes, particularly in relation to the cultural redress that is negotiated. To a significant extent, the *iwi* concerned chooses the language of the deed of settlement, as a means of reflecting the customary language of the iwi, which is often metaphorical in style. The dialect of Māori used in this context is usually that of the particular *iwi*. Dialectal differences and the metaphors and mythology of the *iwi* are respected. There is also a strong expectation by the *iwi* that the settlement legislation will replicate the language of the deed of settlement. This can create tension with good drafting practice and runs the risk of ambiguity and uncertainty.

The cultural redress is unlikely to be of economic value to an *iwi* but is critical to its sense of well-being, its standing in both the Māori community and the wider community, and its sense of past wrongs being rectified. The redress will typically include the return of land from the estate managed under conservation legislation, usually so that the *iwi* gains a symbolic title over once publicly owned land, while the land retains the former conservation protections and remains inalienable. The recognition in the statute of a statement of the *iwi* association with an area of land brings with it a presumption that, in the event of any proposed development, the iwi has standing to participate in decision-making processes. Increasingly, arrangements are negotiated with local councils for *iwi* to participate in the functions of local government through the co-governance or co-management of natural resources in a region or district. Place names have a special place in the traditions of an *iwi*, and many traditional names are restored through the statute in respect of the traditional perspective of Māori.

[51] The Standing Orders of the House of Representatives were amended in 2014 to introduce the option of extending the sitting hours of the House by one or more additional four-hour sittings in a week, usually for the business of treaty settlement bills, and to relax the omnibus bill rules to allow a number of loosely related settlement bills to be considered together by the House of Representatives.

[52] Legislation does not cover the purely monetary awards that are a major element in the overall settlement package, but is used to free land titles of certain statutory memorials rather than relying on the statutory process and to clear conservation land for alienation without going through the public process otherwise required. The legislation also contains a privative clause to exclude all litigation in respect of the matters settled. There is a preference to use legislation, even where enforceable contractual obligations are available, including a preference by the iwi who trust the efficacy of legislation.

One of the more unusual elements of cultural redress is seen in the *Haka Ka Mate Attribution Act 2014*. The famous haka of Te Rauparaha, *Ka Mate,* is acknowledged as a *taonga* and an integral element in the history, culture, and identity of the *iwi* Ngāti Toa. The *iwi* statement of the creation and importance of *Ka Mate* is set out in a schedule to the Act. The Act also reserves for Ngāti Toa and Te Rauparaha the right of attribution in any public communication of *Ka Mate*.

The settlement Acts usually include a summary of the historical events (that is, events before 1992) that created the grievance. Acknowledgement by the Crown of its culpability for breaching the Treaty and its principles and an apology to the *iwi* concerned are both critical elements of the settlement legislation. Although these provisions are not operative in the scheme of the Act, they have a strong interpretative function and are accordingly carefully negotiated with the iwi and frequently included in the Act in both English and Māori.

Legal personality: Te Urewera and Te Awa Tupua

Two recent settlement Acts have gained considerable public, including international, attention for having conferred legal personality on valued natural resources.[53] This approach resonates with the way Māori, like many indigenous peoples, view elements of the environment: great trees, rivers, rocky islands, fishing grounds, or important landmarks, such as mountains, are personified, often in terms of a tribal ancestor, and are addressed as persons.

For Tūhoe, a tribe occupying a vast and remote national park in the central North Island, legal personality was conferred on that park, to be known as Te Urewera. The mechanism was intended to "neutralise" ownership because the prospect of private ownership of a national park was politically unacceptable. The statute declares Te Urewera to be a legal person and vests legal title to the land in Te Urewera. Te Urewera owns itself. The area ceases to be a national park, though it will be managed jointly by Tūhoe and the Crown to achieve many of the same objectives that apply to a national park.

Through the "human face" of Te Urewera, a Crown and Tuhoe appointed board, Te Urewera exercises the powers of a legal person.[54] Under the Act, Tūhoe assert *Tūhoetanga*,

[53] This concept was first mooted for application to natural resources by a Professor of Law from California as a way to overcome the barrier to a public interest group gaining standing to protect aspects of the environment such as forests, rivers, and other natural objects: Christophen Stone, "Should Trees Have Standing? Towards Legal Rights for Material Agents" (1972), 45 *Southern California Law Review* 450. The mechanism was included in argument before the US Supreme Court in *Sierra Club v Morton* 405 US 727 (1972), but seems not to have been applied in any jurisdiction. A declaration to the effect that the Ganges and Yamuna Rivers were "legal and living entities" was made by the High Court of Uttarakhand, but on application by the State government, the Supreme Court of India stayed the judgment of the High Court (*The Times of India* 7 July 2017): www.timesofindia.indiatimes.com.

[54] Te Urewera Act 2015, ss 11–13, 17.

the *tikanga* of Tūhoe, and *Tūhoe mana motuhake* (Tūhoe tribal autonomy and control). All statutory decision making must respect Tūhoe values in the interests of protecting the historical and cultural heritage of Te Urewera and enabling Tūhoe to function as the *kaitiaki* of Te Urewera.

The *Te Awa Tupua (Whanganui River Claims Settlement) Act 2017* confers legal personality on the Whanganui River. This is a river of great cultural and spiritual value to the people with *mana whenua*, but it is also a river that has made a significant contribution to hydroelectricity generation in New Zealand. The people of the Whanganui *iwi* claim identity with the river: "*Ko au te awa; Ko te awa ko au" (*I am the river and the river is me*).* The statute vests the Crown-owned parts of the bed of this river in the personification of the river as Te Awa Tupua, which is recognised in the statute as -

> … an indivisible and living whole, comprising the Whanganui River from the mountains to the sea, incorporating all its physical and metaphysical elements.[55]

That recognition, together with the declaration of legal personality of Te Awa Tupua, constitute the "status" of the river. Significant legal consequences attach to the status. Decision makers acting under 26 statutes, mainly environmental statutes, must act in such a way as to "recognise and provide for" that status of Te Awa Tupua and for its intrinsic values, expressed in metaphorical terms.[56]

The human face of the river is a two-person "office", Te Pou Tupua, with powers to act in the name of Te Awa Tupua.[57]

The device of giving legal personality to a park and a river has been described as viewing nature as an ancestor,[58] an expression of the *mana motuhake* (independence) of Tūhoe,[59] and upholding the *mana* of Te Awa Tupua.[60] The statutes are accepted as going some way towards reflecting *te ao Māori* in legislation, and functioning as a substantive acknowledgement of a distinctive Māori cultural identity. This suggests that these two settlements mark a new departure in legislating for a pluralistic legal system.

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[55] *Te Awa Tupua (Whanganui River Claims Settlement) Act 2017*, s 12.

[56] *Te Awa Tupua (Whanganui River Claims Settlement) Act 2017*, s 15.

[57] *Te Awa Tupua (Whanganui River Claims Settlement) Act 2017*, ss 14, 18.

[58] Catherine J Iorns Magallanes, "Nature as an Ancestor: Two Examples of Legal Personality for Nature in New Zealand", *Vertigo – la revue electronique en sciences de l'environnement* Hors-serie 22 (Septembre 2015), accessible at http://vertigo.revues.org/16199 .

[59] Professor Rawinia Higgins, "Tūhoe-Crown settlement – Te Wharehou o Tūhoe: the house that 'we' built" *Māori Law Review* (October 2014).

[60] Linda Te Aho, "Ruruku Whakatupua Te Mana o te Awa Tupua – Upholding the Mana of the Whanganui River" Māori Law Review (May 2014).

But there are critics. Concern has been expressed that both statutes deploy common law mechanisms, including that of legal personality, rather than giving expression to tikanga and Māori legal traditions.[61]

Dual language legislation

My last topic concerns the first attempts in New Zealand to draft and enact law in both *te reo Māori* and English.

The first attempt to enact a dual language statute in New Zealand, certainly in recent years, was in 1987, in response to the report from the Waitangi Tribunal on the state of the Māori language.[62] A Bill was introduced for enactment in both Māori and English, the English version drafted by Parliamentary Counsel and the *te reo* version by an independent translator working from the English draft. The Bill declared the Māori language to be an official language of New Zealand. It also set up the Māori Language Commission Te Taura Whiri I te Reo Māori, provided for Māori to be an alternative language in all the courts, and included an accreditation system for translators and interpreters. However, timely translation of amendments made during the progress of the Bill through the House proved difficult, so the Bill was enacted and received the Royal assent as a mono-lingual enactment. When the translation became available, the Attorney-General directed that it be appended to the Māori translation in the official printed copy of the Act, with a clear rubric as to its un-enacted status. And there the matter rested for 27 years. The Māori translation was not updated when the Act was amended, and because the Māori version was not enacted, it was not included on the Government's legislation website when that went live in 2007.

The first dual language statute on our statute book is an Act to pardon a tribal member executed for the murder of a European in the 1860s. A 7-clause Bill, the Mokomoko (Restoration of Character, Mana, and Reputation) Bill, was introduced in English only in 2013. The translation of the Bill and its enactment as a dual language statute were requested when the descendants of Mokomoko came before the Māori Affairs select committee. The Ministry responsible for issuing instructions to the Parliamentary Counsel Office (PCO), *Te Puni Kōkiri*, facilitated the translation. The PCO publishing unit developed a workaround for the drafting tool so that the Bill could be structured with as much continuity as possible and still obey the rules for printing and publishing the output.[63] That Act laid the foundation for a more ambitious and fully operative dual language statute.

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[61] Carwyn Jones, *New Treaty New Traditions: Reconciling New Zealand and Māori Law* (UBC Press: Vancouver, 2016) at 97–99, 137–139; Mick Strack, "Land and rivers can own themselves" (2017), 9 *International Journal of Law in the Built Environment* 4.

[62] Waitangi Tribunal, *Report on the Te Reo Maori Claim* (Wai 11, 1986).

[63] The title and commencement clauses were positioned in the usual place, the English first followed by the translation in Māori. Parts 1 and 2 followed in English followed by Wāhi 1 and Wāhi 2 in Māori. The Schedule, first in English and then in Māori, sets out the pardon.

As part of a government policy to revitalise the language, a new Māori Language Bill was introduced not long before the 2014 general election. The Bill proposed new structural arrangements for Māori and government to work proactively to overcome the serious loss of fluency and use of *te reo Māori*, as revealed in the statistics from the most recent census.[64] It continued the official status of the language, and retained other operative elements of the earlier Act. Though one line in the Cabinet policy paper referred to a Māori version of the Bill, the time pressure meant that no further consideration was given to that matter.

Submitters to the Māori Affairs Select Committee criticised the Bill on policy grounds, and for its monolingual form. The committee was reminded of New Zealand's international undertaking in ratifying the UN Declaration on the Rights of Indigenous Peoples (which declares, among other things, the rights of indigenous peoples to maintain and develop "their cultural heritage, traditional knowledge and traditional cultural expressions".)[65] The committee directed *Te Puni Kōkiri* to submit a translation.

Meanwhile, the new Minister for Māori Development set up an independent expert review of the Bill's policy foundations.[66] The Minister supported translating the Bill into *te reo Māori* and its enactment in dual language form, but required the Māori version to have priority over the English version in the event of an inconsistency.[67] The Bill, significantly amended as a result of the Advisory Group's review, was approved in principle by the select committee. That amended version of the Bill was then submitted to a translator contracted for the purpose by *Te Puni Kōkiri*.

The PCO faced a dilemma. There was no person in PCO with the necessary expertise in *te reo Māori* to undertake quality control over the translation, let alone be responsible for a translation. In a Bill having the potential for Crown legal risk, the increased possibility for ambiguity needed to be managed. In this instance, *Te Puni Kōkiri* contracted a quality assurance group of 5 experts to monitor the accuracy and overall quality of the translation. All were accredited translators and two were lawyers. The translator was required to prepare a translation with "horizontal and vertical equivalence" to the English version, as far as the idioms of the language allow.[68] The role of the quality assurance team was to check the translation for accuracy against the English language text of the Bill.

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[64] See above n. 2.

[65] United Nations Declaration on the Rights of Indigenous Peoples 5 GA Res 61/295, A/Res/61/295(2007), Article 31, and included in other contexts in Articles 8, 11, 14, 15, 16, and 34. New Zealand endorsed the Declaration in 2010.

[66] Māori Language Advisory Group's report *Te Rōpū Tohutohu Reo Māori* (30 June 2015) accessible at https://www.tpk.govt.nz/docs/Maori%20Language%20Advisory%20Group%20Final%20Report%20English%20Version.pdf

[67] A similar requirement was included in Te Ture Whenua Maori/Maori Land Act 1993 in relation to the Preamble, the only section of the Act in te reo Māori.

[68] In this respect, the model helpfully described by Donald L Revell seemed to offer the closest fit to the resources available in New Zealand for the preparation of dual language legislation: "Bilingual legislation,

Neither the translator nor the members of the quality assurance group had played any part in the drafting of the English version, and none had any previous experience working with legislation. The translator and quality assurance group had no direct contact with the drafters during the translation process. Working remotely from Wellington and relying on Internet contact with each other was not ideal. They also told us later that they found it difficult to accommodate the Māori language within the style of the English drafting. Clearly, we had missed an opportunity to provide a process in which there could be co-operation between the drafters and the translator.[69]

The relatively limited vocabulary of *te reo Māori* in the context of legislation created another hurdle, as did the translator's preference for a form of *te reo Māori* based on its old roots, rather than for the settler- and missionary-derived loan words and the vocabulary created by transliteration and calques that characterise much current usage.[70] It later emerged that the translator's choice of style and vocabulary also created inconsistency with the language of Parliament's translators and interpreters who provide a translation service to the Māori Affairs Select Committee to translate the Committee's commentaries on Bills reported back to the House.

PCO has an internal audit process that includes peer review. Despite PCO's own resources not extending to expertise in the Māori language, it was decided to arrange for an independent peer review of the translation. A person with qualifications approximating those of the jurilinguists working in the Canadian drafting environment provided the peer review, advising the drafters of possible sources of ambiguity and assisting with their resolution.[71]

The Minister's requirement for an interpretation clause that expressly gives priority to the Māori text over the English removed our ability to rely on the jurisprudence from Canada, Wales, or Hong Kong, for example, to guide the interpretation of dual language legislation. Although New Zealand has declared *te reo Māori* to be an "official" language, there is no constitutional recognition of the equality of the two relevant languages such as is found in

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the Ontario Experience" (1998), 19 *Statute Law Review* 19 32–40 and "Authoring Bilingual Laws: The Importance of Progress*"* (2004), 29 *Brooklyn J Int'l L* 1085–1105.

[69] The experience of other bilingual jurisdictions, including Canada, Wales, and Switzerland is that the process of translation provides a useful opportunity to refine the drafting of the English text and eliminate drafting flaws.

71 The creation of vocabulary for novel, especially technical, subjects, is a matter of ongoing debate among Māori linguists. See John Moorfield and Lachy Paterson, "Loanwords Used in Maori-Language Newspapers" in Curnow,J, Hopa N and McRae J eds, *Rere atu, taku manu: Discoving history language and politics in the Maori-language newspapers,* Auckland University Press 2002, pp 60-76; Ray Harlow, "Lexical Expansion in Maori", (1993) 102 Journal of Polynesian Society, 99-107.

[71] The reviewer noted the style of the translation, including its archaisms, advising that this did not give rise to a lack of legal clarity and verifying the language used through standard dictionaries of the Māori language. There is a touch of irony in that the "high style" and archaisms of the translation, PCO learned later, mean that older colloquial speakers of the language, at least those older than 40 years, find the language of the Act difficult because of this "purification" of the vocabulary.

the constitutional enactments of Canada and its provinces, Wales, and Hong Kong. The reviewer suggested that we consider including in the interpretation clause a requirement to take the English version into account in interpreting the Māori text.

In light of that advice, PCO proposed instead, and the Minister accepted, a general statement of the equality of the two language versions, so that the interpretation provision (in the English version) states:

> (1) The Māori and English versions of this Act are to be interpreted in a manner that best furthers the purpose of the Act and the principles set out in section 8.
>
> (2) The Māori and English versions of this Act are of equal authority, but in the event of a conflict in meaning between the 2 versions, the Māori version prevails.[72]

A further issue familiar in other jurisdictions is the challenge that arises where the legal traditions of the minority language have been lost. Welsh commentators note that as Welsh has not been the language of Welsh law for 500 years, the creation of standardised legal terminology in the Welsh language that is accessible to Welsh speakers presents a challenge, and a formal process of standardisation has been recommended.[73]

Māori legal scholars have expressed confidence that the Māori language has already got a corpus of legal language, asserting that "New Zealand's legal history is bilingual".[74] That statement is true to the extent that government officials, traders, journalists, and anyone else doing business in New Zealand, at least in the first 50 years of the colony, were dependent on understanding and using the Māori language (including developing a written form of the language). Vocabulary was developed by transliteration from English into a form of Māori (mainly by excluding consonants not known to Māori). That remains a common practice as new contexts are opened up, including those required for dual language legislation.

It is likely to take time to develop a statutory language that finds acceptance among Māori speakers and to compile a lexicon of legal language that can offer the same assistance to New Zealand drafters and translators as does the lexicon that Canadian drafters are able to

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[72] On the treatment of the two languages in section 12(1), requiring the Māori version as well as the English version to be given a purposive reading, *see* Māmari Stephens, "Te Ture mō Te Reo Māori 2016 Māori Language Act 2016 – New directions, old problems", Māori Law Review (July 2016).

[73] Law Commission (UK), *Form and Accessibility of the Law Applicable in Wales* (Law Com No 366, October 2016), chapter 10; Dylan Hughes, "The multiple roles of legislative counsel in the emerging Welsh legal jurisdiction", Paper given to the Commonwealth Association of Legislative Counsel Conference, Edinburgh (April 2015), *CALC Newsletter* (November 2016) 15. The same issue is noted in relation to the language of the Territory of Nunavut by Ruth Sullivan "Multilingual, Multijural Legislation" (2004), 29 Brooklyn J Intl L 29 (2004), 985 at 1061ff.

[74] Māmari Stephens and Mary Boyce, *He Papakura Reo Ture: A Dictionary of Māori Legal Terms* (Lexis Nexis: Wellington, 2013) vii. The Dictionary documents the sources of Māori terms used in documents to express Western legal ideas.

draw on. It will be important to ensure that the development of a statutory language in Māori enhances the mana of the language and its speakers.

Finally …

In New Zealand the challenge remains to find appropriate ways to acknowledge in the law, elements of the indigenous culture in New Zealand as an aspect of our heritage as a colony.

Some of the mechanisms that have been applied in the New Zealand statute book risk being seen as aspirational or window dressing rather than an expression of *tikanga Māori* as part of the law of New Zealand, given that the concepts are for the most part defined in English.[75] That is the viewpoint of a number of emerging Māori law scholars, who do not regard the Māori "trimmings" in legislation as matters of substance or as reflecting *tikanga* in a meaningful way.[76]

In my view, that is too simple a reaction to the statutory mechanisms being used to include the Māori perspective. Even though the use of the Māori words and phrases in legislation (or for that matter a dual language statute) may not, of itself, incorporate *tikanga* into the law of New Zealand, the enactment of a statute with those elements has the potential to do so. Judicial intervention, as occurred in the case of the *State-Owned Enterprises Act 1986*, with its incorporation of the Treaty of Waitangi, caused a significant shift in Crown decision-making. The inclusion of the concepts of *kaitiakitanga* and *mauri* in statutes of general application in the management of natural resources has created obligations to ensure that Māori have a significant role as *kaitiaki,* and may well find expression in the incorporation of a substantive Māori perspective.

Where statutes use inclusive language, persons implementing the law, and the courts in interpreting it, need to take account of the cultural background implied by the language used.

Glossary of Māori terms

hapū	subtribe
hikoi	journey, march
iwi	tribe
kaitiaki	guardian, guardians
kaitiakitanga	guardianship

[75] David Feldman, "Legislation as Aspiration: Statutory Expression of Policy Goals", Lecture for the Statute Law Society delivered at the Institute of Advanced Legal Studies, London (16 March 2015).

[76] Carwyn Jones, above n. 61, Tai Ahu, *Te Reo Māori as a Language of New Zealand Law: The Attainment of Civic Status* (LLM Dissertation, Victoria University of Wellington, 2012).

mahinga kai	food gathering
mana	authority
mana whenau	customary authority exercised in a particular place
mana motuhake	tribal authority or identity, self-determination
mauri	spirit, life force
oranga	health, welfare
raupatu	confiscation
tamaiti	child
tamariki	children
tangata whenua	the Māori people of an area
taonga	treasures, both material things and non-material
tapu	sacred
te ao Māori	the Māori world
te Puni Kōkiri	the Ministry of Māori Development
te reo Māori	the Māori language
tikanga Māori	Māori customary system of beliefs or values and practices that are deeply embedded in the social context
tohunga	traditional healer
tupuna, tūpuna	ancestor, ancestors
utu	recompense, repayment, reciprocity
wāhi tapu	sacred place
wāhi tūpuna	place of ancestral significance
whakapapa	descent, lineage
whānau	family
whanaungatanga	kinship