Ambiguity and Indefiniteness

University of Toronto

Patent Colloquium

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<u>Moderator</u>: Justice Angela Furlanetto, Federal Court

<u>Panelists:</u>

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Panel Topics

- 1. Law of ambiguity background
- 2. Recent jurisprudence
- 3. Panel discussion
 - a. Ambiguity and claim construction
 - b. Ambiguity and other invalidity grounds
 - c. Ambiguity and infringement
 - d. Evidential issues
 - e. Procedural issues

Law of ambiguity — background

Statutory basis

27(4): The specification must end with a claim or <u>claims defining</u> <u>distinctly and in explicit terms the subject-matter of the invention</u> for which an exclusive privilege or property is claimed.

French's Complex Ore v. Electrolytic Zinc 1930 SCC, Justice Rinfret

- Patent related to process for extracting zinc from ore
- Claim 1: "In the electrolytic separation of zinc and manganese in hydrometallurgical solutions obtained from zinc lead ores containing manganese, the deposition of zinc in reguline form."
- Extraction of zinc by electrolysis from zinc lead ores containing manganese was known

French's Complex Ore v. Electrolytic Zinc 1930 SCC, Justice Rinfret

- Patentee: invention relates to an improved process by maintaining a certain proportion of manganese sulphates
- Court: "we do not find in any of [the claims] the necessity of maintaining manganese, still less of securing in the solution a certain relationship between zinc and manganese sulphates [...] he made no claim for what is now suggested to be the invention, and there is no invention or subject-matter left in what he did claim and the patent is therefore bad"

French's Complex Ore v. Electrolytic Zinc 1930 SCC, Justice Rinfret

- "[...] fails to comply with the conditions of clarity and distinctness required by [s. 13] and does not state in precise and unambiguous terms in what the alleged invention consists."
- S. 13 of the Patent Act (1906): "The specification shall <u>state clearly</u> and <u>distinctly</u> the [...] <u>things which he claims</u> as new and for the use of which he claims an exclusive property and privilege."
- Cites 1909 English decision for rationale: claims serve a public notice requirement

Minerals Separation v. Noranda Mines 1947 Ex. Ct., President Thorson

Public notice function requires unambiguous claims:

"By his claims the inventor puts fences around the fields of his monopoly and warns the public against trespassing on his property. His fences must be clearly placed in order to give the necessary warning and he must not fence in any property that is not his own. The terms of a claim must be free from avoidable ambiguity or obscurity and must not be flexible; they must be clear and precise so that the public will be able to know not only where it must not trespass but also where it may safely go."

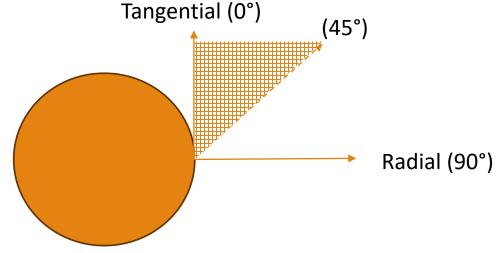
Quoted in Free World Trust (2000 SCC 66)

Minerals Separation v. Noranda Mines 1947 Ex. Ct. / 1949 SCC / 1952 JCPC

- Patent related to separating minerals from ore by froth flotation
- "xanthate" (claim 9) not ambiguous, but invalid on other grounds
- "alkaline xanthate" (claim 6) ambiguous
 - Term on its own was a contradiction: xanthate is a neutral salt
 - JCPC two possible meanings with different scope:
 - (a) alkali metal xanthate; or
 - (b) any xanthate used in froth flotation with an alkaline pulp

Xerox v IBM 1977 FC, Justice Collier

- 453 Patent (one of seven asserted patents relating to photocopiers)
- Issue: directing of material towards a drum along a line "substantially tangential" to the drum
- Patentee's experts: 0° to 45°
- "substantially tangential" claims ambiguous
- "tangential" claim valid but not infringed - defendant's method was "something other than pure tangent" (i.e., non-zero)



Apotex v Hoffman-La Roche 1989 FCA, Justice Thurlow

- Claim: A <u>composition</u> "effective in the treatment of SMX-resistant bacterial infections" comprising [SMX + TMP]
 - Meaning #1: combination when and only when it is effective in treatment
 - Meaning #2: combination per se, not restricted to when made or sold for the purpose of treating SMX-resistant infection
- Ambiguous: can be interpreted in more than one way, and impossible to know in advance whether within the claims

Mobil Oil Corp. v Hercules Canada Inc. 1995 FCA, Justice Marceau

- Patent related to 4-layer plastic films for packaging snack foods
- Claim 15: "coextruding a [...] polypropylene layer [...] with an [...] copolymer layer on at least one side of said polypropylene layer, said copolymer containing [...], said layer containing either no slip agent or no slip agent which adversely affects the adhesion of the substrate to a metallized coating;"
- Not ambiguous if it can be interpreted using grammatical rules and common sense

Pfizer v. Canada (Minister of Health) 2005 FC 1725, Justice Hughes

- NOC proceeding with only infringement at issue
- Claim term: "which has not been reconstituted from a lyophizate"
- Issue: what hasn't been reconstituted the "ready-to-use solution" or the salt in that solution?
- "There is a temptation [...] to throw up one's hands and say that the claim is not capable of any construction [...]" but "ambiguity is truly a last resort, rarely, if ever, to be used"

Recent jurisprudence

- 502 and 236 Patents reactive metal powders and 3D printing
- Central issue was the formation of a "depletion layer" at the surface of the reactive metal powder particles and its placement relative to another layer called the native oxide layer
- NB: depletion layer was a "term of patent" not a "term of art" and was not defined in the patents

- Construction with recourse to the disclosure was required "while not 'borrowing this or that gloss from other parts of the specification' to expand or contract the claim under the guise of interpreting its terms"
- Court concluded that claim 1 of the 502 Patent claimed that the depletion layer be deeper and thicker than the native oxide layer
 - How depletion layer formed not claimed
 - How to assess whether the depletion layer is "deeper" and "thicker" than the native oxide layer not in claims

- "Powder particle is not a Nanaimo bar"
- AP&C argued that recourse to paragraphs and figures in the disclosure which were described as "illustrations" should be read as an answer to how the depletion layer would be ascertained – Ct disagreed

[299] The **POSITA would understand** that the depletion layer is deeper than the native oxide layer in the sense of being beneath it, that is, closer to the centre of the particle and starting where the native oxide layer ends, and thicker than the native oxide layer in the sense of having a greater thickness when considered along the radius of the particle. The **POSITA would understand** that they would need to be able to distinguish between the two layers and to compare their depth and thickness in order to determine whether the first layer is deeper and thicker than the second layer.

[300] The question then returns: **How** would the POSITA construe the term depletion layer **so as to know whether** a particle has a depletion layer that is deeper and thicker than the native oxide layer? Put another way, how would a POSITA be able to distinguish between a particle that has a depletion layer of Claim 1 and one that does not?

[301] Having reviewed the disclosure and claims of the '502 Patent and having heard and considered the expert evidence on the issue, I conclude that the POSITA applying a purposive approach to construction and with a mind willing to understand the patent would be simply **unable to answer these questions**. I will address these questions further below in assessing Tekna's arguments regarding ambiguity.

- Ambiguity analysis whether claims distinctly define the invention to allow the PSA to know what falls within and outside its scope [335]
- Inconsistent expert evidence on behalf of the patentee
- Reference to disclosure was, the Court held, to a different comparison than that claimed and therefore involved re-writing the claim
- "it is impossible for the skilled person to know in advance whether or not something would be within the claims"

BMS v Pharmascience and Sandoz 2021 FC 1, Justice Zinn

- 171 Patent formulation claims that require a certain particle size and dissolution rate
 - Particle size is measured using "laser light scattering"
- Court construed the inventive concept; there is no claim construction section in the decision
- It was accepted that LLS can be done using two related though different methods called wet dispersion and dry dispersion

BMS v Pharmascience and Sandoz 2021 FC 1, Justice Zinn

- Court had regard to extrinsic evidence (BMS confidential document that had "Table 7") which the Court held disclosed a correlation between wet and dry without explaining what that was
- This "correlation" is not disclosed in the patent
- Paragraphs in the patent that report on illustrative, non-limiting examples imply a wet technique based on reference to a "suspending medium"
- It was held that the PSA would "know the dispersion method that had been used and would do the same when working the patent"

- 551 Patent scratch off lottery tickets
- Claim construction similar discussion as that in Tekna about the tensions around recourse to the disclosure and knowing where the "shoe pinches"
- "a focus on the inventive concept for claim construction risks overlooking the language used in the claims"

Claim 1

- "play area" the part of the ticket that the player is intended to scratch in order to play the game; excludes any area that is marked 'void if removed' or the like
- "non-play area" all areas of the ticket other than the play area including any portion marked 'void if removed' or the like

- "removable continuous scratch-off coating covering both the printed indicia in said play area and the bar code in said non-play area" – two constructions of continuous:
 - a single scratch-off coating covering both the printed indicia and the bar code
 - Coating (one or more) that completely hides each of the printed indicia and bar code

Claim 2: The ticket of claim 1 wherein the [printed indicia of the play area] is printed around the bar code

 "printed around the bar code" – regard had to Figure 4 of the patent in which the bar code is in the play area

 all claim terms were construed yet claim 2 was held to be ambiguous because it contemplates the bar code being within the play area which is incompatible with claim 1

Medexus Pharmaceuticals, Inc. v. Accord Healthcare, Inc. 2024 FC 424, Justice Pallotta

- 662 Patent at issue, related to concentrated methotrexate solutions and injection devices for subcutaneous administration to treat inflammatory autoimmune diseases.
- Ambiguity issue related to the element "about 50 mg/ml" in certain asserted claims.
- Does the word "about" make the claims ambiguous and therefore invalid?

Medexus Pharmaceuticals, Inc. v. Accord Healthcare, Inc. 2024 FC 424, Justice Pallotta

- Plaintiff's formulation expert (Sinko) testifies that "about" is flexible but understandable and likely seen by POSITA as within ±10%.
- Defendant's formulation expert (Rue) testifies that "about" is imprecise and not necessarily ±10%, therefore the POSITA would not know the exact boundaries of the claims.

Medexus Pharmaceuticals, Inc. v. Accord Healthcare, Inc. 2024 FC 424, Justice Pallotta

- Court finds that neither expert was quite right.
- The POSITA would not necessarily think "about" means ±10%, but they also would not be so confused that they would be unable to understand the term or how it defines the boundary of the claims.
- So, even though the experts disagreed, and one argued that "about" was incapable of being understood, the Court found that the defendant had not met its burden to show that the notional POSITA would be unable to construe the term "about".

ProSlide Technology, Inc. v. Whitewater West Industries, Ltd., 2024 FC 1439, Justice Manson

- Four patents asserted (601, 552, 073, 150), all relating to water slide and amusement ride features.
- Numerous claim terms requiring construction and where construction disputed.
- Numerous claim terms where decision on construction would impact infringement and validity issues.

ProSlide Technology, Inc. v. Whitewater West Industries, Ltd., 2024 FC 1439, Justice Manson

- Ambiguity argument raised as part of claims construction.
- Defendant's expert raised concerns about lack of clarity and multiple possible understandings of certain key claim terms but was ultimately able to provide "best efforts" constructions.
- Plaintiff's expert construed all terms, without conceding any lack of clarity.

ProSlide Technology, Inc. v. Whitewater West Industries, Ltd., 2024 FC 1439, Justice Manson

- Ambiguity argument made available to the Court during claims construction exercise, despite no expert concluding that any specific term was totally incapable of being understood.
- Court finds that none of the claim terms are so ambiguous that the POSITA would not be able to understand them.
- As a result, none of the claims are ambiguous.

Ambiguity and Claim construction

Claim construction: Tension with recourse to the disclosure

[58] Nonetheless, the jurisprudence is clear that reading the words of a claim in the context of a patent as a whole does not mean that limitations of the disclosure can be read into (or out of) a claim to enlarge or contract the scope of the claim as written and understood in context:

Whirlpool at para 52. A line must therefore be drawn between construing the claims as written in light of the patent as a whole, which is appropriate and necessary, and importing into the claims elements of the disclosure that are not found in the claim, which is not.



Claim construction is not for the faint of heart

Ambiguous or not Ambiguous

Plain and unambiguous = no recourse to disclosure

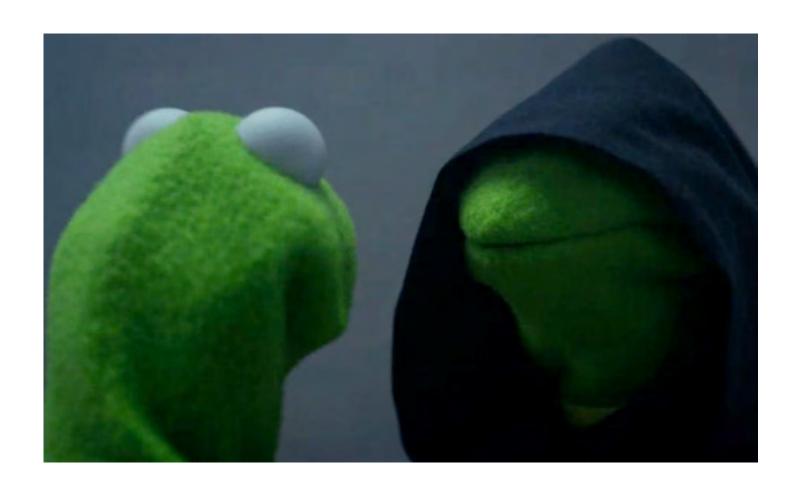
If not "plain and unambiguous" (i.e. ambiguous) — can have recourse to disclosure

- This isn't sufficient to declare the claim invalid for ambiguity
- The disclosure can make the ambiguous term unambiguous BUT the disclosure cannot expand or contract the scope of the claim....huh?

How does one know the scope of the claim – it's ambiguous!

Riddle Me This

If claims can be construed – can there be a finding of ambiguity??



Ambiguity and other invalidity grounds

Ambiguity and other invalidity grounds

<u>2</u>: In this Act [...] <u>invention means</u> any new and <u>useful</u> art, process, machine, manufacture or composition of matter, or any new and useful improvement [...];

27(3): The specification of an invention must (a) <u>correctly and fully describe the invention and its operation or use as contemplated by the inventor;</u> (b) <u>set out clearly the various steps</u> in a process, or the method [...] <u>in such full, clear, concise and exact terms as to enable</u> any person skilled in the art [...] to make, construct, compound or use it; [...]

27(4): The specification must end with a claim or <u>claims defining distinctly and in explicit terms the subject-matter of the invention</u> for which an exclusive privilege or property is claimed.

Ambiguity and Infringement

Ambiguity and infringement

- In some cases, ambiguity is pursued, even where infringement is admitted:
 - Medexus Pharmaceuticals Inc. v. Accord Healthcare Inc., 2024 FC 424, para. 8, "Just before the commencement of trial, the defendants conceded that the Accord Products and the Methofill Products would infringe the Asserted Claims if they are valid."
 - Bristol-Myers Squibb Canada Co. v. Pharmascience Inc., 2021 FC 1, para. 7, "The Defendants have confirmed that their only noninfringement allegation is that none of the Asserted Claims will be infringed because they are invalid."

Ambiguity and infringement

- Ambiguity and infringement where the rubber hits the road:
 - Tekna Plasma Systems Inc. v. AP&C Advanced Powders & Coatings Inc., 2024 FC 871, para. 383, "Where a patent is found invalid for anticipation or obviousness, the Court may be able to nonetheless address infringement as an independent matter by determining whether the impugned process, method, or product falls within the scope of the claims as construed. Where the claims of a patent are void for ambiguity, however, this is not possible since the very problem is that the scope of the claims, and whether an impugned process, method, or product falls within them, cannot be determined."
 - And para 422: "I therefore conclude that AP&C's evidence based on the Tascon Report, the ToF-SIMS profiles contained therein, and their experts' analysis of those profiles, do not demonstrate infringement, even on the various conflicting theories presented regarding the scope of Claim 1. To the contrary, the expert evidence and AP&C's attempts to demonstrate infringement by comparison to its own products rather than the parameters set out in the '502 Patent simply highlights the impossibility of assessing whether a powder particle has a *depletion layer* within the scope of Claim 1 based on the claims and disclosure of the patent."

Evidential issues

Evidential Issues

- The role of expert evidence in the context of allegations of ambiguity considerations for counsel and the Court.
- Claims construction is a question of law and a task for the Court alone, where expert evidence can be accepted or rejected.
- If ambiguity is an issue, the experts will need to give evidence that a claim or claim term is ambiguous but then also give evidence on other issues of validity or infringement.

Procedural issues

Raising ambiguity in summary proceedings

- In the US, ambiguity issues are sometimes raised or resolved during Markman hearings. Could we do something similar in Canada? (And if so, should we?)
 - Realsearch (2004 FCA 5) held Rule 107 (bifurcation) did not permit Markman-style process. Court also noted claim construction would likely require expert evidence and cross
 - Summary trial rules amended in 2009, including ability for crossexamination of experts before the Court
 - Rule 213 permits partial SJ or ST (see also *Energizer v. Gillette*, 2018 FC 1003; *Kobold v. NCS*, 2021 FC 1437)
- Other procedural: pleadings, pre-trial, at trial