

Actavis in the Antipodes – a doctrine of equivalents for New Zealand?

1. Abstract

The United Kingdom Supreme Court decision in *Actavis UK Limited and others v Eli Lilly and Company (Actavis)* substantially redirected English law on the determination of the scope of patent protection. The decision introduced a doctrine of equivalents to what was previously an enquiry limited by the claim language. Historically, New Zealand has been highly receptive to English decisions on patent law and is currently consistent with English law as it stood prior to *Actavis*. This essay explores the reasoning behind the *Actavis* decision and argues that New Zealand should avoid a doctrine of equivalents.

2. Introduction

The Supreme Court of the United Kingdom decision in *Actavis UK Limited and others v Eli Lilly and Company*¹ (*Actavis*) has expanded the scope of patent protection to include features that are outside the language of the claims. In doing so, the Court has introduced a doctrine of equivalents for interpretation of patent claims to English law. This is a conceptual change of approach to patent interpretation for England but is already followed in the United States and parts of Europe. However, while the doctrine of equivalents is intended to give a fairer recognition of the patentee's inventive contribution, it creates a divergence between the rules of interpretation for patents and those for other commercial documents and introduces new complexities to the law. The adoption of a doctrine of equivalents by the English courts leaves New Zealand (and Australia) conspicuously distinct from jurisdictions that have provided so much influential legal reasoning in the past.

Both common law and statute have evolved on the basis that certainty in patent rights is best achieved by a determination of the monopoly by reference to what is defined in the patent

claims. Such a focus has sharpened over time – patent claims have primitive beginnings, and are now the only part of the patent document that describes the patentee’s monopoly.²

Until now, the scope of a patent was defined like other commercial documents in English law; the court gave the language used in the claims the meaning that could be objectively derived from the factual background. A patentee’s monopoly was absolutely ruled by the claim language, although this could be interpreted to have a non-literal meaning to give effect to what the language would be understood to mean by the notional skilled person. This “purposive construction” was applied in English contract law in the 1970s and soon extended to patent law in *Catnic Components Ltd. v Hill & Smith Ltd.*³

With *Actavis*, the English courts have abandoned a language-limited approach to claim interpretation, and extended protection from a scope defined by a purposive construction of the claim language to a scope that also includes “equivalents” of the claimed invention. The main motivating factor behind the Supreme Court’s decision was Article 2 of the Protocol on the Interpretation of Article 69 of the European Patent Convention, which came into force in 2007. Article 2 required that “due account” be taken of features that are equivalent to features that are specified in the claims. The Supreme Court reasoned that a purposive construction approach to defining the scope of protection was not sufficient to meet this obligation.

As with much of our law on document interpretation, New Zealand has been particularly receptive to English developments of patent law. The New Zealand decisions on patent infringement do not do much more than restate the English fundamentals of purposive construction. This attitude opens the door for New Zealand to adopt *Actavis* and institute a doctrine of equivalents. However, while the legal framework in New Zealand allows for a doctrine of equivalents to take hold, this essay argues that we should refrain from doing so.

3. Patent interpretation in English law prior to

Actavis

The scope of protection provided by a United Kingdom patent is described in section 125 of the Patents Act 1977 (UK). Subsection (1) specifies that the extent of protection conferred by a patent is determined according to its claims “as interpreted by the description and any drawings contained in that specification”.

The injustices that arise from a purely literal interpretation of patent claims, have been recognised by English courts countless times over the years. In the past several decades, courts have acknowledged that language is imperfect and that allowances may need to be made in order to give a document a fair reading.

The inflexibility of applying an ordinary or dictionary meaning to patent claims was tempered in the 19th Century by the idea that claims could be infringed by copying their “pith and marrow” – that is, copying the essence of the invention without infringing on the literal scope of the claims.⁴ Lord Reid described the doctrine in *C Van Der Lely NV v Bamfords Ltd* as “necessary to prevent sharp practice”,⁵ and in *Kirin-Amgen* Lord Hoffmann described it as “always a bit vague... it was unclear whether the courts regarded it as a principle of construction or an extension of protection outside the claims.”⁶ By the time of the commencement of the United Kingdom Patents Act 1977, the “pith and marrow” approach to patent infringement was the prevalent interpretative mechanism.⁷

In the 1982 House of Lords decision of *Catnic Components Ltd. v. Hill & Smith Ltd*, the Court distanced itself from a separate pith and marrow doctrine overlaying a textual interpretation, and introduced the purposive approach to patent claim interpretation.⁸ The same concept had already been applied to English commercial contracts some six years earlier in *Reardon Smith Line Ltd v Yngvar Hansen-Tangen and Sanko SS & Co Ltd*.⁹ In

Catnic, the House of Lords considered whether a lintel comprising a bar having an incline six degrees from the vertical was an infringement of a claim to a lintel having in which the bar was defined as “vertical”. Lord Diplock stated that a proper construction of the claims required asking whether the addressee would reasonably “understand that strict compliance with a particular descriptive word or phrase appearing in a claim was intended by the patentee to be an essential requirement of the invention so that any variant would fall outside the monopoly claimed, even though it could have no material effect upon the way the invention worked”.¹⁰

In the English Court of Appeal decision *Improver Corporation v Remington Consumer Product Limited*,¹¹ the principles of *Catnic* were affirmed. The issue was whether a hair-removal device sold by Remington using a slitted rubber rod was an infringement of Improver’s claim to a device comprising a “helical spring”. Both the spring and the rod performed the same function of gripping and pulling out the hair. To assist in deciding whether a feature embodied in an alleged infringement that fell outside the primary, literal or acontextual meaning of a descriptive word or phrase in the claim ("a variant") was nevertheless within its language as properly interpreted, the Court in *Improver* reworked the test of *Catnic* into three questions:¹²

- (1) Does the variant have a material effect upon the way the invention works? If yes, the variant is outside the claim. If no;
- (2) Would this (i.e. that the variant had no material effect) have been obvious at the date of publication of the patent to a reader skilled in the art? If no, the variant is outside the claim. If yes;
- (3) Would the reader skilled in the art nevertheless have understood from the language of the claim that the patentee intended that strict compliance with the primary meaning was an essential requirement of the invention? If yes, the variant is outside the claim.

The first two questions provide the factual background against which the specification must be construed. The third question is a matter of law and considers whether there is something in the language of the claim that would mean the variant would be understood by the addressee to have been excluded from the claim. The Court noted that “even a purposive construction of the language of the patent may lead to the conclusion that although the variant made no material difference and this would have been obvious at the time, the patentee for some reason was...excluding the variant”.¹³ Improver’s infringement claim failed on the third question; there was no reasonable construction of “helical spring” which could mean a slitted rubber rod. The Court noted that “this is not a case like *Catnic* in which the angle of the support member can be regarded as an approximation to the vertical. The rubber rod is not an approximation to a helical spring. It is a different thing which can in limited circumstances work in the same way.”¹⁴

In *Kirin-Amgen*, the House of Lords affirmed the three questions set out in *Improver*, but noted that the questions “are only guidelines, more useful in some cases than in others”, whereas the *Catnic* principle is the “bedrock of patent construction, universally applicable”.¹⁵

The United Kingdom is a member of the European Patent Convention, a multilateral treaty between European states establishing some common and centralized patent institutions. Section 125(3) of the Patents Act 1977 (UK) requires the application of the Protocol on the Interpretation of Article 69 of the European Patent Convention. Prior to 2007, the Protocol comprised a single article, Article 1, which stated that a fair protection for the patentee and reasonable certainty for the public should be achieved by an interpretation approach between the two extremes of “the strict, literal meaning of the wording used in the claims” and where “the claims serve only as a guideline and that the actual protection conferred may extend to what...the patent proprietor has contemplated”. In 2007, a set of amendments to the European Patent Convention (EPC 2000) came into force which inserted a further article to the

Protocol. Article 2, entitled “Equivalents”, further stated that “due account shall be taken of any element which is equivalent to an element specified in the claims.”

The newly introduced Article 2 was considered in the House of Lords in *Kirin-Amgen*, even though the Article had not yet come into force. The Court believed that “due account” of equivalent elements was already satisfied by the current approach, and that the guidelines set by *Improver* showed how equivalents were taken into account consistently with the “bedrock” of *Catnic*.¹⁶ No change to the status quo was required.

4. *Actavis v Eli Lilly*

In *Actavis UK Limited and others v Eli Lilly and Company (Actavis)*, the Supreme Court of the United Kingdom was asked to topple the approach set by *Catnic* and affirmed in *Improver* and *Kirin-Amgen*. Eli Lilly, a pharmaceutical company, is the owner of a European (UK) patent covering an anti-cancer therapy comprising a combination of pemetrexed and vitamin B12. Eli Lilly alleged its patent would be infringed by formulations proposed by Actavis, a competing pharmaceutical company even though it acknowledged that the formulations would be outside the language of the claims.¹⁷

Pemetrexed is part of a class of antifolate chemotherapy drugs with anti-cancer activity. However, its side effects can be so severe that the therapeutic use of pemetrexed against cancer is not always feasible. The patent described a solution to this problem by combining pemetrexed and vitamin B12, which retained anti-cancer activity but reduced side effects.

The granted claims of Eli Lilly’s patent were curiously narrow. Claim 1 of the granted patent, drafted in the Swiss-type format, reads:

1. Use of pemetrexed disodium in the manufacture of a medicament for use in combination therapy for inhibiting tumor growth in mammals wherein said medicament is to be administered in combination with vitamin B12 or a pharmaceutical derivative thereof, said pharmaceutical derivative of vitamin B12 being hydroxocobalamin, cyano-10-chlorocobalamin, aquocobalamin perchlorate, aquo-10-chlorocobalamin perchlorate, azidocobalamin, chlorocobalamin or cobalamin.

The wording of Eli Lilly's broadest claim was restricted to a specific salt of pemetrexed (pemetrexed disodium) in combination with vitamin B12 or derivative thereof, for the treatment of cancer. Eli Lilly had significantly narrowed the claims during the examination phase of the patent application; the claims had originally encompassed any combination of a methylmalonic acid lowering agent (a class including vitamin B12) in combination with an antifolate (a class including pemetrexed).¹⁸

Actavis proposed an anti-cancer treatment which contained pemetrexed as the free acid, or as either a dipotassium or ditromethamine salt, in combination with vitamin B12. Actavis asserted that there was no direct infringement by these products on Eli Lilly's patent because its claims were limited to a specific pemetrexed salt, namely pemetrexed disodium, whereas the Actavis products contained either pemetrexed diacid or different pemetrexed salts. Eli Lilly alleged that Actavis' products were nonetheless a direct infringement of its claims.

4.1. Court of Appeal

The Court of Appeal found that, whilst Actavis' variants had no material effect on the way the claimed invention worked, Eli Lilly's submissions failed the second and third questions of *Improver*.

On the second *Improver* question (a question of fact), Floyd LJ found that it would not have been obvious to the skilled person that Actavis' products would have had no material effect. The Court decided that, as the claim was drafted as a manufacture of a medicament (Swiss type) claim, the question of obviousness was not directed towards whether the Actavis variant had no material effect on the therapeutic efficacy of the invention, but rather on the manufacturability of the composition.¹⁹ It was accepted that the identity of the salt was irrelevant to the therapeutic effect of the invention, but the salt was relevant to whether the formulation could be manufactured. The Court found that it was not obvious that Actavis' products would have no material effect on the way the invention worked.

On the third question (a question of law), the judge found that the specificity of the language used in the claim showed that strict compliance with the primary meaning of the claim was intended. Floyd LJ gave six reasons to support this finding:²⁰

- i) In some parts of the specification, the invention is described in very general "class" terms and others where the invention is clearly limited to pemetrexed disodium. When the reader comes to the claims, therefore, he or she will appreciate readily that the patentee has chosen to claim narrowly and by reference to a single chemical, and not broadly by reference to any class.
- ii) Pemetrexed disodium is a highly specific chemical compound and there is no obvious leeway as a matter of language for giving it a broad as opposed to a narrow construction.
- iii) The only escape from the above would be to say that pemetrexed disodium would be understood by the skilled person to be used in a figurative sense, so as to denote the best known member of a class. But if the claim is not limited to the sodium salt, there are great difficulties in ascertaining what that class might be.
- iv) The only data contained in the specification are for pemetrexed disodium, and broader claims therefore might have been unacceptable to the European Patent Office.

- v) There is a striking contrast between this very specific language and the general terms used in the claim for the methyl malonic acid lowering agent (any "pharmaceutical derivative") and the folic acid components (any "physiologically available salt or ester thereof") which the skilled reader could not fail to notice.
- vi) The skilled reader would have understood that there are plausible reasons why the patentee might have wished to limit to the disodium salt.

Accordingly, the Court of Appeal found that there was no direct infringement of the patent.

4.2. Supreme Court

Unlike the Court of Appeal, the Supreme Court was not bound by the House of Lords decisions in *Catnic* and *Kirin-Amgen*, and the arguments from Eli Lilly found far more fertile ground. The Court concluded that that the principles of *Catnic* and the *Improver* questions did not place sufficient weight on equivalents required by Article 2 of the EPC Protocol on the Interpretation of Article 69. The Court decided that there was an intention in Article 2 to expand protection beyond what is provided for by ordinary document interpretation. The Supreme Court accordingly laid out a new test for infringement:²¹

- (i) does the variant infringe any of the claims as a matter of normal interpretation; and, if not,
- (ii) does the variant nonetheless infringe because it varies from the invention in a way or ways which is or are immaterial?

If the answer to either issue is “yes”, there is an infringement; otherwise, there is not.

Issue (i) relates to purposive interpretation as it was described in *Catnic*. Issue (ii) resembles the questions posed in *Improver*, but the Court expressly states that issue (ii) is not a restatement of issue (i), and must be addressed separately from interpretation of the claim language. The Court believed that attempts to reconcile the “materiality of the variant” aspect

in the issue (ii) with the principles of document interpretation would be setting precedent that could taint the law on interpretation of other documents.²² The Court thus felt it had to “grasp the nettle”, and decided that the scope of protection provided by a patent must not be solely determined by the claim language. This freed the Court to repurpose the *Improver* questions to determine infringement by focusing on the nature of the equivalent unconstrained by the language of the claim. The new questions set by the Supreme Court were:²³

- i) Notwithstanding that [the variant] is not within the literal meaning of the relevant claim(s) of the patent, does the variant achieve substantially the same result in substantially the same way as the invention, i.e. the inventive concept revealed by the patent?
- ii) Would it be obvious to the person skilled in the art, reading the patent at the priority date, but knowing that the variant achieves substantially the same result as the invention, that it does so in substantially the same way as the invention?
- iii) Would such a reader of the patent have concluded that the patentee nonetheless intended that strict compliance with the literal meaning of the relevant claim(s) of the patent was an essential requirement of the invention?

The first question is substantially identical to that posed in *Improver*. The second question, however, is a significant departure. *Improver* asked whether the fact that the variant had no material effect have been obvious at the date of publication of the patent to a reader skilled in the art; *Actavis* now asks the notional addressee to examine obviousness with the benefit of hindsight.

In defense of the amended second question, the Supreme Court referred to the Court of Appeal decision, in which Floyd LJ said that a chemist would not be able to predict the effect of a substitution for the sodium counter-ion without testing at least the solubility of the active ingredient in the Actavis products. Therefore, predicting in advance whether any particular

counter-ion would work was not possible, and the second *Improver* test could not be answered yes. However, Floyd LJ also found that “the chemist would be reasonably confident that he would come up with a substitute for the sodium counter-ion”.²⁴ This led the Supreme Court to conclude that “the application of the second *Improver* question fails to accord a fair protection for the patent proprietor as required by article 1 of the Protocol”.²⁵ This reasoning shows that the Supreme Court first decided what a “fair protection” would be, and then concluded that the *Improver* test was deficient because it did not achieve the result. The Court further justified the new test on the basis that the notional addressee is told (in the patent itself) what the invention does, and that this was the approach taken in European countries.²⁶

The Supreme Court left the third *Improver* question substantially unchanged, but said that it must be approached in the “correct” way. To this end, the Court set out four points to assist the determination of the question:²⁷

- 1) Although the language of the claim is important, consideration of the third question does not exclude the specification of the patent and all the knowledge and expertise that the notional addressee is assumed to have.
- 2) The fact that the language of the claim does not on any sensible reading cover the variant is certainly not enough to justify holding that the patentee does not satisfy the third question.
- 3) It is appropriate to ask whether the component at issue is an “essential” part of the invention, but that is not the same thing as asking if it is an “essential” part of the overall product or process of which the inventive concept is part.
- 4) When one is considering a variant which would have been obvious at the date of infringement rather than at the priority date, it is necessary to imbue the notional addressee with rather more information than he might have had at the priority date.

Once the test for infringement had been substantially amended to both go beyond the language of the claims and to assess the obviousness of equivalents from a position of hindsight, the Supreme Court had no difficulty in arriving at the conclusion that the Actavis products were a direct infringement of the patent.

5. Claim interpretation in New Zealand

Section 3 of New Zealand's Patents Act 2013 describes an objective of the New Zealand patent system is to provide "an appropriate balance between the interests of inventors and patent owners and the interests of society as a whole".²⁸ This is substantially the same goal as Article 1 of the Protocol on the Interpretation of Article 69 EPC. The New Zealand approach to claim interpretation thus mirrors the English approach, and has not been subjected to any serious challenge by litigants.

In *Lucas v Peterson Portable Sawing Systems Ltd*, Gault J listed several observations on patent interpretation.²⁹

[26] A patent specification is to be read as a whole and given a purposive construction. It must be construed as it would be understood by the appropriate addressee – a person skilled in the relevant art.

[27] Each part of the specification is to be read objectively in its overall context and in light of the function of that part. The claims are to be interpreted by reference to the object and description in the body of the specification.

[28] The claims define the scope of the monopoly conferred by the patent. They limit what others may do. They must clearly define the protected field so others may fairly know where they cannot go. The description in the body of the specification may assist interpretation but it cannot modify the monopoly the inventor has clearly marked out. If his claim is formulated too narrowly so that imitators do not infringe, that cannot be rectified by reference to the description. If it is too wide, consequent

invalidity cannot be saved by reading in limitations appearing in the description. The description of a preferred embodiment of the invention is just that and plainly will not confine the scope of an invention claimed more broadly. All of this is well established.

In stating that this is all ‘well established’, Gault J cited several New Zealand and English authorities, including *Kirin-Amgen*.³⁰ Indeed, the observations do no more than describe that the wording of the claims, interpreted purposively, is the sole source of the scope of protection.

Lucas did not specifically refer to the *Improver* questions in the interpretation of the claims of Lucas’ patent, nor do the questions appear to have been implicitly worked through. In fact, the *Improver* questions have not been specified in any New Zealand court of appeal decision on patent infringement.³¹

In contrast to previous New Zealand decisions, Whata J in the High Court decision of *Assa Abloy v Allegion* was more overt in the application of the *Improver* questions.³² The Court had to consider whether Allegion’s sliding door latch (the “Stella”) was an infringement of the “Latch” claimed in Assa Abloy’s New Zealand patent. The decision is a good example of the role of expert evidence in the determination of the first two *Improver* questions, but the case unfortunately did not discuss the application of the third question where it perhaps should have done if it were to truly follow *Improver*. In the one issue where the third *Improver* question should have been addressed (whether the claims required a separate receiver and selector, or whether these could be integrally formed), the Court found that the Stella contained this integer on the basis of the first two questions and considered this sufficient for the matter to be settled.³³

The Court also considered whether the claim that defined a driver “coupled” to a snib encompassed a driver ‘integrally formed’ with the snib (which was the case in the Stella). Assa Abloy argued “the variant (an integrally moulded tubular driver) adds nothing to the invention, would likely have been obvious at the priority date, and strict compliance with the term “coupled” in terms of any particular form of coupling is not necessary”. However, the Court found that the integral formation of the Stella’s driver and snib reduced the potential configurability of the Latch. It was a “backward step” in terms of functionality, and the Court decided that “coupled” therefore could not mean “integrally formed”. Thus, the Court found that there was no infringement of this feature. The Court did not break down the analysis of this feature into the *Improver* questions, but its reasoning suggests that the Court found non-infringement on the basis of question 1 of *Improver*, that is, that the integral formation had a material effect, and there was therefore no reason to ask the second and third questions.

Although the Court focused on expert evidence in the claim interpretation, the Court mentioned that, in construing the claims, each term should be interpreted purposively in light of the object of the invention (this was found to be a latching mechanism that can be configured to end-use requirements, that is, the same latch could be configured having right or left handedness). Exactly why the object of the invention was identified as being of particular importance in the interpretation of the claims is unclear. It is also unclear whether there is a distinction between the object of the invention and the “invention” as it is understood in *Catnic* and *Improver*. There seems to be little reason to distinguish the object from the rest of the specification. It is possible that the Court explored the object of the invention in detail because it was specifically mentioned in *Lucas* when the Supreme Court stated that the “claims are to be interpreted by reference to the object and description in the body of the specification.” However, it is more likely that the reference to the “object and description” in that decision is intended to encompass all of the parts of the patent specification which relate to the invention, because there is no discussion in *Lucas* of

anything particularly special about the object that could assist in a purposive construction of the claims.

6. A doctrine of equivalents for New Zealand?

New Zealand's Patents Act 2013 does not prescribe how the extent of protection is determined from the patent. There is no corresponding section in New Zealand's Act to section 125 of the United Kingdom Act. The scope of protection is only defined in the Patents Act 2013 by reference to the rights of the patentee under section 18, which states at subsection (1) that "[a] patent gives the patentee the exclusive rights, during the term of the patent, to exploit the invention".

Notably, the Act describes the exclusive rights of the patentee in terms of the exploitation of the "invention", not the invention "as claimed". Conversely, the validity of the patent is assessed in the subject matter "so far as claimed in a claim". Section 6, 7, 10 and 14, which refer to novelty, inventive step, utility and patentability, respectively, confine the inquiry to the claim, as do the inquiries of clarity, support and sufficiency under section 39. The Act enables an interpretation of section 18 that the scope of a patentee's rights need not be limited to an invention "so far as claimed in a claim". The Patents Act has left the door open for a doctrine of equivalents in New Zealand.

6.1. Alignment with international developments

In *Smith Kline & French Laboratories Ltd v Attorney-General*, Cooke P noted that "[t]he New Zealand Courts are operating in an international environment where consistency of approach is important."³⁴ This sentiment was codified in section 3(a)(ii) and 3(e) of the Patents Act 2013, which state that objectives of the Act are to "[comply] with New Zealand's international obligations" and to "ensure that New Zealand's patent legislation takes account of developments in the patent systems of other countries". In *Wellcome Foundation*, Cooke J declined to extend patent protection to a medical use on the basis that "we should resist any

temptation to break new ground”.³⁵ In the decision of *Pharmaceutical Management Agency Ltd v Commissioner of Patents (Pharmac)*,³⁶ a decisive factor in allowing Swiss type claims in New Zealand was the consideration of the “Agreement on Trade-Related Aspects of Intellectual Property Rights” (“TRIPS”) agreement to which New Zealand is a signatory.³⁷

In *Actavis*, the Supreme Court based the reasoning for the shift away from a claim-limited scope of protection on the requirements of Article 2 of the Protocol, which required that due account of equivalents be taken. The Court was not satisfied that this could be achieved by a purposive interpretation, and even if it could, there was a risk that courts, in an attempt to satisfy Article 2, would damage to the underlying principle in respect of how other documents are interpreted. However, New Zealand is not a party to the European Patent Convention, and has no obligations corresponding to Article 2 in either its domestic law or in international agreements (TRIPS, for example, does not have an “equivalents” stipulation).

There is no defect in the legal justification for a purposive construction of patent claims. The Supreme Court *Actavis* decision was a policy decision to enlarge the scope of protection for patentees – it did not uncover any deficiency in the principles of purposive interpretation described in *Catnic*, and indeed has retained this approach in the first part of the infringement test. The decision of the Supreme Court was based on the conclusion that English courts were not giving sufficient weight to Article 2. *Actavis*’s reasoning therefore does not present any imperative to shift away from the claim-limited approach currently applied in New Zealand.

6.2. Abandonment of claim inelasticity

By shifting away from a claim-limited scope of protection, New Zealand would be abandoning the principle of claim inelasticity, by which a patentee cannot argue for a broad claim scope when arguing infringement and a narrow scope when defending the claim validity.³⁸ A broad interpretation of claim features expands the scope of protection, but equally expands the ambit of prior art relevant for novelty and inventive step and increases

the burden that the patentee must bear for defending the sufficiency of the claims. The scope and validity naturally comes to equilibrium.

The ambiguous scope of protection therefore raises the question about what scope to attribute the claims when considering their validity. If validity is determined by claim language only, then the claims are held to a double standard; things could be infringements which would not, if the timings of the patent and infringing acts were reversed, be anticipatory or sufficiently supported by the patent's disclosure. If the scope of the claims is extended when determining validity, then the boundaries of the claim become unclear and a consistent approach to assessing validity becomes close to impossible. Unlike a specific infringing act, where the court is faced with a single question (i.e. is a potassium salt an immaterial variation of the sodium salt) the prior art could describe many variants which lie outside the scope of the claim language but which could nonetheless be material to the scope claim scope.

The case law of the United States, where the doctrine of equivalents is firmly ensconced, illustrates the types of tools required by a court to reconcile the scope of protection provided by claims with their validity. The doctrine may be neatly described as extending protection beyond the claim language to encompass features that perform substantially the same function in substantially the same way to achieve substantially the same result.³⁹ This is limited by correspondence between the patent applicant and the patent office; subject matter that is disclaimed during prosecution cannot be reclaimed in infringement proceedings. However, this is a simplistic summary, and the interplay between the doctrine of equivalents and the prosecution history is highly complex.

Prior to *Actavis*, the doctrine of equivalents was described by English courts as an almost nightmare scenario that the courts had been clever enough to avoid. Lord Hoffmann expressed relief in *Kirin-Amgen* that England had “shut the door” on the doctrine of equivalents, saying, “I cannot say that I am sorry because ... with all respect to the courts of

the United States, that American patent litigants pay dearly for results which are no more just or predictable than could be achieved by simply reading the claims.”⁴⁰ For example, whereas a Court may only require a fairly low level of evidence to answer the question of whether a sodium salt is an immaterial variation of a potassium salt, the doctrine would also legitimise more factually demanding questions, such as whether an alternative anti-folate would be an immaterial variation of pemetrexed.

The loss of claim inelasticity in a doctrine of equivalents not only reduces certainty for the public as to the scope of a monopoly but it also means that when non-literal infringement claims reach the courts these cases will be more complex, time consuming and expensive.

6.3. Standards for obviousness: infringement vs. validity

Actavis creates a divergence between the standards for obviousness in validity and infringement. The Supreme Court altered the second of the *Improver* questions to consider obviousness from the perspective of an addressee who already knows that the variant is immaterial. In the realm of invalidity, this is the prototypical example of *ex post facto* analysis that countless judges have cautioned against.⁴¹ The case *Windsurfing International* states that the question of obviousness “has to be answered, not by looking with the benefit of hindsight at what is known now and what was known at the priority date and asking whether the former flows naturally and obviously from the latter, but by hypothesizing what would have been obvious at the priority date to a person skilled in the art to which the patent in suit relates.”⁴² The divergence between obviousness for infringement and validity is an intentional lowering of the bar for determining obviousness with respect to infringement.

The Supreme Court’s justification for this divergence is two fold; it is firstly consistent with European practice and secondly “consistent with the fact that the notional addressee is told (in the patent itself) what the invention does”.⁴³ However, the second justification does not rationalise hindsight because a patent does not necessarily tell the addressee whether a

particular variant has no material effect, and it may only be apparent that there is no material effect once the experiment has been performed. For example, Eli Lilly's patent disclosed the sodium salt, and gave no indication that other salts of pemetrexed could be used. While the skilled person may recognise that other salts could (rather than would) be used, the trial judge and the Court of Appeal found that this recognition did not meet the threshold to make this an obvious variant under the *Improver* test. This is a finding that would be consistent with the test for obviousness in terms of validity.

By assessing the obviousness of the material effect at a date later than the publication of the patent, the claims will vary in scope depending on how the state of the art evolves. This makes the public's task of determining the scope of the invention dependent on the current state of the art, which is not only onerous on third parties but also variable with time. Acts which would not be an infringement at one point in time could become an infringement as new information becomes available.

Catnic justified setting obviousness at the date of publication on the basis that future knowledge artificially affects how the patentee's disclosure would be interpreted. Lord Diplock said "in the light of then-existing knowledge, the reader is entitled to assume that the patentee thought at the time of the specification that he had good reason for limiting his monopoly so strictly and had intended to do so, even though subsequent work by him or others in the field of the invention might show the limitation to have been unnecessary."⁴⁴ *Catnic*'s approach crystallises the scope of the patent at the time of publication, which allows the monopoly to be more easily determined by the public.

6.4. Analogy with interpretation of other legal documents

While analogies with commercial contracts can only take one so far in justifying a purposive interpretation for patents, the nature of the documents do have enough similarities to be able to make broad brushstrokes. For example, there are parallels between parties to a contract and

the relationship between the patent applicant and the public; protection for an invention is offered and accepted by filing and granting a patent application, and there is an exchange of value in that an invention is disclosed to the public in return for a monopoly on the invention.

Like a contract, a patent should be sufficiently certain in its terms as to what has been agreed to. Thus, the monopoly given to the patentee by society should be able to be defined before it needs to be enforced. Where the language of a contract is unclear, English courts give effect to how a reasonable person would understand the terms of the agreement, having regard to the factual background.⁴⁵ As with patent law, there are practical policy decisions that impact the extent the courts should go outside the language of the document. For example, English contract law has been careful to severely restrict from consideration the previous negotiations of the parties and their declarations of subjective intent, even though this information may be relevant to what was intended by the parties to the contract.⁴⁶ In *Chartbrook Ltd v Persimmon Homes Ltd & Ors*, the Court acknowledged that consideration of this material would be “[not only] time-consuming and expensive but the scope for disagreement over whether the material affected the construction of the agreement ... would be considerably increased”.⁴⁷ New Zealand has adopted this same approach.⁴⁸

Precedent therefore exists for courts to limit the exercise of document interpretation for reasons of practical policy. The sheer complexity of the doctrine of equivalents is reason enough to retain a connection between claim language and claim scope. If a purposive interpretation of a patent claim indicates that it was the patentee’s intention to cover less subject matter than they may have been entitled to, then the court should give effect to this interpretation. As with contract law, practical policy requires that courts should limit the determination of claim scope to reduce time and costs and also to reduce the possibility for disagreement over the scope of the claims.

7. Conclusion

The European Patent Convention states that the appropriate scope of protection for a patentee is the middle road between the two extremes of the strict, literal meaning of the claim language and where the claims serve only as a guideline. This is the same objective of New Zealand's Patents Act, which similarly requires a balance between the interests of inventors and patent owners and the interests of society as a whole. In deciding that equivalents which are outside any reasonable interpretation of the claim language could nonetheless infringe a patent, *Actavis* has upset this balance in England. The decision shifts the balance between the protection for a patentee and certainty for the public firmly towards the patentee.

Actavis was clear that the purposive construction approach to claim construction remains a sound approach, and the Supreme Court's decision to additionally apply to a doctrine of equivalents was based on a consideration of the United Kingdom's commitments to the European Patent Convention. New Zealand does not share these commitments, and is therefore not faced with the same policy considerations.

New Zealand's patent system should take account of developments in the patent systems of other countries, but it is not obliged to apply *Actavis* and follow English courts into a doctrine of equivalents. Such a move would decrease the ability of the public to determine the scope of a patent monopoly, and would increase the complexity of patent disputes. Therefore, New Zealand should stay its current course, and avoid the doctrine of equivalents.

8. References

¹ *Actavis UK Limited and others v Eli Lilly and Company* [2017] UKSC 48.

² *Actavis UK Limited and others v Eli Lilly and Company* above n. 1, [57].

³ *Catnic Components Ltd. v Hill & Smith Ltd* [1982] R.P.C. 183.

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- ⁴ *Clark v Adie* (1877) 3 App Cas 34 (HL).
- ⁵ *C Van Der Lely NV v Bamfords Ltd* [1963] RPC 61, 77.
- ⁶ *Kirin-Amgen Inc and others v Hoechst Marion Roussel Limited and others* [2004] UKHL 46, [36].
- ⁷ Fisher, M., *Fundamentals of Patent Law: Interpretation and Scope of Protection*, 2007, p 293.
- ⁸ *Catnic Components Ltd. v Hill & Smith Ltd* above n. 3.
- ⁹⁹ *Reardon Smith Line Ltd v Yngvar Hansen-Tangen and Sanko SS & Co Ltd* [1976] 1 WLR 989.
- ¹⁰ *Catnic Components Ltd. v Hill & Smith Ltd*, above n. 3 at 242-243.
- ¹¹ *Improver Corporation v Remington Consumer Product Limited* [1990] F.S.R. 181.
- ¹² *Improver*, above n 11, p 189.
- ¹³ *Improver*, above n 11, p 189.
- ¹⁴ *Improver*, above n 11, p 197.
- ¹⁵ *Kirin-Amgen* above n. 6, [52].
- ¹⁶ *Kirin-Amgen* above n. 6, [52].
- ¹⁷ European (UK) Patent 1 313 508.
- ¹⁸ Claim 1 of EP (UK) 1 313 508 originally recited: “Use of a methylmalonic acid lowering agent in the preparation of a medicament useful in lowering the mammalian toxicity associated with an antifolate, and the medicament is administered in combination with an antifolate.”
- ¹⁹ *Actavis UK Ltd & Ors v Eli Lilly & Company* [2015] EWCA Civ 555, [71].
- ²⁰ *Actavis UK Ltd & Ors v Eli Lilly & Company*, above n. 19, [72].
- ²¹ *Actavis UK Limited and others v Eli Lilly and Company* above n. 1, [54].
- ²² *Actavis UK Limited and others v Eli Lilly and Company* above n. 1, [56].
- ²³ *Actavis UK Limited and others v Eli Lilly and Company* above n. 1, [66].
- ²⁴ *Actavis UK Ltd & Ors v Eli Lilly & Company*, above n. 19, [65].
- ²⁵ *Actavis UK Limited and others v Eli Lilly and Company* above n. 1, [61].
- ²⁶ *Actavis UK Limited and others v Eli Lilly and Company* above n. 1, [62].
- ²⁷ *Actavis UK Limited and others v Eli Lilly and Company* above n. 1, [65].
- ²⁸ Patents Act 2013, s3(a)(i).
- ²⁹ *Lucas v Peterson Portable Sawing Systems Ltd* [2006] 3 NZLR 721 (SC).

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- ³⁰ *Glaverbel SA v British Coal Corp* [1995] RPC 255, 268-270, 280-281 (CA); *British Hartford-Fairmont Syndicate Ltd v Jackson Bros (Knottingly), Ltd* (1932) 49 RPC 495, 556 (CA); *Norton & Gregory Ltd v Jacobs* (1937) 54 RPC 271, 276 (CA); *Conoco Specialty Products (Inc) v Merpro Montassa Ltd* [1994] FSR 99, 106 (OH); *Smale v North Sails Ltd* [1991] 3 NZLR 19, 29 (HC); *Kirin-Amgen Inc v Hoechst Marion Roussel Ltd* [2005] RPC 169 (HL); [2005] 1 All ER 667 at [18]-[35].
- ³¹ Susy Frankel *Intellectual Property in New Zealand* (2ed, LexisNexis NZ Ltd, Wellington, 2011), 440.
- ³² *Assa Abloy New Zealand Ltd v Allegion (New Zealand) Ltd* [2016] NZHC 1738.
- ³³ *Assa Abloy* above n. 32, [84].
- ³⁴ *Smith Kline & French Laboratories Ltd v Attorney-General* [1991] 2 NZLR 560 (CA), 562.
- ³⁵ *The Wellcome Foundation Ltd (Hitchings') Application*, [1983] FSR 593 (CA), 601.
- ³⁶ *Pharmaceutical Management Agency Ltd v Commissioner of Patents* [2000] 2 NZLR 529 (CA).
- ³⁷ Agreement on Trade-Related Aspects of Intellectual Property Rights, Article 27:1.
- ³⁸ *Hammar Maskin AB v Steelbro New Zealand Ltd* [2010] NZCA 83, [49].
- ³⁹ *Graver Tank & Manufacturing Co. v. Linde Air Products Co.*, 339 U.S. 605 (1950).
- ⁴⁰ *Kirin-Amgen* above n. 6, [44].
- ⁴¹ Kate McHaffie “Slow and Steady Wins the Race – Caution Should Be the Watchword for New Zealand Patent Law” (2017) 108 Intellectual Property Forum, 50.
- ⁴² *Windsurfing International Inc. v Tabur Marine (GB) Ltd.* [1985] RPC 59
- ⁴³ *Actavis UK Limited and others v Eli Lilly and Company* above n. 1, [62]
- ⁴⁴ *Catnic Components Ltd. v. Hill & Smith Ltd* above n. 3, 242-243.
- ⁴⁵ *Reardon Smith Line Ltd v Yngvar Hansen-Tangen and Sanko SS & Co Ltd* [1976] 1 WLR 989, and further developed in *Investors Compensation Scheme Ltd. v West Bromwich Building Society* [1997] UKHL 28, and followed in the decision *Chartbrook Ltd v Persimmon Homes Ltd* [2009] UKHL 38. The New Zealand Supreme Court affirmed this approach most recently in *Vector Gas Ltd v Bay of Plenty Energy Ltd* [2010] 2 NZLR 444.
- ⁴⁶ *Investors Compensation Scheme v. West Bromwich Building Society* [1997] UKHL 28.
- ⁴⁷ *Chartbrook Ltd v Persimmon Homes Ltd & Ors* [2009] UKHL 38, [35].
- ⁴⁸ *Vector Gas Ltd v Bay of Plenty Energy Ltd* [2010] 2 NZLR 444, [22].