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ARE HUMANS ANIMALS?: PATENT CLAIM CONSTRUCTION IN MARTEK BIOSCIENCES CORP. V. NUTRINOVA, INC., 579 F.3D 1363 (FED. CIR. 2009)

Colleen Murphy*

I. INTRODUCTION

Judges are responsible for claim construction, or in other words, interpreting the meaning of terms used to define the scope of an invention in a patent to determine whether infringement has occurred.\(^1\) For example, a patent may claim a pen as a “cylindrical utensil” used to write on paper. The patent owner then alleges that a company selling crayons has infringed his patent. The judge would have to examine the patent documents to interpret whether the terms claimed in the patent encompass a crayon.\(^2\) A “cylindrical utensil” of a pen could be interpreted as an object that easily fits into a person’s hand to leave marks as it is dragged over a surface. Alternatively, a “cylindrical utensil” of a pen may be interpreted as a storage container filled specifically with ink. The first interpretation is broad and would include a crayon in the claimed invention, while the second interpretation is a narrow approach that would exclude a crayon.

This dichotomy over claim term interpretation was also an issue in Martek Biosciences Corp. v. Nutrinova, Inc.\(^3\) Martek made and sold docosahexaenoic acid (DHA) products.\(^4\) DHA is an omega-3 fatty acid “that plays an important role in the development of organs such as the heart, brain, and eyes” and has additional health benefits.\(^5\) Because it is desirable to provide supplemental DHA, Martek obtained a patent for a method of increasing the concentration of omega-3 highly unsaturated fatty acids (HUFA) in animals by feeding them certain microorganisms.\(^6\) Martek asserted that the defendant, Lonza, infringed

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1. Markman v. Westview Instruments, Inc. (Markman II), 517 U.S. 370, 372 (1996). The Supreme Court held that interpreting a claim is a purely legal issue. Id.
2. See id. at 388.
4. Id. at 1367.
5. Id.
6. Id.
Martek appealed. This patent by using the disclosed method on humans. Lonza responded that the term “animal” should be interpreted to encompass only nonhuman animals, and therefore, the patent was not infringed. After the district court, using a narrow construction, determined that the term “animal” did not include humans, Martek appealed.

Martek illustrates that the method of construing patent claim terms, broadly or narrowly, greatly affects the decision of whether patent infringement has occurred. Part II of this Casenote further explains these two different approaches to claim construction established by the Court of Appeals for the Federal Circuit. Part III describes the Federal Circuit’s application, in Martek BioSciences Corp. v. Nutrinova, of the broad method of constructing claims by concluding that humans were included in the term animal. Part IV discusses whether it was appropriate for the Federal Circuit to employ the broad approach of claim construction in a five judge panel. Finally, Part V concludes that the broad approach was not appropriate in Martek because of the uncertainty and diminished uniformity it causes in the patent system.

II. STATUTORY PROVISIONS AND RELATED CASES

The United States Constitution gives Congress the ability to grant patents “[t]o promote the Progress of Science and useful Arts.” After inventors obtain a patent, Congress gives them the right to exclude others from making, using, or selling the invention throughout the United States for a period of twenty years from the time the patent application was filed. Anyone who commits these acts without authority from the patent owner is deemed to infringe that patent. If a patent is infringed, “[a] patentee shall have remedy by civil action for infringement of his patent.”

To determine whether a patent is infringed, the meaning of the claims in issue must first be determined. Then, the claims must be read onto the accused products. The accused product infringes the patent when all of the elements of the claims read literally onto the product, or the

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7. Id. at 1367–69.
8. Id. at 1380.
9. Id. at 1368, 1379.
15. Id.
product does substantially the same work, in substantially the same way, and accomplishes substantially the same result. The Supreme Court established that determining the meaning of the claims in a patent is a question of law. The Federal Circuit further provided that it is an issue for de novo review. Two competing approaches for the method of interpreting claims, a broad approach and a narrow approach, have emerged from the judges in the Federal Circuit.

A. The Role of the Court During Claim Construction

In Markman v. Westview Instruments, Inc., the Supreme Court determined that interpreting claim terms was a purely legal issue. Markman owned a patent for an inventory control and reporting system for dry-cleaning stores. Markman sued Westview, claiming that Westview was making a product that infringed his patent. A key issue in the case was what the term “inventory” meant. If “inventory” merely encompassed cash inventory, Westview would infringe; however, if “inventory” encompassed cash inventory and physical inventory of articles of clothing, Westview would not infringe Markman’s patent. Although the jury found that Westview infringed, the district court judge granted Westview’s deferred motion for judgment as a matter of law. The judge determined that interpreting the claim term was a legal issue and concluded that “inventory” was a broad term that included cash and clothing inventory.

Both the Federal Circuit and the Supreme Court affirmed the lower court’s decision. The Supreme Court agreed with the Federal Circuit that interpreting claims was “the exclusive province of the court . . . .”

16. Id.
21. Id. at 374–75.
22. Id.
23. Id. at 375.
24. Id.
25. Id.
26. Id.
27. Id. at 376.
The Court determined that during the period when the Seventh Amendment was adopted to preserve the right to a jury trial, "judges, not juries, ordinarily construed written documents."\(^{28}\) The likelihood that judges did the same in patent litigation was confirmed by the earliest English reports describing construction of patent documents, which showed judges construing the terms, the Supreme Court further found.\(^{29}\) Therefore, the Court established that for construction of written instruments, judges often do and are likely to do better than a jury.\(^{30}\) Patent construction in particular was considered to be "a special occupation" that required "special skill and practice"; therefore, a trained, disciplined judge was more likely than a jury to properly interpret patents.\(^{31}\) In conclusion, the Supreme Court determined that claim construction was solely a role for a judge.\(^{32}\)

**B. The Role of the Federal Circuit During Claim Construction**

In *Cybor Corp. v. FAS Technologies, Inc.*\(^ {33}\), the Federal Circuit concluded that because claim construction is a purely legal issue, the court is permitted to conduct its own interpretation of the claims on appeal.\(^ {33}\) In this case, the patent was exclusively licensed to FAS and disclosed a device and method for accurately dispensing industrial liquids.\(^ {34}\) Cybor Corp. sued FAS seeking declaratory judgment of non-infringement, invalidity, and unenforceability.\(^ {35}\) FAS counterclaimed for infringement of all claims and sought damages and an injunction.\(^ {36}\) Based on the district judge’s construction of the claims, the jury found that Cybor Corp. had infringed FAS’s patent.\(^ {37}\) The Federal Circuit determined that although the law was clear that claim construction was the job of the judge, not jury, this case presented the issue of the proper role of the circuit court in reviewing the district court’s claim construction.\(^ {38}\) It concluded that after *Markman*, de novo review remained good law and that the Federal Circuit had the authority to

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28. *Id.* at 381–82.
29. *Id.* at 382.
30. *Id.* at 388.
31. *Id.* at 388–89.
32. *Id.* at 391.
34. *Id.* at 1451–53.
35. *Id.* at 1453.
36. *Id.*
37. *Id.*
38. *Id.* at 1454.
reverse legal conclusions of the district court. The Federal Circuit then performed its own claim construction analysis and affirmed the lower court’s decision. Thus, the Federal Circuit determined that it was permitted to perform its own claim construction as a matter of law on appeal.

C. Alternative Methods to Claim Construction in the Federal Circuit

In Phillips v. AWH Corp., the Federal Circuit identified the primary issue of claim construction as how much emphasis should be placed on the patent application itself. The first paragraph of 35 U.S.C. § 112 states that “[t]he specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains . . . to make and use the same . . . .” The second paragraph states that “[t]he specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.” The Federal Circuit determined that those two paragraphs frame the issue of claim construction. The court found the second paragraph requires the court to look to the language of the claims to determine what the applicant regarded as the invention, and the first paragraph required that the specification describe the invention set forth in the claims. The court found the principal question to be “the extent to which [it] should resort to and rely on a patent’s specification in seeking to ascertain the proper scope of its claims.”

Although the Federal Circuit has developed a hierarchy of evidence to be used when construing patent terms, two competing theories have emerged from the Federal Circuit regarding how much reliance should be placed on the specification to ascertain the proper scope of the claims. A broad approach that began with a generic baseline

39. Id. at 1454–55.
40. See id. at 1456–59.
41. Id. at 1454–55.
42. Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc).
44. Id.
45. Phillips, 415 F.3d at 1312.
46. Id.
47. Id.
1218

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definition of the claim terms was used in *Phillips v. AWH Corp.*, while a narrow approach that began with a limited definition of the claim terms taken from the patent documents was used in *SciMed Life Systems, Inc. v. Advanced Cardiovascular Systems, Inc.* The Federal Circuit then attempted to reconcile these different approaches in *Nystrom v. Trex Co., Inc.*

1. Hierarchy of References

When the Federal Circuit considered *Markman I*, it presented a hierarchy of references for interpreting terms that began with intrinsic evidence. It found that intrinsic evidence should be heavily relied upon and included the patent’s claims, specification, and prosecution history. First, claims included in the patent application must “particularly point[] out and distinctly claim[]” the scope and subject that the applicant regards as the invention. The specification is a written description of the invention, including drawings, that precedes the claims in a patent application. Second, it must be in “clear, concise, and exact terms” that enable a person skilled in the art to make and use the invention. Third, the prosecution history is a complete record of the proceedings before the United States Patent Office while the patent application is being considered for issuance. In *Markman*, the Federal Circuit found these intrinsic references to be the three main sources that judges should use when interpreting claim terms.

The Federal Circuit further determined in *Vitronics Corp. v. Conceptronic, Inc.* that extrinsic evidence may also be used for interpreting terms, but that it is not as significant as intrinsic evidence. Extrinsic evidence includes evidence that is not a part of the patent or prosecution history. This includes “expert and inventor testimony, dictionaries, and learned treatises.” In *Markman I*, the court established that it might be helpful to review this evidence “to explain

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49. See supra note 48.
52. *Id.* at 979.
54. *Id.*
55. *Id.*
57. *Markman I*, 52 F.3d at 979.
58. *Vitronics*, 90 F.3d at 1583.
59. *Markman I*, 52 F.3d at 980.
60. *Id.*
scientific principles, the meaning of technical terms” and to “demonstrate the state of the prior art at the time of the invention.”

Further, the court in Vitronics stated that using extrinsic evidence to understand technology is different than using extrinsic evidence to determine the proper construction of a disputed term. Extrinsic evidence may only be relied upon when determining the proper construction of a disputed term if the patent documents, taken as a whole, are insufficient to enable the court to construe disputed claim terms. In Vitronics, the court was asked to construe the meaning of “solder reflow temperature.” The court held that extrinsic evidence was not needed to construe these terms based on the guidance provided by the intrinsic evidence. Therefore, only when intrinsic evidence fails to enable the court to construe claim terms may extrinsic supplements be used.

2. A Broad Approach to the Use of the Specification During Claim Construction

In Phillips v. AWH Corp., the Federal Circuit applied a broad approach to interpret claim terms by beginning with a generic definition for the terms and not limiting that definition by the rest of the patent documents. Phillips invented modular, steel-shell panels that could be welded together to form load-bearing, vandalism-resistant walls. He patented the invention and entered into an arrangement with AWH Corp. to market and sell the panels. After the relationship terminated, however, Phillips received sales brochures from AWH that showed the company was continuing to use his invention. He then sued for patent infringement in the U.S. District Court for the District of Colorado.

The district court determined that AWH did not infringe Phillips’s patent because the specification described a specific type of vandalism-resistant wall containing internal steel “baffles” that did not encompass...
A WH’s design. The court focused on the language of claim one to examine how the term “baffles” was used; the claim described “steel baffles extending inwardly from steel shell walls.” The court further established that every textual reference in the specification and its diagrams depicted baffles at angles other than ninety degrees to the wall faces. The court used this evidence to find that in the patent, the baffles must extend inward at an oblique or acute angle to the wall face. Because A WH walls contained baffles at angles of ninety degrees, and thus outside of the scope of the patent claims, the district court concluded that the company did not infringe the patent.

En banc, the Federal Circuit adopted a broader method of claim construction to vacate the lower court’s judgment of non-infringement. The court found claims, as a baseline, “are generally given their ordinary and customary meaning” from the viewpoint of “a person of ordinary skill in the art in question at the time of the invention.” The court added that the disputed term is deemed to be read by such a person in the context of the entire patent, including the specification, rather than merely in the context of the particular claim in which the term appears.

72. Id.

73. Id. (internal quotation marks omitted).

74. Id.

75. Id.

76. Id.

77. See id. at 1309–28. Phillips appealed to the Federal Circuit, which initially agreed with the district court’s method of claim construction. Id. at 1309. On the first hearing, a majority of the divided three-judge panel affirmed the district court’s finding of non-infringement. Id. at 1309–10. Based on the written description, the panel held that the claim term “baffles” excluded structures that extended at a ninety-degree angle from the walls. Id. at 1310. The court relied on the specification’s repeated references to the ability of the claimed baffles to deflect projectiles on its description of the baffles as being disposed at such angles that bullets would be deflected. Id. The Federal Circuit panel did not find in the specification any disclosure of baffles extending from the walls at right angles. Id. The panel concluded that the patent specification was “intended to support and inform the claims,” and that the Phillips patent “made it unmistakably clear that the invention involved baffle angled at other than 90” degrees. Id. The Federal Circuit panel therefore affirmed the district court’s summary judgment of non-infringement. Id.

The dissenting judge on the panel believed that the majority improperly construed the claims to limit them to the embodiment of the invention disclosed in the specification, rather than adopting the plain meaning of the term “baffles.” Id. In the dissenting judge’s opinion, nothing in the specification defined the term “baffles” or specifically limited the scope of that term to less than its ordinary meaning. Id. He argued that the specification defined the claim term “baffles” or specifically limited the scope of that term to less than its ordinary meaning. Id. He concluded that there was “no reason to supplement the plain meaning of the claim language with a limitation” that was described in the specification as the preferred embodiment for deflecting bullets. Id. The dissenting judge construed the term “baffles” in a manner resulting in a finding that A WH infringed the patent. Id.

78. Id. at 1312–13.

79. Id. at 1313.
The Federal Circuit concluded that a judge should determine this meaning by looking to sources available to the public, such as the claims themselves, the remainder of the specification, and the prosecution history, which shows what a person of skill in the art, would have understood the disputed claims to mean.\textsuperscript{80} The court held that while “claims themselves provide substantial guidance as to the meaning of particular claim terms,” claims are fully integrated with and “‘must be read in view of the specification, of which they are a part.’”\textsuperscript{81} The court further established that if the specification reveals a definition for a term that differs from the ordinary meaning of the term, “the inventor’s lexicography governs.”\textsuperscript{82} Thus, the Federal Circuit provided that a judge should construct the terms in claims by heavily relying on the specification.\textsuperscript{83}

The Federal Circuit applied this rule to broadly construe “baffles” to include more than the preferred embodiment of projections at acute angles described in the specification.\textsuperscript{84} It found that the plain and ordinary meaning of “baffles” was the generic dictionary meaning; “objects that check, impede, or obstruct the flow of something.”\textsuperscript{85} The court determined that this definition included projections at ninety-degree angles.\textsuperscript{86} The court found that intrinsic evidence confirmed a person of ordinary skill in the art would understand that the term “baffles” as used in the patent would have that generic meaning.\textsuperscript{87} The court next dealt with the other claims that specified functions served by baffles, such as projecting at angles for deflecting projectiles.\textsuperscript{88} It held that “[t]he fact that the written description...sets forth multiple objectives to be served by the baffles recited in the claims confirms that the term ‘baffles’ should not be read restrictively to require that baffles in each case serve all of the recited functions.”\textsuperscript{89} The court reasoned that the United States Patent and Trademark Office would not have granted an invalid patent, so “the ambiguity in the claim language should therefore be resolved in a manner that would preserve the

\textsuperscript{80.} Id. at 1314.
\textsuperscript{81.} Id. at 1314–15 (quoting Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996); Markman I, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), aff’d, 517 U.S. 370 (1996)).
\textsuperscript{82.} Id. at 1316.
\textsuperscript{83.} Id. at 1317.
\textsuperscript{84.} See id. at 1324–28.
\textsuperscript{85.} Id. at 1324.
\textsuperscript{86.} Id. at 1327.
\textsuperscript{87.} Id. at 1324–25.
\textsuperscript{88.} See id. at 1325.
\textsuperscript{89.} Id. at 1326–27.
Consequently, the court construed the term “baffles” broadly to encompass more than the embodiment described in the specification and to include projections at all angles.

To return to the example of the pen, a judge applying the broad claim construction approach would begin by determining the ordinary and customary meaning of the claim term “cylindrical utensil” in a way that a person with ordinary skill in the art at the time of the invention would determine it. This may be the generic dictionary meaning of the term. Suppose that the ordinary and customary meaning of the term was “an object that easily fits into a person’s hand.” Next, the judge would read the patent application to determine if the claims, specification, or prosecution history clearly revealed a definition that differed from this meaning. If the specification clearly defined a “cylindrical utensil” as “a storage container specifically filled with ink,” this definition would be the inventor’s lexicography and would govern the court’s decision. If, however, the specification merely referred to preferred embodiments that were not inconsistent with the ordinary meaning of the claim terms, the ordinary meaning would prevail. Therefore, a drawing in the specification merely showing a storage container filled with ink could not restrict the definition to require ink unless it was clearly stated. This illustrates the broad method that judges may use to construe patent claim terms.

3. A Narrow Approach to the Use of the Specification During Claim Construction

In SciMed Life Systems, Inc. v. Advanced Cardiovascular Systems, Inc., the Federal Circuit exercised a narrow approach to interpreting claim terms that were limited by the patent documents. SciMed owned three patents that covered balloon dilatation catheters, used in coronary angioplasty procedures to remove coronary artery restrictions. The claimed catheters contained two passageways, called lumens. The parties agreed that only two arrangements for the lumens existed. The dual lumen configuration featured lumens positioned
side-by-side within the catheter. The second configuration, the coaxial configuration, placed one lumen inside the other and was annular in shape when viewed in cross-section. SciMed sued Advanced Cardiovascular Systems for infringement of its patent by using a dual lumen configuration. The court had to determine whether SciMed’s patents encompassed the dual lumen configuration.

The Federal Circuit affirmed the district court’s narrow approach to claim construction and agreed that the specification limited the scope to coaxial lumens. SciMed argued that this method of claim construction would be reading a limitation from the written description into the claims, a “cardinal sin[] of patent law.” The Federal Circuit, however, rejected that argument because the district court read the claims “in view of the specification, of which they are a part,” as mandated by the Federal Circuit in Markman I. The appellate court found that “[w]here the specification makes clear that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims . . . .” It added that that is the case “even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question.” The court also found that the claims were limited when only one embodiment was described and enabled in the specification: “when the “preferred embodiment” is described as the invention itself, the claims are not entitled to a broader scope than that embodiment.”

The court applied these findings to the catheter described in SciMed’s patents to establish that the specification limited the claims to a coaxial configuration. First, the court read the abstract of the specification to refer to an inner tube and an annular position, which identified a coaxial

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96. Id.
97. Id.
98. Id. at 1338–40.
99. Id. at 1340.
100. See id. at 1345. The district court applied a narrow approach to claim construction by reading the specification to hold that the patents did not cover the dual lumen configuration. See id. at 1339. The district court found that the language contained in the specification expressly limited all embodiments of the claimed invention to a coaxial structure. Id. SciMed conceded that under the district court’s claim construction, Advanced Cardiovascular did not infringe its patents, and SciMed appealed to the Federal Circuit. Id. at 1345.
101. Id. at 1340.
102. Id. (quoting Markman I, 52 F.3d 967, 979–80 (Fed. Cir. 1995), aff’d, 517 U.S. 370 (1996)).
103. Id. at 1341.
104. Id.
105. Id. (quoting Wang Labs, Inc. v. Am. Online, Inc., 197 F.3d 1377, 1383 (Fed. Cir. 1999)).
106. See id. at 1342–45.
configuration.\textsuperscript{107} Second, the court found that the portions of the written descriptions of each of SciMed’s patents discussing disadvantages of prior art structures explained that dual lumen configuration catheters have shaft sizes larger than necessary and are stiffer than desired.\textsuperscript{108} Third, the court examined the summary of invention, which described an inner core tube with a guide wire lumen extending through it and an outer sleeve extending annular inflation lumen, characterizing a coaxial configuration.\textsuperscript{109} The Federal Circuit construed the specification in a way that the claims excluded the dual lumen arrangement.\textsuperscript{110}

In the example of the pen, the narrow claim term construction method also begins with determining the ordinary meaning of the claim terms. However, this is accomplished by reading the other claims, specification, and prosecution history. Suppose that the patent documents repeatedly stated that pen was a storage container filled with ink, but illustrated the pen as an object that easily fits into a person’s hand in the drawings. Then, under the narrow method of claim construction, the term would be construed with the limited definition of a storage container filled with ink that easily fits into a person’s hand as the ordinary meaning. This meaning could not then be broadened to include other embodiments, even though the other embodiments could fall within the meaning of the text of the documents. For example, a jumbo pen would not then be covered by the narrow meaning of the term pen, because although it is a storage container filled with ink, it would not easily fit into a person’s hand. This illustrates the narrow method of claim construction.

\section*{4. Reconciling the Different Approaches}

In \textit{Nystrom v. TREX Co., Inc.}, the Federal Circuit attempted to reconcile the broad and narrow approach of claim construction in light of \textit{Phillips}. Nystrom invented boards for use in constructing floors for decks.\textsuperscript{111} Nystrom sued TREX, which manufactured deck floor planks made out of composites of recycled plastic and wood fibers, for infringement of his patent.\textsuperscript{112} The court had to decide whether the term

\begin{thebibliography}{11}
\bibitem{107} Id. at 1342.
\bibitem{108} Id. at 1342–43.
\bibitem{109} Id. at 1343.
\bibitem{110} Id. at 1343, 1345.
\bibitem{111} Nystrom v. Trex Co., Inc., 374 F.3d 1105, 1107 (Fed. Cir. 2004) (\textit{Nystrom I}), withdrawn, opinion replaced by \textit{Nystrom II}, 424 F.3d 1136 (Fed. Cir. 2005).
\bibitem{112} Id. at 1109.
\end{thebibliography}
“board” in Nystrom’s claims included non-wood materials.113

Initially, the Federal Circuit began the claim construction with a broad meaning by reviewing the claims themselves, dictionaries, treatises, the specification, and prosecution history to determine the claim term’s ordinary meaning.114 The court noted that the ordinary and customary meaning could “be overcome if the patentee has acted as his or her own lexicographer in explicitly setting forth a definition” or has clearly disclaimed the scope of coverage.115 After reviewing these references, the court found the word “board” to encompass both a piece of wood and a similarly shaped piece of a rigid material.116 The court found this because “Nystrom did not disclaim boards made from materials other than logs.”117 It read the specification to describe logs as a preferred embodiment, which recognized that decking boards may be made from other rigid materials.118 After construing the meaning of “board,” the court found that the term should be given the full range of its ordinary meaning, consistent with the written description, to include TREX’s wood composite decking material.119

The Federal Circuit then reconsidered Nystrom in light of Phillips and narrowed its claim term construction.120 The court repeated that the claims did “not include any language describing the ‘board’ as cut from a log or necessarily being made of wood.”121 The court, however, then examined the specification to determine that “‘board’ must be limited to wood cut from a log.”122 The written description, stating that “[a] variety of specialized flooring materials have been developed for interior and exterior use,” discussed “wood flooring materials for exterior use.”123 The written description maintained that context, the court

113. Id. at 1110–11. The district court applied a limited definition of the claim term and construed the word “board” to mean “[a] piece of elongated construction material made from wood cut from a log.” Id. at 1121. It concluded that Nystrom limited the scope of the claim term with statements in the specification that a board was cut or obtained from a log and with statements made by Nystrom during prosecution in arguing against a rejection. Id. Consequently, the district court held the claims limited to boards made of wood and found for non-infringement. Id. Nystrom appealed the decision because the claim language did not contain a description of the material. Id. at 1110–11. Also, he contended that it was an error to rely on statements in the specification to limit the claims because those statements did not constitute a clear disavowal of claim scope. Id. at 1111.
114. Id. at 1111–13.
115. Id. at 1111.
116. Id. at 1111–12.
117. Id. at 1112.
118. See id.
119. Id. at 1113.
121. Id. at 1143.
122. Id.
123. Id. (internal quotation marks omitted).
found. The court also reviewed the prosecution history, which “provide[d] additional context... consistent with the written description.” The court found that Nystrom’s statements during prosecution described the invention as cut from a log. The court explained that under Phillips, Nystrom was “not entitled to a claim construction divorced from the context of the written description and prosecution history.” Because the written description and prosecution history consistently used the term “board” to refer to wood, the court interpreted the term in the claim to use that definition and limit the claim term.

The Federal Circuit then explained that this narrow claim construction was consistent with its decision in Phillips, which applied a broad claim construction approach. It reconciled the cases by explaining that in Phillips, the ordinary meaning of “baffles” included all angles, and the language in the patent application did not limit the ordinary meaning. In Nystrom, however, the ordinary meaning of “board” was a sawed piece of lumber, and Nystrom sought to broaden that definition in his arguments. The court found that broadening the definition absent language in the intrinsic record evidencing an intent to broaden a term’s definition beyond its ordinary meaning violated claim construction principles announced in Phillips.

III. Martek Biosciences Corp. v. Nutrinova, Inc.

In Martek, the Federal Circuit closely followed the broad claim construction approach expressed in Phillips to interpret the term “animal” in Martek’s claims to be governed by a single definition in the specification. The court was asked to construe the term “animal” to determine whether Lonza infringed Martek’s patent by implementing the described invention to increase DHAs on humans. Martek’s patent contained one sentence that defined the term “animal” as any organism

124. Id.
125. Id. at 1143.
126. Id. at 1144.
127. Id. at 1144–45.
128. Id. at 1145.
129. See id. at 1145–46.
130. Id. at 1145.
131. Id.
132. Id. at 1145–46.
133. See Martek Biosciences Corp. v. Nutrinova, Inc., 579 F.3d 1363, 1382 (Fed. Cir. 2009).
134. Id. at 1368, 1379.
belonging to the animal kingdom. However, the rest of patent application, including the claims and written description, described animals that produced food. The court relied on Phillips to hold that “[w]hen a patentee explicitly defines a claim term in the patent specification, the patentee’s definition controls.” The court determined that the patent specification clearly defined the term “animals” as any organism belonging to the animal kingdom. It also found that humans are a part of that kingdom and were therefore covered by the claims. Thus, the Federal Circuit followed Phillips to allow Martek to define “animal” broadly.

The Federal Circuit held that the references to food-producing non-human animals merely described preferred embodiments that should not be read to limit the scope of the claims. The court concluded that the disclosure of preferred non-human animals did not constitute a clear exclusion of humans. It found that the repeated references to animals that produced milk products, eggs, meat, and seafood did not disavow humans because those animals were preferred embodiments and found further that animals were not required to produce a food product. Also, the court stated that the patent application did not exclude humans because no words or phrases manifestly disclaimed patent coverage. It concluded that the generic words used to describe “animals” could be applied to humans. Therefore, the Federal Circuit did not limit the scope of the claims based on the descriptions given in the specification.

Two judges on the five-judge Federal Circuit panel dissented from the majority opinion in favor of a narrow claim construction approach because the definition of “animal” conflicted with the rest of the specification. The dissenters agreed that patentees could be their own lexicographers and that the specification recited a definition of animals

135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147.
that included humans. The judges, however, viewed Martek’s single-sentence definition of the term “animal” to be totally negated by the other text. Judge Lourie, in dissent, suggested that a claim term must be read “in a manner that comports with the . . . patent as a whole.” Rather than reading the single-line definition in isolation, the dissenters stated, one should read the entire patent to properly construe the meaning. The dissenters found that the term “animal” would have excluded humans from the scope of Martek’s patent.

The dissenting judges then considered the entire specification to construe “animal,” employing a narrow claim construction method. The judges began their analysis with the language in claim one, the broadest claim, which claimed “a method of raising an animal” to increase the concentration of omega-3 HUFA in the animal. They also relied on the rest of the specification, which was directed to raising non-human animals, not to rearing children. Further, they found the wording of the invention that described raising animals and food products to be limiting language. Also, the dissenters relied on the summary of the invention in the patent, which stated that animals raised by the invented process included poultry, cattle, swine, and seafood. The sentences directly following the definition of “animal” in the specification listed non-human animals from which food products are derived. The dissenters reasoned that the ways “animal” was used in the remainder of the specification were not preferred embodiments, but strongly supported a conclusion that the invention excluded humans.

The dissenting judges, relying on the entire specification, determined that the invention not only excluded humans, but distinguished animals from humans. They noted that the specification discussed a method to incorporate the invention into animal feed. The dissenters concluded that the specification differentiated humans and animals when.

148. Id. at 1382–83.
149. Id. at 1383–85.
150. Id. at 1383.
151. Id.
152. Id.
153. Id.
154. Id.
155. Id.
156. Id.
157. Id. at 1383–84.
158. Id. at 1384.
159. Id.
160. Id.
161. Id.
it referred to how the invention could “‘enhance . . . the nutritional value of processed foods for human intake or for animal feed.’”162 They believed that there would have been no need to specify treatment for humans if humans were included in the meaning of “animals.”163 The dissenters reasoned that “the fact that the milk or meat products of the animals subjected to the method of the patent can be fed to humans does not mean that humans are among the animals that are raised . . . .”164 They criticized the majority for “fail[ing] to make a distinction between using omega-3 HUFAs as a nutritional supplement for humans and animals, . . . clearly contemplated in the patent, and raising humans to be the source of such a nutritional supplement . . . .”165 Therefore, the dissenting judges would have limited the term “animal” in the claims to non-humans.166

IV. DISCUSSION

The Supreme Court placed the authority for construing claims with the judges of the Federal Circuit by holding that it is a solely legal issue.167 The Federal Circuit has provided two conflicting methods for interpreting claim terms, a broad approach and a narrow approach, which have not been reconciled.168 The judges in Martek followed Phillips to arrive at a broad definition of the term “animals.” However, this broad approach could enlarge problems within the patent system. An improved solution would be to apply a narrower method of construing claims.

A. The Methods of Claim Construction Used by the Federal Circuit Are Inconsistent

In Phillips, the broad claim construction approach applied by the Federal Circuit was inconsistent with its own reasoning. The court held that the judge should use the plain and ordinary meaning of a term found in the intrinsic record of the claims, specification, and prosecution from

162. Id.
163. Id.
164. Id.
165. Id.
166. Id. at 1384–85.
168. See Phillips v. AWH Corp., 415 F.3d 1303 (Fed. Cir. 2005) (en banc) (applying a broad approach for claim construction); Scimed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337 (Fed. Cir. 2001) (applying a narrow approach for claim construction).
the viewpoint of a person with ordinary skill in the art. It further held that dictionaries may be used beyond that if necessary.170 However, it then began its analysis with a broad dictionary meaning as the baseline for the claim term meaning.171 It then read the claims, specification, and prosecution history to determine whether the inventor used meanings that differed from the dictionary meaning.172 If there were differences, the court found them to be preferred embodiments that could not be read to limit the claims.173 It therefore was inconsistent with its own reasoning to begin with an extrinsic dictionary meaning that was not altered by any differences within the intrinsic evidence.

In addition, the broad and narrow approaches prescribed by the Federal Circuit are inconsistent with each other. In SciMed, the Federal Circuit used a narrow approach to define the claim terms that used the specification as part of the baseline definition of the claim term instead of a generic ordinary meaning in the broad approach.174 In this approach, the court also began with the plain and ordinary meaning of the term.175 However, the narrow approach used a different starting place because it established the baseline meaning relying on the specification, other claims, and prosecution history.176 From this reading, the court found a limited plain and ordinary meaning of the claim terms was limited to an annular, coaxial lumen configuration.177 The descriptions in the patent application were not preferred embodiments, but went directly to defining the claim terms. SciMed demonstrated a more narrow approach to determining the meaning of claim terms that applied the written description in the patent documents to the ordinary meaning of the claim term in question. The different baseline meanings and view of preferred embodiments demonstrate the inconsistencies of the broad and narrow approaches to claim construction that the Federal Circuit applied.

In Nystrom, the Federal Circuit then interpreted its broad method of claim construction from Phillips as a narrow claim construction method. Prior to Phillips, the court in Nystrom, began with a broad dictionary definition.178 It then found the other descriptions in the patent to be

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170. Phillips, 415 F.3d at 1319.
171. Id. at 1324–25.
172. Id.
173. Id. at 1326–27.
175. Id.
176. Id.
177. Id.
178. Nystrom I, 374 F.3d 1105, 1112 (Fed. Cir. 2004), withdrawn, opinion replaced by Nystrom
preferred embodiments that did not disclaim non-wood materials. After *Phillips*, the *Nystrom* court revised its decision to apply the law from *Phillips*. In this application, the court began with a plain and ordinary definition of “board” read from the specification, other claims, and prosecution history. It found the definition to be a limited one that excluded non-wood materials from the embodiments described. It followed the reasoning in *Phillips*, which actually specifies a narrow claim construction approach. When applying the law from *Phillips*, the Federal Circuit took the narrow approach similar to that taken in *SciMed* instead of the approach actually used in *Phillips*.

In summary, the Federal Circuit unsuccessfully reconciled these inconsistent claim construction approaches. The different claim construction methods began with a different baseline meaning. Both cases began with the ordinary meaning of the term, but *Phillips* used a broad dictionary meaning as the ordinary definition, while *Nystrom* began with a limited meaning read from the patent specification as the ordinary definition. The court then read the descriptions of the invention in *Phillips* as preferred embodiments that could not be used to narrow the claims. In *Nystrom*, however, the descriptions were already a part of the claim meaning and were not considered to be preferred embodiments. Thus, *Nystrom* was unable to go broader than that meaning to encompass a dictionary definition of other non-wood materials as *Phillips* did for baffles. The Federal Circuit attempted to reconcile these approaches by stating that the rules articulated in *Phillips* would not allow *Nystrom* to broaden the ordinary meaning of the claim term. However, the court failed to consider the different starting points for the two methods in its attempt to reconcile the cases. Because of the differences in determining the baseline of the claim meaning, the use of a broad approach in *Phillips* and a narrow approach in *Nystrom* cannot be reconciled.

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179. *Id.* at 1112–13.
180. *Nystrom II*, 424 F.3d at 1144.
181. *Id.*
182. *Id.* at 1143–44.
184. *Nystrom II*, 424 F.3d at 1145.
185. *Id.*
B. The Federal Circuit Applied the Broad Phillips Approach in Martek

The Federal Circuit in Martek began with a broad, ordinary meaning of the claim term, similar to Phillips. It noted that patentees may be their own lexicographers and began with the definition of “animal” given by the patentee: any member of the animal kingdom. This could be viewed as different from Phillips because that case began with a dictionary meaning, while Martek began with a meaning given in the specification. However, Martek’s meaning was a broad definition that was not taken from reading the entire specification, but merely one sentence. Because the term “animal” was given such a broad meaning, it included humans as part of the animal kingdom. This broad meaning given as the plain and ordinary definition of the term animals is similar to the method provided in Phillips.

Because the court began with a broad, ordinary meaning for the claim term, the other descriptions were viewed, as in Phillips, as preferred embodiments that could not limit the claims. Martek’s entire specification repeatedly described animals that produced a food product. Because these descriptions were not used to determine the ordinary meaning of the term, the court followed Phillips to view them as preferred embodiments. Because the limitations to economic animals were viewed as preferred embodiments, it was not read to restrict the scope of the claims. Therefore, the Federal Circuit followed the broad approach applied in Phillips to interpret the meaning of claim terms.

C. Problems Associated with the Broad Application of Claim Construction in Martek

The broad application of claim construction followed by the Federal Circuit in Martek enlarges problems within the patent system. For instance, inventors may be granted a monopoly on more than what they intended or on more than was disclosed to the public. Because an inventor may be granted coverage on more than was disclosed, the public is not put on notice of what it is able to make, use, or sell, which leads to uncertainty in the patent system. The inconsistencies in the Federal Circuit’s decisions also diminish uniformity in the patent system.

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187. Id.
188. Id. at 1381–82.
1. Martek Failed to Consider the Inventor’s Intent

By interpreting “animals” to include humans, the Federal Circuit did not consider what Martek intended to be its invention at the time the patent application was filed. As the dissenting judges stated, reading the specification as a whole leads to the conclusion that the DHA supplements were meant only for non-human animals.\textsuperscript{189} The dissenters argued that the intent of the patentee was only to include humans and animals in the food product of the supplemented animals, not to include humans to make food products for humans.\textsuperscript{190} The consistent references to economic and food-producing animals demonstrated intent only to include non-humans in the meaning of animals. By giving the patentee a broader definition, the court gave the patentee more than what he intended his invention to be. If the patentee intended to include humans as part of the supplemented animals, more thought should have been given to develop an invention for humans rather than merely lumping them in with non-human animals.

As in contract law, the judge in a patent case interprets the drafter’s intent in creating and signing the document.\textsuperscript{191} A court looks objectively to the intent and demonstration of the parties to find if there was a valid “contract” with mutual assent.\textsuperscript{192} The Restatement (First) of Contracts provides that “[a] manifestation of mutual assent by the parties to an informal contract is essential to its formation and the acts by which such assent is manifested, must be done with the intent to do those acts.”\textsuperscript{193} Similarly, the judge should interpret the intent of the patentee in drafting his patent.

The failure to consider the inventor’s intent in Martek also broadened the scope of the monopoly to violate 35 U.S.C. § 112. Congress granted patent monopolies in exchange for public disclosure to promote sciences.\textsuperscript{194} This monopoly was not to be freely given, and 35 U.S.C. § 112 requires a clear disclosure to enable a person skilled in the art to make and use the invention.\textsuperscript{195} The descriptions in the specification in Martek only described non-human “animals.” It therefore did not clearly disclose how to perform the invention with human “animals.” Not clearly pointing out the scope of the invention and failing to enable

\textsuperscript{189}. Id. at 1382–85 (Lourie, J., dissenting in part).
\textsuperscript{190}. Id.
\textsuperscript{192}. Id.
\textsuperscript{193}. Id. (quoting RESTATEMENT OF CONTRACTS § 20 (1932)).
\textsuperscript{194}. U.S. CONST. art. I, § 8, cl. 8.
a person of ordinary skill in the art to make and use the invention violates 35 U.S.C. § 112. Thus, by adopting a broad meaning of “animals,” the Federal Circuit unreasonably enhanced the scope of Martek’s patent monopoly.

2. The Broad Claim Construction Approach in Martek Causes Uncertainty in the Patent System

Additionally, a broad claim construction approach increases uncertainty in the patent system because it prevents the public from clearly knowing what the patent covers. Intellectual property can be compared to real property, where deeds expressly mark the boundaries of what land a person owns. However, if the court chooses a broad definition not clearly defined in the specification, the boundaries of the invention will not be clearly marked. The public will not be put on notice regarding what it can make, use, or sell. Dictionary meanings may change or vary between editions, which leads to uncertainty. This is why the Federal Circuit concluded that extrinsic evidence is not as reliable as intrinsic evidence.196 It is difficult to determine the endless embodiments of an invention not taught in the patent. The court may include more than was considered in the patent application in the claim term meaning, which does not let the public know what is included.

Martek provides an example of the uncertainty in the patent system caused by an unclear broad claim meaning. Martek provided a definition in the specification for the term “animal.” However, it was only a single sentence and was inconsistent with the rest of the specification. By allowing Martek to have the broad meaning from a single sentence, it is uncertain what its invention covered. It was unexpected and unclear that the multiple references to food-producing non-human animals would cover an application to humans. The court should have considered the specification as a whole to find the ordinary meaning of the claim term. The specification was available to the public and would have put the public on proper notice of what was included in the invention to lead to more certainty in the patent system.

3. The Broad Application in Martek also Diminishes Uniformity in the Patent System

The two inconsistent methods of claim construction developed by the Federal Circuit diminish uniformity within the patent system. As

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previously discussed, the two approaches to claim construction are inconsistent because each uses a different method to determine the baseline meaning of the claim terms. Also, including external sources used in determining the baseline definition of a claim term provides less reliability regarding where the court will obtain this baseline. The Supreme Court deemed uniformity to be an important element in patent law. The Federal Circuit was specifically created to provide more uniformity in the patent system because it is a national process. The Supreme Court also found claim construction to be a purely legal as a means of providing uniformity and stability in the patent system. The Federal Circuit is failing to provide this much-needed uniformity by inconsistently applying the different approaches.

**D. A Narrow Approach for Claim Construction Would Solve Problems in the Patent System**

The narrow approach of claim construction would include the patentee’s intent of what the invention covered. As stated in 35 U.S.C. § 112, the patent must put forth claims that define the boundaries of the invention, and the specification must describe the claims. Therefore, the patent application itself contains the inventor’s intent of what the scope of the invention is. The narrow approach closely follows this intent by establishing the baseline of the claim terms from the claim language and specification that the inventor set forth. This is also similar to contract law, which interprets the contract to consider the parties’ intent to be bound. This approach differs from beginning with a generic ordinary meaning to find objectively what the claim terms mean, which was too departed from the intent of the inventor. Thus, the court should use the baseline of the claim meaning by using the specification and claims to gain the inventor’s intent required by 35 U.S.C. § 112, instead of a broad ordinary meaning departed from this intent.

The narrow claim construction approach would also improve the uncertainty contained within the patent system. The broad approach is uncertain because of the baseline for determining the claim meaning. When the baseline meaning of the claim term is external and easily

changed, depending on which dictionary is used, the broad approach is difficult to predict. However, the narrow approach is contained within the patent documents. As stated in Phillips, this is desirable because it is isolated from change and more reliable.\textsuperscript{202} It provides a certain baseline meaning for the claim terms. Because a person would only need to inspect the isolated and unchanging patent documents, this narrow claim construction approach would eliminate some of the uncertainties within the patent system.

A narrow approach to claim construction would also improve uniformity within the patent system. The patent system is a national system, but the split in the Federal Circuit case law does not provide this intended uniformity. Choosing one claim construction approach would increase uniformity. The narrow claim construction approach would be advantageous because it also considers the inventor’s intent and provides more certainty. Thus, the Federal Circuit should settle on the narrow claim construction approach to optimally improve the patent system.

If the Federal Circuit had applied the narrow claim construction approach in Martek, the appropriate result would have been reached to not include humans in the term “animals.” Reading the entire patent document as a whole suggests that Martek did not consider humans to be covered by the invention. The narrow approach would have included the inventor’s understanding into the baseline meaning of animals and followed his intent not to include humans. By only relying on the patent documents to construe claim meaning, the probable court interpretation of the definition becomes more certain. The repeated references to food-producing animals in Martek’s specification and claims would have prevailed to cover only what was certainly taught by the invention. Following this method consistently would increase uniformity in the patent system.

\textbf{V. CONCLUSION}

In conclusion, the Federal Circuit should follow the narrow approach for construing patent claim terms. The Federal Circuit has provided two approaches for construing claim terms, a broad and narrow approach. The broad approach was used to construe the term “animal” in Martek. This lead, however, to a decision that did not consider the inventor’s intent of the coverage of the invention, added uncertainty into ordinary meanings of claim terms, and decreased uniformity within the national

\textsuperscript{202} Phillips v. AWH Corp., 415 F.3d 1303, 1319 (Fed. Cir. 2005) (en banc).
patent system. The Federal Circuit could have avoided these problems by applying the narrow claim construction approach.