

Are products of essentially biological processes patentable in Europe? The purple radish sprouts case in The Netherlands

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Art. 53(b) of the European Patent Convention (EPC) stipulates that 'European patents shall not be granted in respect of ... essentially biological processes for the production of plants ...'. In two recent decisions,³ the Enlarged Board of Appeal (EBoA) of the European Patent Office (EPO) has held that 'conventional' plant breeding processes involving crossing and selection are 'essentially biological processes' and hence unpatentable under Art. 53(b) EPC.

The two cases considered by the EBoA related to European Patent No. 1069819 of Plant Bioscience, which had been opposed by the large agrochemical companies Syngenta and Limagrain, and European Patent No. 1211926 of the State of Israel which had been opposed by the food and chemicals giant Unilever. Both of the references to the EBoA were made by Technical Board of Appeal (TBoA) 3.3.04, i.e. 'Chemistry IV'.

Following the EBoA's decisions, the appeal proceedings resumed with both patentees deleting the claims to plant breeding processes and requesting that their patents be

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³ G-2/07 Broccoli/PLANT BIOSCIENCE and G-1/08 Tomatoes/STATE OF ISRAEL, decisions dated 9 December 2010 and available at <http://www.epo.org/law-practice/case-law-appeals/pdf/g070002ex1.pdf> [last checked 2 March 2012].

maintained with claims directed to the *plant product* of the breeding process, i.e. broccoli and tomatoes respectively.

In a decision from December 1999,⁴ the EBoA had confirmed that plants could be patented as long as the claims were not to plant 'varieties' as such, i.e. defined at the lowest taxonomic level. That decision was handed down three months after the introduction of Rule 27(b) into the EPC providing that: 'Biotechnological inventions shall also be patentable if they concern ... plants or animals if the technical feasibility of the invention is not confined to a particular plant or animal variety'. That Rule was introduced as part of an attempt by the EPO to bring the EPC into conformity with European Union Directive 98/44/EC of July 1998. This Directive did not apply automatically to the EPC since, although all EU countries are party to the EPC, the EPC is not an EU instrument and several EPC member states are not EU countries.

In the Broccoli case, the opponents indicated that they would not object to the claims to the plants and on 13 October 2011 the TBoA cancelled the oral proceedings that had been set for the case, thereby suggesting that the Broccoli patent was likely to be maintained with those claims. In the Tomatoes case, things did not run so smoothly. Oral proceedings were set for 8 November 2011 and, on 10 October 2011, Unilever wrote to the TBoA pointing out that, in Unilever's view, the product claims should not be allowed 'as it would contravene the intention of the legislators as interpreted by the EBoA in G01/08. ... [A]llowing claims having a general format of "A fruit/plant with trait x" where the fruit/plant is obtained by a classical breeding method would *de facto*

⁴ G-1/98 Transgenic plant/NOVARTIS II, *Official Journal of the European Patent Office* 2000, 111.

ignore G01/08'. One of the present authors (Sterckx) followed this with an *amicus* brief supporting Unilever's position.

At the oral proceedings in November, with a freshly appointed chairman, TBoA 3.3.04 took the unprecedented step of deciding to refer a further set of questions to the EBoA to determine whether claims to plants which are the product of an unpatentable 'essentially biological process' can be allowed. At the time of writing, the TBoA has not yet formally made the reference to the EBoA. If claims to the plant product are allowable, this would of course render the exclusion of 'essentially biological processes' meaningless since those claims would be infringed by the performance of the unpatentable process, i.e. the patent would indeed be 'in respect of' the excluded process.

In the meantime, the very same point has been considered by the Dutch courts in the case *Taste of Nature v. Cresco*.⁵ In December 2011, Taste of Nature sued Cresco in the Dutch courts for infringement of European Patent No. 1290938, the first claim of which reads as follows:

A *Raphanus sativa* plant, obtainable by screening *Raphanus sativa* [plants for] their ability to produce sprouts with at least some purple coloring, selfing and/or crossing said plants for several generations and selecting progeny having sprouts with purple coloring, characterized in that the sprout of said plant comprises anthocyanins at a level of at least 800 nmol per gram fresh weight of sprout.

⁵ Decision of the Civil Law Division of the Court of The Hague, dated 2 February 2012. An English translation is available at http://www.brantsandpatents.com/NL/judgment_taste_of_nature_cresco-Nieuws-45 [last checked 2 March 2012].

Raphanus sativa is radish, and anthocyanins, which are healthy antioxidants, are the chemicals that give some flowers and berries their attractive colours. Radish sprouts are used for food decoration and in salads.

The Dutch decision, from February 2012, found that the claims of the Radish patent were unlikely to be found to be valid. Taste of Nature had argued that the EBoA's decisions in the Broccoli and Tomatoes cases did not apply since no ruling was made in respect of *product* claims. The judge disagreed, giving his provisional opinion that 'it is plausible that under [Art. 53(b) EPC] not only an essentially biological method is unpatentable, such as the "classical breeding" in this case, but also a product directly obtained by using that method, because a method claim also protects the product directly obtained using that method (see [Art. 64(2) EPC]). If it were to be ruled that a product-by-process claim is admissible for the directly obtained product of an unpatentable essentially biological method, that would render the exclusion in [Art. 53(b) EPC] as interpreted by the [EBoA] in G1/08 pointless...'.

Art. 64(2) EPC, referred to by the Dutch judge, provides that '[i]f the subject-matter of the European patent is a process, the protection conferred by the patent shall extend to the products directly obtained by such process'. Thus claims in a European patent that are directed to a process will be infringed by dealings with the product obtained directly on performance of the process, e.g. by importation of such products from a country where they were made, even if there is no corresponding patent in the country of manufacture. Otherwise stated, using the language of Art. 53 EPC, a European

patent with claims to a process would indeed have been granted ‘in respect of’ the direct product of that process.

This, however, is insufficient to show that, where claims to a process are excluded by virtue of Art. 53 EPC, then claims to a product which can be made by such a process are likewise excluded. Such a conclusion does not even follow if, like Taste of Nature’s claims, the product is covered by a so-called ‘product-by-process’ claim since the EPO’s standard format for product-by-process claims is ‘product X *obtainable* by process Y’ rather than ‘product X obtained by process Y’. The ‘*obtainable* by’ language, favoured by the EPO, ensures that the claim covers the product irrespective of the process actually used to make it. Taste of Nature’s claim is written in this form. This form allows for the possibility of a product being patentable if there is at least one way of making it which is not itself excluded from patentability, with the corollary that it will not be patentable if there is no way of making it that is not excluded.

This has resonance with the EBoA’s recent decision on the patentability of compositions comprising human embryonic stem cells created following a procedure that involved the destruction of early stage human embryos.⁶ Indeed, where a product is not itself expressly excluded from patentability and can be made by processes not themselves expressly excluded, it would be unreasonable to reject the patentability of the product simply because there exists one process for its production which is excluded. After all, processes whose commercial exploitation are contrary to morality are excluded under Art. 53(a) EPC and for *any* product it is feasible to think up a

⁶ G-2/06 Use of embryos/WARF, *Official Journal of the European Patent Office* 2009, 306.

process for its preparation that would be contrary to morality, e.g. where slave labour is used.

Nonetheless, where the text of a patent or patent application in which a product is claimed *only* provides an explanation as to how to make the product by the use of a process deemed unpatentable under Art. 53 EPC, as was the case for the Human embryonic stem cell case and as is the case for the Tomatoes, Broccoli and Radish patents, then to allow claims to products, obtainable only by the unpatentable processes, would *de facto* mean that such European patents ‘relate to’ the unpatentable processes and, in accordance with Art. 53 EPC, should not be granted or upheld. Otherwise the intentions of the legislators would be ignored and the exclusions rendered ineffective.⁷

Taste of Nature has appealed in The Netherlands and TBoA 3.3.04’s referral to the EBoA is awaited. The next year should see interesting developments in the determination of the scope of Art. 53 EPC.

⁷ See Sterckx, Sigrid and Cockbain, Julian, *Exclusions from patentability – How far has the European Patent Office eroded the boundaries?*, Cambridge: Cambridge University Press (forthcoming, September 2012).