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The Embryo and its Rights: Technology and Teleology

By Bert van Roermund[*]

A. Introduction

Why do fundamental rights and market freedoms attract and repel each other? Why can they neither be together nor remain separate? This paper argues that at least part of the explanation is that they are each governed by different types of "logic." They are at the fault-lines of different discourses. Market freedoms are promoted in a technological discourse, fundamental rights in a teleological discourse. The former are expressed in an observational view from above, while the latter embody the view of a first-person agent. Travelling back and forth between these two discourses, as legal authorities like the European legislator and the Court of Justice of the European Union (CJEU) often have to do, is an ambiguous enterprise. It may create opacity, but it may also bring clarity to the otherwise muddy waters of a "common" (now: "internal") EU market under capitalist conditions. Much is dependent on their ability to orientate themselves on a map that recognizes the poles of these discourses, technology and teleology. This paper contributes to drawing that map through analysis of a case study in patent law involving the concept of an embryo. Construed as "an autonomous concept of European law"[1] the notion of an embryo will appear to be paradigmatic of alternative ways in which the two discourses may relate to each other.

This article sets out by asking a rather rude question: By applying the Biotechnology Directive 98/44 in Case 34/10 of 18 October 2011,[2] did the CJEU succeed in reconciling commercial interests and moral concerns in the European legal order? After briefly introducing the case in part B.I, and its underlying problems in patent law in part B.II, I will argue in part C that it did not succeed. The CJEU keeps oscillating between market- and morality-driven arguments. Thus, it refueled the dispute, in particular by conflating teleological and technological discourses about the concept of an embryo, or indeed more generally, the concept of a human body. In part D, I will present what I take to be a preferable view, arguing that, at bottom, *embryo* is a first-person concept, predicated on a

[*] I am grateful to Daniel Augenstein for extensive comments on earlier drafts of this paper and to Terry Wilkinson for copy-editing the final draft.

[1] *See infra* Part B.II (explaining the significance of this paraphrase).

[2] Brüstle v. Greenpeace e.V., CJEU Case Case C-34/10, 2011 E.C.R. I-09821 [hereinafter *Greenpeace*].

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narrative of agential selfhood. I will show which conclusions are to be drawn from this with regard to the patentability problem at hand. In the remainder of the paper, part E, I aim to show that this problem and the solution proposed by the Court are paradigmatic of fundamental rights in their relation to fundamental market freedoms. As both fundamentals will continue to inspire the EU as an allegedly *sui generis* legal order, these findings have implications for a wider area than biotechnological policy. My approach is informed by law but driven by philosophy, i.e., by the analysis of a conceptual framework with a view to systematic, critical, and sustainable thinking.

B. The "Capability of Developing into a Human Being"

I. The Doctrinal Context

The enactment of Directive 98/44 on the legal protection of biotechnological inventions "generated some of the most intensive debates in EU political history,"[3] and it is not difficult to see why. Biotechnology belongs to the fastest developing areas of technology in the world today, where the stakes are sky-high and the market interests overwhelming. The legal regulation of patents involves a difficult process of reconciling various policy objectives, including protecting the intellectual property of major industries, enhancing productivity of Europe-based players in a global market, sustaining innovative research in institutions in and outside Europe, and improving conditions of health and wealth for people around the world. Moreover, it aims to tie in these policy objectives, legally acceptable as they are in their own right, to more general moral concerns that Member States are committed to; the sanctity of human life, the dignity of man, or the preservation of a certain social order under a plurality of values, to name the most important ones. As I see it, these concerns have been given legal form in fundamental rights, which elevates their normativity above the level of negotiations of values and lends them default binding force.[4] Thus, it seems safe to say that biotechnology is an area where the principles of EU internal market law are put to the test. The principles are well-known, to curb discrimination and privileges in economic activity and to further the free movement of goods, capital, services, and persons on the basis of equality. But what precisely is the test?

One part of it surely relates to the Europe 2020-strategy to enhance the EU's competitiveness.[5] Here the question is, does competition under the internal market

[3] Mark Paton & Alex Denoon, *The Ramifications of the Advocate General's Opinion in the Olivier Brüstle Case*, 33 EUR. INTELL. PROP. REV. 590, 591 (2011).

[4] *See* JÜRGEN HABERMAS, BETWEEN FACTS AND NORMS: CONTRIBUTIONS TO A DISCOURSE THEORY OF LAW AND DEMOCRACY 253–61 (1998) (describing how rights trump values).

[5] Communication from the Commission*, Europe 2020: A Strategy for Smart, Sustainable and Inclusive Growth*, at 3 (Mar. 3, 2010) ("We need a strategy to help us come out stronger from the crisis and turn the EU into a smart, sustainable and inclusive economy delivering high levels of employment, productivity and social cohesion. Europe 202 sets out a vision of Europe's social market economy for the 21st century."), *available at*

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principles yield a form of cooperation robust enough to make the EU compete on an external, global, market that is not necessarily governed by the same principles? But there is another part of the test, relating to the EU's commitment to fundamental rights as expressed in Article 6.1 TEU-L (EU Charter) and its envisaged accession to the European Convention for the Protection of Human Rights (Art. 6.2 TEU). This part of the test is governed by the question: Are the EU internal market principles open enough to the moral concerns that the EU, as a political union of Member States, subscribes to in the form of rights that are to be respected and protected? My main concern shall be with the latter part of this test, acknowledging that openness may mean a lot of things. There is considerable difference, for instance, between (1) mere compatibility of market freedoms and fundamental rights; (2) means-ends relationships between either of them; or (3) their intertwinement in an *equi-primordial* relationship, in which both are mutually conditional. I submit that we can only come to understand these differences by analyzing legal reasoning in relevant cases.

The patent law case decided by the CJEU on 18 October 2011 is such a case.[6] The German *Bundesgerichtshof* requested a preliminary ruling in proceedings brought by Greenpeace e.V. Greenpeace was seeking the annulment of a German patent held by Mr. Oliver Brüstle, which related to neural precursor cells, the processes for their production from certain embryonic stem cells, and their use for therapeutic purposes. Greenpeace contended that Brüstle's invention was non-patentable under Directive 98/44/EC.[7] In Art. 6(1) the Directive stipulates that an invention is non-patentable "if commercial exploitation of the patent would be contrary to *ordre public* or morality; however, exploitation shall not be deemed to be so contrary merely because it is prohibited by law or regulation."[8] Moreover, Art. 6(2)(c) explicitly lists the use of human embryos for industrial or commercial purposes as an example of a practice at odds with *ordre public* or morality.[9] Thus, the core question is: Does the use of, in particular, pluripotent stem cells of human origin—removed at a certain stage of an organism capable of developing into a human being to the destruction of that organism—constitute such non-patentable "use"? In simpler words, is such a pluripotent cell an embryo in the sense of Article 6(2)(c) by virtue of the fact that it is "an organism capable of developing into a human being?"[10]

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http://ec.europa.eu/eu2020/pdf/COMPLET%20EN%20BARROSO%20%20%20007%20-%20Europe%202020%20-%20EN%20version.pdf.

[6] *See Greenpeace*, CJEU Case C-34/10.

[7] Council Directive 98/44, 1998 O.J. (L 213) 13 (EC).

[8] *Id.* at 18.

[9] *Id.* ("On the basis of paragraph 1, the following, in particular, shall be considered patentable: . . . uses of human embryos for industrial or commercial purposes . . . .").

[10] This is the core of the more technical questions asked by the BGH, of which I quote only the first set here:

I will disregard the specific preliminary questions, important though they may be in their own right, and concentrate entirely on what is entailed in the phrase "capable of developing into a human being." I submit that various parts of the answer given by the CJEU crucially hinge on technological language that I associate with the fundamental market freedoms as *technological* devices. Such a technological approach to market freedoms provides a weak defense of the embryo and its rights. I juxtapose this approach with a *teleological* reading of capability that, as it is submitted, is both essential in grasping the normative content of *all* human rights and radically different from the fundamental market freedoms standpoint.

II. Markets or Morals?

In *Brüstle v. Greenpeace*, the CJEU considers various laws and agreements binding the EU and/or its Member States, as well as the Preamble to the 98/44 Directive, before turning to the relevant individual rules of the Directive quoted above.[11] Then the CJEU goes on to explain the context in which the decision should be placed and the constraints that follow from this context. According to the Court, this decision addresses the uniform application of patent law in the EU, particularly the scope of its prohibitions. In fact, the Court noted:

> What is meant by the term "human embryos" in Article 6(2)(c) of [the Directive]?
> (a) Does it include all stages of the development of human life, beginning with the fertilisation of the ovum, or must further requirements, such as the attainment of a certain stage of development, be satisfied?
>
> (b) Are the following organisms also included:
>
> – unfertilised human ova into which a cell nucleus from a mature human cell has been transplanted;
>
> – unfertilised human ova whose division and further development have been stimulated by parthenogenesis?
>
> (c) Are stem cells obtained from human embryos at the blastocyst stage also included?

Greenpeace, CJEU Case C-34/10 at para. 23.

[11] *See id*. This is also a core phrase in the relevant German legislation that the CJEU considers, namely the *Patentgesetz* (Patent Law) and the *Embryonenschutzgesetz* (Law on the Protection of Embryos). It mentions, in particular, Paragraph 8(1) of the ESchG: "an embryo is a fertilised human ovum capable of development, from the time of karyogamy, and any cell removed from an embryo which is "totipotent," that is to say, able to divide and develop into an individual provided that the other conditions necessary are satisfied. A distinction must be made between those cells and pluripotent cells, which are stem cells which, although capable of developing into any type of cell, cannot develop into a complete individual." *Id.* at para. 12.

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> The need for a uniform application of European Union law and the principle of equality require that the terms of a provision of European Union law which makes no express reference to the law of the Member States for the purpose of determining its meaning and scope must normally be given an independent and uniform interpretation throughout the European Union.[12]

This is where the predicate "an autonomous concept of European Union law" enters the stage. The term embryo is one such term that the Directive uses without defining it in any of its provisions and without (express) reference to the law of the Member States, thus leaving a maximally wide scope for determining its meaning in a uniform way throughout "the territory of the Union."[13] Exercising this self-ascribed competence, the Court considers that any human ovum must, as soon as it is fertilized, be regarded as a human embryo if that fertilization is such as to commence the process of development of a human being.[14] In response to the preliminary questions it goes even further: A non-fertilized human ovum into which the cell nucleus from a mature human cell has been transplanted and a non-fertilized human ovum whose division and further development have been stimulated by parthenogenesis must also be classified as a human embryo. Although those organisms have not, strictly speaking, been the object of fertilization, due to the effect of the technique used to obtain them, they are capable of commencing the process of development into a human being comparable to an embryo created by fertilization of an ovum.[15] Finally, the CJEU leaves it to the referring court to ascertain, in the light of scientific developments, whether a stem cell obtained from a human embryo at the blastocyst stage[16] constitutes a human embryo within the meaning of Article 6(2)(c) of the Directive.[17]

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[12] *Id.* at para. 25 (referencing further "Case 327/82 Ekro [1984] ECR 107, paragraph 11; Case C-287/98 Linster [2000] ECR I-6917, paragraph 43; Case C 5/08 Infopaq International [2009] ECR I 6569, paragraph 27; and Case C-467/08 Padawan [2010] ECR I 0000, paragraph 32.").

[13] *Id.* at para. 26. This is in line with multiple uses of the phrase "an autonomous concept of European law" by the CJEU. *See id.* at para. 25.

[14] *See id.* at paras. 34–36.

[15] *See* Press Release, Court of Justice of the European Union, Press Release No. 112/11 (Oct. 18, 2011), *available at* http://curia.europa.eu/jcms/upload/docs/application/pdf/2011-10/cp110112en.pdf.

[16] A later stage of embryonic development considered at a certain point in time, almost five days after fertilization.

[17] *Greenpeace*, CJEU Case C-34/10 at para. 38.

The CJEU makes no secret of why all this is important; its concern is not "to broach questions of a medical or ethical nature,"[18] but rather to implement the directive in the internal market. In the words of the Court:

> It follows from recitals 3 and 5 to 7 in the preamble to the Directive that it seeks, by a harmonisation of the rules for the legal protection of biotechnological inventions, to remove obstacles to trade and to the smooth functioning of the internal market that are brought about by differences in national legislation and case-law between the Member States, and thus, to encourage industrial research and development in the field of genetic engineering . . . .[19]

Still, the Court also notes that this policy goal is clearly restricted by a moral concern that is equally among the aims of the Directive, namely to avoid any violation of the dignity of the person and the integrity of the human body. As said, Article 6.1 excludes from patentability any invention the commercial exploitation of which would be "contrary to *ordre public* or morality."[20] Exemplifying this general provision, Article 6.2(c) explicitly excludes the use of human embryos for industrial or commercial purposes from patentability, mentioning such use among others on a list.[21] But the relationship between Articles 6.1 and 6.2 is not only one of exemplification, but also a relationship of entailment. As the Court notes, the two provisions also differ from each other with regard to the ascription of discretion.[22] Article 6.1 grants Member State authorities wide discretion in deciding what is contrary to *ordre public* or morality, while Article 6.2 curtails this discretion when it comes, for instance, to the use of human embryos for commercial purposes. It follows, in the view of the Court, [23] that the concept of a human embryo must be understood in a "wide" sense, as distinct from a "narrow" sense.[24] Apparently, what the Court thinks is that wide discretion for Member States will come with narrow, in the sense of parochial, conceptions of the

[18] *Id.* at para. 30.

[19] *Id.* at para. 27. *Compare id.*, *with id.* at para. 28 ("The lack of a uniform definition . . . would create a risk of the authors of certain biotechnological inventions being tempted to seek their patentability in the Member States which have the narrowest concept of human embryo . . . because those inventions would not be patentable in other Member States.").

[20] Council Directive 98/44, *supra* note 7, at 8.

[21] *Id.*

[22] *See id.* at para. 29.

[23] *See id.* at para. 28.

[24] *See id.* at para. 34.

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embryo. Thus, such narrow conceptions would allow the authors of certain biotechnological manipulations to shop around Member States for the concept of an embryo that leaves maximal scope for presenting the manipulation as an invention, and submit their patent claims accordingly. This may distort the functioning of the market, if other Member States leave less scope, e.g., for moral reasons.[25] Hence, the CJEU opted for an encompassing ("wide") reference of the term embryo, so as to avoid exposing the basics of patent law to a regulatory competition in moral lenience.

And so the question arises: What takes priority in this decision? The smooth functioning of the internal market over moral issues or the moral issues over the internal market? At first glance it is the former, as the main goal of the CJEU is to undercut shopping by market parties for the narrowest concept of an embryo, given the dissent in the Member States. Shopping would undermine a uniform application of patent law and would thereby destroy the level playing field for productive competition between EU enterprises in biotechnology. In the end, by the very logic of the EU project as a common market, allowing shopping would diminish the EU's competitiveness in the global market. So the argument of the CJEU, seen from this approach, is not an argument from morality, at least not from critical morality. At most, it is an argument from positive morality, i.e., from a descriptive account of diverging moral positions towards the concept of an embryo, which constitute a potential hazard for the internal market. While referring to public order and morality as potential sources of constraint, the argument itself hinges on *ordre public* solely, namely the order of factually existing disagreement in moral matters.

It seems that these charges can be reversed immediately. Arguably, in paragraph thirty two, the CJEU joins the aim of the Directive, which is to warrant that the use of biological material originating from humans must "be consistent with regard for fundamental rights and, in particular, the dignity of the person," as Recital 16 of the Directive rules.[26] Thus, a concern for human rights is undoubtedly referred to as a normative background for the application of the Directive. It therefore seems to follow that moral concerns are the ultimate basis for this line of reasoning. Even so, Recital 16 of the Directive requires closer reading. It links dignity with patentability by capturing three considerations in one recital:

> (i) Whereas patent law must be applied so as to respect the fundamental principles safeguarding the dignity and integrity of the person; (ii) whereas it is important

[25] *See* Han Somsen, *Brüstle: Embryonale Fout Met Grote Gevolgen*, 18 NEDERLANDS TIJDSCHRIFT VOOR EUROPEES RECHT (NTER) 33, 36 (2012) (wondering why different definitions of "embryo" in Member States should not be regarded as an incentive of competition ("comme d'habitude")). My responsive explanation is that the dissent on the proper definition of "embryo" spills over to a dissent on the proper definition of "invention," which would affect the basis of patent law.

[26] *Greenpeace*, CJEU Case C-34/10 at para. 32.

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> to assert the principle that the human body, at any stage in its formation or development, including germ cells, and the simple discovery of one of its elements or one of its products, including the sequence or partial sequence of a human gene, cannot be patented; (iii) whereas these principles are in line with the criteria of patentability proper to patent law, whereby a mere discovery cannot be patented . . . .[27]

By including all of these considerations in one recital, it is suggested that non-patentability of the human body follows from respect for human dignity and corporeal integrity, as mentioned under (i). But the exact wording of Article 5.1 of the Directive suggests otherwise.[28] On the basis of this Article, non-patentability follows from the human body or any of its parts not being an invention but rather an object of scientific investigation—the latter giving rise to mere discoveries.[29] In other words, Article 5.1 lends form and substance only to (ii) and (iii) of Recital 16, but not to (i) on safeguarding human dignity. The human body is as non-patentable as a Higgs particle, and for the same reasons, it is an object among many other available in nature. But if this is the bottom line, it seems that not moral concerns but, rather, the doctrinal definitions of patent law are driving the reasoning of the Court. Just as there is no moral reason for the non-patentability of the Higgs particle, there is no moral reason for the non-patentability of the human body. Therefore, the very aims, rather than the constraints, of patent law govern the Directive, as well as the CJEU decision. In the final analysis they yield to the requirements of the market after all. In other words, what is normatively acknowledged here is not man as a dignified human being, protected by the ascription of fundamental rights. It is, rather, man as an object of scientific inquiry that may or may not give rise to technological inventions, delivered to the internal market and its fundamental freedoms under the constraints of patent protection.

C. From Means to Ends and Back: Teleology versus Technology

Which conceptual transformations allow authorities like the European legislator and the European Court to travel back and forth between man as a dignified being and man as an object of scientific investigation? At the core is an intricate argument, as we saw, about the relationship between an embryo and a human being, mediated by the concept of the

[27] Council Directive 98/44, *supra* note 7, at 14.

[28] *Id.* at 18 ("The human body, at the various stages of its formation and development, and the simple discovery of one of its elements, including the sequence or partial sequence of a gene, cannot constitute patentable inventions.").

[29] *See id.*

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human body. But that concept of a body is far from unequivocal. Two conceptual lines are intertwined here: A teleological one, associated with fundamental rights, and a technological one, associated with fundamental freedoms. Teleological thinking is inspired by the common sense idea of a *causa finalis*.[30] Here the body is conceived as "matter" geared towards a "form," much like a piece of marble or wood is destined to become some specific figure under the hands of an artist. The CJEU reasons along this line when it declares that a human embryo is: Any human ovum that is "capable of commencing" the development of a human being, by fertilization or otherwise.[31] To ascribe a "capability" to an ovum is to speak the Aristotelian language of potentiality. That is to say, some other conditions being favorable, a certain entity will develop from an initial stage to its mature form, which is believed to be its "destination," its *telos*.[32]

A second conceptual line could be called a technological line. Technological thinking considers the body, hence the embryo, as a piece of complex machinery consisting of various parts. To ascribe "capabilities" to such a set of parts is to speak the language of engineering. Thus the body is a set of functions supervening on these parts as they acquire a certain degree of complexity. While these functions can be combined, they can also be recombined to build other, more or less complex functions. For example, the psychological category of motivation is such a complex function which may resemble a teleological scheme at the surface while its underlying logic is determined a functional, indeed a technological view. Take Jean, who is motivated to practice for eight hours a day in order to become a concert pianist. This motivation may be inspired by how she perceives herself as a full-fledged human being. But it may also stem from a sort of addiction to either the practicing itself, or the idea of being a concert pianist, or both. Thus, the two lines of discourse—teleological and technological—do not merge easily; they may be intertwined like the two helixes of a DNA chain but they do no integrate well.

At first glance there seems to be an easy solution, conceptually speaking. Why couldn't we simply let teleology govern our discourse about ends, and technology our discourse about means? We need the ends to determine the means, and we need the means to realize the ends. The end without the means is gratuitous, the means without the end is blind, to

[30] In daily life discourse, we often work with the idea of a goal (*finis*) causing or bringing about some action, knowing quite well that this very action will cause or bring about the goal as a result of the action. Scientific discourse, though, accepts only the second sense of causation.

[31] *See* Council Directive 98/44, *supra* note 7, paras. 35–37 (describing the nature of the human embryo).

[32] Note that "getting fertilized" can be conceived as one of the conditions for an ovum to develop into a human being, while, alternatively, "being a fertilized ovum" may also be conceived as a characteristic of the entity prior to any further conditions. For teleological discourse, this is immaterial. Even an ovum or a spermatozoid may be capable of such development, provided fertilization is one of the conditions. And, even more typically, the stage of "maturity" may be infinitely deferred, as even adult men will always retain some potentiality to discover ever-richer forms of human flourishing.

paraphrase Kant.[33] In the case at hand, the end is the protection of whatever is capable of developing into a human person. The means of technology should be deployed if they can further this, and stopped if they harm it. The relationship between human rights and market freedoms could be developed along similar lines. Human rights speak the language of goals; market freedoms the language of means. In other words, patentability should stop where market freedoms are no longer instrumental to the realization of a human right.

We should be careful neither to accept nor to reject this answer all too readily. It is not completely without grounds, and these grounds are instructive. If I do not feel well, I turn to a physician for diagnosis and therapy, wanting and consenting that this medical doctor will apply state of the art technology wherever it seems appropriate to do so, in order to cure my disease. Even without my explicit consent, I expect him or her to reduce me to a set of functions that can be taken apart, recombined, and replaced by artificial devices. Even if I feel completely healthy and present myself to a physician for a run-of-the-mill check-up, I expect this expert to take me apart and tell me if there are clinical symptoms indicating that I am not as healthy as I feel. It seems reasonable to say, therefore, that I intend to realize the telos of my health through the technological means available.

But things are not that simple when it comes to understanding the notion of a telos. The other side of the same coin is that these means and their applications cannot exhaust, hence should not come to replace, my self-perception as a healthy person. This does not mean that I am as healthy as I feel. That is nonsense. It means, to put it paradoxically, that there is a healthy and an unhealthy way of being very ill—or being very healthy, for that matter. Beyond a certain threshold the mere improvement of certain specifically selected functions (e.g., a heart-beat by a pace maker, oxygen intake by blood transfusion) will only be achieved at the cost of other functions, thus creating a temporary one-dimensional hierarchy of functions rather than integrating them into a balanced pattern of what my life as a human being amounts to over time. A telos is not an end in the sense of a target or a purpose we may choose to pursue and for which we can select appropriate means. It is "an end" in the sense that it requires sustained responsiveness to what we as human beings want to be "in the end," as a necessity we cannot cut loose from.

Technology, in turn, is far more than an arsenal of means to ends. It is an alternative account of the means-ends relationship, radically different from the teleological account.[34] In a technological discourse, the language of integration and integrity is governed by the functions that an engineer, a maker rather than an agent, is able to design, and for which

[33] IMMANUEL KANT, KRITIK DER REINEN VERNUNFT 75 (1781).

[34] Moreover, it is a thoroughly *modern* one—which means (1) that it is already part and parcel of the way we think, talk, and behave; and (2) that we are at a distance from what teleology in the Aristotelian sense meant, much greater than we imagine.

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he is able select various parts that feature suitable sub-functions. Some of these parts he may connect to artifacts (e.g., eyes to a pair of glasses); or replace by artifacts (e.g., a bad joint by a plastic one). He may switch off a gene that codifies for breast-cancer; or switch on a gene to provide a person with perfect pitch; or develop a program that will produce the winner of a gold medal at the 2020 Olympics. From the foregoing examples it is clear that such technological interventions can take on various forms; that they may serve various purposes, as all technology may; and that they therefore may acquire different moral values. It goes without saying that biotechnological "inventions" are often of this sort and that the moral ambivalence of their use does not come in the way of patentability. The "right" use of these patents will count as a tribute to the integrity of the human body in the teleological sense, in the sense that it enables human beings to live their lives in ways that are more meaningful to themselves and to others than had they not profited from the intervention. It is dependent on their choice, individual or aggregated, rather than their telos. Technological discourse seems to have absorbed teleological discourse in the name of choice, hence liberty, hence freedom. Only where choice cannot be exercised—an ovum cannot choose to get fertilized, a fertilized ovum cannot choose to go from its blastocyst stage to the next—the remnants of teleology emerge under the guise of naturalism.[35]

The problem with the means–ends gambit is that it is indeed too simple. In the final analysis, technology is different from simple instrumentality and it makes a much stronger claim. It holds that whatever can be achieved by the means at our disposal can be an end and what cannot be achieved by these means, cannot be an end. By the means–ends scheme we do not really integrate two discourses, but suppress teleology in favor of technology. This is not only an intellectual fallacy; it is also a gross under-estimation of technology. If we think that technology is just a matter of means that we can apply as instruments to goals that we can set independently of those means, we are deceiving ourselves. Technology prompts us to select ends that can be achieved by the very means it provides, and to forget about ends that do not register in the language of these means. It appeals to (aggregated) choice only in so far as the choice is between technological alternatives. For instance, even one who suffers from an incurable disease will have a hard time resisting the technological target of medical institutions to "conquer" it. In technological discourse we lack the narrative that could introduce an end in the teleological sense. Hence, we are not able to introduce the concept of an origin in the teleological sense either. This, I submit, is the crux of the problem: time and again in our talk about embryos we use what is left of teleological discourse in a technological setting.

[35] Typically, some Christian denominations like Catholicism are in the habit of referring to "human nature" to get a moral angle on technological issues, ignoring that this very concept has been occupied by technology-driven natural sciences. *See* Litterae Encyclicae Lumen Fidei, *Instruction on Respect for Human Life in its Origin and on the Dignity of Procreation*, *available at*:
http://www.vatican.va/roman_curia/congregations/cfaith/documents/rc_con_cfaith_doc_19870222_respect-for-human-life_en.html (last visited Sept. 17, 2013).

That the CJEU, in the end, lands at the cape of technology, rather than teleology, becomes evident in the last part of its decision on the first preliminary question. Asked whether a stem cell itself—obtained from a human embryo at the blastocyst stage—constitutes a human embryo within the meaning of Article 6(2)(c) of the Directive, the Court says that it is for the referring court to ascertain whether that is the case in the light of scientific developments.[36] Clearly, what the CJEU means by scientific developments is technological developments. If, one day, bio-technology succeeds in making a human being out of a stem cell, then it will be for the courts in the Member States to decide whether such a stem cell is "capable of developing into a human being." Quite apart from new definition issues emerging here (e.g., on the meaning of cloning), if the "capability to develop into a human being" is predicated on "the capability to make a human being," teleological discourse yields to technological discourse. Note that whether the stem cell is obtained from a human embryo at the blastocyst stage or from a different source is immaterial in this regard. What matters is that it becomes conceptually impossible to call such a stem cell "an embryo" in the relevant sense for the simple reason that it is *not* capable of *developing* into a human being in any way other than by its being *made* into a human being by technology. Under these assumptions there would be very little left for the EU courts to ascertain. They would be delegated "wide" discretion on the matter, but there would be very limited scope to exercise it. This would satisfy the CJEU to the extent that it would be instrumental to:

> A harmonization of the rules for the legal protection of biotechnological inventions, to remove obstacles to trade and to the smooth functioning of the internal market that are brought about by differences in national legislation and case-law between the Member States, and thus, to encourage industrial research and development in the field of genetic engineering.[37]

D. The Embryo as a First-Person Construct

The point is that the talk about "a full-blown" or "a flourishing" human being (teleology) is at odds with the talk about stages of reproduction in a biological species (technology), even if that species happens to be ours. The alternative approach I would propose conceives of the human being as a special kind of discursive construct. Acknowledging that, in Modernity, we have lost the classical sense for teleology, I think there is a place for teleological discourse, which supersedes technological discourse—superseding the

[36] Council Directive 98/44, *supra* note 7, para. 38 (emphasis added).

[37] *Id.* para. 27.

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alternatives of functionality and motivation. It is the upshot of a specific kind of narrative coherence, stemming from the specific first-person perspective of agents referring to themselves.[38] As said above, it is the narrative of who we regard as ourselves to be in the end, considering "in some sense everything," as the old-fashioned definition of the soul goes.[39] Let me try and make a case for a dimension in concepts that I would propose to label as "first-person" in virtue of the reflexive reference ("we regarding ourselves") inherent to them. Then I will proceed to show that it only makes sense to ascribe capabilities to an embryo if we appreciate this dimension in the concept of an embryo.

A first-person perspective entails, first and foremost, the awareness that the world appearing before me is other-than-me, and cannot be reduced to an extension of my feelings or preferences.[40] The relationship expressed in the phrase "other-than-me" is between two poles that both need to be conceived. For instance, I would not be able to discover means that may be instrumental to my health, if I did not acknowledge that my body is part of a world I do not control. And equally important, I would not be able to relate such means to the healthy person I desire to be, if I regarded being human as a matter of making "just so" decisions and calling it autonomy, self-determination. So a first-person viewpoint is not a "subjective" viewpoint, let alone a mere individual viewpoint. It is the story of life in a sense that is often shared by many individuals confirming or contesting it. It is, for instance, the story of life that makes suicide so utterly tragic. But then it would not be the story of life if it would not be the story of *our* life, a first person story, a story of personal identity. In this regard, and in the present context, I would concur with Ann A. Kiessling's observation:

> No other word involved in the debates about harnessing the power of the human egg to remodel chromosomes calls up such an emotional response as "embryo." It embodies the very essence of that which requires protection and nurturing. *An embryo is the least of ourselves.* The notion is of a struggling new being that will gain independence if simply allowed to progress unimpeded and with appropriate support from society.[41]

[38] It is only fair to say that I take my cue here from Charles Taylor's notion of "radical reflexivity." *See* CHARLES TAYLOR, SOURCES OF THE SELF: THE MAKING OF MODERN IDENTITY *passim* (1989); Cf. *id.* at index. What I think amounts largely to the same thing, from a too rapidly forgotten strand in philosophical thinking called "phenomenology."

[39] ARISTOTLE, ON THE SOUL III, 8 (1957).

[40] Thus, Taylor's thesis "radical objectivity is only intelligible and accessible through radical subjectivity," remains true if read inversely. *See supra* note 38, at 176.

[41] Ann A. Kiessling, *What is an Embryo?*, 36 CONN. L. REV. 1051, 1063 (2004) (emphasis added to indicate first-person use of the concept).

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Let us therefore return to the concept of an embryo and the ascription of rights. It has its place in various sciences, certainly. There it mainly serves to capture the continuity in the consecutive stages of cell development, from a small lump of totipotent cells to an organism that we call a human body. But in using this phrase of "the human body" one cannot cut loose from its source in self-reference and self-experience. The human body is nothing apart from its parts but the integrated whole of these parts. This whole is not "given" to an external observer as something extra on top of the parts but presented from the internal perspective of a self. The concept of an embryo clearly has this reflexive quality. It is by virtue of what we take ourselves to be "in the end," that we desire to consider ourselves to be something also "in the beginning." Only by taking identity as selfhood, an agent can think something like "in the beginning, there was an embryo, it developed, and it became a full-blown human being."[42] The peculiar phrase used by the CJEU "commencing to develop into a human being"[43] neatly captures this three-staged narrative. But there is another side to this coin. Presenting the parts as an integrated whole is as much dependent on the self as it is on the parts being within one's scope of reference. Agents must be as capable of referring to their own body-in-the-world-out-there as they must be capable of self-reference. The sense of being an integrated body disappears as soon as either mode of reference fades away. The narrative of corporeal integrity, teleological as it may be, can only succeed in making sense if it establishes a sufficient degree of coherence between the various attitudes of a person towards her body, as well as between the attitudes of that person to various parts of her body. In sum, these credibility thresholds are contingent and shifting. They alter without being alterable.

Bearing first-person agency in mind, we are able to develop a sharper view on the rights that come with corporeal integrity in the case of an embryo. Instead of "[I]s an ovum at the blastocyst stage an embryo or not?" one may rather ask the question: What is, given contemporary cultural conditions in the EU, a suitable empirico-technological starting

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[42] Note, again, that this narrative loses all meaning if it is transposed into technological discourse.

> [I]f it is true that before being a person we were embryos, it is also true that before being embryos, we were a strange cell (certainly not definable as "embryo") which contained two separate nuclei and a polar globule, and, before that, we were two cells that were partially united by a fusion of membranes, and before that we were two gametes, a spermatozoon and an oocyte. There is no doubt that we come from things very different from what we are, things that we cannot consider "our fellow man" and in comparison to which we do not feel we have to predispose rules of protection analogous to those that are due to people.

Carlo Flamigni, *The Embryo Question*, 943 ANNALS N.Y. ACAD. OF SCI. 352, 357 (2001).

[43] *Greenpeace*, CJEU Case C-34/10 at paras. 36-37.

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point from which people can construe a credible, sufficiently coherent, teleological narrative about their own coming-into-being? When and where does "reproducing human life" tie in with "procreating ourselves" under the jeopardies we face? The answer to this question determines the points in space and time where it makes sense to start a discourse of protection and, therefore, fundamental rights. Arguably, an important candidate is "the nestling of a zygote in a uterine lining." The arguments may be derived from a series of intuitions that people have regarding procreation, pregnancy, care, responsibility, etc. First of all, it is often reported that this initial nestling causes women to feel the first signs of pregnancy.[44] In other words, this is the moment at which the development of an organism registers through the body of another human being that will be essential to this development *and* irreducibly "mine" for some person, prompting her to regard herself as "mother." Secondly, in cases of IVF treatment where a number of human ova are fertilized and only one is implanted, neither the woman involved nor her partner relates to the remaining ova as "embryos."[45] It is evident that this is precisely why certain organizations, e.g. religious ones, express serious misgivings with regard to IVF.[46] But then it is worth noting that their moral teachings are not responded to by the feelings of otherwise morally responsible individuals. Thirdly, most women feel very reluctant to have an abortion. Even if they decide to have one, all things considered, few of them regard abortion as being on a par with having a tooth extracted. Fourthly, some birth control devices that (may) prohibit nestling are not considered to be abortive by most otherwise morally responsible people. Among these are some versions of the morning-after pill (plan-B pill) and the coil.[47] Fifthly, in medicine, the (self-) implantation of the zygote in the uterus is part of the definition of an embryo. In other words, according to this definition, medicine does not look at (fertilized) eggs in a laboratory setting.[48] In sum, the rights of an embryo

[44] *See* BABYMED, *What is the Earliest I Can Feel Pregnancy Signs and What are the Typical Pregnancy Signs?*, http://www.babymed.com/pregnancy-symptoms/what-earliest-i-can-feel-pregnancy-signs-and-what-are-typical-pregnancy-signs (last visited Sept. 17, 2013).

[45] Professional medical staff will use the term *embryos* for these fertilized ova. *See, e.g.*, JOHNS HOPKINS MEDICINE: FERTILITY CENTER, *In Vitro Fertilization (IVF)*, http://www.hopkinsmedicine.org/fertility/services/ivf/ (last visited Sept. 17, 2013).

[46] *See, e.g.*, Jim Graves, *Church Teaching on In Vitro Fertilization*, THE CATHOLIC WORLD REPORT, Nov. 29, 2012, *available at* http://www.catholicworldreport.com/Item/1774/church_teaching_on_in_vitro_fertilization.aspx#.UjjDfhXCTmQ.

[47] A modern coil has many more contraceptive effects, but one of them is still "thinning the endometrium to make it more difficult for eggs to implant." *See* MEDIC, *The Mirena IUD*, *available at*: http://www.medic8.com/healthguide/articles/mirenaiud.html (last visited June 4, 2012).

[48] Compare the Merriam-Webster medical dictionary, an embryo in contemporary medical discourse is "an animal in the early stages of growth and differentiation that are characterized by cleavage, the laying down of fundamental tissues, and the formation of primitive organs and organ systems; especially: the developing human individual from the time of implantation to the end of the eighth week after conception." After eight weeks, the organism is called a fetus. MERRIAM-WEBSTER.COM, *Embryo definition*, http://www2.merriam-webster.com/cgi-bin/mwmednlm?book=Medical&va=embryo (last visited June 4, 2012).

are a function of how we, in our culture, choose to protect pregnancy on account of how we see ourselves "in the end."

These intuitions fit in with scientific findings, even if the former cannot be reduced to the latter. As Kiessling concludes:

> It may be futile to attempt to replace "embryo" with another more accurate term with respect to human eggs fertilized by sperm. The hope in this regard is to educate the public that a cleaving egg is not the same stage of "embryo" as an "embryo" two weeks following implantation in the uterus by providing a clear understanding that the union of sperm and egg does not automatically form an embryo, that an embryo naturally arises from such a union in stages, each necessarily following the previous, which had to be completed with few or no flaws. Failure to accurately complete each step in sequence signals failed conception. The appearance of an inner cell mass is a minimal requirement for embryo status. Implantation and the development of an embryonic disk is a more accurate requirement for embryo status.[49]

Taking into account that the sciences provide valuable anchor points for a credible narrative about the beginning of a self—a narrative that has to include many more elements than merely the scientific ones in order to be credible—the concept of an embryo comes out as interrelated much more with the various stages of social and personal relationships than with the various stages of cell cleaving. I therefore see no objection to patenting stem cell extracting procedures from activated human eggs in a laboratory setting where these social and/or personal relationships have not entered the scene. I see no good reasons why one should speak of embryos here; or, if one does want to speak of embryos, why one would not go through the trouble of avoiding a category mistake. Would this lower the protection of nascent human life in the EU context? If we do not want to stumble into quasi-teleological discourse that collapses into technological discourse sooner rather than later, it is necessary to lend a more precise focus to this question and contemplate the narrative of who we, as Europeans, have to consider ourselves to be in the end, particularly in our discourses about fundamental rights. Among the important questions in this regard are the following: How exactly do we aim to provide protection to human life in general by attributing fundamental rights? Why don't we sustain the very same protection by imposing fundamental duties? Should fundamental

[49] Kiessling, *supra* note 41, at 1063.

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rights (always) come with fundamental powers, i.e. with capabilities? From what are fundamental rights supposed to protect? And, in particular, against whom? Are there similarities and differences between the protection of nascent human life and the protection of moribund human life? I submit that questions about patentability and marketability of inventions under a fundamental freedoms regime can only be responded to against the backdrop of such a modernized teleological concern. At the same time it should be acknowledged, indeed emphasized, that such a concern will not free us from making choices between alternatives that are largely defined and provided by technology. Being reminded of who we are in the end will not excuse us from choosing where we should stop destroying fertilized ova, for industrial, commercial, or, for that matter, scientific purposes—just as it will not excuse us from choosing where we should stop prolonging human life by technological devices. But we will be able to make a choice that makes more sense than if we concentrate on exclusively technological thresholds. To hold them together, teleology and technology have to be held apart.

E. Conclusion

I chose to focus on the rights of an embryo as a paradigm of fundamental rights in the EU context. I tried to show that the concept of an embryo has its roots in first-person agency, and that this entails a double bind: (1) The radical reflexivity inherent in first-person agency ties together whatever properties may be ascribed to an embryo, by sciences or otherwise—in other words, in the final analysis, the concept of an embryo is a narrative about identity as (nascent) selfhood; (2) this narrative is partly dependent on scientific findings for a credible coherence between its constitutive elements. I take this case study to be paradigmatic for the relationship between fundamental rights and market freedoms. By way of conclusion, I would like to point out which other general topics about fundamental rights and EU market freedoms have to be investigated in order for this paradigm to deploy its normative potential.

I propose that fundamental rights are all predicated on first-person agency, whereas the same cannot be said about the EU's fundamental market freedoms. For instance, the human right to freedom of movement is primarily a freedom of agents to migrate to wherever they themselves think they can live a flourishing life. Note that, as an index of "radical reflexivity," the phrase "they themselves" is featured in this formula thrice rather than once. Apart from the first explicit appearance as the subject of "thinking," it is tacitly understood to accompany the subject of "living." And it reappears once more tacitly in the quality of life aimed at: They themselves should "flourish" (whatever that may mean). Elsewhere[50] I said that human rights are irreducibly "selfish," not in the least implying that

[50] *Cf.* Bert Van Roermund, *Migrants, Humans and Human Rights: The Right to Move as the Right to Stay*, *in* A RIGHT TO INCLUSION AND EXCLUSION? NORMATIVE FAULT LINES OF THE EU'S AREA OF FREEDOM, SECURITY AND JUSTICE 161, 168 (Hans Lindahl ed., 2009).

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they are egocentric in the psychological or the moral sense. They induce an account of the self which, by necessity, implies criteria of feasibility objectifying such an account. One of the parameters is, for instance, that migration, precisely from a first-person perspective, is abstract and always requires an account in terms of e-migration and im-migration. By talking about "migrants" we take a technological view from above, ignoring the first-person-agent narrative of those who are on the move, leaving their own country and going to a foreign one in order to find a better life. By distinguishing between these perspectives we learn to see that migrants are not nomads.[51] We learn to see that we are not just looking at a coordination problem from a third-person viewpoint, even though at some point coordination will be part of our response. It would exceed the limits of this section to say similar things about the right to health or the right to free speech.

This distinction cannot be made straightforwardly regarding free movement of services, goods, capital or, for that matter, … persons. Free movement of goods, to start with, pertains to the functional organization of a market; a common market cannot exist without goods that can be traded everywhere and anywhere in that market. It is similar with the other classical market freedoms. They converge in defining an internal (rather than a segmented) market, where competition can take place unhampered by market failures and policy distortions. They are functional requirements rather than rights. They are part and parcel of the mechanics of the market. They therefore belong to the realm of technology rather than teleology. The notion of freedom is equivoque between these two. Once again, an internal market can function only if goods, like services, capital, and labor, can move and be moved freely, without impediments. Primarily these freedoms belong to a realm that is mapped out from above (i.e., from an observer's third-person point of view rather than an agent's first-person point of view). The legal drama of, for instance, the *Viking* and *Laval* decisions[52] is precisely this: That the freedom to industrial action, a fundamental right, came at loggerheads with a freedom of a completely different category, namely the freedom to provide services, or—which amounts to the very same thing—the rule that services in the EU are cross-border services.

It is not difficult to see why, in particular, "free movement of *persons*" may easily lead to making this category mistake. Persons are not just entities that move and are moved around from a third-person perspective. They also move around as first-person agents, who act in response to the question "what should I do, in the end?" Theirs is a teleological perspective, with fundamental rights accruing to them *qua* such agency, protecting them

[51] Nomads just have a different definition of "their own country," and they don't move to a foreign one. *Cf.* Hans Lindahl, *Breaking Promises to Keep Them: Immigration and the Boundaries of Distributive Justice*, *in* A RIGHT TO INCLUSION AND EXCLUSION? NORMATIVE FAULT LINES OF THE EU'S AREA OF FREEDOM, SECURITY AND JUSTICE 137 (Hans Lindahl ed., 2009).

[52] Laval Un Partneri Ltd. v. Svenska Byggnadsarbetareförbundet, CJEU Case C-341/05, 2007 E.C.R. I-11767; Int'l Transport Workers' Fed'n v. Viking Line ABP, CJEU Case C-438/05, 2007 E.C.R. I-0779.

against various forms of domination. Market freedoms, on the other hand, apply to agents as vectors of competition that should be protected against impediments. This is why these vectors are often referred to as "workers" (labor force)—thus fulfilling an old Marxian prophecy.[53] Being one of the four freedoms that make the market go round, free movement of persons registers here from a third-person viewpoint. But then, as a fundamental right, free movement of persons registers from a first-person viewpoint.[54] That is to say, these vectors are also actors, moving around their labor force, goods, services, and capital. Once we have made this distinction we may see why we cannot completely separate fundamental rights and market freedoms, and where we should make the link. Labor force, in particular, is not entirely external to agents. It is part of what they are rather than what they have. And to the extent that labor requires division of labor, it is even part of what they hold in common. Both labor law and social security law could emerge only on the basis of this very concept of a person: A labor contract is not a contract of sales and an individual cannot be reduced to a worker. Hence, it cannot come as a surprise that precisely in the area of social law free movement of persons and free movement of workers become intertwined.[55]

To come back to Case 34/10 of 18 October 2011 (*Brüstle v Greenpeace*), the CJEU denies patentability of Brüstle's invention.[56] By doing so, it submits "not to broach questions of a medical or ethical nature."[57] But which legal question does it broach? Does it protect the fundamental rights of embryos from a legal point of view, whatever the ethical issue may be? Does it defend, at a more general level, human dignity? I think that neither the Court in its decision, nor, for that matter, the EU legislator in its Directive, has even begun to think what it would take to warrant the rights of embryos as long as it does not acknowledge that these rights have root in the first-person agency of a European "we." All discourse about human dignity is void without this teleological account of who we purport to be "in the end." What the Court did was to prevent this fundamentally contested ethical issue from becoming the source of distorted competition. For that, it appealed to market technology. But note that this is not a minor achievement at all. As long as worries about undistorted competition can keep us away from waging wars for the sake of the good,

[53] Karl Marx, *Zur Kritik der Nationalökonomie—Ökonomisch-philosophische Manuskripte*, *in* FRÜHE SCHRIFTN BD. 1 559 (Hans-Joachim Lieber & Peter Furth eds., 1971) (1844).

[54] No wonder we see the CJEU wrestling, as Chiara Raucea's paper demonstrates elsewhere in this issue, with a notion of EU citizenship that travels back and forth between what humans need and what markets require. *See* Chiara Raucea, *Fundamental Rights: The Missing Pieces of European Citizenship?*, 14 German L.J. 2021 (2013).

[55] It would exceed the limits of this paper to elaborate that, in an important way, goods, services, and capital are not completely external to agents and what they hold in common. Suffice it to point here to the new awareness of the meaning of capital and the role of banks that the current financial crisis has brought about.

[56] *Greenpeace*, CJEU Case C-34/10 at para. 53.

[57] *Id.* at para. 30.

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either moral or religious, we have at least gained some distance from a violent European past. Perhaps that is where we purport to be in the end.

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