Eudemonic Intellectual Property: Patents and Related Rights as Engines of Happiness, Peace and Sustainability

*** Estelle Derclaye**

Abstract

The predominant justification for most intellectual property rights is the incentive theory or utilitarian rationale. Behind this justification lies the Western idea of progress and its derivatives: liberalism, capitalism, and consumerism. After having shown that the predominant justification for intellectual property rights is the incentive theory, which rests on the idea of progress, this Article traces back the history of the idea and shows its parochialism in both time and space. The Article next shows that the progress ideology rests on assumptions that are either wrong or impossible to prove and therefore propounds that it must be abandoned or if not, at least deeply rethought or reformed. This Article proposes the values of happiness, peace, necessity, and sustainability as an alternative basis for patents and related rights. These universal values give a legitimate and solid foundation to patents and related rights. The Article suggests ways to integrate the new justification in the substantive law, and counters the arguments against the new justification.

In order to answer the question this Article addresses, it is necessary to take both a historical and philosophical perspective. As intellectual property rights are Western in origin, this Article takes a Western perspective by reviewing the two most representative Western legal systems, the European Union and the United States. The philosophical and economic history of the West is compared with that of the Muslim world and some Asian countries, namely China and Japan, because they also represent a very large part of the world.

Table of Contents

Introduction 2

1. The Persistence of the Idea of Progress as the Justification for Most Intellectual Property Rights 4

   A. Patents and Plant Variety Rights 4

   B. Copyright 5

   C. Designs 7

   D. Trademarks 8

   E. International Instruments 9

2. The History of the Progress Ideology and its Parochialism in Time and Space 10

   A. The Content of the Idea of Progress 11

   B. Birth and History of the Idea of Progress, and Links with Other Ideas and with Intellectual Property 12

   C. Examples Showing the Parochialism of the Idea of Progress 15

3. The Problems the Idea of Progress Entails 18

   A. The Idea of Progress Necessarily Implies an Eternal Characteristic 19

   B. The Belief that Human Beings Have Limitless Material Desires that Need to be Satisfied and that this is a Good Thing 20

C. The Belief that Technological Progress is Good Per Se and Makes Humanity Better Off 21
D. Western Imperialism and the Idea of Progress 22
E. Despite Criticism the Progress Ideology is Still Very Much Alive 22
4. A New, Ethical and Universal, Justification for Patents and Related Rights 25
A. A First Two-Fold Goal: Happiness and Necessity 25
B. A Second Related Goal: Sustainability 29
C. Eudemonic Intellectual Property 30
D. Implementation of the New Justification in the Substantive Law 32
E. Countering the Arguments Against the New Justification 34
Conclusion 36

"Science and technology are daily becoming more and more vital for the peace and security of our country and for the world at large. It is no exaggeration to say that the future well-being of our nation depends on putting our best minds to work now to solve the problems of tomorrow."

- U.S. PATENT OFFICE, REVOLUTIONARY IDEAS: PATENTS AND PROGRESS IN AMERICA 3 (1976) (quoting President Gerald Ford).

"President Obama's *Strategy for American Innovation* seeks to harness the inherent ingenuity of the American people to ensure that our economic growth is rapid, broad-based, and sustained. Innovation-based economic growth will bring greater income, higher quality jobs, and improved health and quality of life to all U.S. citizens."

- *A Strategy for American Innovation: Securing Our Economic Growth and Prosperity*, THE WHITE HOUSE, http://www.whitehouse.gov/innovation/strategy (last visited Mar. 10, 2012).

"How does it happen that serious people continue to believe in progress, in the face of massive evidence that might have been expected to refute the idea of progress once and for all?"

- CHRISTOPHER LASCH, THE TRUE AND ONLY HEAVEN: PROGRESS AND ITS CRITICS 13 (1991).

Introduction

As most intellectual property law scholars know, intellectual property rights date from the seventeenth century onwards and replaced the previous privileges. Even though lawmakers have amended intellectual property laws numerous times since then, the reasons why they adopted them have not fundamentally changed. There are mainly two justifications for intellectual property rights: the natural rights (also called labor theory) and the utilitarian rationale (also called incentive theory). The incentive theory is still the predominant justification for most intellectual property rights.[1] The idea of progress traditionally supports this theory.[2] However, intellectual property scholars less often delve into the assumptions behind this justification. Indeed, intellectual property scholarship rarely discusses the idea of

*© 2012 *Estelle Derclaye*. Associate Professor and Reader in Intellectual Property Law, University of Nottingham; estelle.derclaye@nottingham.ac.uk; ederclaye@hotmail.com. The author would like to thank the editors of the VANDERBILT JOURNAL OF ENTERTAINMENT & TECHNOLOGY LAW for their excellent editorial work on the Article.

[1] *See* discussion *infra* Part I.A.

[2] *See* discussion *infra* Part I.A.

progress.[3] It regained scholarly interest when the US Congress was about to adopt the Sonny Bono Copyright Term Extension Act (CTEA), but then only in respect of copyright.[4] Only one author has devoted an entire piece to the idea of progress in a more general intellectual property context.[5] Perhaps it is not so strange that scholars pay little attention to the idea of progress; in the West, most people have this assumption ingrained into their psyche since childhood.[6] Thus, no one questions it, either because it obviously is good to believe in progress or because people do not think about it. Likewise, neither teachers nor students of intellectual property, question the idea of progress. However, if people were to ask themselves whether technological progress has improved their lives, they would start to doubt.

As this Article shows, the assumptions on which the idea of progress—and therefore, intellectual property rights—rest are deeply flawed. Those in the intellectual property field therefore need to abandon, or at least revisit, the progress idea and propose a new basis to justify intellectual property rights. Such a revisiting is even more pressing now because intellectual property rights have intruded almost every corner of the planet, owing to globalization and to international agreements in the field. After showing in Part I that the predominant justification for intellectual property rights is the incentive theory, which rests on the idea of progress, Part II then traces back the history of the idea and shows its parochialism in both time and space. Part III then reveals that the assumptions behind the progress idea are either wrong or impossible to prove. Finally, Part IV proposes a new justification for intellectual property rights based on universal values: namely, happiness, peace, necessity, and sustainability. It proposes ways to integrate the new justification in the substantive law and counters the arguments against the new justification.

In order to answer the question this Article addresses, it is necessary to take both a historical and philosophical perspective. As intellectual property rights are Western in origin,[7] this Article first takes a Western perspective. In this respect, this Article discusses the two most representative Western legal systems: the European Union (EU) and the United States (US). This Article then compares the philosophical and economic history of the West with that of the Muslim world, China, and Japan.

---

[3] Michael D. Birnhack, *The Idea of Progress in Copyright Law*, 1 BUFF. INTELL. PROP. L.J. 3, 4 (2001) ("Today the idea [of progress] is so obvious that it is hardly noticed, and its relation to copyright law has been almost entirely overlooked.").

[4] Orrin G. Hatch & Thomas R. Lee, *"To Promote the Progress of Science": The Copyright Clause and Congress's Power to Extend Copyrights*, 16 HARV. J.L. & TECH. 1, 15-16 (2002); Malla Pollack, *What is Congress Supposed to Promote?: Defining "Progress" in Article I, Section 8, Clause 8 of the United States Constitution, or Introducing the Progress Clause*, 80 NEB. L. REV. 754, 761 (2001); Todd John Canni, Comment, *Promoting Progress Through Perpetual Protection: The Struggle to Place Limits on Congress' Copyright Power*, 53 CATH. U. L. REV. 161, 183-84 (2003).

[5] William van Caenegem, *Intellectual Property Law and the Idea of Progress*, 3 INTELL. PROP. Q. 237, 237 (2003).

[6] *See generally* JOHN BAGNELL BURY, THE IDEA OF PROGRESS: AN INQUIRY INTO ITS ORIGIN AND GROWTH 1-2 (1928) (explaining that the idea of progress is an idea that society generally takes for granted without inquiring whether the idea is true or false).

[7] *See, e.g.*, BRAD SHERMAN & LIONEL BENTLY, THE MAKING OF MODERN INTELLECTUAL PROPERTY LAW: THE BRITISH EXPERIENCE, 1760-1911 (Cambridge Univ. Press 1999).

I. The Persistence of the Idea of Progress as the Justification for Most Intellectual Property Rights

This Part recalls the justifications for our four main intellectual property rights (patents, copyright, designs, and trademarks) in the European Union,[8] the United States, and the international instruments. It demonstrates that by far the sole or dominant justification for most intellectual property rights is based on the idea of progress, but that differences exist between patents, plant variety rights and designs on the one hand, and copyright and trademarks on the other.

A. Patents and Plant Variety Rights

In Europe, patent law is only partly harmonized and no reasoning exists regarding the justification for patents in the European Patent Convention (EPC)[9] as such. However, for the legislature,[10] the courts,[11] and the literature[12], the incentive theory provides the single most important justification at the basis of current patent laws in Europe. Economists Fritz Machlup and Edith Penrose have neatly summarized the logic and assumptions behind the incentive theory:

> Industrial progress is desirable to society. Inventions and their exploitation are necessary to secure industrial progress. Neither invention nor exploitation will be obtained to any adequate extent unless inventors and capitalists have hopes that successful ventures will yield profits which make it worth their while to make their efforts and risk their money. The simplest, cheapest, and most effective way for society to hold out these incentives is to grant exclusive patent rights in inventions.[13]

As we shall see in Part II, the assumption that technological progress is desirable is further linked to the notions of liberalism and capitalism. Advocates of the incentive theory believe competitive free market economy is good because it leads to economic growth and prosperity. Because innovation is an essential component of these, it must be fostered.[14] The other justifications for patents (fairness, reward, labor or natural rights theory,[15] social

[8] This Article will use the term "Europe" interchangeably with the term "European Union" to refer to the twenty-seven Member States of the European Union.

[9] Convention on the Grant of European Patents, Oct. 5, 1973, 13 I.L.M. 270.

[10] European Parliament and Council Directive 98/44/EC, recital 2, 1998 O.J. (L 213) 13 [hereinafter Biotech Directive]. Note though that recital 43 of the same Directive also reiterates that the EU must respect the fundamental rights guaranteed in the European Convention on Human Rights (ECHR). *Id.* at recital 43.

[11] *See, e.g.*, Asahi Kasei Kogyo KK's Application, [1991] R.P.C. 485, 523 (H.L.) (Lord Oliver) (U.K.).

[12] *See, e.g.*, LIONEL BENTLY & BRAD SHERMAN, INTELLECTUAL PROPERTY LAW 339 (3d ed. 2009) (noting that, in the United Kingdom, the public interest rationales for patent law have "tended to dominate discussion on the function of the patent system since the nineteenth century"). The German literature agrees that current patent law is justified by a modern, and thus balanced, incentive theory. *See* ESTELLE DERCLAYE & MATTHIAS LEISTNER, INTELLECTUAL PROPERTY OVERLAPS, A EUROPEAN PERSPECTIVE 303 (2011).

[13] Fritz Machlup & Edith Penrose, *The Patent Controversy in the Nineteenth Century*, 10 J. ECON. HIST. 1, 10 (1950).

[14] ROBERT P. BENKO, PROTECTING INTELLECTUAL PROPERTY RIGHTS: ISSUES AND CONTROVERSIES 15 (1987).

[15] Note however that the European Court of Human Rights has considered patents, along with copyrights and trademarks, as human rights because they are property rights. Protocol No. 11 to the Convention for the Protection of Human Rights and Fundamental Freedoms art. 1, May 11, 1994, E.T.S. No. 155, *available at* http://conventions.coe.int/Treaty/en/Treaties/Html/009.htm; Charter of Fundamental Rights of the European Union, art. 17(2), Dec. 7, 2000, 2000 O.J. (C 364) 1; *see* Anheuser-Busch Inc. v. Portugal, App. No. 73049/01, 45 Eur. Ct. H.R. 36 (2007) (trademarks); Melnychuk v. Ukraine, App. No. 28743/03 (2005) (copyrights); Smith Kline & French Labs. Ltd. v. Netherlands, App. No. 12633/87, 66 Eur. Comm'n H.R. Dec. & Rep. 70 (1990) (patents). Nevertheless, courts still think of intellectual property rights in terms of the economic rationale.

contract/disclosure theory and personality rights theory) have come out of fashion.[16] Plant variety rights share this economic rationale and its underlying assumptions.[17]

The incentive rationale and the progress assumption form the justification for patents in the United States as well. This rationale derives directly and specifically from the US Constitution.[18] The Patent and Copyright Clause provides that Congress shall have the power "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."[19] For the courts, legislature and literature, it is clear that patent and copyright laws have been, and still are, based on the utilitarian rationale, not the reward or labor theories.[20] These sources hold the view that "[t]he patent law is directed to the public purposes of fostering technological progress, investment in research and development, capital formation, entrepreneurship, innovation, national strength, and international competitiveness."[21]

B. Copyright

Copyright law shares the reward and fairness arguments as well as the labor, personality, and incentive theories with patent law. As in patent law, the incentive theory prevails in Europe and is also based on the assumption of progress.[22] Copyright law is also only partly harmonized in the EU Member States.[23] For example, German and French laws were, and for a great part still are, based on the personality rights theory. The more recent German literature emphasizes that copyright law is based on both the incentive and personality rights theories.[24] In France, even if current French copyright law is still based on the labor or property (natural rights) theories rather than on the incentive theory, economic interests are also of prime importance.[25] Even in the United Kingdom, which has since 1988 integrated moral rights, the incentive theory still predominates.[26]

---

[16] *See supra* text accompanying notes 10-12.

[17] Council Regulation 2100/94, recital 5, 1994 O.J. (L 227) 1 (EC) [hereinafter Community Plant Variety Right Regulation]. The fact that recitals 17-20 also mention that the public interest must be safeguarded does not affect the economic basis of the right. *See also* BENTLY & SHERMAN, *supra* note 12; MARGARET LLEWELYN & MIKE ADCOCK, EUROPEAN PLANT INTELLECTUAL PROPERTY 32 (2006).

[18] *See* sources cited *infra* note 20.

[19] U.S. CONST. art. I, § 8, cl. 8.

[20] *See* Brett Frischmann & Mark P. McKenna, *Intergenerational Progress*, 2011 WIS. L. REV. 123, 128-131; Ruth L. Gana, *The Myth of Development, The Progress of Rights: Human Rights to Intellectual Property and Development*, 18 L. & POL'Y 315, 322 (1996); Adam D. Moore, *Intellectual Property, Innovation, and Social Progress: The Case Against Incentive Based Arguments*, 26 HAMLINE L. REV. 601, 606-07 (2003); Edward C. Walterscheid, *To Promote the Progress of Science and Useful Arts: The Anatomy of a Congressional Power*, 43 IDEA: J. L. & TECH. 1, 6 (2002).

[21] Hilton Davis Chem. Co. v. Warner-Jenkinson Co., 62 F.3d 1512, 1536 (Fed. Cir. 1995) (Newman, J., concurring).

[22] *See* sources cited *infra* notes 23-26.

[23] Harmonization in the field of copyright is made by way of Directives adopted by the EU institutions. *See Copyright and Neighbouring Rights*, EUROPEAN COMM'N, http://ec.europa.eu/internal_market/copyright/index_en.htm (last updated May 23, 2011). The Member States must then change their national laws in accordance with these Directives; they have the choice of means to do so and thus may adopt slightly different wording, so long as they do not contravene the Directive. *See generally* STEPHEN WEATHERILL, CASES AND MATERIALS ON EU LAW (9th ed. 2010). Directives need to be implemented into national law, as opposed to Regulations which are "self-executing." *See generally id.* (explaining the effect of directives and regulations).

[24] *See* DERCLAYE & LEISTNER, *supra* note 12, at 299-300.

[25] *See* PIERRE-YVES GAUTIER, PROPRIETE LITTERAIRE ET ARTISTIQUE 9-11, 20, 22-25, 35 (4th ed. 2001); ANDRE LUCAS & HENRI-JACQUES LUCAS, TRAITE DE LA PROPRIETE LITTERAIRE ET ARTISTIQUE 28, 34 (2d ed. 2001).

[26] *See, e.g.*, PAUL TORREMANS, HOLYOAK & TORREMANS INTELLECTUAL PROPERTY LAW 368 (6th ed. 2010).

The EU Directives in the field of copyright also predominantly refer to the economic rationale.[27] This focus is not surprising; the EU was established to create a common market. Moreover, the EU has, so far, not harmonized moral rights.[28] Instead, national law still solely regulates this area. Even if the main justification for copyright is economic, the Infosoc Directive, the most comprehensive Directive in the field of copyright, insists several times on the interests of users of copyright works,[29] of society in general,[30] freedom of expression,[31] culture,[32] in addition to the interests of authors, performers, and producers.[33]

As with patents, US copyright law's very basis is progress (of science).[34] Accordingly, the legislature, courts, and literature have all embraced the utilitarian rationale for interpreting copyright principles.[35] They stress that the incentive the Constitution gives to authors and inventors is for public, rather than personal, benefit.[36]

Despite popular emphasis, it is unclear what the Constitution means by "progress." The debates preceding the adoption of the Constitution hardly mention the Patent and Copyright Clause[37] and the Supreme Court has never given a definition of progress.[38] A number of US scholars have studied the question; however, they do not agree about the meaning of "progress" in the clause.[39] Intellectual Property and Constitutional scholar Malla Pollack thinks that progress means "spread" (i.e. physical movement) or "dissemination."[40] Other commentators think it means qualitative material improvement, quantitative material improvement, or social improvement: in other words, the Enlightenment idea of progress.[41]

---

[27] *See* Council Directive 2009/24/EC, recital 2, 2009 O.J. (L 111) 16; Council Directive 2006/115/EC, recital 5, 2006 O.J. (L 376) 28; Council Directive 2001/29/EC, recitals 4, 9-11, 2001 O.J. (L 167) 10; Council Directive 96/9/EC, recitals 7, 8, 1996 O.J. (L 77) 20.

[28] *See also Commission Staff Working Paper on the Review of the EC Legal Framework in the Field of Copyright and Related Rights* (July 19, 2004), *available at* http://ec.europa.eu/internal_market/copyright/docs/review/sec-2004-995_en.pdf (stating there is no need to harmonize moral rights).

[29] Council Directive 2001/29/EC, recitals 9, 31, 2001 O.J. (L 167) 10.

[30] *Id.* at recital 3 ("the public interest"); *id.* at recital 9 ("the public at large").

[31] *Id.* at recital 3. In any case, all Member States also have to give free speech proper consideration in the interpretation of their copyright laws in accordance with the Charter of Fundamental Rights of the European Union and the ECHR, which the EU as a system must also respect. *See generally* Charter of Fundamental Rights of the European Union, Dec. 7, 2000, 2000 O.J. (C 364) 1; Convention for the Protection of Human Rights and Fundamental Freedoms, Apr. 11, 1950, C.E.T.S. No. 005.

[32] Council Directive 2001/29/EC, recitals 9, 12, 2001 O.J. (L 167) 10.

[33] *Id.* at recital 31.

[34] *See* U.S. CONST. art. I, § 8, cl. 8.

[35] *See supra* Part I.A (referencing patent law); *see, e.g.*, Mazer v. Stein, 347 U.S. 201, 219 (1954); H.R. REP. NO. 60-2222, at 6-7 (1909); William M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUD. 325, 327 (1989); *see also* Birnhack, *supra* note 3, at 6.

[36] L. RAY PATTERSON & STANLEY W. LINDBERG, THE NATURE OF COPYRIGHT: A LAW OF USERS' RIGHTS 49 (1991); Malla Pollack, *Dealing with Old Father William, or Moving from Constitutional Text to Constitutional Doctrine: Progress Clause Review of the Copyright Term Extension Act*, 36 LOY. L.A. L. REV. 337, 382 (2002).

[37] *See* Frischmann & McKenna, *supra* note 20, at 132-33; Pollack, *supra* note 4, at 785.

[38] *See* Pollack, *supra* note 4, at 766, 771; *see also* Pollack, *supra* note 36, at 376.

[39] It is notable, and surprising, that the most detailed study of the history of the Patent and Copyright Clause does not even address the meaning of the term "progress." *See generally* EDWARD C. WALTERSCHEID, THE NATURE OF THE INTELLECTUAL PROPERTY CLAUSE: A STUDY IN HISTORICAL PERSPECTIVE (2002).

[40] *See* Pollack, *supra* note 4, at 755, 809; *see also* Pollack, *supra* note 36, at 340.

[41] Birnhack, *supra* note 3, at 16-17, 36, 58; Margaret Chon, *Postmodern "Progress": Reconsidering the Copyright and Patent Power*, 43 DEPAUL L. REV. 97, 116, 139 (1993); Moore, *supra* note 20, at 603; Edward C. Walterscheid, *To Promote the Progress of Science and Useful Arts: The Background and Origin of the Intellectual Property Clause of the United States Constitution*, 2 J. INTELL. PROP. L. 1, 32, 34 (1994).

Yet others think it encompasses both dissemination and improvement.[42] Pollack actually comes to her conclusion after having researched the topic in detail, while other authors generally assume that the meaning of progress is that of the Enlightenment.[43] In fact, as the founding documents to the Constitution reveal nothing as to the meaning of the term, any conclusion on this point is speculation. Even if literary materials at the time the Constitution was adopted[44] used the term to mean "spreading" or "dissemination" rather than improvement,[45] the clause must by definition also include a promotion of technological and intellectual improvement. How can there be spread of knowledge and technology without an increase in quality and/or quantity of this knowledge and technology? How can there be any diffusion when there is nothing to disseminate? The clause must therefore arguably promote both the increase in quality and/or quantity of works and technology, and the dissemination of knowledge and technology throughout the population.

Be that as it may, progress in copyright law does not have the same meaning as in patent law. There cannot be a qualitative improvement of copyright works (except technical ones like software). Later works cannot be better than previous works, they can only be different. Even if art is a matter of taste, it still would be difficult to argue that contemporary authors and artists make qualitatively better works than their classic predecessors such as Aristotle, Plato, Sophocles, Bruegel, or Da Vinci to name just a few.[46] So the term "progress" with regard to copyright must refer to dissemination and an increase in quantity. As we saw earlier in this section, these other goals are also reflected in the InfoSoc Directive

C. Designs

Design rights in the European Union are recognized in legislation separate from other intellectual property statutes both at national and European Union level. They are generally viewed as hybrid rights, a crossing between patent and copyright[47] and protect both functional and ornamental designs. They are likewise supported by the economic rationale.[48] Very rarely has design protection been justified by the natural rights of designers in their creations.[49]

In the United States, designs are part and parcel of the Patent Act;[50] therefore the idea of progress underlies them too. Design patents last only for fourteen years from the date of

---

[42] Hatch & Lee, *supra* note 4, at 3, 8.

[43] Birnhack, *supra* note 3; Chon, *supra* note 41; Karl B. Lutz, *Patents and Science: A Clarification of the Patent Clause of the U.S. Constitution*, 18 GEO. WASH. L. REV. 50, 55 (1949); Pollack, *supra* note 4, at 767; Arthur H. Seidel, *The Constitution and a Standard of Patentability*, 48 J. PAT. OFF. SOC'Y 5, 10-11 & n.11 (1966).

[44] Namely, framers' diaries and letters, philosophical, political or economic literature, and dictionaries.

[45] Hatch & Lee, *supra* note 4, at 11; Pollack, *supra* note 4, at 790-808 (stating that when referring to the qualitative improvement of knowledge, the literature of the end of the eighteenth century used the terms "perfection," "improvement," or "advance" more often than "progress").

[46] BURY, *supra* note 6, at 89; Pollack, *supra* note 4, at 791.

[47] *See, e.g.*, Antoon A. Quaedvlieg, *Three Times a Hybrid – The Typecasting Hybrids Between Copyright and Industrial Property*, *in* INTELLECTUAL PROPERTY AND INFORMATION LAW: ESSAYS IN HONOUR OF HERMAN COHEN JEROHAM 47 (Jan J.C. Kabel & Gerard J.H.M. Mom eds., 1998).

[48] Council Regulation 6/2002, recital 7, 2002 O.J. (L 3) 1 (EC); *Commission of the European Communities Green Paper on the Legal Protection of Industrial Design*, at 2 (June 1991), *available at* http://aei.pitt.edu/1785/1/design_gp_1.pdf; *see also* INGE GOVAERE, THE USE AND ABUSE OF INTELLECTUAL PROPERTY RIGHTS IN E.C. LAW 26-27 (1996); SHERMAN & BENTLY, *supra* note 7, at 608.

[49] SHERMAN & BENTLY, *supra* note 7, at 608-09.

[50] 35 U.S.C. § 171 (2006); *see generally Patent Law in the United States*, BITLAW, http://www.bitlaw.com/patent (last visited Mar. 9, 2012) (describing the types of patents covered by the Patent Act).

grant (as opposed to twenty years for 'regular patents') and protect the new and original appearance of a product.[51]

D. Trademarks

The justification for trademark law has been the least discussed in comparison to other intellectual property rights. Compared to the other intellectual property rights' justifications, the justification for trademark law has changed the most in recent years. In the EU, the first, original, and current primary function of trademarks is to serve as an indication of the origin of goods or services.[52] Trademarks' other functions are to indicate quality and to advertise.[53] Because of these functions, "trade marks are . . . an indispensable means of promoting trade and in doing so assist the further interpenetration of national markets. They help manufacturers to acquire new markets and thus help to promote the expansion of economic activity beyond national borders."[54] All of these functions essentially protect undistorted competition. From the standpoint of information economics, the main argument to justify trademark law is that marks "increase the supply of information to consumers and thereby increase the efficiency of the market."[55] Finally, the incentive theory can also justify trademark law. Trademarks serve as rewards for the investment: the mark helps to ensure that the trademark owner, and not an imitating competitor, reaps the financial rewards associated with his or her product or service. Indeed, the European Court of Justice (ECJ) has explicitly held that trademark law includes the functions of communication and investment, in addition to indication of origin, quality, and advertising.[56]

In the United States, similar considerations underlie trademark law. Both indication of origin and protection of the investment primarily justify trademark protection.[57] Quality and advertisement are also recognized trademark functions.[58] Law and economics scholars, as well as courts including the Supreme Court, also view trademark protection as economically efficient.[59] Therefore, the functions of trademarks in the United States match closely to those in the EU. As is becoming apparent, trademarks are not linked to the idea of progress. They have existed since the antiquity and are linked to trade.[60] In fact, trademarks existed before the very idea of progress even existed and can survive its demise. Trademarks' primary

---

[51] 35 U.S.C. §§ 171, 173 (2006); *see General Information Concerning Patents*, U.S. PATENT & TRADEMARK OFFICE (Nov. 2011), http://www.uspto.gov/patents/resources/general_info_concerning_patents.jsp.

[52] *See* Case C-299/99, Koninklijke Philips Elecs. N.V. v. Remington Consumer Prods. Ltd., 2002 E.C.R. I-05475; Case C-39/97, Canon Kabushiki Kaisha v. Metro-Goldwyn-Mayer Inc., 1998 E.C.R. I-5525; *see also* SHERMAN & BENTLY, *supra* note 7, at 717; TORREMANS, *supra* note 26.

[53] *Memorandum on the Creation of EEC Trademark, Bulletin of the European Communities*, at ¶ 21, SEC(76) 2462 (July 6, 1976) [hereinafter *Memorandum on Creation*]; *see also* DAVID KITCHIN, DAVID LLEWELYN, JAMES MELLOR, RICHARD MEADE, THOMAS MOODY-STUART & DAVID KEELING, KERLY'S LAW OF TRADE MARKS AND TRADE NAMES 9 (Sweet & Maxwell, 14th ed. 2005).

[54] *Memorandum on Creation*, *supra* note 53.

[55] SHERMAN & BENTLY, *supra* note 7, at 718.

[56] Case C-487/07, L'Oréal SA v. Bellure NV, 2009 E.C.R. I-5185. It does not appear clearly whether the advertising, communication, and investment functions are synonyms or not.

[57] *See* GRAEME B. DINWOODIE & MARK D. JANIS, TRADEMARKS AND UNFAIR COMPETITION: LAW AND POLICY 16-17 (2d ed. 2007) (citing S. REP. NO. 1333, at 3 (1946)).

[58] Trademark Dilution Revision Act of 2006, H.R. 683, 109th Cong. (2006) (protecting the reputation of the mark and therefore the investment that went into making the mark famous).

[59] *See* DINWOODIE & JANIS, *supra* note 57, at 17 (citing Qualitex Co. v Jacobsen Prods. Co., 514 US 159, 163-164 (1995)).

[60] *See, e.g.*, Ida Madicha Azmi et al., *Distinctive Signs and Early Markets: Europe, Africa and Islam*, *in* 1 PERSPECTIVES ON INTELLECTUAL PROPERTY SERIES: THE PREHISTORY AND DEVELOPMENT OF INTELLECTUAL PROPERTY SYSTEMS (Alison Firth ed., 1997).

function is to prevent consumer confusion and thus enable a free market economy.[61] As such, they are good in as much as they are indispensable for a functioning, even if not "progressing," economy. Even if trademark law's justifications have grown to include the investment function, the latter does not include the progress idea. Although the investment function is based on the economic rationale, the incentive here is only an incentive to recoup investment, not to further the progress of science, the useful arts or for that matter of distinctive signs.[62] As for copyright, no qualitative progress can be made in the creation of trademarks. How can one, as with copyright works, improve arbitrary words, music or logos chosen as trademarks? They cannot be generic as per the trademark law requirements and must be distinctive. But trademark holders, once they have chosen their mark, do not need to improve it or change it. What they may do is improve the product which bears the trademark and may be protected or not by a patent, design, or copyright. Trademarks have nothing to do with technological progress compared to patents and related rights.

E. International Instruments

Even at the international level, the utilitarian rationale justifies intellectual property rights. The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs)—undoubtedly the most important international instrument in the field of intellectual property law as it is a multi-regime treaty, can be enforced at international level, and applies in almost all countries in the world—includes a reference to intellectual property's *raison d'être* in its article 7 titled "Objectives":

> The protection and enforcement of intellectual property rights *should* contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a *manner conducive to social and economic welfare, and to a balance of rights and obligations*.[63]

The article clearly links intellectual property law with social and economic welfare; it makes the assumption that intellectual property rights lead to material and social progress. Nevertheless, the term "should" implies that intellectual property does not always lead to this social and economic well-being. Some commentators have deduced from article 7 of TRIPs's "balance of rights and obligations" that intellectual property rights are not ends in themselves.[64] In addition to article 7 of TRIPs, the preamble to the WTO Agreement does not only focus on the expansion of trade, but recognizes also that this trade must respect the environment and be sustainable.[65] And as the Appellate Body stated in *US-Importation of*

---

[61] If there are no trademarks, i.e., signs distinguishing between identical and similar goods or services, consumers cannot choose between goods or services. They will only be able to buy a good without being able to determine who the producer is and will be similarly unable to do so at each subsequent purchase.

[62] As a matter of fact, in the United States, trademarks are not included in Article I, Section 8, Clause 8; instead, their basis is the Commerce Clause. U.S. CONST. art. I, § 8, cl. 3, 8.

[63] Agreement on Trade-Related Aspects of Intellectual Property Rights pt. I, art. 7, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 401 [hereinafter TRIPs] (emphasis added). Even though article 7 of TRIPs states the objectives of only some intellectual property rights, namely those which involve technological innovation (i.e. patents, some categories of trade secrets, topographies of semi-conductor chips, and designs), it does not mean that article 7 has no relevance for other intellectual property rights. *See* CARLOS M. CORREA, TRADE RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS: A COMMENTARY ON THE TRIPS AGREEMENT 92 (2007); NUNO PIRES DE CARVALHO, THE TRIPS REGIME OF PATENT RIGHTS 111 (3d ed. 2010); Peter K. Yu, *The Objectives and Principles of the TRIPs Agreement*, 46 HOUS. L. REV. 979, 1000 (2009).

[64] *See* CORREA, *supra* note 63, at 101; *see also* Alexander Peukert, *Intellectual Property as an End in Itself?*, 33 Eur. Intell. Prop. Rev. 67, 67-71 (2011). This Article will further explain this postmodern view. *See* discussion *infra* Part III.E.

[65] *See* Marrakesh Agreement Establishing the World Trade Organization pmbl., Apr. 15, 1994, 1867 U.N.T.S. 154 ("Recognizing that their relations in the field of trade and economic endeavour should be conducted with a

certain shrimp and shrimp products, the WTO Agreement's objective of sustainable development "must add colour, texture and shading to our interpretation of the agreements annexed to the WTO Agreement."[66] More recently, economic agreements between the EU and developing countries, which include provisions on intellectual property rights, have started to focus on the objective of sustainable development. In the EC CARIFORUM Economic Partnership Agreement (CEPA) for instance, the promotion of innovation is a means of achieving sustainable development so that intellectual property protection is not an end in itself.[67] However, although the agreement asserts this view, it is not necessarily true that intellectual property always achieves this goal. As shown in Part IV, the concept of sustainability is one of the elements of the new justification this Article proposes for patents and related rights. It shall be seen that sustainable development can be achieved by changing the patent system to focus on the 'right' kind of inventions, mainly those which diminish human carbon footprint.

In addition, the preamble to the World Copyright Treaty of 1996 (WCT) declares "[e]mphasizing the outstanding significance of copyright protection as an incentive for literary and artistic creation."[68] The treaty thereby recognizes and incorporates the incentive theory for copyright law in an international instrument. The treaty does not refer to other justifications for copyright.

The idea of progress is still well ingrained either explicitly or implicitly in contemporary intellectual property law, both at the national and international levels. Nevertheless, the WTO and TRIPs agreements take a more nuanced view of the progress assumption behind intellectual property rights. They also refer to the protection of the environment and sustainable development. While it is true that most intellectual property rights reflect the belief in material progress, it is far less true for copyright than it is for patents and related rights and it is not true of trademarks. Therefore, this Article will focus on patents and related rights (namely, plant variety rights and design rights).

II. The History of the Progress Ideology and its Parochialism in Time and Space

The idea of progress is an assumption, and more than that, it is an ideology, a belief.[69] This Part will first lay out the content of the idea of progress. It will then trace the historical roots of the idea, its development over time, and its links with other theories and ideas and

---

view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production of and trade in goods and services, while allowing for the optimal use of the world's resources in accordance with the objective of *sustainable development*, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development . . . ." (emphasis added)).

[66] Appellate Body, *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, ¶ 153, WT/DS58/AB/R (Oct. 12, 1998).

[67] *See* Henning Grosse Ruse-Khan, *The Concept of Sustainable Development in International IP Law – New Approaches from EU Economic Partnership Agreements?*, *in* THE STRUCTURE OF INTELLECTUAL PROPERTY LAW: CAN ONE SIZE FIT ALL? 308, 322, 325 (Annette Kur & Vytautas Mizaras eds., 2011) (referring to Article 131 of CEPA).

[68] WIPO Copyright Treaty pmbl., Dec. 20, 1996, 36 I.L.M. 67, *available at* http://www.wipo.int/treaties/en/ip/wct/trtdocs_wo033.html.

[69] An ideology is defined by the Encyclopaedia Britannica as "a form of social or political philosophy in which practical elements are as prominent as theoretical ones. It is a system of ideas that aspires both to explain the world and to change it." *Ideology*, BRITANNICA ONLINE ENCYCLOPÆDIA, http://www.britannica.com/EBchecked/topic/281943/ideology (last visited Sept. 1, 2011).

with intellectual property. It will become clear from the analysis that the idea of progress has not been a given, either throughout the ages or throughout the world. Instead, it is parochial in both time and space. To demonstrate this parochial nature, this Part will contrast the economic histories of Europe, the Muslim world, China, and Japan.

A. The Content of the Idea of Progress

The idea of progress boils down to two dimensions: moral (spiritual, intellectual, political, and social) and material (scientific, technological). The contemporary idea of progress as pervading intellectual property law is based almost solely on a belief in material progress,[70] and so this Article will focus on that aspect of progress. This idea is in turn based on a number of assumptions or beliefs: (1) human beings are able to acquire knowledge, (2) the accumulation of knowledge is limitless and thus eternal and irreversible (as long as the human race does not become extinct), (3) human beings are able to apply this knowledge practically and thus develop technologically, (4) human beings have limitless and ever growing material desires that need to be satisfied, (5) these material wants are a good thing, (6) technological progress will satisfy these desires and (7) humanity will accordingly be in a better position, materially.[71] Therefore, the idea of progress is "conceived as the general law of history and the future of humanity."[72]

[70] There are provisions against immoral inventions in EU intellectual property law but not in US law. Sigrid Sterckx, *The Euopean Patent Convention and the (Non)Patentability of Human Embryonic Stem Cells-the Warf Case*, 2008 INTELL. PROP. Q. 278, 279, *available at* http://ugent.academia.edu/SigridSterckx/Papers/130982/Patentability_of_human_embryonic_stem_cells. Yet in Europe, such provisions have so far been interpreted rarely and very strictly, especially in patent law. *See generally id.*

[71] *See* CHRISTOPHER LASCH, THE TRUE AND ONLY HEAVEN: PROGRESS AND ITS CRITICS 43 (1991); Birnhack, *supra* note 3, at 3; van Caenegem, *supra* note 5, at 237, 242, 247.

[72] BURY, *supra* note 6, at 313 (quoting LOUISE AUGUSTE JAVARY, DE L'IDÉE DE PROGRÈS (1850)) (internal quotation marks omitted); *see* van Caenegem, *supra* note 5, at 246.

B. Birth and History of the Idea of Progress

The progress idea is not an inevitable one. First, it did not always exist. In the antiquity, the Greeks and Romans did not envisage history to have a direction like humanity's progress.[73] Their values did not lay in the material comforts that technology can provide. They did not see value in the transformation of luxuries into necessities. Rather they thought it was moral to limit human wants.[74] They had little interest in foreign technologies and were more interested in poetry, politics, and philosophy.[75] The same values of frugality or rejection of material life impregnated the Hebraic and Christian faiths at that time and until the Renaissance.[76] These religions advocated spiritual and moral progress if they advocated any progress at all.[77] Indeed, in the Middle Ages, people thought that God controlled all events. People believed that they could not control any part of their futures, and this prevented the very belief in progress.[78] By the end of the Middle Ages, Christians began to believe, by contrast, that God made the natural world for human beings to exploit.[79]

During the Renaissance, science, logic, and reason started to replace religion (or at least the religiously-based beliefs in providence or fatalism).[80] Human beings now considered themselves masters of their destiny rather than God. The idea of progress, disconnected from any religious faith, took off in Europe in the seventeenth century during the Enlightenment.[81] One of the main thinkers who planted the seeds of the idea of progress is Francis Bacon. According to him, human beings should improve their existence on earth.[82] Knowledge and its practical application therefore should aim for this goal. "This idea is an axiom which any general doctrine of progress must presuppose; and it forms Bacon's great contribution to the group of ideas which rendered possible the subsequent rise of that doctrine."[83] The Enlightenment thinkers built upon this idea. Philosopher John Locke, for instance, believed that humanity's progressive liberation from constraints on the freedom to enjoy nature is the purpose of history.[84] Enlightenment thinkers thought that the accumulation of knowledge and its application would lead to material progress (improvement of material conditions) and consequently also social progress (social well-being, i.e. justice, freedom).[85] The concept of progress, though, also included another idea that carried material progress further: each person's desire to improve his material conditions came to be viewed positively.[86] The Enlightenment thinkers always linked material with social progress, but at the beginning they

[73] *See* BURY, *supra* note 6, at 8-9, 15.
[74] *See* LASCH, *supra* note 71, at 45; van Caenegem, *supra* note 5, at 242.
[75] *See* JOEL MOKYR, THE LEVER OF RICHES: TECHNOLOGICAL CREATIVITY AND ECONOMIC PROGRESS 198-99 (1990); *see also* BURY, *supra* note 6, at 9, 15. The value of frugality inspired their politics and philosophy.
[76] *See* LASCH, *supra* note 71, at 46-47; MOKYR, *supra* note 75, at 201.
[77] *See* van Caenegem, *supra* note 5, at 241.
[78] *See* BURY, *supra* note 6, at 21-22.
[79] *See* MOKYR, *supra* note 75, at 201-02 (noting that, among others, "Thomas Aquinas recognized that man, created in God's image, held power over the natural world" but also that there were always dissenting voices in the Church advocating for a harmonious relationship between humans and their environment).
[80] *See* BURY, *supra* note 6, at 30, 34-35, 73; Birnhack, *supra* note 3, at 12; *see also* Anthony Carty, *Introduction: Post-Modern Law*, *in* POST-MODERN LAW: ENLIGHTENMENT, REVOLUTION, AND THE DEATH OF MAN 1, 2 (Anthony Carty ed., 1990) (mentioning Jean Jacques Rousseau's work as an example of the attribution to human beings of "the characteristics previously seen to belong to the Christian God").
[81] *See* BURY, *supra* note 6, at 35-36.
[82] *Id.* at 52, 58.
[83] *Id.* at 59.
[84] *See* William Pfaff, *Progress*, 12 WORLD POL'Y J. 41, 45 (1995).
[85] *See* van Caenegem, *supra* note 5, at 241; *see also* Chon, *supra* note 41, at 118, 120.
[86] *See* van Caenegem, *supra* note 5, at 242; *see also* Chon, *supra* note 41, at 120.

focused on the improvement of human beings' material conditions. Given, for instance, the French people's misery before the Revolution, the thinkers' focus on material progress should not be surprising.

The idea of progress fuelled the French and US revolutions, and founders of political and economic liberalism further developed this idea in the eighteenth century.[87] For economic liberalists, in other words, capitalists,[88] human wants were good because they promoted freedom of market place: the more a person wants, the more an economy will produce to satisfy these desires, and the more wealth will increase. The ideology behind this is that human needs are not natural but historical[89] and therefore they are insatiable and infinite.[90] These limitless desires require an equally limitless production of material goods, namely economic growth, to satisfy them. With such reasoning, these thinkers created consumerism. This idea supports a view of the economy as a "self-perpetuating engine of growth."[91] Thus economic liberalism put a final nail in the coffin of the previous value of frugality.[92] Material advancement came to be viewed as the key to a good and happy life.[93] Greed and envy, or wanting more than one needs, became the moral standard, a virtue even, whereas the ancients saw such insatiable desires as vices, leading to "frustration, unhappiness and spiritual instability."[94] This analysis shows the clear links between the idea of progress on the one hand, and liberalism, capitalism, and consumerism on the other hand.

In the nineteenth century, the idea of progress "became a part of the general mental outlook of educated people"[95] and "had become almost as sacred to Americans of all classes as any formal religious precept."[96] This belief in progress developed a religious character.[97] In the end, one belief (the idea of progress) had replaced another (religion, specifically the Christian one).[98] Furthermore, towards the end of the nineteenth century, certain interpretations of Darwin's theory of evolution transformed the idea of the progression of

---

[87] *See* Pfaff, *supra* note 84.

[88] *See Capitalism*, BRITANNICA ONLINE ENCYCLOPÆDIA, http://www.britannica.com/EBchecked/topic/93927/capitalism (last visited Sept. 1, 2011) (equating capitalism with a free market economy).

[89] If human needs are natural that means that we have a set of needs that do not change over time as our human nature does not change (we have still two lungs, two arms, one stomach, one brain etc). If we see needs as historical, they change with our development, which has increased in material terms.

In fact, one should not even speak of natural and historical needs, but respectively of needs and wants. *See generally* discussion *infra* Part III.B. All human beings have certain needs without which they will not survive (such as food and shelter) and beyond which anything else can be considered superfluous, namely a desire. *See* discussion *infra* Part III.B.

[90] *See* LASCH, *supra* note 71, at 52; Christopher Lasch, *The Age of Limits*, *in* HISTORY AND THE IDEA OF PROGRESS 227, 228 (Arthur M. Melzer et al. eds., 1995) (also saying that liberalism rests on a belief in progress).

[91] van Caenegem, *supra* note 5, at 243.

[92] *See* LASCH, *supra* note 71, at 53; van Caenegem, *supra* note 5, at 242.

[93] *See* van Caenegem, *supra* note 5, at 245.

[94] LASCH, *supra* note 71, at 13, 53.

[95] BURY, *supra* note 6, at 346.

[96] ROBERT NISBET, HISTORY OF THE IDEA OF PROGRESS 204 (Transaction Publishers, 4th ed. 2009) (1994).

[97] *See* DAVID S. LANDES, THE UNBOUND PROMETHEUS: TECHNOLOGICAL CHANGE AND INDUSTRIAL DEVELOPMENT IN WESTERN EUROPE FROM 1750 TO THE PRESENT 554 (1969); Chon, *supra* note 41, at 116; van Caenegem, *supra* note 5, at 242.

[98] DALAI LAMA, ANCIENT WISDOM, MODERN WORLD: ETHICS FOR A NEW MILLENNIUM 12 (1999) ("In replacing religion as the final source of knowledge in popular estimation, science begins to look a bit like another religion itself.").

humanity into something inevitable.[99] As a result, people began to view the idea of progress not merely as a religion or as a belief, but as a universal, scientific, truth.

Despite some negative views and the numerous disastrous events during the nineteenth and twentieth centuries (including unemployment, pollution, and world wars), the belief in progress survived, albeit in a milder version. Today, while the notion of social progress has taken a back seat; the idea of material progress is still alive in Western society. This society needs to constantly feed new desires and believes that science (and its daughter, technology) will always be able to satisfy them. Beyond believing that generating such new desires is good, such society even views them as superior to spiritual needs.[100]

As every intellectual property lawyer knows, modern intellectual property laws (i.e., those based on property rights rather than privileges) were born during the Enlightenment. But intellectual property lawyers seldom see that there is a clear link between the idea of progress, liberalism, capitalism, and consumerism on the one hand, and intellectual property law on the other. In such a view of the world, constant innovation and creation is encouraged to meet this equally constant increase in human material well-being.[101] New innovations will make previous innovations obsolete and create a desire to trash the old and acquire the new *ad infinitum*. Continuous creation and invention fuel an economy's growth in great part. Likewise, policy favoring technological innovation encourages economic growth.[102] This "belief in progress has greatly influenced the development of intellectual property law"[103]; in fact, intellectual property, at least patents and related rights, are vital to a society based on this ideology.[104] Modern intellectual property laws are thus based on the idea that society as a whole will benefit; in other words that social welfare will ensue. By granting exclusive rights (property rights) to authors and inventors, they incentivize these groups to create, innovate, and eventually disseminate their works and inventions. Thus societies based on capitalism committed to technological progress and the patents and related rights essential to that progress.[105] As Part I explains, our patent and copyright laws are still tools to generate economic growth in a country[106], and this is normal in a society based on the idea of progress.[107] It is therefore no wonder that nowadays no one questions the assumption of progress behind our intellectual property laws.

Moreover, while the philosophers of the Enlightenment first saw the development of new technology as a means to a better condition, gradually their followers saw it as progress itself; thus new technology became an end instead of a means to an end.[108] Similarly, intellectual property has become an end in itself.[109] Even though society today acknowledges

---

[99] *See* BURY, *supra* note 6, at 335-46 (noting that Darwin's theory of evolution is neutral and therefore can be interpreted both ways, as "a cruel sentence or a guarantee of steady amelioration").
[100] *See* van Caenegem, *supra* note 5, at 242, 247.
[101] *See* JEAN-CHRISTOPHE GALLOUX, LE DROIT DE BREVETS A L'AUBE DU TROISIEME MILLENAIRE nn.12, 1-195, 18 (2000).
[102] *See* Dirk Van Zyl Smit, The Social Creation of a Legal Reality: A Study of the Emergence and Acceptance of the British Patent System as a Legal Instrument for the Control of New Technology 57, 82 (1980) (thesis, University of Edinburgh) (on file with author).
[103] van Caenegem, *supra* note 5, at 239.
[104] *See id.* at 239, 255-56; *see also* GALLOUX, *supra* note 101, at 18.
[105] *See* Van Zyl Smit, *supra* note 102, at 82, 251.
[106] *See id.* at 245.
[107] *See* van Caenegem, *supra* note 5, at 239 n.9, 247 n.38 ("An important point here is that intellectual property is a reflection of materialist progress, rather than a cause of it . . . .").
[108] *See* Van Zyl Smit, *supra* note 102, at 79.
[109] *See generally* Peukert, *supra* note 64 (showing this trend in the European Union and United States). *But see* discussion *supra* Part I.E (discussing the more nuanced view that TRIPs article 7 has taken).

that material advancement can cause problems, the current idea of progress assumes that science and technology will also solve these problems.[110]

In summary, intellectual property laws, at least patent and related rights laws, are the product, or even the embodiment, of an ideology. As has been well said, "the army of intellectual property right professors around the world act as a group of preachers who know because they believe (instead of believing because they know)."[111]

C. Examples Showing the Parochialism of Progress Ideology

The idea of progress, and the ensuing intellectual property laws, were both born in Europe.[112] Even if other societies made scientific discoveries and inventions, this trend did not last. Moreover, even if the rationales promoting scientific development were ideological, the ideologies were not akin to the idea of progress. This section takes a few examples of societies that made some scientific discoveries and innovations, but then stopped. It then contrasts these examples with the history of Europe's economic development. The analysis reveals that by far the most influential factor in determining whether a society would innovate was the idea of progress.

In the Muslim world, the state permitted and encouraged scientific endeavor only if it was in accordance with religious belief. Therefore, medicine, mathematics, astronomy, and geography flourished, as they were thought to contribute to social well-being. Around the end of the Middle Ages, Islamic societies started to believe that the earlier scholars had discovered everything possible and that it would be heresy to challenge their knowledge.[113] Islamic societies also saw foreign technology as dangerous because of its capacity to destroy religious belief.[114] It probably was not only religious belief, but a dose of conservatism that changed Islamic societies' approach; in the religion's early centuries, followers had been curious to learn from other societies, including their scientific discoveries.[115]

China, a society at the source of many great inventions—like gunpowder, paper, the wheelbarrow, the stirrup, and the compass[116]—did not follow Europe's course into an Industrial Revolution. Two main factors explain this contrast, the first reinforcing the second: ideology and lack of political fragmentation. Confucian and Taoist philosophy consider the acquisition of knowledge useful only if it leads to harmony among human beings and between human beings and nature.[117] On the other hand, Western belief places human beings at the center of the world; nature is a resource to exploit in order to increase human material well-being.[118] Confucianism also rejects the want of material things.[119] The Chinese view was more modest: human beings were to use nature as long as it led to a general harmony, not

---

[110] *See* van Caenegem, *supra* note 5, at 242-43.
[111] *See* Slobodan M. Marković, *The Patent System—Not More than an Instrument of Public Policy*, *in* PATENTS AND TECHNOLOGICAL PROGRESS IN A GLOBALISED WORLD 829, 829 (Wolrad Prinz zu Waldeck und Pyrmont et al. eds., 2009).
[112] *See* discussion *supra* Part II.B.
[113] MOKYR, *supra* note 75, at 189.
[114] *See* LANDES, *supra* note 97, at 27-28.
[115] MOKYR, *supra* note 75, at 189.
[116] LANDES, *supra* note 97, at 27.
[117] *See* MOKYR, *supra* note 75, at 227-28.
[118] *See id.*
[119] Richard E. Vaughan, *Defining Terms in the Intellectual Property Protection Debate: Are the North and South Arguing Past Each Other When We Say "Property"? A Lockean, Confucian, and Islamic Comparison*, 2 ILSA J. INT'L & COMP. L. 307, 342 (1996).

only a harmony among human beings.[120] However, Confucianism and technological progress are not by definition antagonistic.[121] In fact, the emperors ingeniously used this philosophy as a tool to help them maintain their power. As Confucianism did not consider profit or even personal property as something good for humans to acquire, the emperor could maintain his claim of exclusive property of the entire empire, thereby also maintaining the status quo, which is the stability of his power.[122]

The second factor was the absence of political fragmentation and political competition. Because only one big empire existed, technological progress could come and go in an instant with the whim of the emperor in place. As a result, during the early part of the Chinese Empire's history, technological progress occurred only at the emperor's administration. During the later Ming period (after around 1400), emperors were no longer interested in innovation.[123] They suppressed it and were not interested in foreign technology either.[124] They valued stability.[125] In Europe, political power was fragmented between many different nations. Therefore, inventors considered heretic in one nation could easily flee to another, which was more tolerant of new ideas.[126] Thus technological progress carried on in Europe but not in China.

Japan, which had previously been receptive to Western influence, entered in a period of seclusion from the West starting in the 1630s—before the Industrial Revolution—and continuing until the middle of the nineteenth century (well after it).[127] In the 1630s, Japan drove Europeans away; it saw Christianity as potentially destabilizing to the state it wanted to build.[128] The political ideology in place in Japan at the time was the static sociological order borrowed from China. This ideology prevented individuals from being creative, which certainly was not going to be conducive to innovation.[129] Thus ideology was crucial to the development of both Japan and Europe but they were totally opposite ones. While ideology of stability prevented Japan from developing economically, the progress ideology helped Europe grow economically during that same period. It is only later when Japan again sought out foreign ideas that it began to adopt Europe's focus on economic advancement.[130]

In sum, the reason why the Muslim world, China, and Japan did not have the equivalent of an Industrial Revolution as Europe did in the seventeenth through nineteenth centuries was mainly ideological. More than religious belief,[131] a combination of 1) a political view against

---

[120] *See* MOKYR, *supra* note 75, at 227-29.

[121] *See* Vaughan, *supra* note 119, at 343. In fact, Confucianism is not a barrier to technological progress, on the contrary. *See id.* The Japanese are still mainly Confucian. *See id.* at 346. Confucianism has contributed to Japan's economic development because it promotes the copying of others' ideas. *See id.* Equally, Buddhism is not against technological progress. *See* CHRISTOPHER HOWE, THE ORIGINS OF JAPANESE TRADE SUPREMACY 66 (1996).

[122] *See* Vaughan, *supra* note 119, at 345.

[123] *See* MOKYR, *supra* note 75, at 219, 231.

[124] *Id.* at 187, 231-38; *see* LANDES, *supra* note 97, at 28.

[125] *See* MOKYR, *supra* note 75, at 232.

[126] *See id.* at 233.

[127] *Japan*, BRITANNICA ONLINE ENCYCLOPÆDIA, http://www.britannica.com/EBchecked/topic/300531/Japan (last visited Sept. 1, 2011).

[128] *Id.*

[129] *See* HOWE, *supra* note 121, at 71.

[130] *Id.* at 70-71.

[131] Religion *as such* was not a factor because very few, if any, religions are totally against technological progress. *See* MOKYR, *supra* note 75, at 170-72; *see also* Vaughan, *supra* note 119, at 344. Religious belief only is a factor to a certain extent as some religions are more or less against human beings' mastery of nature and the accumulation of wealth. *See* MOKYR, *supra* note 75, at 170-72; *see also* Vaughan, *supra* note 119, at 344. Those

change for fear of destabilizing the ruler's power, 2) the correlated suspicion of, or lack of interest in, foreign technology, 3) the state's ensuing discouragement of invention, and 4) the lack of political competition (especially in China), all allowed this state of affairs to dominate and last.[132] By contrast, in Europe, the Industrial Revolution and its child, technological progress, happened and lasted because the two ingredients of the progress—ideology and political fragmentation, which were absent elsewhere—were present and remained so.[133]

This analysis amply shows that technological progress was not inevitable and that it depended chiefly on ideology. Furthermore, it explains why technological progress occurred in some countries and then disappeared. It also explains the West's success over other civilizations, as the belief in progress supported its technological advancement, and eventually all Western states endorsed this belief in their race for economic power. This analysis also allows us to draw some conclusions for the future. Because of globalization and Western ideological influence, most countries now embrace the same ideological belief in progress. In relation to intellectual property law, it is the West that has therefore "colonized" the rest of the world. It has imposed its progress ideology through intellectual property treaties since the nineteenth century, especially in TRIPs in 1994. Bilateral or multilateral free trade agreements (FTAs) go even further than TRIPs.[134] More recently, the current Anti-Counterfeiting Trade Agreement (ACTA) and Trans-Pacific Partnership Agreement (TPPA) negotiations provide yet even more intellectual property protection and sanctions for

---

the most favorable to man's manipulation of the environment are the Jewish and Christian faiths. *See* MOKYR, *supra* note 75, at 170-72; *see also* Vaughan, *supra* note 119, at 344. Those less in favor are the Islamic and non-Islamic Asian faiths; namely Confucianism, Buddhism, Taoism, etc. *See* MOKYR, *supra* note 75, at 170-72; *see also* Vaughan, *supra* note 119, at 344. This does not mean that the Christian religion had nothing to do with the Industrial Revolution, but the belief in progress certainly had more to do with it. *See* MOKYR, *supra* note 72, at 205. As seen in the past, Christian and Judaic faiths emphasized a limitation on material wants. *See id.* In addition, the Byzantine Christian world did not develop technologically in contrast with the Western countries where the other Christian faiths (Protestant and Catholic) existed. *See id.*

[132] *See* MOKYR, *supra* note 75, at 262.

[133] Historians do not all agree on the causes of the Industrial Revolution as it is a very complex phenomenon. *See, e.g.*, MOKYR, *supra* note 75, at 198; *see also* LANDES, *supra* note 97, at 14, 550-554. By definition, history is colored by each individual historian's interpretation. LANDES, *supra* note 97, at 14; David D. Buck, *Was it Pluck or Luck That Made the West Grow Rich?*, 10.2 J. WORLD HIST. 413, 420-428 (1999); Jeremy Phillips & Ilanah Simon, *Going Down in History: Does History Have Anything to Offer Today's Intellectual Property Lawyer?*, 2005 INTELL. PROP. Q. 225, 229. There is therefore no definitive answer as to why and how the Industrial Revolution occurred. However, the majority of historians agree that it is a combination of factors varying in weight. The two most influential ones are constant political fragmentation—and thus competition (i.e., to achieve political and economic supremacy)—and values. *See, e.g.*, MOKYR, *supra* note 75; LANDES, *supra* note 97. More specifically, the action upon the belief that manipulating nature through science in order to improve the material human condition was a good thing, along with the support of the state (as otherwise there is market failure). *See, e.g.*, LANDES, *supra* note 97, at 15, 31, 33; *see also* MOKYR, *supra* note 75, at 173-78, 180-81, 205-08, 302.

Even in the West, however, technological progress was at times frowned upon because it reduced the need for manpower. Thus in periods of acute under-employment such as the early eighteenth century England, economic writers were not interested in labor-saving technology. *See* CHRISTINE MACLEOD, INVENTING THE INDUSTRIAL REVOLUTION: THE ENGLISH PATENT SYSTEM, 1660-1800 210-215 (1988).

[134] United States-Singapore Free Trade Agreement, May 6, 2003, *available at* http://www.ustr.gov/sites/default/files/uploads/agreements/fta/singapore/asset_upload_file708_4036.pdf. Going further than the Berne and Rome Convention and TRIPs in relation for instance to the term of protection and legal protection of technological protection measures. *See id.* at art. 16.4; *see also Free Trade Agreements*, OFFICE OF THE U.S. TRADE REPRESENTATIVE, http://www.ustr.gov/trade-agreements/free-trade-agreements (last visited Sept. 1, 2011).

infringement.[135] Apart from a handful of states that are either still rejecting the Western belief in technological progress (e.g., Cuba) or are simply too poor to develop (at least at the moment), this trend is set to continue worldwide. This is because the two essential conditions for technological progress to last (belief in progress and political fragmentation and thus competition) still exist.[136] Still, because the idea of progress is not (totally) adequate, we need to tweak it or abandon it to change the course of history.[137] Indeed, as mentioned at the start of this Part, ideology is a political philosophy. Politics influence and pervade the law.[138] Indeed, no ideology must be necessary and universal. For example, looking at the world's economic history makes scholars examine intellectual property in a less Eurocentric way.[139] It opens people's eyes to the fact that a society adopting any legal model must do so with caution or at least with all the necessary information at hand.[140] "Critical historical storytelling can help those receiving intellectual property legal traditions gain a better understanding of their full consequences."[141] Contemporary society does not have to follow history. The world need not blindly carry on doing what it has been doing for the last centuries if it comes to realize it steered a wrong course. History is useful as a learning tool but people must not take it as the definitive answer or guide for the future. Instead, society must think independently and also take into account economic experience and, above all, moral arguments.[142] Therefore, blind faith in progress must not guide patent and related rights laws; instead society should reassess the laws in light of these considerations. As Part III will show, the still-held belief in material progress is deeply flawed.

III. The Problems the Idea of Progress Entails

As Parts I and II explain, the idea of progress is now at least four centuries old, and is still alive and well in intellectual property legislation and discourse. Part II also revealed that the contemporary idea of progress implies a number of assumptions or beliefs. This Part analyzes these assumptions and shows that they are either unproven, and therefore wrong, or impossible to verify, and thus uncertain. This Part also stresses the problematic ideological imperialism that the West achieved over the world with the progress idea. Finally, this Part reviews the recent criticisms of the progress idea, including the nascent critical intellectual property scholarship.

Before addressing the problems posed by the assumptions underlying the idea of progress, it is important to recall that an ideology is based, like religions, on one or more beliefs. Those

---

[135] *See generally ACTA*, EUROPEAN COMMISSION: TRADE, http://ec.europa.eu/trade/creating-opportunities/trade-topics/intellectual-property/anti-counterfeiting (last updated Feb. 7, 2012) (providing information on ACTA); *Trans-Pacific Partnership*, OFFICE OF THE U.S. TRADE REPRESENTATIVE, http://www.ustr.gov/tpp (last visited Sept. 1, 2011) (providing information on TPPA).

[136] *See* MOKYR, *supra* note 75, at 302.

[137] We thus agree with Phillips and Simon's word of caution, as to the use of history and historical methodology in the study of intellectual property law and policy and especially with their caveat about history's predictive and prescriptive power for the future for intellectual property law and policy. Phillips & Simon, *supra* note 133, at 226, 229, 233-34.

[138] VAN ZIL SMIT, *supra* note 102, at 251 ("In his analysis of the game laws of the 18th century, E.P. Thompson comes to a similar conclusion about the extent to which law is a significant social phenomenon. . . . '[T]he law may also be seen as ideology'").

[139] PETER DRAHOS, A PHILOSPHY OF INTELLECTUAL PROPERTY 15 (1996).

[140] *Id.* at 16; *see also* discussion *infra* Part III (examining why the idea of progress is flawed).

[141] DRAHOS, *supra* note 139, at 16.

[142] *See* Phillips & Simon, *supra* note 133, at 235. ("Does the pursuit of lessons drawn from history obscure our view of lessons drawn from contemporary commercial and economic experience or of moral arguments?").

advocating and applying an ideology think, wrongly, that it is based on reason alone.[143] Ideologies, like religions, seek not only to describe, but also to prescribe.[144] They are philosophies of action. Thus the idea of progress is a project for society.[145] However, the idea of progress is not a reflection of reality. Even if this idea aspires to be or thinks it is a reflection of reality, it is not the truth. This will be clear after examining the seven assumptions on which the idea of progress rests.[146] While the first and third assumptions may be correct[147], the second, as well as the fourth through seventh assumptions are much more controversial. These next sections will analyze the controversial assumptions to further explore the problems that the idea of progress entails.

A. The Idea of Progress Necessarily Implies an Eternal Characteristic

The second assumption of the idea of progress is that human beings will be able to accumulate knowledge *ad infinitum*.[148] This assumption contains the belief that this growth is necessary and certain.[149] These assertions have become so cliché that no one scrutinizes them.[150] They have also permeated associated disciplines. The idea of material progress is at the basis of liberalism. Liberalism presupposes a similarly everlasting increase of consumer demand that will also lead to a continuous economic growth.[151] The belief in progress has persisted throughout the history of liberalism.[152] However, the idea that progress has no limit in time is impossible to prove. Human beings will never know whether eternal progress is possible, because no one is eternal or omniscient. While it is true that, so far, scientific discoveries and technological progress have carried on unabated, there is no certainty that this trend will continue forever.[153] Accumulation of knowledge may one day stop, simply because humans have become unable to improve scientific instruments further or because, to take the example of astrophysics, other parts of the universe may contain forces that humans cannot comprehend because there are no similar experiences in Earth's solar system or galaxy.[154] Some argue that human intelligence can overcome all kinds of obstacles.[155] But human

---

[143] *See Ideology*, *supra* note 69.
[144] Birnhack, *supra* note 3, at 9-10.
[145] *See* Peter Fitzpatrick, *'The Desperate Vacuum': Imperialism and Law in the Experience of Enlightenment*, *in* POST-MODERN LAW: ENLIGHTENMENT, REVOLUTION, AND THE DEATH OF MAN 90, 91 (Anthony Carty ed., 1990)
[146] *See* discussion *supra* Part II.A. As reminder, the assumptions are: (1) human beings are able to acquire knowledge, (2) the accumulation of knowledge is limitless and thus eternal and irreversible (as long as the human race does not become extinct), (3) human beings are able to apply this knowledge practically and thus develop technologically, (4) human beings have limitless and ever growing material desires that need to be satisfied, (5) these material wants are a good thing, (6) technological progress will satisfy these desires and (7) humanity will accordingly be in a better position, materially. *See* discussion *supra* Part II.A.
[147] *See infra* Part III.A-C. However, assumptions one and three are linked to assumption two. Therefore, whereas assumptions one and three are correct in the past and present, they may be incorrect in the future as there may be a future limit in human beings' ability to acquire knowledge and apply it; for instance, if our brains or bodies become crippled through evolution.
[148] BURY, *supra* note 6, at 5, 105 (citing Condorcet as an example of an Enlightenment thinker who expressed this idea); *see also* LANDES, *supra* note 97, at 554-55; van Caenegem, *supra* note 5, at 245.
[149] BURY, *supra* note 6, at 5, 109; *see also* Edward W. Byrn, *The Progress of Invention During the Past Fifty Years*, *in* ENCYCLOPEDIA OF TECHNOLOGICAL PROGRESS: A SYSTEMATIC OVERVIEW OF THEORIES AND OPINIONS 479 (J.H.J. van der Pot ed., 2d ed. 2004) (serving as an example of a scientist maintaining the belief that humans' capabilities are infinite).
[150] *See* BURY, *supra* note 6, at 176.
[151] *See* LASCH, *supra* note 71, at 226-32; Chon, *supra* note 41, at 126.
[152] *See* BURY, *supra* note 6, at 5 (explaining that progress has been continuous thus far).
[153] *See* BURY, *supra* note 6, at 5; Peter Byrne, *Bad Boy of Physics*, 305 SCI. AM. 80, 80-82 (2011) (last visited Sept. 1, 2011) (discussing the uncertainty of the reality that science describes).
[154] *See* BURY, *supra* note 6, at 5.
[155] NICHOLAS RESCHER, UNPOPULAR ESSAYS ON TECHNOLOGICAL PROGRESS 102 (1980).

beings often overlook the limitations of science.[156] Thus, these kinds of assertions—that progress will continue forever—are wishful thinking,[157] imprudent, or even overconfident.[158] Indeed, as a select few of the Enlightenment thinkers perceived,[159] material progress cannot be continuous if the population increases when the earth's resources are, by definition, limited. Therefore, a blind belief in the material progress ideology is both wrong and irresponsible.[160]

B. The Belief that Human Beings Have Limitless Material Desires and that this is a Good Thing

Many believe that human beings have endless, ever-growing material wants. This belief is based on the liberalist, capitalist, and consumerist ideologies that derive from the progress ideology.[161] These ideologies claim that human beings have legitimate wants that must be satisfied. Those who espouse these ideologies see human wants not as natural but as historical. In fact, even this wording is incorrect because they confuse the difference between needs and wants. While it is entirely clear that human beings need air, food, drink, shelter, and probably also a minimum of human contact to survive,[162] people do not *need*, a car, a phone, or a computer. There are still vast numbers of people who have none of these and still live a happy life. According to the ideology of progress and its related ideologies, ever growing human desires are a good thing as they generate a healthy economy. Therefore, these desires increase the wealth and power of a nation, and thus the well-being of its people. However, this belief does not prove to be entirely correct. As Part III.C will show, happiness does not equate with technological progress. In fact, innovation can lead to technological dependency and determinism.[163] Instead of individuals controlling technology, technology dominates them, so they have no choice but to follow technology and consequently lose their freedom and happiness.[164] Assumptions four (human beings have limitless) and five (human beings have ever growing material desires that need to be satisfied and are a good thing) are therefore also erroneous.

The sixth assumption (technological progress will satisfy these desires) presumes that technological progress is eternal and that science and innovation can solve all problems. It refers back to the problems associated with the second assumption (human beings will

---

[156] DALAI LAMA, *supra* note 98; Pfaff, *supra* note 84, at 46.
[157] RESCHER, *supra* note 155.
[158] *See* LANDES, *supra* note 97, at 555.
[159] *See* van Caenegem, *supra* note 5, at 245. *See generally* THOMAS ROBERT MALTHUS, AN ESSAY ON THE PRINCIPLE OF POPULATION (1798) (discussing that the increase of population limits progress).
[160] *See* van Caenegem, *supra* note 5, at 245. Part IV.E counters the argument that the idea of progress still makes sense until the world hits the limits of its resources.
[161] *See* discussion *supra* Part II.
[162] Some individuals may survive as hermits but they are extremely rare. Even if silence may be one of the rules of certain religious communities, monks and nuns still rely on each other for their subsistence. *See* Abraham. H. Maslow, *A Theory of Human Motivation*, 50 PSYCHOL. REV. 370, 370-96 (1943) (providing an established classification of need); ABRAHAM H. MASLOW, MOTIVATION AND PERSONALITY (1954).
[163] van Caenegem, *supra* note 5, at 245; *see also* DALAI LAMA & HOWARD CUTLER, THE ART OF HAPPINESS 46 (1998).
[164] *See* sources cited *supra* note 163. For instance, studies have shown many people have become totally dependent on the Internet, email, social networks or their mobile phones so much so that for some, real human contact has dramatically decreased and some develop depression. *E.g.*, Nathan A. Shapira et al., *Problematic Internet Use: Proposed Classification and Diagnostic Criteria*, 17 DEPRESSION & ANXIETY 207 (2003); Michael D. DiNicola, Pathological Internet Use Among College Students: The Prevalence of Pathological Internet Use and Its Correlates (Mar. 2004) (unpublished Ph.D. dissertation, Ohio University), *available at* http://etd.ohiolink.edu/view.cgi/DiNicola%20Michael%20D.pdf?ohiou1088177898.

accumulate knowledge forever). Because the second assumption is flawed and the sixth builds off on the second, the sixth is thus flawed as well.

C. The Belief that Technological Progress is Good Per Se and Makes Humanity Better Off

The seventh assumption is that material progress will lead to a better life.[165] This assumption is what the Enlightenment thinkers strongly believed.[166] Again, it is impossible to prove that the destination towards which human beings are advancing is necessarily a good one. It may lead to something better—namely in all respects better than the previous situation, i.e. without negative effects—or it may not.[167] Nowadays, it is a truism that material progress will not necessarily be good and lead to a better life.[168] The simple examples of the two World Wars, pollution, and global warming are enough to prove the point: knowledge, science, and technological progress have both positive and negative consequences. However, people still believe in the idea that progress will generate positive results. The belief that technological progress will, by definition, increase well-being includes the corresponding belief that innovation is good by definition too.[169] Therefore, people believe that science will consequently solve all problems that technological progress may bring, and this idea is based on the second and third, flawed, assumptions.[170] Thus, the seventh assumption also rests on erroneous bases.

Of course, we need a certain amount of material comforts to survive.[171] Science and technology can provide these comforts. However, while technological progress can eliminate some human discomfort and suffering, i.e., the negative aspects of human life, it does not necessarily follow that it also provides positive aspects or, in sum, happiness.[172] Rather, science and technology have often created worse conditions for human beings and have contributed to a less happy life.[173] Surveys have shown that a substantial majority of the population thinks that technological progress and happiness are negatively correlated.[174]

Nevertheless, people still believe that technological progress will enhance our welfare. Another troublesome, correlated belief is that science will be the solution—for some, the only solution—to the evils it has itself created.[175]

---

[165] *See* BURY, *supra* note 6, at 5; Birnhack, *supra* note 3, at 11; Byrn, *supra* note 149, at 478; Chon, *supra* note 41, at 117.

[166] *See, e.g.*, BURY, *supra* note at 6, 220 (referring to Adam Smith's *The Wealth of Nations*, which "contains a history of the gradual economic progress of human society[] and . . . suggests the expectation of an indefinite augmentation of wealth and well-being").

[167] *Id.* at 2; MOKYR, *supra* note 75, at 2.

[168] Intellectuals started to doubt this already at the end of the nineteenth century. *See* NICHOLAS RESCHER, *Technological Progress and Human Happiness*, *in* UNPOPULAR ESSAYS ON TECHNOLOGICAL PROGRESS 3, 5 (1980).

[169] van Caenegem, *supra* note 5, at 247.

[170] *See* discussion *supra* Part III.A. The quotes by Presidents Ford and Obama at the beginning this of Article encapsulate these assumptions very well. Although Obama's quote is in a milder form (as the talk of sustained growth is nowadays), it nevertheless stresses that innovation will lead to a better life.

[171] RESCHER, *supra* note 168.

[172] *Id.*; DALAI LAMA, *supra* note 98, at 10-11.

[173] RESCHER, *supra* note 168, at 6, 8.

[174] *Id.* at 8; *see also* MARK ANIELSKI, THE ECONOMICS OF HAPPINESS: BUILDING GENUINE WEALTH 40 (2007) (stating that, in the United States, most indicators of happiness—i.e., subjective happiness feeling, leisure time and societal well-being—decreased between 1950 and present day, while youth suicides, divorces, violent crimes and underemployment increased often many fold); THE WORLD BOOK OF HAPPINESS 333-337 (Leo Bormans ed., Marshall Cavendish Trade 2011).

[175] van Caenegem, *supra* note 5, at 246.

D. Western Imperialism and the Idea of Progress

The idea of progress was born in Europe and was a Western ideology before its successful conquest virtually all around the globe.[176] It was and is still not a universal ideology. Because it relies on unproven or unprovable assumptions, those who advocate its application worldwide are guilty of ideological imperialism; they believe technological progress is a good thing universally. To put it bluntly, they believe that this ideology, and thus the Western society on which it is founded, is better than other ideologies. This belief is often accompanied by two other erroneous beliefs. Under one accompanying belief, civilization can only be good if it is progressive, and thus is bad if it is not.[177] The second belief associates freedom and democracy with the idea of progress.[178] However, none of these three concepts (civilization, freedom, or democracy) are connected to progress. The ancients invented democracy, but they did not live under a progressive ideology.[179] Moreover, the result of this ideological imperialism is the destruction, at least in part, of other cultures.[180] Another consequence is the belief that in order to embrace freedom and democracy, other societies must also embrace the idea of progress, and thus liberalism and capitalism. However, any culture can adopt or keep the values of democracy, freedom, openness, and tolerance while rejecting or dropping the idea of progress; the latter includes none of the former. In short, not only is the idea of progress erroneous, but the West has also spread it over the world, therefore widely extending its fallacy.

E. Despite Criticism the Progress Ideology is Still Very Much Alive

People began criticizing the idea of progress at the end of the nineteenth century. However, it was not until well into the twentieth century that a proper philosophical movement was born which vehemently criticized the Enlightenment ideas. Postmodernism—named in reference to the period after the modern era, which lasted from the Enlightenment until the middle of the twentieth century—denies that science and technology will provide a better world.[181] This denial derives from postmodernists' general suspicion of reason.[182] In addition, postmodernists believe that because the Enlightenment ideas are views from the elite or dominant class, these ideas can and should be changed, and ideas from non-elite groups should also be taken into account.[183]

Despite these criticisms, the progress ideology lives on, most likely because people equate it with hope; progress gives a purpose to their lives.[184] This kinship with a religious belief is why the idea of progress is so strong and persistent. The idea of progress lives on not only in people's minds[185] and in the press, but also in politics,[186] even in academia,[187] including the legal world[188] and the intellectual property field.[189]

---

[176] LANDES, *supra* note 97, at 11; *see also id.* at 555 ("The West, at the very time when it is losing some of its own faith, when some of the most successful or favoured of its children are looking to new cults and idols for salvation, is transferring its most profound and original heresy to others.")
[177] BURY, *supra* note 6, at vii.
[178] *Id.*; *see also* LASCH, *supra* note 71.
[179] Liberalism is also not a synonym of democracy. *See Liberalism*, BRITANNICA ONLINE ENCYCLOPÆDIA, http://www.britannica.com/EBchecked/topic/339173/liberalism (last visited Sept. 1, 2011).
[180] van Caenegem, *supra* note 5, at 246.
[181] *Postmodernism*, BRITANNICA ONLINE ENCYCLOPÆDIA, http://www.britannica.com/EBchecked/topic/1077292/postmodernism (last visited Sept. 1, 2011).
[182] *Id.*
[183] *Id.*
[184] LASCH, *supra* note 71, at 42; van Caenegem, *supra* note 5, at 246.
[185] RESCHER, *supra* note 168, at 21.

The link between all the above developments and intellectual property law now emerges. This Article has shown that the assumptions underlying the progress ideology are wrong or unprovable. Even if someone could prove that material progress is eternal, at the current rate of population growth, it would generate disastrous consequences, and it has already started to do so (one example is the rapid exhaustion of the planet's resources). It is also clear that technological advances are not necessarily good; they are sometimes good (providing more material comfort, namely, enough food, fewer diseases, and longer life), but more often bad (environmental degradation, pollution, and health problems). In fact, regarding these two assumptions, the myth of progress is turning against human beings like a boomerang.

While not challenging the assumptions behind the idea of progress, some commentators have nevertheless started to envisage intellectual property in a postmodern way. Discussing the US Constitution's Patent and Copyright Clause, Professor Margaret Chon proposes a move from the modern notion of progress to a postmodern one.[190] In this respect, the postmodern view inquires much deeper into the nature and goals of progress than the modern view.[191] This new justification for intellectual property law would put the earth, rather than human beings, at the center and thus take account of the planet's limitations. The incentive to innovate would not solely be to promote human well-being, but also that of all living creatures and the environment.[192] This new justification thus incorporates the notion of sustainable development.[193] Chon's idea of postmodern progress therefore "changes the relatively undifferentiated incentive or monopoly doctrinal framework that characterizes current intellectual property . . . law."[194]

Although postmodernism is already a few decades old, it has hardly pervaded the intellectual property discourse as a whole. Chon is one of the rare authors to have discussed

---

[186] Both left-wing and right-wing political parties reject pessimism and reassert their faith in technological progress to solve contemporary problems. *See* LASCH, *supra* note 71, at 23, 43-44 (citing a number of twentieth century authors who continue to believe in the idea of progress). Very few speak of limits to growth and scientific discoveries. *See id.* This is so even if, since the beginning of the twenty-first century, climate change has brought attention to the idea that earth's resources are limited. For example, the vast majority of political parties have addressed this idea. *See A Greener Scotland*, SCOTTISH NATIONAL PARTY, http://www.snp.org/vision/greener-scotland (last visited Sept. 1, 2011); *Climate Change and Energy*, CONSERVATIVES, http://www.conservatives.com/Policy/Where_we_stand/Climate_Change_and_Energy.asp (last visited Sept. 1, 2011); *Environment*, LIBERAL DEMOCRATS, http://www.libdems.org.uk/environment.aspx (last visited Sept. 1, 2011); *Environment and Rural Affairs*, CONSERVATIVES, http://www.conservatives.com/Policy/Where_we_stand/Environment.aspx (last visited Sept. 1, 2011); *Tackling Climate Change*, LABOUR, http://www.labour.org.uk/tackling_climate_change (last visited Sept. 1, 2011).

[187] LASCH, *supra* note 71, at 44 (giving the example of Barry Commoner, one of the most prominent environmentalists in the United States); Pfaff, *supra* note 84, at 41; *see also* Chon, *supra* note 41, at 118.

[188] Chon, *supra* note 41, at 122.

[189] Birnhack, *supra* note 3, at 41, 47-48 (providing his belief that the idea of progress is helpful in writing about copyright law).

[190] The term "postmodern progress" is infelicitously chosen, if not an oxymoron, as postmodernists reject the very idea of progress. Chon, *supra* note 41, at 124 ("Beyond the recognition that material progress does not necessarily lead to an improved way of life, only to a different one, postmodernism rejects progress as one of the delusionary grand narratives of the Enlightenment."); *id.* at 134 ("The prospect of postmodern 'Progress' is uncertain.").

[191] *Id.* at 100.

[192] *Id.* at 99-103.

[193] *Id.* at 125.

[194] *Id.* at 125-26.

the issue.[195] Very few intellectual property scholars have questioned the basis of intellectual property laws.[196] Other intellectual property scholars and policymakers continue discussing intellectual property law by reference to the traditional (progress) justification.[197] The vast majority of intellectual property lawyers are engrossed with the ideology; they do not see above or beyond it. They do not entertain "meta-intellectual property." Instead, they see, write, and argue only within its black-letter law boundaries. "Postmodern intellectual property law" has barely entered the vocabulary of a handful of authors, and it is certainly totally absent from statutory and case law, which are still resolutely modern.[198] However, society is definitely in (if not beyond) a postmodern era,[199] and therefore, contemporary patent and related rights laws are outdated. At least, leaving postmodernism aside, there is a discrepancy between the basis of our patent and related rights laws and the world we live in. Contemporary thinkers have begun to recognize, albeit reluctantly and belatedly, that the idea of progress was ill founded, or at least that it has not given the results that the Enlightenment philosophers thought it would.[200]

As author and social critic Professor Christopher Lasch said well:

> As the twentieth century draws to a close, we find it more and more difficult to mount a compelling defence of the idea of progress; but we find it equally difficult to imagine life without it. . . . It is the assumption that our future is predetermined by the continuing development of large-scale production, colossal technologies, and political

---

[195] *See, e.g.*, Peter Jaszi, *Is There Such a Thing as Postmodern Copyright?*, 12 TUL. J. TECH. & INTELL. PROP. 105 (2009); Matt Williams, *Silence and Postmodern Copyright*, 29 CARDOZO ARTS & ENT. L.J. 47, 48 nn.4-8 (2011). *See generally* Chris Dent, *An Exploration of the Principles, Precepts and Purposes that Provide Structure to the Patent System*, 4 INTELL. PROP. Q. 456 (2008) (discussing postmodernism with respect to patents); John R. Thomas, *Liberty and Property in the Patent Law*, 39 HOUS. L. REV. 569 (2002) (discussing postmodernism with respect to patents).

[196] Chon discussed the issue in some detail and applied it only to copyright law. *See generally* Chon, *supra* note 41. William van Caenegem merely suggested the idea. van Caenegem, *supra* note 5, at 239. He wondered whether the "contemporary disillusion with many aspects of intellectual property law parallels a crisis in the belief in progress" and whether "the fundamental preconceptions about progress that underlie IP will come up for debate." *Id.* at 239, 256. He concluded that, in view of the negative consequences to which a dogmatic or at least blind application of the idea of progress has and may still lead, and of the role played by intellectual property law to implement the progress ideology, it may be time that intellectual property law starts countering these negative aspects. *Id.* at 256. Galloux barely addressed it. GALLOUX, *supra* note 101, at 19 (mentioning the public's doubt in technological progress's capacity to bring a better life and suggesting that if intellectual property will not disappear, it will change philosophy). *See generally* Dan L. Burk, *Do Patents Have Gender?*, 19 AM. U. J. GENDER SOC. POL'Y & L. 881, 918-19 (2011) (arguing that the current patent system sometimes promotes the wrong kind of progress, i.e., technologies that harm human health or the environment, and that it may be that it should also take into account social or ecological considerations); Frischmann & McKenna, *supra* note 20, at 130.

[197] *See, e.g.*, IAN HARGREAVES, DIGITAL OPPORTUNITY: A REVIEW OF INTELLECTUAL PROPERTY AND GROWTH (2011), *available at* http://www.ipo.gov.uk/ipreview-finalreport.pdf (providing more specific rhetoric of growth, which is based on the incentive theory); *A Strategy for American Innovation: Securing Our Economic Growth and Prosperity*, THE WHITE HOUSE, http://www.whitehouse.gov/innovation/strategy (last visited Mar. 1, 2012) ("President Obama's Strategy for American Innovation seeks to harness the inherent ingenuity of the American people to ensure that our economic growth is rapid, broad-based, and sustained. Innovation-based economic growth will bring greater income, higher quality jobs, and improved health and quality of life to all U.S. citizens.").

[198] See discussion *supra* Part I.A.

[199] *See* discussion *infra* Part IV.C.

[200] *See, e.g.*, LASCH, *supra* note 71.

> centralization that inhibits creative thought and makes it so difficult to avoid the choice between fatuous optimism and debilitating nostalgia.[201]

The progress ideology rests on erroneous assumptions. Therefore, we need to move past it. We need to find other, more adequate, bases for our patent and related rights laws.[202] It may be difficult politically but it is possible, as this Article shows below.

IV. A New, Ethical and Universal, Justification for Patents and Related Rights

This Part proposes a new, eudemonic, justification for patents and related rights. First, Sections A and B show that patents and related rights should have two main interrelated goals: happiness and sustainability. Section D then suggests ways of implementing these aims in the substantive law. Finally, Section E counters the arguments that can be made against this proposal.

A. A First Two-Fold Goal: Happiness and Necessity

As Part III explained, innovation does not always increase individuals' general well-being. On the contrary, it may or may not increase their material well-being; most of the time, it even lowers their happiness.[203] Also, human needs are different than human desires. The constant creation of new material desires and the corresponding quest to quench them does not lead to happiness. Parts II and III have also demonstrated that the idea of progress is universal neither in time nor in space. Therefore, it is not a necessary justification for society; as a result, it is not necessary for patents and related rights either. If these rights are to remain tied to the idea of progress, they should recognize that progress may not be eternal and that people have to work within the constraints the planet puts on them. If Western societies want patents and related rights to be legitimate multiculturally,[204] these societies need to go further and base our patent and related rights laws on one or more strong universal values or goals so that all countries can embrace these laws. [205]

---

[201] LASCH, *supra* note 71, at 168-70; *see also* Chon, *supra* note 41, at 124 ("Critiques of progress that derive from the modernist tradition share a focus on the negative effects of progress: that the largest hurdle facing efforts to build a more satisfying society may be 'a distinctively modern faith in technology[.]'").

[202] BURY, *supra* note 6, at 352. Bury, writing in 1928, predicted that the idea of progress will be replaced by another idea, similar to how the idea of progress replaced the idea of providence. *See id.*

[203] *See* RESCHER, *supra* note 168.

[204] In fact, first the consecration of the material and moral interests of authors and inventors in international human rights instruments and second, the recognition at the European level of intellectual property rights as human rights both point that way. *See* International Covenant on Economic, Social and Cultural Rights, G.A. Res. 2200A (XXI), U.N. Doc. A/6316 (Dec. 16, 1966); Universal Declaration of Human Rights, G.A. Res. 217 (III) A, U.N. Doc. A/RES/217(III), Art. 27(2) (Dec. 10, 1948); Charter of Fundamental Rights of the European Union, art. 17(2), Dec. 7, 2000, 2000 O.J. (C 364) 1; Protocol to the Convention for the Protection of Human Rights and Fundamental Freedoms art. 1, Mar. 20, 1952, E.T.S. No. 155, *available at* http://conventions.coe.int/Treaty/en/Treaties/html/009.htm; discussion *supra* Part I.A; sources cited *supra* note 12. Note however that intellectual property rights are not necessarily human rights. The UDHR only recognizes the material and moral interests of authors and inventors. It does not mean that exclusive property rights are the only way to protect such interests. Gana, *supra* note 20, at 340. However, such interpretation of the human rights international instruments has provided "a moral justification for extending the intellectual property system internationally." *Id.* at 323.

[205] This does not mean that all societies, cultures, or social groups should adopt intellectual property laws. On the contrary, those who do not want it should never be forced into it. Some societies, such as tribes living in the wild, thrive or at least are happy without intellectual property. This is simply because some societies are not based on creativity and inventiveness. Gana, *supra* note 20, at 371.

The one sure thing that all human beings aspire to, at least subconsciously, is happiness. This has been an ongoing theme, often the highest goal of life, across the world and across all ideologies and religions for as long as humans have started to philosophize.[206] In the West, it is firmly embedded in the US Declaration of Independence: "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness".[207] The Treaty on European Union (TEU) also starts with a similar statement: "The Union's aim is to promote *peace*, its values and the *well-being* of its peoples."[208] The EU vows to promote the latter not only in its internal policies but its external ones too.[209] In fact, the pursuit of happiness transcends all ideologies, philosophies, and religions, as it is part of our nature.[210] This natural aim also echoes the universal recognition of human rights; the elimination of human suffering also pervades and underlies human rights law.

Of course, the meaning of happiness has varied over time and across philosophies. For instance, some Enlightenment thinkers thought that happiness merely consisted in accumulating material wealth and having the freedom to enjoy it.[211] Some people still believe this despite the common saying "money does not buy happiness."[212] This belief is intertwined with their belief in progress. Again, it is clear that in order to be happy, human beings need a minimum of material comfort to satisfy their needs. Therefore, abandoning material progress altogether would not solve humanity's problems.[213] But humans can achieve adequate material comfort with older technology in the public domain; all over the world, the

---

[206] *See, e.g.*, ELLEN T. CHARRY, GOD AND THE ART OF HAPPINESS 3-4 (2010); DALAI LAMA, *supra* note 98, at 4; MOHD. NASIR OMAR, CHRISTIAN & MUSLIM ETHICS, A STUDY OF HOW TO ATTAIN HAPPINESS AS REFLECTED IN THE WORKS OF TAHDHIB AL-AKLAQ BY YAHYA IBN 'ADI (D. 974) AND MISKAWAYH (D. 1030) 23-28 (2003); ELIZABETH TELFER, HAPPINESS 1, 33-36 (1980); THE WORLD BOOK OF HAPPINESS, *supra* note 174, 84-89, 253-255; Othmar Gächter, *Streben nach Glück und Leistung Grundwerte und Verhaltensweisen im Hinduismus*, 43 ZEITSCHRIFT FUER RELIGIONS- UND GEISTESGESCHICHTE 117, 127-28 (1991) (Ger.); *see also* BURY, *supra* note 6, at 2.

[207] THE DECLARATION OF INDEPENDENCE para. 2 (U.S. 1776) ("That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness.").

[208] Treaty on European Union art. 3(1), Feb. 7, 1992, 1992 O.J. (C 191) 1 [hereinafter TEU] (emphasis added). It is clear that peace and well-being are ingredients of happiness. For more developments on this, see below.

[209] TEU, *supra* note 208, at art. 3(5). Article 3(5) states:

> In its relations with the wider world, the Union shall uphold and promote its values and interests and contribute to the protection of its citizens. It shall contribute to peace, security, the sustainable development of the Earth, solidarity and mutual respect among peoples, free and fair trade, eradication of poverty and the protection of human rights, in particular the rights of the child, as well as to the strict observance and the development of international law, including respect for the principles of the United Nations Charter.

Id.

[210] DALAI LAMA, *supra* note 98, at 4-5; *Matthew* 5:3-12; *Catechism of the Catholic Church*, VATICAN, http://www.vatican.va/archive/ccc_css/archive/catechism/p3s1c1a2.htm (last visited Sept. 1, 2011). *See generally* THE WORLD BOOK OF HAPPINESS, *supra* note 174.

[211] *See, e.g.*, BURY, *supra* note 6, at 173 (quoting Mercier, one of the Physiocrats, who wrote in the second part of eighteenth century).

[212] THE WORLD BOOK OF HAPPINESS, *supra* note 174, at 56.

[213] DALAI LAMA, *supra* note 98, at 15; RESCHER, *supra* note 168, at 20. *See also* ENCYCLOPEDIA OF TECHNOLOGICAL PROGRESS: A SYSTEMATIC OVERVIEW OF THEORIES AND OPINIONS 396-97 (J.H.J. van der Pot ed., 2d ed. 2004) [hereinafter ENCYCLOPEDIA OF TECHNOLOGICAL PROGRESS] (stating that technological progress has improved material living conditions).

developed countries have maintained material comfort since their arguable plateaued technological advancement.[214]

What is happiness then? Happiness means happiness in one's life viewed as a whole.[215] This means achieving one's major aims, and being free from major distresses.[216] This concept of happiness means more than being in a good mood. It is also distinguished from the concept of pleasure. Happiness is generally seen as long lasting, while pleasure is short lived.[217] This does not mean of course that a happy life must not include some pleasures. As Section C will show, this Article uses the term eudemonic as applied to intellectual property instead of hedonic, because hedonic is concerned only with pleasure and is therefore too narrow.[218] Also, the concept of happiness does not imply that all individuals should be happy no matter what. Some individuals need to be punished if they have done wrong, for example, by their parents or by (criminal or tort) law. Happiness in life viewed as a whole is also not purely selfish. In fact, being altruistic not only brings happiness to others but also to oneself.[219] The concept of happiness therefore includes an element of ethics.[220] The concept of happiness should include a limitation of one's desires. This mainly non-Islamic Asian philosophy[221] propounds that human suffering comes from human's endless desires. So in order to be happy, people must become aware of their desires and strive to eliminate them.[222] This includes rejecting acquisitiveness. Finally, happiness and peace are intrinsically linked. Happiness contributes to peace.[223]

Material comfort is a small, albeit important, component of happiness. The main causes of unhappiness for the vast majority of people are aging and having problems with health, professional, and more generally human relationships.[224] Apart from health[225],

---

[214] Once intellectual property rights' terms are over, access is virtually costless, or at most at cost, which is minimal because nowadays, the Internet provides ready access or, in most cases, cheap manufacturing allows low prices.

[215] *See* THE WORLD BOOK OF HAPPINESS, *supra* note 174, at 122-24; Ed Diener et al., *Subjective Well-Being: Three Decades of Progress*, 125 PSYCHOL. BULL. 276, 276-302 (1999).

[216] *See* TELFER, *supra* note 206, at 4-5, 8; *see also* THE WORLD BOOK OF HAPPINESS, *supra* note 174, at 122-24.

[217] TELFER, *supra* note 206, at 12; *see also* THE WORLD BOOK OF HAPPINESS, *supra* note 174, at 122-23.

[218] TELFER, *supra* note 206, at 35.

[219] THE WORLD BOOK OF HAPPINESS, *supra* note 174, at 268-69.

[220] See MOHD., *supra* note 206, at 27; TELFER, *supra* note 206, at 42; *Catechism of the Catholic Church – Our Vocation to the Beatitude*, VATICAN, http://www.vatican.va/archive/ccc_css/archive/catechism/p3s1c1a2.htm (last visited Sept. 1, 2011) (providing the beatitudes); *Intervention of Cardinal Jean-Louis Tauran*, VATICAN (July 2, 2009), http://www.vatican.va/roman_curia/pontifical_councils/interelg/documents/rc_pc_interelg_doc_20090702_tauran-astana_en.html (noting that intrinsic morality or ethics in order to achieve happiness are natural and thus present in all religions and secular beliefs); *see also* DALAI LAMA & CUTLER, *supra* note 164, at 147; MOHD., *supra* note 206, at 27; TELFER, *supra* note 206, at 42; Gächter, *supra* note 206, at 127.

[221] *See* Vaughan, *supra* note 119 (noting that Confucianism appears to be the common denominator among non-Islamic Asian countries); *see also* Ahmet Akgunduz, *Norms and Values in Islam*, ISLAM AND ISLAMIC STUDIES RESOURCES, http://www.uga.edu/islam/norms_values.html (last visited Sept. 1, 2011); discussion *supra* Part II.B.

[222] *See, e.g.*, K. M. SEN, HINDUISM 14 (Penguin Books 2005) (1961) (explaining that the *Bhagavad-Gita* teaches that the renunciation of desires leads to peace); *Buddhism*, BRITANNICA ONLINE ENCYCLOPEDIA, http://www.britannica.com/EBchecked/topic/83184/Buddhism (last visited Sept. 1, 2011).

[223] *See, e.g.*, RUUT VEENHOVEN, HAPPINESS IN NATIONS: SUBJECTIVE APPRECIATION OF LIFE IN 56 NATIONS, 1946-1992 ch. 8.4 (1993), *available at* http://worlddatabaseofhappiness.eur.nl/hap_nat/introtexts/intronat8.pdf; Oswald Pereira, *Peace Feeds Happiness*, TIMES INDIA, Nov. 27, 2010, http://timesofindia.indiatimes.com/life-style/spirituality/Peace-feeds-happiness/articleshow/6997711.cms.

[224] RESCHER, *supra* note 155, at 14.

technology cannot solve these problems. In fact, technical progress has a greater capacity to contribute to our unhappiness than to our happiness since it has almost no impact on what makes us happy.[226] In addition, people erroneously think that technological progress will bring them happiness because it will fulfill their desires. In fact, even if it fulfills them for a while, many people continue increasing their expectations *ad infinitum* and thus correspondingly expect technological progress to also continue fulfilling them and become unhappy if it does not. Thus technological progress leads to a vicious circle; improvements lead to heightened expectations that lead to disappointments.[227] Rescher concludes that, "it is a forlorn hope to expect technological progress to make a major contribution to human happiness, taken in its positive aspect."[228] This secular explanation echoes Buddhist philosophy, which propounds that we must extinguish our desires in order to be happy.[229]

In sum, patents and related rights should not be founded on technological progress as an end itself. Technological progress cannot be trusted to bring happiness, but on the contrary most of the time breeds unhappiness. To stop the vicious circle, patents and related rights, and arguably all innovation,[230] should foster and protect needs, not wants.[231] People need not, however, get rid of the incentive rationale altogether. Inventors still need to be able to recoup their investment. Still, the law should encourage investments in necessities, not luxuries. This Article has not determined what human needs are as opposed to human wants. Although Section C discusses it briefly, this question as applied to intellectual property law deserves a separate paper.

---

[225] It is still arguable that technology cannot even solve health problems. Some medical advancements have huge side effects that endanger health rather than save it (for instance electroconvulsive therapy, which is moreover highly criticized for not improving patients' mental health whatsoever).

[226] ENCYCLOPEDIA OF TECHNOLOGICAL PROGRESS, *supra* note 213, at 386-87 (citing MAHATMA GANDHI, HIND SWARAJ AND INDIAN HOME RULE 44 (Navajivan Publishing House 1946) (1909), *available at* http://www.mkgandhi.org/swarajya/coverpage.htm (follow "Civilization" hyperlink)); RESCHER, *supra* note 155, at 19 ("The capacity of technical progress to contribute to our unhappiness (pollution, overcrowding, system breakdown) is thus much greater than its potential for contributing to our happiness, which seems to turn in a large degree on factors like age and human (especially familial) relationships and social interactions that lie largely or wholly outside the manipulative range of science and technology."). *But see* Ruut Veenhoven, *Quality of Life in a Technical Society*, *in* THE GOOD LIFE IN A TECHNOLOGICAL AGE (Philip Brey et al. eds., 2012).

[227] RESCHER, *supra* note 155, at 19 ("[P]rogress produces dissatisfaction because it inflates expectations faster than it can actually meet them. And this is virtually inevitable because the faster the expectations actually are met, the faster they escalate."); *see also* ENCYCLOPEDIA OF TECHNOLOGICAL PROGRESS, *supra* note 213, at 397; MOKYR, *supra* note 75, at 303 ("It is true of course that technological progress is not a universal panacea for human want. Some desires and needs cannot be satisfied by inventiveness. . . . Still, as long as ambition and envy are part of human nature, the free lunches served by technological progress will never be quite enough to satiate our appetites.").

[228] RESCHER, *supra* note 155, at 22. By positive aspect, Rescher means bringing happiness rather than reducing suffering (negative aspect). *Id.*

[229] *See supra* text accompanying note 222.

[230] This is a much stronger statement to make, which goes beyond the scope of this article. This Article argues that states should only encourage necessary and sustainable inventions. *See infra* Part IV.C. Whether people should be allowed to invent unnecessary and unsustainable technology outside the intellectual property system, i.e., without electing the exclusive rights that intellectual property law grants them, is another broader debate.

[231] There is some evidence that during some periods, innovation came out of necessity rather than ideology, at least in England. *See* MACLEOD, *supra* note 133, at 208. This was the case in the seventeenth century and was due to a shortage of labor. *Id.* But during the latter part of the eighteenth century, technological progress as ideology took over: innovation became a "source of national pride" and foreign competition forced England to innovate. *Id.* at 219. Inventions did not come out of necessity (shortage of workers) but out of competition with other innovating countries. *Id.* at 208.

B. A Second Related Goal: Sustainability

The second aspect of the new justification for patents and related rights involves taking into account the earth's limits. This focus is a radical shift in perspective. Patents and related rights laws must change their anthropocentric perspective and take an ecocentric one; namely, they must take into account all things, living or not living, that exist on the planet. In other words, the progress notion—if future developments in intellectual property law stick to it—should include not only material progress, but environmental progress. This second goal echoes the first aspect of the new justification because if people live according to their needs and not their wants, this should be conducive to a harmony with our entire environment, including the non-exhaustion of the earth's resources. Human beings cannot be happy if the other elements they depend on are not respected, because their unhealthy state[232] will, at least in the end, affect human beings.[233] Further, human survival rests on the entire planet's well-being. This second aspect of the justification is similar to another aspect of Buddhism—the view that everything is interconnected and interdependent on each other.[234] Sustainable development implies just that.[235]

This idea that technological progress should be limited is not new. A small number of Enlightenment philosophers already had a sense of limits.[236] While very few saw environmental limits (e.g. Malthus), some thought that there were or should be limits to scientific progress.[237] Later thinkers emphasized the negative effect that limitless progress

---

[232] Consider, for instance, the acidification of oceans, which is caused by the increase in carbon dioxide in the atmosphere and endangers the life of the ocean's creatures. *See, e.g.*, John M. Guinotte & Victoria J. Fabry, *Ocean Acidification and Its Potential Effects on Marine Ecosystems*, 1134 ANNALS OF THE N.Y. ACAD. OF SCI. 320 (2008); James C. Orr et al., *Anthropogenic Ocean Acidification over the Twenty-First Century and Its Impact on Calcifying Organisms*, 437 NATURE 681 (2005).

[233] It is obvious that pollution and climate change affect the well-being of living and non-living resources and ultimately humans' well-being. As to pollution, one only needs to refer to oil disasters and the massive destruction of forests in many parts of the world. *See* Campbell Robertson & Eric Lipton, *BP Is Criticized over Oil Spill, but U.S. Missed Chances to Act*, N.Y. TIMES, Apr. 30, 2010, http://www.nytimes.com/2010/05/01/us/01gulf.html. As to climate change, there has been an increase in extreme weather events in many places on earth (this costs more in lives, repair, insurance, etc.). *See, e.g.*, John Carey, *Storm Warnings: Extreme Weather Is a Product of Climate Change*, SCI. AM., June 28 2011, http://www.scientificamerican.com/article.cfm?id=extreme-weather-caused-by-climate-change. Environmental laws prevent pollution to some extent and make polluters pay. *See, e.g.*, Consolidated Version of the Treaty on the Functioning of the European Union art. 191, Sept. 5, 2008, 2008 O.J. (C 115) 47 [hereinafter TFEU]. Sustainable development is one of the goals of the EU. *Id.* at art. 11; *see* discussion *infra* Part IV.D. Environmental protection must be integrated in all EU policies. TFEU, *supra* note 233, at art. 11. This includes intellectual property law. *See* Estelle Derclaye, *Should Patent Law Help Cool the Planet? An Inquiry from the Point of View of Environmental Law – Parts I & II*, 31 EUR. INTELL. PROP. REV. 227 (2009); *see also* Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 11, 1997, 37 I.L.M. 22.

[234] *See, e.g.*, BUDDHISM: THE ILLUSTRATED GUIDE 117 (Kevin Trainor ed., 2004); *Buddhism*, *supra* note 222.

[235] *See* Rio Declaration on Environment and Development, U.N. Doc. A/CONF.151/26/Rev.1 (Vol. I) (Aug. 12, 1992), ("peace, development and environmental protection are interdependent and indivisible"), *available at* http://www.unep.org/Documents.Multilingual/Default.asp?documentid=78&articleid=1163; *Principles: Interdependence*, SUSTAINABLE ENVIRONMENT, http://www.sustainable-environment.org.uk/Principles/Interdependence.php (last visited Sept. 1, 2011); INT'L UNION FOR THE CONSERVATION OF NATURE, WORLD CONSERVATION STRATEGY Foreword (1980), *available at* http://data.iucn.org/dbtw-wpd/edocs/WCS-004.pdf.

[236] *See infra* note 237.

[237] MACLEOD, *supra* note 133, at 209 (noting that before the late eighteenth century, many writers did not expect continuous technological progress). David Hume, for instance, thought that there cannot be eternal growth. *Id.* He also saw that without limits, i.e., some sort of moral imperative, men would fall into instant gratification and self-indulgence. *See* LASCH, *supra* note 71, at 58. Diderot also thought that there was a limit in civilization. *See* BURY, *supra* note 6, at 184.

can have on human behavior (in the form of greed).[238] These thinkers recommended that men have a family and practice a religion to avoid such behavior.[239] But having a family or practicing a religion did not provide a sufficient counterweight to the acquisitive spirit spurred by capitalism. "The more closely capitalism came to be identified with immediate gratification and planned obsolescence, the more relentlessly it wore away the moral foundations of family life."[240] It is only recently—now that the earth is confronted with the increasing threat from pollution and climate change—that the idea of limiting progress has gained some importance.[241] Liberalism and capitalism, both built on the idea of progress, wrongly assumed that the mere acquisition of wealth was sufficient to lead to a happy society.[242] But these ideologies failed to account for greed and more generally, hubris.[243] Both the mounting environmental and the financial crises show this well. In addition, and ironically, the increase in growth has also increased the gap between rich and poor.[244] It is clear, therefore, that human beings have no choice (unless they don't want to survive) but to abandon the progress ideology[245], or at least the current conception of it.

In the context of intellectual property law, Chon discussed this idea of limits.[246] She proposes "postmodern progress," which takes into consideration the public interest in accessing knowledge in view of the increasing private control of information.[247] Her proposal also rejects unconstrained material growth and is based on sustainable development.[248] In this respect, the notion of progress would integrate "ecologically-based limits to economic growth, as well as the need for the redistribution of existing material wealth within present and between present and future generations."[249] More recently, this author's scholarship proposed that patent law should be rethought to take into account the protection of nature[250] and incorporate environmental law principles and a requirement of eco-friendliness.[251] Intellectual property scholar Henning Grosse Ruse-Khan later sketched a similar general idea, namely that intellectual property laws cannot ignore sustainable development.[252]

C. Eudemonic Intellectual Property

This Article proposes eudemonic intellectual property law.[253] The new justification is not meant to be postmodern in the sense that this author adheres to the postmodern movement,

---

[238] *See infra* note 239.
[239] LASCH, *supra* note 71, at 59-60 (citing de Tocqueville's *Democracy in America* and Horace Mann).
[240] *Id.* at 63.
[241] *Id.* at 16-17 (citing Sorel, GDH Cole, Josiah Royce, Reinhold Niebuhr, and Martin Luther King, who all shared a sense of limits); Chon, *supra* note 41, at 126. Marković also notes that society should be aware that the current system of patent protection "is not God-given nor is it a reflex of great social wisdom, but it comes with the power of capital which today shapes dominant public policy and attempts to buy everything, including our faith in patent law." Marković, *supra* note 111, at 840.
[242] LASCH, *supra* note 71, at 59, 232 ("A liberal society that reduced the functions of the state to the protection of private property had little room for the concept of civic virtue.").
[243] *Id.* at 229, 232.
[244] *See also* Chon, *supra* note 41, at 126-27 ("A spectacular increase in growth has not resulted in a minimally acceptable standard of living for even a quarter of the world's population.").
[245] RESCHER, *supra* note 155, at 27-28.
[246] *See generally* Chon, *supra* note 41.
[247] *Id.* at 131-32.
[248] *Id.* at 101 n.21, 131-132, 139, 146.
[249] *Id.* at 127 (citing the WORLD CONSERVATION STRATEGY, *supra* note 235).
[250] Estelle Derclaye, *Patent Law's Role in the Protection of the Environment: Re-Assessing Patent Law and its Justifications in the 21st Century*, 40 INT'L REV. INTELL. PROP. & COMPETITION L. 249, 249 (2009).
[251] Derclaye, *supra* note 233, at 168.
[252] Ruse-Khan, *supra* note 67, at 338-39.
[253] This includes at least patents, plant variety rights, designs rights, and also confidential information. *See supra* Part I. The latter is included in TRIPs as part of intellectual property law. *See* TRIPs, *supra* note 63, arts. 1, 2,

metamodernism, or any current specific doctrine or philosophical movement.[254] Its goal would be happiness, which would be achieved by focusing on needs and imposing limits on progress. These limits would not only promote happiness, but also sustainability, which itself promotes happiness. Again, people's happiness depends on the happiness of all what everyone depends on. With no limits to desires and no respect for the earth's limited resources, people cannot achieve happiness. Inventions would arise not out of desires (greed) but out of a recognition of both human needs *and*, more generally, the planet's needs.

This does not mean society must totally stop innovating. Indeed, as Lasch notes, while criticizing the idea of material progress and its prejudicial consequences, people must not take a nostalgic view of the past.[255] Instead, humans must promote "progress" not as an end in itself, but as a tool for achieving happiness while respecting the earth's living organisms and non-living resources. Technology, and thus patents and related rights, can bring happiness in the sense that it correspond to needs. For example, with technology, inventors can enable food security, invent new pharmaceuticals, create non-polluting, renewable energy, and facilitate sustainable production of goods and services.[256]

Society should also abandon the term "progress" and use the more neutral term of "development" because people do not inevitably progress in the sense of betterment, and progress is more often associated with improvement than the term development. Using the term "development" acknowledges that innovation is not always beneficial.[257] People must also acknowledge that they cannot know if they will always perpetually develop (one of the wrong assumptions of the ideology of progress). This is why this Article prefers to use the term sustainability rather than sustainable development. So justified, patents and related rights will keep greed in check. They will prevent nature from being degraded or destroyed and may even contribute to its preservation.[258] In turn, the new approach to these intellectual property rights should lead to fewer tensions and wars relating to resources like energy sources and food. As a result, increased individual and collective peace and happiness should also ensue. Adopting this new justification for patents and related rights reintegrates the ethical values that were discarded during the Enlightenment.[259] Last but not least, the justification this Article proposes is doubly legitimate First, it bases the law on human *and* global needs, rather than just human wants. Second, it does not rest on the wrong or unprovable assumptions of the progress idea. [260]

---

39. If the new justification did not apply to inventions covered by confidentiality contracts, inventors may be tempted to resort to such agreements instead of patents in order to avoid patent law's application.

[254] *See* discussion *infra* note 261.

[255] LASCH, *supra* note 71, at 14.

[256] It is crucial to note that new technology can do this only partly, as public domain technology can also enable us all to drink and eat, cure many diseases, and provide clean energy. In some senses, old technology is better than new technology, especially in the sense that old technology has been vetted through experience to not have adverse effects. *See, e.g.*, Michael Gollin et al., *Scenario Planning on the Future of Intellectual Property: Literature Review and Implications for Human Development*, *in* INTELLECTUAL PROPERTY AND HUMAN DEVELOPMENT: CURRENT TRENDS AND FUTURE SCENARIOS 329, 342 (Tzen Wong & Graham Dutfield eds., 2011) ("In agriculture, there are concerns that farming models based on intensive use of biotechnology, often patent protected, are crowding out traditional farming practices and landraces which might be more suited to local conditions . . . .").

[257] Thus intellectual property will be similar to the theory of evolution, which does not imply that humans progress in the sense that they get better, but only implies that they evolve and transform.

[258] It does not mean that it is the only branch of the law that will do that, of course, as there are other laws, e.g., environmental laws, which also aim to preserve nature.

[259] LASCH, *supra* note 71, at 59-60; *see supra* Part IV.B and note 237 and accompanying text.

[260] *See infra* text accompanying note 287.

Postmodernists may have been too radical. Science can still lead to happiness. Still, to achieve this goal, technological development must be used for human needs, and not human desires. Maybe this new era could be named the "New Enlightenment" as it enlightens society through experience this time, and not just through ideas.[261]

D. Implementation of the New Justification in the Substantive Law

This section will focus on how to concretely implement this new justification inside patent and related rights laws. The European Union and the United States are different on this point. The United States is limited by its constitutional language, so Congress would need to revise the Constitution to change the term "progress," but is highly unlikely.[262] A way around the progress ideology underlying patent and copyright laws in the United States would be a teleological interpretation of the Patent and Copyright Clause. However, such an interpretation is only possible if courts and most importantly, the Supreme Court, are called upon to interpret it and then do so teleologically, rather than literally.[263] Such teleological interpretation is not impossible though. It is not clear that the Constitution is based on utilitarian grounds; in fact, some have suggested other interpretations compatible with the progress goal.[264] If progress is understood as encompassing social as well as material development, the Constitution could also accommodate the new justification. Congress could also take action. Even if there is no notion of morality in the US Patent Act,[265] Congress could change the Act to incorporate the concepts of happiness and sustainability. Such a modification would clarify that patents can only promote progress if such progress is necessary and leads to sustainability. Congress and the courts could use the Declaration of Independence's happiness goal as an anchor for the new justification.[266] Because of the lobbying in the United States however, these changes may be hard to come by. However, recent events have shown that popular discontent with a bill can win over lobbyists' attempts at pushing a particular controversial bill.[267] Similar public initiatives to propose a bill to change the law, rather than oppose a bill, may therefore have an impact in the future.

---

[261] According to some, since the 1990s, society has entered a new phase called "after postmodernism," "post-postmodernism" or "metamodernism." *See* Stephen M. Feldman, *The Problem of Critique: Triangulating Habermas, Derrida, and Gadamer Within Metamodernism*, 4 CONTEMP. POL. THEORY 296, 296 (2005). Since this period is just beginning, people struggle to give it a name and define its exact content. *See* Georg G. Iggers, *A Search for a Post-Postmodern Theory of History*, 48 HIST. & THEORY 122, 128 (2009). Still, it exists in art, literature, history, and philosophy in reaction to the irony and pessimism propounded by postmodernism. Feldman, *supra* note 261, at 300; *see, e.g.*, AFTER POSTMODERNISM: AN INTRODUCTION TO CRITICAL REALISM 4 (José Lopez & Garry Potter eds., 2001); Alan Kirby, *The Death of Postmodernism and Beyond*, PHILOSOPHY NOW (2006), http://www.philosophynow.org/issues/58/The_Death_of_Postmodernism_And_Beyond.

[262] U.S. CONST. art. V. A constitutional revision requires a two thirds majority in each house of the federal legislature and then ratification by three fourths of the states. *Id.* This can be difficult to achieve and is therefore rather rare.

[263] *See, e.g.*, RALPH A. ROSSUM & G. ALAN TARR, AMERICAN CONSTITUTIONAL LAW, VOLUME 2: THE BILL OF RIGHTS AND SUBSEQUENT AMENDMENTS 4-20 (8th ed. 2009) (listing and explaining the several ways of interpreting the US Constitution).

[264] Frischmann & McKenna, *supra* note 20, at 123.

[265] *See* 35 U.S.C. § 101-05.

[266] *See supra* note 206 and accompanying text.

[267] *See* Jim Forsyth, *SOPA Withdrawn: Lamar Smith Pulls Controversial Web Anti-Piracy Bill*, THE HUFFINGTON POST, http://www.huffingtonpost.com/2012/01/20/sopa-withdrawn-lamar-smith_n_1219250.html (last updated Jan. 20, 2012) (describing the recent SOPA/PIPA bills' withdrawal spurred by massive public opinion against the bills); *see also April 2012 Innovate / Activate 2.0*, BERKELEY LAW, http://www.law.berkeley.edu/12841.htm (last visited Mar. 1, 2012) (describing a conference to be put on by the Berkeley Center for Law and Technology, which seeks to improve "global welfare through identifying new and existing IP-related activism efforts, developing strategies for overcoming IP obstacles, and delivering practical solutions to spur change").

The treaties founding the European Union are far more recent than the US Constitution and have a wide variety of aims. The TEU, for example, has a more flexible wording, which can easily allow, and even command, the Member States to adopt the new justification proposed here.[268] The TEU's preamble states in relevant part:

> DETERMINED to promote *economic and social progress* for their peoples, taking into account the principle of *sustainable development* and within the context of the accomplishment of the internal market and of reinforced cohesion and *environmental protection*, and to implement policies ensuring that advances in economic integration are accompanied by *parallel progress* in other fields . . . .[269]

Also, Article 3(3) echoes the preamble:

> The Union shall establish an internal market. It shall work for *the sustainable development of Europe* based on *balanced* economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a *high level of protection and improvement of the quality of the environment*. It shall promote scientific and technological advance.[270]

Article 3(3) does not mention why technological progress should be promoted. Therefore, all goals in this article seem to be on equal footing. These include sustainable development, balanced economic growth, and protection and improvement of the quality of the environment. It is therefore reasonable to interpret article 3(3) as follows: scientific and technological advance shall be promoted as long as it leads to sustainable development, a high level of environmental protection and improvement of environmental quality.

Article 3(1) also provides that the "Union's aim is to promote peace, its values and the well-being of its peoples." If well being is equated with happiness, the latter also including peace, then the Union should promote technological progress only if it leads to happiness and peace. Article 17(2) of the EU Charter of Fundamental Rights provides that "intellectual property shall be protected", which must be read in conjunction with the broader goals of the EU stated in Article 3 of the TEU. Arguably, then, it cannot mean that technological advancements, and thus intellectual property, are ends in themselves. Otherwise, article 3 of the TEU would contradict itself and article 17(2) of the Charter would contradict article 3. The ECJ recently also held that the right to intellectual property is neither an absolute nor an inviolable right.[271]

An additional anchor for the notions of happiness, necessity, and sustainability already exists in most intellectual property laws in Europe in the form of the notion of morality. Morality provisions exist in the European Patent Convention and the Plant Variety Rights, Design and Trademark Directives and Regulations.[272] The concept of morality includes, at least in patent law, the protection of the environment.[273] Therefore, it would be easy for courts to apply intellectual property laws according to the proposed new justification. They could refer to both Article 3 of the TEU and to the morality notion of intellectual property

[268] Interestingly, relevant literature on article 3 of TEU is inexistent.
[269] TEU, *supra* note 208, at pmbl. (emphasis added).
[270] *Id.* at art. 3(3) (emphasis added).
[271] Case C-70/10, Scarlet Extended SA v. SABAM, 2012 E.C.D.R. 4, ¶ 43.
[272] Convention on the Grant of European Patents, *supra* note 9, at art. 53, nn.9, 16, 45, & 48.
[273] Case T-0356/93, Plant Genetic Systems, 1995 O.J.E.P.O. 545; *see also* TRIPs, *supra* note 63; WORLD TRADE ORG., THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS 331 (1999).

laws. As a result, even without new, explicit legislation, courts could apply the new justification to intellectual property laws.

Finally, since TRIPs should be interpreted in accordance with the WTO's objective of sustainable development, both the European Union and the United States should also interpret their patents and related rights laws accordingly.[274] A combined reading of the preamble to the WTO Agreement and Article 7 of TRIPs would mean that it must at least be checked whether intellectual property laws actually lead to sustainable development. It could be further argued that TRIPs requires that sustainable development is one of intellectual property laws' goals.

E. Countering the Arguments Against the New Justification

Several arguments can be made against the justification proposed above. Some may first argue that patents and related rights should be granted only if they incentivize inventors and creators by helping them to recoup their investments. Patent and related rights should not concern themselves with ethics. However, as authors Lionel Bently and Brad Sherman have pointed out,

> While there is no denying the important role that patents play in macro-economic policy, there is no reason why the patent system, as a regulatory tool, should only be used in the pursuit of economic ends, nor any reason why "external" factors such as the impact of technology on the environment or health should not fall within the core remit of the patent system. . . . Given that modern patent law already performs a number of sometimes surprising non-economic roles, this is not as alien a proposition as it might first appear.[275]

The same authors had also noted earlier that the long tradition of excluding value judgments in intellectual property explains why the relationship between patents and ethics is not straightforward and has encountered resistance.[276] They added that if the broad relationship between patents and ethics is seriously envisaged, the current ways in which we conceive patent law may need to change.[277] Other authors agree and argue that if the underlying objective of patent law is to benefit society, ethics should arguably play a greater role in patent laws.[278]

Second, some economists have also started to change the focus of traditional economics. According to these economists, instead of measuring a country's material wealth only by adding up material things via the well-known Gross Domestic or National Product, each country should measure its happiness. After all, research shows that increasing economic growth does not necessarily mean an increase in well being or happiness.[279] The idea of Gross National Happiness originates with the King of Bhutan in the 1980s and is based on Buddhist ideals, but these are universal and can thus apply to any society.[280] Sustainable development is also one of the pillars of the Gross National Happiness, the

---

[274] *See* discussion *supra* Part I.E (referring to the preamble to the WTO Agreement and article 7 TRIPS).
[275] BENTLY & SHERMAN, *supra* note 12, at 341.
[276] Brad Sherman & Lionel Bently, *The Question of Patenting Life*, *in* INTELLECTUAL PROPERTY AND ETHICS: PERSPECTIVES ON INTELLECTUAL PROPERTY 109, 122 (Lionel Bently & Spyros M. Maniatis eds., 1998).
[277] *Id.* at 125.
[278] Frank Washko, Current Development, *Should Ethics Play a Special Role in Patent Law?*, 19 GEO. J. LEGAL ETHICS 1027, 1037-1038 (2006).
[279] ANIELSKI, *supra* note 174, at 28; *see also* BRUNO S. FREY, HAPPINESS: A REVOLUTION IN ECONOMICS 3 (2008) (explaining that economics is an incomplete proxy for human welfare).
[280] Winton Bates, *Gross National Happiness*, 23 ASIAN-PAC. ECON. LITERATURE 1, 1-2 (2009).

economics of happiness, and the relatively new field of ecological economics.[281] Therefore, basing intellectual property on happiness is not a strange idea; economists have already started to base economics on the same goal. Since intellectual property laws are closely linked to economics, the fact that economists are focusing on happiness is particularly indicative of its applicability to intellectual property law.

A third argument against the new justification is that it is unnecessary. Because of the growing population and the environmental degradation, society must act within the constraints of the planet anyway; there is no need to appeal to happiness or sustainability to impose such restraint. In addition, it is not intellectual property law's role to guide human conduct to respect the environment, but it is instead environmental law's role. However, this argument fails for two reasons. First, the twin goals of happiness and necessity can stand alone, without the second aim of sustainability. Therefore, even if external factors require us to make laws that promote sustainability, they do not require such laws to promote happiness. Second, even if human beings must work within the globe's limits, this may not always be the case. Imagine that a new virus, a disastrous world war, or nuclear accident kills the vast majority of the earth's population. In this case, the question of the earth's resources may not pose itself any longer. Nevertheless, it may pose itself again in the future when the population grows once more. If intellectual property laws do not incorporate an ethical justification, they will not protect the goal of sustainability even if external factors change. Without such justification, history may repeat itself.

Also, one may argue that the new proposed justification is just another ideology replacing the previous ideology and is also based on (perhaps faulty) assumptions. It would be difficult to make a straight-faced argument that the quest for happiness is not an unavoidable human life goal. Human beings cannot escape from their quest for happiness, unless they are masochists. In order to achieve happiness, society needs to take into account what is good for the entire planet and therefore must take account of sustainability. The proposed justification is thus based on reality and necessity, not ideology.[282]

A final argument may be advanced. Some people think economic growth and its engine, intellectual property rights, should not be extended all over the world because this will lead to the inevitable exhaustion of the planet's resources.[283] However, the proposed justification incorporates necessity and sustainability. Therefore, it incorporates the preservation and protection of the environment, including the earth's resources. An Intergovernmental Panel on Climate Change (IPCC) Report published in May 2011 suggests that it is possible for humanity to be powered by 80 percent of renewable energy within the

---

[281] *See, e.g.*, MICHAEL COMMON & SIGRID STAGL, ECOLOGICAL ECONOMICS: AN INTRODUCTION (2005); GARETH EDWARDS-JONES ET AL., ECOLOGICAL ECONOMICS: AN INTRODUCTION 4 (2000).

[282] Of course, it possible to say that humans can continue progressing materially unabatedly but that will eventually lead to unhappiness and destruction. At the current rate of growth, humans are using one and a half earths in terms of resources. This leads to overshoot and not only climate change, but also destruction of resources, which in turn lead to famine, wars, etc. *See* Sue Anne Batey Blackman & William J. Baumol, *Natural Resources: The Concise Encyclopaedia of Economics*, LIBRARY OF ECONOMICS AND LIBERTY, http://www.econlib.org/library/Enc/NaturalResources.html (last visited Mar. 1, 2012) (pointing at the importance of scientific research to determine the exhaustibility of the earth's resources); Thomas L. Friedman, *The Earth is Full*, N.Y. TIMES, June 7, 2011, http://www.nytimes.com/2011/06/08/opinion/08friedman.html; *World Footprint: Do We Fit on the Planet?*, GLOBAL FOOTPRINT NETWORK, http://www.footprintnetwork.org/en/index.php/GFN/page/world_footprint (last updated July 2, 2011).

[283] *See* LASCH, *supra* note 71, at 23.

next four decades if governments pursue green policies.[284] In relation to food security, reducing the current levels of greenhouse gases emissions by 80 percent by 2050 should avoid most damaging effects on food potential.[285] Therefore, it is possible for humanity to develop sustainably. As mentioned above, this author does not advocate the adoption of intellectual property laws all over the globe. However, if countries decide to adopt such laws—and many are increasingly forced by the West to do so—they should be based on ethical values rather than the fallacious idea of progress.

V. Conclusion

The progress ideology is in part incorrect and in part unprovable. It also leads to unintended and damaging consequences. However, even if people recognize that the idea of progress is an erroneous belief, they think they cannot live without it because it is so ingrained in their minds and daily life.[286] Society has to reconcile its ideal of a world without disease, pollution, poverty, and ignorance, without relying on progress to achieve it. This can be done. Progress is not the only ideal we can live by nor does it equate to hope.[287] The universal quest for happiness, in which hope sustains people, can lead them to such a world. Rather than seeking progress for itself, society must seek progress only insofar as it achieves happiness, necessity, and sustainability. Because patents and related rights are part of the equation for human's life and survival in an ecocentric way, these rights too should be based on happiness, necessity, and sustainability rather than progress as an end in itself.

This vision may seem overly idealistic for this area of the law. Still, legal documents in this area (such the WTO and TRIPs agreements) explicitly support these same goals. In any case, there is no choice but to shift the focus to these aims. Again, the assumptions on which the goal of progress for its own sake is based are wrong or impossible to prove. Moreover, if the world carries on materially "progressing" unabatedly, it will destroy itself. Finally, if society wants these intellectual property rights to be applicable across the planet, then it needs to have a solid foundation; the aims of happiness, peace, and sustainability are universal. Therefore, the proposed new basis for patents and related rights is also more just, accountable, and hence more socially acceptable.

---

[284] Fiona Harvey, *Renewable Energy Can Power the World, Says Landmark IPCC Study*, GUARDIAN, May 9, 2011, http://www.guardian.co.uk/environment/2011/may/09/ipcc-renewable-energy-power-world. It may be counter-argued that these policies include technological advancements, but not all will. As explained above, there are already many old technologies that can help people live ecologically. *See* Gollin et al., *supra* note 256. Those technological advancements, which will be needed in addition to the old technology, will come out of necessity and not luxury, hence in full accordance with the new justification for patents and related rights. A lot of "fixes" may not be technological, such as reducing population growth.

[285] Martin Parry, Co-Chair of Working Group II of the IPCC, Climate Change and World Food Security (June 4, 2008), *available at* http://www.ipcc.ch/graphics/speeches/parry-rome-june-2008.pdf.

[286] LASCH, *supra* note 71, at 168.