7. What can intellectual property law learn from happiness research?

Estelle Derclaye*

INTRODUCTION

As the description of the 2012 ATRIP congress’s theme highlights, traditionally, scholars have used historical, doctrinal or comparative analyses, law and economics, political economy or philosophy, to discuss intellectual property law. Other methods such as empirical analysis, international relations, and human development are more recent. This chapter looks at intellectual property law in a new way, namely through the angle of happiness or well-being research.1

The field of happiness research is not that recent but strangely, so far, happiness researchers have hardly discussed the relationship between well-being and technology despite the pervasive role of the latter in contemporary society.2 Likewise, the discussion of happiness is also rare in the legal field (except of course in (mental) health law)3 and it is absent from intellectual property law,4 except indirectly through the discussion of the capability approach in the discourse on intellectual

* I would like to thank P. Brey, G. Duncan, J. Hirata and R. Veenhoven for providing me with references on happiness research and for the time they took to enlighten me on happiness research.

1 I will use the terms well-being and happiness interchangeably in this chapter. Section 2 gives a definition of the concepts.


property and development. I consciously leave the capability approach for another article but it needs to be noted that there are parallels to be drawn between the application of happiness research on the one hand and the capability approach on the other hand, to intellectual property law. In effect, the two approaches converge or are complementary in many respects.

There is a debate to be had about the value of happiness research for the field of intellectual property law. The discussion is worth having especially to check whether the current basis of intellectual property rights (IPR), and the norms that derive from it, are still up-to-date or else should be revised. This chapter focuses on the application of happiness research to patents and related rights, by and large designs, utility models and plant variety rights. However, a broader reflection of the relationship between happiness or well-being and other IPR such as copyright and trademarks, is worth pursuing as well. This chapter is obviously concerned only with one way to increase happiness, namely through the fostering of technology using the intellectual property system. There are many other ways to increase happiness, for instance to promote positive traits in a person, and this often does not need any technology. As Frey says, “In current happiness research, … the integration among disciplines often go[es] so far that it is not possible to identify whether a particular contribution is due to an economist, a psychologist, a sociologist or a political scientist.”


6 See e.g. R. Veenhoven, ‘Capability and Happiness, Conceptual Difference and Reality Links’ (2010) 39 *Journal of Socio-Economics*, 344–350 (surveys show that in most cases capability leads to happiness and happiness enhances capability).


The chapter first traces the origin and history of happiness research, it then defines happiness (section 2) and summarises the findings (section 3) and the recommendations (section 5) of happiness research, after having determined that policymakers should take happiness research into account (section 4). Finally, section 6 explains the relevance of happiness research to intellectual property law and draws from happiness research findings to propose a recalibration of patents and related rights’ goals and substantive law.

1. WHAT IS HAPPINESS RESEARCH? ORIGIN AND BRIEF HISTORY

Happiness as a topic of reflection is very ancient. It started centuries ago in Antiquity, with the, mainly Greek, philosophers. Thereafter, the topic became more or less dormant, it is only in the 17th and 18th century, during the Enlightenment, that several thinkers re-examined the topic and advocated the idea that happiness should be a public policy goal. Most representative of this period are Jeremy Bentham and John Stuart Mill. Then again the topic attracted less interest. It is then only relatively recently, in the second part of the 20th century, that happiness was resurrected as a main research interest in the social sciences. Happiness research involves several social sciences: philosophy, psychology, political science, sociology, economics and law. It even involves biology to some extent. It is at the end of the 1950s that first the psychologists

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9 Brey, above n. 2, p. 15.
11 See e.g. B. Frey and A. Stutzer, ‘Should Happiness be Maximised?’, in A. Dutt and B. Radcliff (eds), Happiness, Economics, and Politics: Toward a Multi-Disciplinary Approach, Edward Elgar, 2009, pp. 97–126; R. Layard, Happiness: Lessons from a New Science, Penguin, 2011, pp. 21 and 23 (Bentham and Mill’s conceptions, however, clash to some extent. Indeed, while both Bentham and Mill believed that human beings seek pleasure as opposed to pain, Mill, contrary to Bentham, classified pleasures into lower and higher ones, the latter being better than the former).
12 Layard, above n. 11, p. 24 (stating that happiness (seeking pleasure rather than pain) is natural for all animals and is what has made our species survive throughout the ages); R. Easterlin, ‘Building a Better Theory of Well-Being’, in L. Bruni and P.-L. Porta (eds), Economics and Happiness: Framing the Analysis, Oxford University Press, 2005, p. 60 (“The persistence of aspirations for a happy marriage among those who are in broken unions may reflect the importance to
started studying it, in addition to their previous sole focus on mental illness. Then came the sociologists and philosophers in the 1980s and the economists and political scientists in the 1990s. Perhaps the main reason why happiness research regained interest, especially as a goal for policy, has been the awareness of the negative consequences of the recent focus on materialism. The increasing trend in the (mainly Western) population’s materialism, prompted by selfishness, greed and the disappearance of religion and ideologies like Marxism and socialism, left a gap in which wild capitalism could thrive. A particular component of capitalism, technological development, brought with it the consumer society which, while bringing many benefits, has arguably also lead to “exuberant materialism and a loss of spiritual values and feelings of community”. As we shall see below, happiness researchers have found that accumulating wealth beyond a certain point does not bring happiness while quality human relationships are essential components of it. We can then already perceive the relevance this research might have on intellectual property law: the use of IPR as a tool for economic growth is a recurrent theme, if not a mantra, in policy-making discourse on IPR. However, it is doubtful that economic growth leads to happiness in developed countries.

2. WHAT IS HAPPINESS?

Happiness research literature uses the term “happiness” to refer to a variety of concepts and researchers do not all agree on what kind of

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14 Brey, above n. 2, p. 16.
15 See e.g. Frey, above n. 8, p. 13; Brey, above n. 2, p. 26; Veenhoven, above n. 13, p. 660. With his 1974 article (below n. 47), Easterlin was a precursor though.
17 Layard, above n. 11, p. 266.
18 Brey, above n. 2, p. 29.
happiness individuals should pursue or governments should further. In Antiquity, two main conceptions of happiness dominated: that of Epicure (hedonia) and that of Aristotle (eudaimonia). Contemporary happiness literature divides itself between these two main well-established, but opposed, conceptions19 and a third one, desire-satisfactionism.

According to hedonism, also called epicureanism, pleasure is the chief good.20 In short, or at its most basic, happiness understood in this sense is a positive affect, e.g. I feel pleasure rather than pain. This is the concept Bentham used for his theory; Mill also viewed happiness in this acceptation.21 Happiness in this sense can be evaluated in the short term (I feel pleasure at this precise moment today) or long term (I feel happy most of the time in my life).22 Often this latter conception of happiness is referred to as subjective well-being (SWB)23 or as life-satisfaction, i.e. overall enjoyment of one’s life as a whole.24

Eudaimonia is “the good life”.25 It comes chiefly from the writings of Aristotle. Eudaimonia is living well or actualising one’s potential.26 It is

22 See e.g. Layard, above n. 11, p. 13.
following meaningful goals and finding purpose in life.\(^{27}\) While eudaimonia includes pleasure, it is not merely a life of pleasure(s) but a life which includes a sense of meaning.\(^{28}\) In philosophy, hedonia envisages happiness in a subjective way, whereas eudaimonia goes beyond subjective experiences and includes objective factors.\(^{29}\) The two conceptions exist and correspond in both philosophy and psychology.\(^{30}\) Whereas there is a dichotomy between eudaimonia and hedonism, there is also partial overlap between the two concepts, albeit only in one direction: while a eudaimonic life will by definition comprise hedonic enjoyment, the converse is not always true.

Desire-satisfactionism holds that happiness occurs when one fulfils one’s desires or preferences. There are three major desire-fulfilment theories.\(^{31}\) The main problem with these theories is that they struggle to account for desires which are bad for us. They also do not explain the reasons why things may be good for us.\(^{32}\)

There is at the moment no resolution between the three rival concepts of happiness at least in the philosophical field. However, some commentators have tried to bridge the gap between them. “One way to create a hybrid version is to include pleasure or desire-satisfaction on the objective list. Another approach is to argue that some desires correspond with objective needs … Desires are subjective and needs are objective, but some desires may be expressive of genuine needs, whereas others are not. Yet another approach is to argue that informed desire-fulfilment or informed qualitative hedonism would result in the selection of items on objective list approaches, or to suggest that objective list items are relative to persons and circumstances, thereby narrowing the gap between the approaches.”\(^{33}\) Because there is some overlap between the three main conceptions of happiness, it should be possible to find some common ground. The chosen meaning of happiness, and the possibility of finding common ground between the different conceptions of happiness, is important as it will affect policy if governments decide to include happiness on their agenda. It is not the purpose of this chapter to choose

\(^{27}\) Deci and Ryan, above n. 26, pp. 6–7.


\(^{29}\) Brey, above n. 2, p. 23.

\(^{30}\) Ibid.

\(^{31}\) Ibid., p. 17 (also called preference-satisfaction theories).

\(^{32}\) Ibid., p. 18.

\(^{33}\) Ibid., pp. 20–21, see also p. 15.
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one meaning but it will have to be done if intellectual property laws are modified to take happiness into account. Accordingly, in this chapter, I use the terms happiness and well-being interchangeably and in a general sense without taking a position on which of the three main conceptions should win over the other.

3. CAN HAPPINESS BE MEASURED, ARE MEASUREMENTS RELIABLE AND WHAT ARE THE RESULTS?

In Bentham’s epoch and up until recently, it was not thought possible to measure happiness. Researchers have now realised that it is measureable, like any other social phenomenon such as GDP or (un)employment.34 One measures happiness mainly by direct questioning, i.e. through surveys simply asking whether people feel happy.35 There are mainly two types of surveys: life satisfaction surveys (which ask people to indicate on a scale of e.g. 1 to 10 whether they are happy with their life as a whole) and surveys using the moment-by-moment experience sampling method (asking people to record how they feel at several moments of the day for several days, weeks, etc.). The first type of survey is subject to respondents’ cognitive and emotional biases as they aim to recollect happy moments in the more distant past.36 The second method aims to avoid this.

The measurements are reliable because answers can be checked by asking for confirmation from the participants’ spouses, family, friends, colleagues, doctors;37 MRI scans can also be performed on people’s brains for further confirmation.38 In addition, happiness surveys recurrently give similar results across populations and over time.39 Any potential errors cancel themselves out because of the sheer number of

34 Layard, above n. 11, p. 257.
35 See e.g. Frey and Stutzer, above n. 11, p. 302; Layard above n. 11, pp. 13 ff.
36 Bronsteen, Bucafasco and Masur, above n. 3, at 1599.
38 Layard, above n. 11, Chapter 2.
39 Powdthavee, above n. 37, pp. 10 and 14, and references therein; Veenhoven, above n. 13, p. 666.
people surveyed in particular studies. Cultural bias, because the word happiness is not translated correctly and/or because people tend to give less accurate answers due to their culture (e.g. to save face), does not seem to exist or so far appears minimal. In sum, even if they are not perfectly reliable, happiness measurements are often more reliable than other measurements that policymakers routinely use. In addition, even if some evidence is still lacking and the evidence is not perfect, “In the end, the relevant question in making policy is not whether self-evaluations of well-being are perfect but whether they are as accurate as the best alternate way of gauging people’s preferences, opinions and needs.” In short, happiness research results are reliable enough and can be used by policymakers. There are two main caveats. First, correlation does not necessarily imply causation. Second, it is important to identify the direction of causality (e.g. does marriage cause happiness or does happiness cause people to marry), otherwise a policy measure aimed at increasing happiness may not have this effect.

What are the results of the measurements? The main finding is that even if people’s income has grown steadily and substantially over the last 50 years, the average levels of happiness have stagnated. This is true for the USA but also many other rich countries. This paradox is called the Easterlin paradox after its finder’s name: above a certain level of income, more income does not make people happy. The second important finding is that humans are not very good at judging what will make them happy and thus make decisions which leave them unhappy. People

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41 Bok, above n. 10, p. 40.
43 Powdthavee, above n. 37, p. 18.
44 Frey, above n. 8, p. 11.
45 Bok, above n. 10, pp. 5 and 12.
46 Ibid. and Lane, above n. 16.
misleadingly think that added income will lead to happiness. And even if some people are aware of some of the ingredients of a good life (e.g. having meaningful relationships), they still forsake them for extra income. The third finding is that people adapt incredibly well. Whether their income rises or health deteriorates, people adapt quickly. As far as income is concerned, people think more income will make them happy so they work more to acquire more money or status. Once they have acquired the extra income, and the extra possessions bought with it, they grow used to them and want more so they work even harder to acquire more. In addition, people tend to compare themselves with others. So the more one person has, the more their neighbour wants to have to keep being superior, leading to a status race. This is called the hedonic treadmill and is a race without end, which does not make people happier. Worse still, since people spend more time acquiring income, they spend less time for instance with friends and family or pursuing hobbies, which are among the things which make them happy. Indeed, researchers have found that apart from inherited temperament, what makes people happy are mainly “marriage, social relationships, employment, perceived health, religion and the quality of government”. Further studies have even found that human connections “contribute more to happiness than anything else”. The fourth, important and related, finding is that happiness is not entirely inherited or genetic and thus it can be increased. Only 50% is biologically determined, while 10% is determined by environment and luck and the remaining 40% is in the

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48 Bok, above n. 10, p. 62; Easterlin, above n. 12, pp. 42 and 47.
50 Bok, above n. 10, pp. 5–6, 30. See also Frey and Stutzer, above n. 11, pp. 310–311.
51 Bok, above n. 10, p. 21 (there are only a few health problems that people do not adapt to, mainly chronic pain and fatal diseases such as AIDS or cancer).
52 Ibid., pp. 12, 15. See also Frey, above n. 8, p. 8 summarising studies.
53 Bok, above n. 10, p. 16. Note that religion can be substituted for a sense of purpose. Studies have found that more generally, a meaning to one’s life also makes people happier. On this, see W. Pavot and E. Diener, ‘Findings on Subjective Well-being: Applications to Public Policy, Clinical Interventions and Education’, in P. Linley and S. Joseph (eds), Positive Psychology in Practice, Wiley, 2004, pp. 679–691, at 683.
54 Bok, above n. 10, p. 19; Pavot and Diener, above n. 53, at 683 adding that the quality of the social relationships is also important.
power of each individual to change. Fifth, well-being is achieved when human needs are fulfilled. However, the problem is to determine what human needs are. While there is agreement on basic (i.e. biological) needs and some other needs, some needs may be culturally determined and therefore not universal. I will come back to this point in section 5. These important findings lead us to ask the question addressed by the next section.

4. SHOULD POLICYMAKERS TAKE HAPPINESS INTO ACCOUNT?

The first point of controversy is whether happiness, in either of its meanings, is a universal value and therefore self-evidently desirable for governments to pursue. Research has shown that for human beings all over the world, whatever their age, gender, culture, or life experience, the ultimate, or at least the most important, goal is to be happy. Surveys also show that most people seek happiness in a similar way, i.e. good health and a happy family life rank high all over the world. Two small caveats are that collectivist cultures emphasise collective well-being over individual well-being; and to say that all societies seem to value happiness is only valid for contemporary societies because in the past, there were some societies that glorified suffering rather than happiness.


57 Frey, above n. 8, pp. 1, 3, 5; Nelson and Lyubomirsky, above n. 55, p. 2 and references therein.

58 Veenhoven, above n. 24, p. 341.


60 Veenhoven, above n. 24, p. 340.
It has been proven that happiness is a state that animals, including human beings, naturally tend towards. Indeed, the function of happiness is that we seek what is good for us namely food, sex, friendship, love, etc., because that makes us survive. At least one commentator goes further and declares that happiness is special because it is the only good accepted as an end in itself: while there are a lot of other good things one would want in life such as “health, autonomy, accomplishment, relationships, a sense of meaning … If we ask why they matter, we can generally give some further answers – for example, that they make people feel better and more able to enjoy their lives. But if we ask why it matters if people feel better, we can give no further answer. It is self-evidently desirable.” Nevertheless, some commentators note that happiness is not innate in humans as there are individuals who do not seek happiness, namely those individuals who are simply trying to survive and those who choose to “forsake happiness for ideological reasons”. However, once people in this situation have succeeded in surviving, the vast majority of them wish to be happy. As to the second type, their happiness is eudaimonic and not hedonic. Another objection is that happiness neglects altruism. However, research has shown that being altruistic increases happiness. A more fundamental objection to the argument that happiness is self-evidently desirable is that it is tautological. Furthermore, it is not because something is natural that it is automatically ethical. For instance, if we would follow a version of Darwin’s survival of the fittest rule, we might want to advocate killing or abandoning old or disabled people. Surely, this is something which hurts our sense of ethics. In short, we should not follow a law of nature if it is

61 Layard, above n. 11, p. 224.
62 Layard, above n. 11, p. 24. See also King, Eells and Burton, above n. 49, at 36.
63 Layard, above n. 11, pp. 240–241, 246.
64 Veenhoven, above n. 24, p. 341.
65 Veenhoven admits that once beyond the survival stage, most people will be interested in happiness (email on file with the author).
66 Examples include people sacrificing pleasure (hedonia) to attain a meaningful life such as some monks and nuns but in this case, their suffering may lead to happiness in the sense of eudaemonia either on earth or after life or their suffering will lead to the happiness of others.
68 Layard, above n. 11, p. 141.
69 Duncan, above n. 19, p. 172.
70 Ibid.
not ethical or moral. Adopting a law of nature as a norm (i.e. “an attempt to derive a norm from a fact, or an ‘ought’ from an ‘is’”) is known in philosophy as a naturalistic fallacy.71 In this type of argument, the premise is descriptive while its conclusion is normative but “no evidence has been presented that the truth of the premise has any bearing on the truth of the conclusion”.72 Applied to happiness, the argument would go like this: it is in human nature to be happy as proven by biology (fact) so all human beings should strive to be happy and governments should aim to create or increase their constituents’ happiness (duty). This has led some to conclude that happiness, no matter how desirable it may be, is not a new science73 but nothing more than another ideology like liberalism or Marxism.74 There is no space here to counter this argument and I leave it to my next piece of scholarship. Suffice it to say that the naturalistic fallacy can be avoided by adopting a value derived from the fact and using this value as the basis for the norm.

Despite these objections, the vast majority of the contemporary literature agrees that happiness is an important value that politicians and lawmakers should pursue. The chief reasons are that it is the main goal of the vast majority of human beings, people’s happiness can be created or increased and happiness has positive effects on the individual, his/her family and friends and more generally his/her community, and on society as a whole (happy people are healthier, more sociable, tolerant and generous and perform their jobs better).75 Most researchers also agree that happiness is a responsibility which should be shared between the individual and the state.76 Otherwise, it would lead to a nanny state where people expect the government to make them happy and take no responsibility for themselves.77 The law is only one among other means which can influence well-being.78 There is some disagreement as to whether happiness is the only, the ultimate, value that governments

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71 Brey, above n. 59, pp. 6–7.
72 Brey, above n. 59, p. 7.
73 For Layard, above n. 11, happiness is a new science as the title of his book itself claims.
75 Bok, above n. 10, pp. 51, 53; Nelson and Lyubomirsky, above n. 55, p. 4 citing Lyubomirsky, King and Diener, 2005 who meta-analysed 225 studies. The positive effects of happiness are one way to derive a value from the fact (that we all want to be happy) as per the above.
76 Bok, above n. 10, p. 51 and generally Chapter 11.
77 See e.g. Fureidi, above n. 67; Duncan, above n. 19, p. 175.
78 Bok, above n. 10, p. 54. See also introduction above.
should pursue or only one among other important values.\textsuperscript{79} For so-called Benthamites, like Veenhoven or Layard, happiness is the only value policymakers should pursue: as it is self-evident,\textsuperscript{80} it is the most desirable.\textsuperscript{81} However, most think that governments should pursue happiness so long as it is at no cost to other values. Indeed, if happiness were the only aim then governments should never help oppressed people, who have adapted to their fate and are content. However, that offends our sense of justice or fairness which demands that their fate be bettered. Happiness should therefore be one of the goals of government along with other values such as fairness, human rights (including equal rights, freedom), duties, virtues, capabilities, which must be upheld.\textsuperscript{82} If happiness clashes with one of the other values, then a balance must be made.\textsuperscript{83}

In any case, empirical evidence shows that there is generally no conflict between happiness and other values; on the contrary, values such as civil rights (e.g. freedom) are conducive to happiness.\textsuperscript{84}

In conclusion, research shows that at least the gratification of basic needs is universal. The vast majority of researchers agree that governments should promote conditions of happiness, even if there is disagreement as to whether happiness should be the state’s only or most important goal.

\textsuperscript{79} See Bok, above n. 10, pp. 61–62, the aim of government is not only happiness; Nelson and Lyubomirsky, above n. 55; Frey and Stutzer, above n. 11, p. 316; Hsee, Xu and Tang, above n. 7 (important but not only goal). Likewise, even if some psychologists have focused their energies on happiness, it does not mean that they think it is the only good in life. No one in the field appears to advocate a life of hedonism. See e.g. King, Eells and Burton, above n. 49, p. 38. Contrast with Y. Ng and L. Ho, ‘Introduction: Happiness as the Only Ultimate Objective of Public Policy’, in Y. Ng and L. Ho (eds), \textit{Happiness and Public Policy: Theory, Case Studies and Implications}, Palgrave Macmillan, 2006, pp. 1–16, who think it is the only ultimate policy goal.

\textsuperscript{80} Layard, above n. 11, p. 246.

\textsuperscript{81} Veenhoven, above n. 13, p. 675.

\textsuperscript{82} Bronsteen, Buccafusco and Masur, above n. 3, at 1608; Duncan, above n. 19, p. 172. Benthamites would argue that these values are subsumed within happiness. Again there is no space to address this argument and it is not necessary for the purpose of this chapter, so we leave it to another article.


\textsuperscript{84} Veenhoven, above n. 13, pp. 672, 676. Many surveys show that the happiest people are those who live in countries which respect human rights.
5. RECOMMENDATIONS OF HAPPINESS RESEARCH

A. Change of Focus: Back to “Genuine Utilitarianism”

In all scientific branches, happiness research aims to guide policy. Researchers advocate a gross national happiness (GNH) indicator in addition to or even instead of gross national product (GNP). Researchers also agree that instead of focusing on economic growth, which in developed countries, does not increase happiness, governments of developed countries should focus on policies which increase people’s happiness, namely which improve health and family life, maintain full employment and control inflation, and limit the status race. In this respect, Easterlin and in a more precise way, Hsee et al. have proposed that governments promote consumption of goods people do not adapt to in order to avoid hedonic adaptation. Hsee et al. also suggest that governments promote inherently evaluable rather than inherently inevaluable consumption; in short, this means investing resources in goods and

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86 See e.g. Veenhoven, above n. 13; Frey and Stutzer, above n. 11, section 14.8. An alternative vision of how to use happiness research for policy, Frey and Stutzer, above n. 11, pp. 314–315; Anielski, above n. 47; Brey, above n. 2, p. 28 (apart from Bhutan, which was the pioneer, “Other countries that are using, or are considering using, GNH indices include Thailand, China, Australia, Canada, France, and the United Kingdom. Critics of GNH argue that such indices can easily be slanted by governments who may define GNH in ways that suit their interest, and that the existence of different national indices will make international comparisons difficult”). For the United Kingdom, see the Prime Minister’s speech on 25 November 2010 available at http://www.number10.gov.uk/news/pm-speech-on-well-being/.
87 Especially chronic pain and terminal diseases because people do not adapt to them compared to other illnesses or handicaps, see Layard, above n. 11, p. 69; Bok, above n. 10, p. 61.
88 Economists find it too simplistic to affirm that full employment does equate with growth. So happiness researchers do not contradict themselves when they propose maintaining full employment, contrary to what Duncan (above n. 19, p. 174) argues.
89 On all these points, see Easterlin, above n. 12, p. 54. One example is banning commercial advertising aimed at children to avoid conditioning them to consume more, see Layard, above n. 11, p. 234. Other examples are monitoring taxes, which play a role in preserving the work–life balance and performance-related pay, which tends to encourage the status race, see Layard, above n. 11, p. 233.
90 Easterlin, above n. 12, p. 54; Hsee, Xu and Tang, above n. 7.
services which fulfil basic human needs such as (better) sanitation, heating, medicines, communication systems, etc. rather than luxuries, or giving incentives to businesses to do so.\textsuperscript{91} This is because the free-market system does not always encourage businesses to produce inherently evaluable goods or services. This is not a surprise as businesses produce what people \textit{want} and people are not good judges of what they \textit{need}.

Hsee et al. conclude that goods and services which fulfil basic human needs and goods and services people do not adapt to are generally the same. The converse is also true, namely goods and services people adapt to are those which do not fulfil basic needs.\textsuperscript{93} In sum, economic growth should no longer be a major goal.\textsuperscript{94} Governments should perform a different type of cost–benefit analysis (namely choose those policies that will increase happiness the most for any given cost).\textsuperscript{95} Some propose to even move from a cost–benefit analysis to a well-being analysis.\textsuperscript{96}

At this point, it is necessary to determine what human needs are. Even if it may be difficult to agree on a single and therefore universal list of needs, whatever one wants to call them – basic goods and services, functionings, capabilities, dimensions – both theoretical and empirical research shows a very high degree of convergence.\textsuperscript{97} Of course, the

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\item \textsuperscript{91} Hsee, Xu and Tang, above n. 7.
\item \textsuperscript{92} See above section 3.
\item \textsuperscript{93} Hsee, Xu and Tang, above n. 7. ("For example, compared with the size of a diamond, ambient temperature is both more inherently evaluable and more resistant to adaptation").
\item \textsuperscript{94} Frey, above n. 8, p. 201.
\item \textsuperscript{95} Layard, above n. 11, p. 257.
\item \textsuperscript{96} Bronsteen, Buccafusco and Masur, above n. 3.
\item \textsuperscript{97} J. Johnstone, ‘Capabilities and Technology’, in P. Brey, A. Briggle and E. Spence (eds), \textit{The Good Life in a Technological Age}, Routledge, 2012, p. 89; Alkire, above n. 56; F. Rauschmayer, I. Omann, J. Frühmann and L. Bohunovsky ‘What About Needs? Re-conceptualising Sustainable Development’, SERI Working Paper, No. 8, 2008. For some commentators, this search for good feeling (the gratification of universal “needs” such as eating, drinking etc.) is more important than contentment, which depends on meeting culturally variable “wants” (American businessmen have higher standards of living than say Tibetan monks and the current generation generally tends to want to live more comfortably than previous generations). This is because contentment is largely driven by the search for good feeling. See Veenhoven, above n. 24, pp. 332–334. It goes without saying that without first satisfying our basic needs, it is difficult to survive and thus be more generally content. Thus the fulfilment of these needs naturally must come first. As Veenhoven, above n. 13, p. 664 argues, it seems logical though that life satisfaction is more appropriate as a policy goal than passing satisfactions because the former is more valuable.
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literature agrees that people should have the right to fulfil their basic or biological needs (drinking, eating, breathing, etc.) but the agreement goes beyond these basic needs. In a wide-ranging comparison of the literature on these aspects across fields, Alkire found only few differences but notes that most lists she reviewed are Western and therefore biased; a synthesis of needs therefore requires expanding the literature review.

More research therefore needs to be done in order to guide policymakers.

B. Caveat: The Danger of Paternalism

Notwithstanding this enthusiasm for applying happiness research in policy-making, researchers caution that it carries with it a danger of paternalism or authoritative decisions by the state. To avoid this, happiness researchers stress that policies should therefore aim at increasing people’s awareness of what makes them happy and what is hedonic adaptation and social comparison, in short educating them. Thus, governments should improve the processes rather than intervening directly to improve the outcomes. In other words, policymakers should not impose happiness, even less their idea of happiness, but make it possible for people to achieve it in the way they want, e.g. via prioritisation or incentives. In addition, in as much as governments would like to increase their constituents’ happiness, they cannot do it

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98 Many of the needs identified in the reviewed literature are not morally connotated but simply refer to things people value doing, but other commentators’ lists only refer to universal needs (see M. Max-Neef, *Human Scale Development: Conception, Application and Further Reflections*, Apex Press, 1993; M. Nussbaum, *Women and Human Development: The Capabilities Approach*, Cambridge University Press, 2000 cited by Rauschmayer et al., above n. 97) and many of these relate more to eudaimonic than hedonic well-being (Rauschmayer et al., above n. 97, p. 13).

99 Alkire, above n. 56. She reviews 15 different lists established by different authors and discusses seven of these in detail.

100 Frey, above n. 8, pp. 168–169; 201. See also Rauschmayer et al., above n. 97, pp. 14–15.

101 Duncan, above n. 19, p. 177.

102 Layard, above n. 11, pp. 199–201 (who proposes “education for life” courses); Frey, above n. 8, p. 155. See also Easterlin, above n. 12, pp. 56–57, and references therein; Bok, above n. 10, pp. 76, 210–211.

103 Frey and Stutzer, above n. 11, p. 316.

104 This is the task of philosophers or religious authorities.

105 Frey, above n. 8, pp. 168–169.

106 Bok, above n. 10, p. 211. Note that this is also what the capability approach advocates. See Rauschmayer et al., above n. 97, p. 16.
against their constituents’ will. Indeed, since politicians are elected, it would be political suicide if they went against the population’s wishes.\textsuperscript{107} And since currently people mistakenly think economic growth is the key to happiness, politicians focus on growth.\textsuperscript{108} So not only for the reason we gave above but also for this additional reason, people must first be educated as to the real causes of happiness and start being convinced that consuming less is a good idea so that they can then influence politics by voting for politicians who will focus less on economic growth. Governments can start educating people but also the press, NGOs, schools, academics, etc. In short, a change of focus from GDP to GNH will be hard and will take time.

On the other hand, some paternalism cannot be entirely avoided. A first reason is that it is impossible for governments to be neutral even if liberalism, which is still dominant in Western political thinking, advocates that government policies should be neutral on the question of the good life.\textsuperscript{109} Indeed, so-called liberal neutrality “refers to values such as liberty, autonomy, respect, and equality and not every reasonable person would give them the same central and foundational place in the moral governance structure of the state as the political liberalist would”.\textsuperscript{110} Therefore, some commentators argue that as governments cannot be neutral, instead they should acknowledge that every position is morally tainted, respect each position and attempt to find consensus regarding the relationship between technology and the good life.\textsuperscript{111} Furthermore, the relationship between technology and happiness should be more critically discussed; society in general and governments in particular should think more carefully about which technologies they want to allow or promote by examining whether they are really good for us.\textsuperscript{112} They should do this instead of simply assessing all technologies equally in terms of risk by

\textsuperscript{107} Bok, above n. 10, pp. 58–59.
\textsuperscript{108} Ibid., p. 73.
\textsuperscript{110} Ibid., p. 334.
\textsuperscript{111} Ibid., p. 336.
weighing the costs and benefits of each technology to decide whether or not to introduce it.

Second, a dose of paternalism is sometimes unavoidable and even justified because in some cases, human needs run counter to environmental needs and fulfilling the needs of one generation may encroach on the fulfilment of those of the next, and the one after that, etc.\footnote{Rauschmayer et al., above n. 97, p. 30.} This applies in many areas and as I have argued elsewhere, also to intellectual property law. Intellectual property law, like environmental law, cannot remain anthropocentric but needs to be ecocentric.\footnote{E. Derclaye, ‘Patent Law’s Role in the Protection of the Environment: Re-assessing patent law and its justifications in the 21st century’ (2009) 3 International Review of Intellectual Property and Competition Law 249–273 and E. Derclaye, above n. 4.}

6. RELATIONSHIP BETWEEN HAPPINESS RESEARCH AND INTELLECTUAL PROPERTY LAW

A. Relevance of Happiness Research to Patents and Related Rights

Intellectual property laws, and patents and related rights especially, are still nowadays based on the utilitarian rationale, which derives from the writings of Bentham and Mill.\footnote{Traditionally, namely since the intellectual property laws were adopted during the Enlightenment and up until now, intellectual property laws have been based broadly on two main rationales: the natural rights (in which one can include the labour theory) and utilitarianism (in which one can include the incentive theory). In the 20th century, at least in the Western world, utilitarianism won the battle of ideas to justify intellectual property. See E. Derclaye and M. Leistner, Intellectual Property Overlaps, Hart, 2011, pp. 298–304.} In short, humans seek pleasure rather than pain\footnote{As per our discussion above in section 4 on the natural state of happiness.} so policymakers should follow this principle of utility as well.\footnote{Note that Bentham’s theory involves not only happiness as such but equality, and thus fairness, in happiness in the sense that every person is equally important as far as happiness is concerned. Layard, above n. 11, p. 5. See also Utilitarianism, Encyclopedia Britannica Online Academic Edition, 2012, available at http://www.britannica.com/EBchecked/topic/620682/utilitarianism} IPR are justified by the positive consequences they bring for the common well-being. IPR are granted by society according to the benefits which society wants to obtain. Thus IPR are incentives to create and innovate and allow the inventors and creators to recoup their investment.

\footnote{Rauschmayer et al., above n. 97, p. 30.}
\footnote{Traditionally, namely since the intellectual property laws were adopted during the Enlightenment and up until now, intellectual property laws have been based broadly on two main rationales: the natural rights (in which one can include the labour theory) and utilitarianism (in which one can include the incentive theory). In the 20th century, at least in the Western world, utilitarianism won the battle of ideas to justify intellectual property. See E. Derclaye and M. Leistner, Intellectual Property Overlaps, Hart, 2011, pp. 298–304.}
\footnote{As per our discussion above in section 4 on the natural state of happiness.}
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The idea behind this justification is that progress is desirable. However, as it currently stands, the justification is distorted because happiness, or well-being, came to be assessed only by a proxy, namely income. Happiness evaluated in non-monetary terms, i.e. in the sense of living a good life or simply feeling good has disappeared from the picture altogether. This is because in addition, a dose of liberalism, and neo-liberalism, impregnates IPR. Liberalism rests on two assumptions. First, a competitive free market economy is good because it leads to economic growth and prosperity. Since creation and innovation, which IPR promote and protect, help foster economic growth, IPR must be promoted. Liberalism and neo-liberalism have also brought with them capitalism and consumerism. However, as we have seen, research has shown that economic growth, which increases income, does not after a certain point, increase happiness. Second, liberalism believes in neutrality. Hence patent laws foster all kinds of technology. Because of this neutrality, patents and related rights laws promote those technologies which lead to hedonic adaptation and contribute to the hedonic treadmill and status race. The question thus poses itself: shouldn’t we change the basis of patents and related rights or rather, go back to “genuine utilitarianism” and foster happiness as a whole rather than just via a single proxy, namely material wealth or economic growth? Shouldn’t we promote the “right” kind of technologies, i.e. those which fulfil our needs and resist hedonic adaptation and social comparison? I am not suggesting that our current patent and related right laws do not do this already to some extent but because of their neutrality, they also foster the “wrong” kind of technologies.

B. Which Changes can be made to our Patents and Related Rights Laws?

If we accept the evidence explained in section 5, we need to foster the technologies which fulfil our needs, not our wants, in other words, foster technologies which resist hedonic adaptation and social comparison. The problem, as sketched in section 5, is to identify what these needs are.

118 A very strong version of liberalism exists for instance in the USA where immoral inventions are not excluded from patentability. A softer version of liberalism exists in Europe where inventions whose commercial exploitation would be immoral cannot be patented. See Art. 53 European Patent Convention.

119 Frey, above n. 8, p. 201; Van den Hoven, above n. 109, p. 333 (we need to ensure we are happy with the technologies we foster because they are congruent with our vision of a good life).
That depends on the list of needs one chooses and, if one wants to apply patents and related rights all over the world, whether this list can be truly universal. Some countries may decide to choose a specific list while others nations would embrace only part of it or choose a different list because they diverge on which needs should be fulfilled. In this respect, choosing a list which is applicable at international level means attempting to end the dispute concerning the universality or the cultural relativity of needs. The vast majority of the lists of needs catalogued by Alkire (even if biased, i.e. “Western made”) include life, health, nutrition, security or shelter, affection and affiliation.\footnote{One will not fail to note that these values include many human rights that international conventions already secure universally.} For the rest, they differ more or less importantly. It would be hard to dispute that every human being has a right to live and be in good health i.e. that it is not a universal need.\footnote{See Nussbaum, above n. 98, p. 95.} This would mean that our patent and related rights laws should promote, for instance, new drugs which cure or eradicate the most lethal and crippling diseases and inventions which enable better nutrition and sanitation.\footnote{This may or may not be possible simply because of the lack of sufficient monetary incentive and other ways than the patent system may have to be used in some cases, e.g. prizes or government funding.}

It must be noted that in relation to IPR, the inquiry relating to cultural relativism is double. Indeed, this philosophical dispute also applies to the nature of the rights used as a tool to promote the technologies we need. Cultural relativism argues that if one wants to import a value from one society to another, one has to convince this other society it would be a good addition or that this other society's idea of the good is flawed.\footnote{Brey, above n. 59, pp. 7–8.} It is not clear that granting property rights in intangibles is the universal way to foster creation and invention, let alone that any sort of right should attach to any intellectual output even if original or new. Intellectual property lawyers have already criticised this view especially when intellectual property achieved the status of a human right through case law of the European Court of Human Rights under the umbrella of the human right to property and later in the EU Charter of Fundamental Rights. Indeed, it is clear that collectivist countries (where the focus is on the collective) such as many Asian countries do not see certain things in the same way as individualist countries such as many Western countries...
(where the focus is on the individual, e.g. human rights are paramount).\textsuperscript{124} Intellectual property law is a Western value which is not generally accepted in other, non-Western, cultures.\textsuperscript{125} Therefore, as intellectual property is not universally accepted, an attempt to say it is universally valid must be scrutinised.\textsuperscript{126} Hence, in addition to changing the basis of patent and related rights, it may be necessary to find a middle way, to re-centre the rights between excessive individualist and collectivist perspectives,\textsuperscript{127} and for instance maybe abandon property rights in some cases and replace them with remuneration rights or exceptions etc.\textsuperscript{128} This shows even more that it is important to base intellectual “property” rights, or rather rights in intellectual endeavours to put it in a less culturally biased way, on universal values, if at all possible, to give them a strong basis which many countries can accept rather than impose a Western value system, which in addition, may also be (fully or partly) wrong.\textsuperscript{129} It therefore seems appropriate that different moral systems talk to one another to try and determine common values to build intellectual “property” laws that respect their different moral systems, something that among others, the new philosophical field of “intercultural information ethics” has started to do.\textsuperscript{130}

Once this choice about needs is made, there are several ways of promoting the technologies which fulfil them via our patents and related rights system entailing different degrees of paternalism or state intervention. From the least to the most paternalistic, one can think of (1) prioritising such technologies over others (e.g. quicker search, publication and/or patent grant, fewer taxes for applying and/or renewing those

\textsuperscript{124} But some scholars dispute that there is much difference between cultures on basic capabilities which broadly correspond to human rights, see Nussbaum, above n. 98, pp. 97–100.
\textsuperscript{125} Brey, above n. 59, p. 6.
\textsuperscript{126} Ibid., p. 2.
\textsuperscript{127} Indeed both rights-centred (the West) and virtue-centred systems (the East) have flaws. The West’s values lead to avarice, poverty, selfishness, loneliness and depression whereas the East’s lead to totalitarianism, corruption and a poor economy. See Brey, above n. 59, pp. 7–8.
\textsuperscript{128} Current patent and related rights laws already incorporate these to some extent.
\textsuperscript{129} Derclaye, above n. 4.
patents), similar to some of the initiatives that many patent offices around
the world have adopted for environmentally sound technologies,\(^{131}\) (2) excluding from patentability technologies which do not fulfil these needs
(e.g. through the morality clause or another independent legal provision
inside the patent and related rights laws) and (3) adding a new condition
of patentability which requires applicants to prove that their invention
fulfils at least one need in the agreed list.\(^{132}\)

C. Happiness is not the only Aim

I have shown elsewhere that the incentive theory in so far as it relies on
the idea of progress is flawed.\(^{133}\) Nevertheless, patents and related rights
can still grant incentives, but to foster happiness as a whole instead of
simply fostering economic growth.\(^{134}\) That being said, in the same way
that happiness should not be the only goal of government, it should not
be the single aim of IPR. In fact, if human happiness were the only aim,
it would not (or not necessarily, depending on which list of needs one
chooses) for instance take into account the environment, namely the flora
and fauna and non-living earthly resources.\(^{135}\) The fulfilment of needs to
achieve happiness may help in terms of this generation’s happiness but
may not in respect of future ones.\(^{136}\) In this case, paternalism is justified
and stricter patentability conditions may be required. In any case, a high
level of well-being is not per se incompatible with sustainable develop-
ment.\(^{137}\) On the contrary, studies have shown that a sustainable lifestyle
makes people happy and vice versa. In this respect, rich countries have

\(^{131}\) E. Derclaye, ‘Should Patent Law Help Cool the Planet? An inquiry from
the point of view of environmental law’ (2009) European Intellectual Property
Review 168–184; 227–235, at 230. Currently the patent offices who have adopted
such measures are those of the United States of America, the United Kingdom,
Japan, China, Israel, Canada, Korea, Australia and Brazil.

\(^{132}\) A variant of this would be to prioritise those inventions which fulfil some
of these needs rather than others. But as the majority of the literature agrees that
needs should not be hierarchical, this measure would be controversial.

\(^{133}\) Derclaye, above n. 4.

\(^{134}\) With the caveat that property rights may not be the right instrument for
IPR to be truly universal. See above section 6.B.

\(^{135}\) For instance, Nussbaum’s list (above n. 99) includes interaction with
other species and that includes the environment generally.

\(^{136}\) Rauschmayer et al., above n. 97, p. 30.

\(^{137}\) Ibid., p. 27 citing P. Hofstetter and M. Madjar, ‘Linking change in
happiness, time-use, sustainable consumption, and environmental impacts – An
much to learn from poorer ones, which enjoy an equally high well-being but consume less.\textsuperscript{138} In addition, at least in the EU, legislators are obliged to take environmental protection into account in other policies, including intellectual property policy.\textsuperscript{139} Thus the liberalist view, once rid of the progress idea still at the root of IPR, can be curtailed or at least balanced by other aims namely happiness and sustainability. These aims can be combined without (much\textsuperscript{140}) conflict. Indeed, sustainability and happiness are strongly connected: human beings cannot be happy if they do not respect other elements they depend on, because the latter’s unhealthy state will, at least in the end, affect human beings. Further, human survival rests on the entire planet’s well-being.\textsuperscript{141} Research has also shown that environmental degradation makes people unhappy so that governments should protect the environment.\textsuperscript{142} In addition, the problem economic growth poses in terms of happiness (Easterlin paradox) also exacerbates the problem it poses in terms of the environment. More growth does not bring happiness and more growth brings environmental problems. This shows neatly that the two bases (happiness and environmental protection) are linked.

7. CONCLUSION

So what must be done? What are the next steps? Which further research should be undertaken? We need, if not a revolution, an evolution in the intellectual property law world. The intellectual property system does not steer a totally wrong course, but may need to change its trajectory a little or at least go back to its original, unaltered, utilitarian rationale, with additional, related, goals. As I have tried to show, happiness as the fulfilment of needs should be one of the goals of patents and related rights; this includes the incentive theory rid of the progress idea, so understood only as a means to recoup an investment. As we have seen, a

Anielski, above n. 47, p. 222 citing The un(Happy) Planet Index, New Economics Foundation, 2006, p. 3 (“The study even shows that some countries with a very high ecological footprint live slightly less long happy lives than those with a very small ecological footprint”).

\textsuperscript{138} Anielski, above n. 47, p. 218.

\textsuperscript{139} Derclaye, above n. 131, pp. 169–177.

\textsuperscript{140} “Die-hard” liberalists will surely not be happy (pun intended) with this proposal as it puts some limits concerning which technologies can be patented or protected by designs, plant variety rights, etc.

\textsuperscript{141} Derclaye, above n. 4, p. 533.

\textsuperscript{142} Frey, above n. 8, p. 158.
component of happiness includes making a living and IPR, through the incentive aspect, already promote this for inventors and creators. Sustainability should be its other core goal and is linked to happiness as we are not concerned only with the well-being of the current generation or that of humans only. This (r)evolution has already started with the discussions of intellectual property and human development and intellectual property and green technologies. Scholarship should capitalise on this movement and blend these trends. In this respect there should be more discussion of what technologies are good for us or in other words, identification of technologies which fulfil our needs. More specifically this (r)evolution must not only be fed from within intellectual property law or even law but it must nourish itself from the research that has been done in other disciplines. What remains to be done is to shape patents and related rights according to these aims and determine a list of needs and choose among the many different mechanisms available (prioritisation of some inventions, new or additional conditions of patentability, etc). As stated above, since people and governments, with few exceptions, are still entirely focused on economic growth, this aim may be hard to achieve, but it is the role of scientists to enlighten policymakers and more generally society.

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143 Layard, above n. 11, pp. 145–147; T. Wong, ‘Introduction’, in Wong and Dutfield, above n. 5, p. 47 (“A multidisciplinary approach is especially needed for policy reforms relating to IP, given that property rights in the intangible can have both positive and negative impacts on nearly all aspects of human development”); Brey, above n. 2, p. 32 (“Much is to be gained, also, from more collaboration between the disciplines: philosophy, psychology, and economics, as well as policy studies and engineering”); Frey, above n. 8, pp. 13 and 14 (“Happiness research excels in its interdisciplinary orientation”).

144 See e.g. Bhutan and the United Kingdom, above n. 86. Another example is J. Mujica, the President of Uruguay, who has like-minded opinions and could be an example for many other leaders, see http://www.bbc.co.uk/news/magazine-20243493