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Author: Mia Shuk Chun Lam

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THE GRANTING OF INTELLECTUAL PROPERTY RIGHTS AND THEIR EFFECT ON THE PROMOTION OF FUTURE INNOVATION AND CREATIVITY

Mia Shuk Chun Lam

This article explores how future innovation and creativity is affected by the granting of exclusive intellectual property rights, focusing on the duration, preconditions and exceptions to the exclusive use of an intellectual creation under Patent, Copyright and Design Laws. It simultaneously considers the compatibility of such effects with theoretical justifications for intellectual property rights, and concludes that current laws risk hindering future innovation and creativity by deviating from the theoretical foundations that contribute to their legitimacy.

INTRODUCTION

Granting creators and owners control over their intellectual creations through the use of intellectual property rights (IPRs) is recognised as essential to the achievement of promoting innovation and creativity in the United Kingdom (UK). In 2008, investment of UK businesses in intangible assets was estimated at £137 billion, and global trade in Intellectual Property (IP) licences was valued at £600 billion per year, a notable 5% of world trade.¹ A strong legal framework may be seen as the most economically important incentive for these investments to be made in IP creations, yet the interests of businesses are not the legislature's only concern. Due consideration must be paid to the wider interests of societal progress as a whole, and the guarantee that the promotion of future innovation and creativity will not be hindered by the use and grant of current IPRs is expected. The legitimacy and effectiveness of current IPRs are often evaluated with reference to the theoretical justifications for their existence. When considering the effect of IPRs on future innovation and creativity it is therefore useful to examine the compatibility of current IP laws with such theoretical foundations.

UTILITARIAN JUSTIFICATIONS FOR IPRS

IP laws in the UK complement the utilitarian assumption that, as self-interested individuals, incentives to innovate and create must be offered to inventors and creators if they are to produce intellectual creations, thus IPRs and their assurance of remunerative security are born.² The perpetual, inalienable and spiritual nature of natural rights was regarded as “nonsense on stilts” by Bentham, the founding father of Utilitarianism.³ It therefore comes as no surprise that IPRs under a utilitarian justification are not concerned with personal or moral explanations for their existence; it is merely incidental that the objective utility of granting an individual IPR is the best way to provide the “greatest happiness for

¹ Howell, C. “The Hargreaves Review: digital opportunity: a review of intellectual property and growth” Vol. 1 *Journal of Business Law* (2012) 71-83 at 71.

² For an outline of utilitarian ideas, see Heywood, A. *Political Ideologies – An Introduction* 4th Edition (Hampshire: Palgrave Macmillan, 2007) at 47.

³ As cited by Heywood, A. *Political Ideologies – An Introduction* 4th Edition (Hampshire: Palgrave Macmillan, 2007) at 47.

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the greatest number”, that being the most efficient way of promoting the innovative and creative progress of society as whole.⁴

An IPR ensures the receipt of adequate remuneration for the investment of time, money, research and development (R&D) into intellectual creations. Without the control afforded by IPRs, it is feared that free riding and cheap imitations would prevent profitable returns and consequently discourage innovative and creative behaviour.⁵ IPRs can therefore be seen as a restriction of competition at the production level in order to promote economic incentives for healthy competition at the levels of innovation and creativity.⁶ However, the restriction of competition at the production level is only desirable for as long as it is necessary to achieve these objectives, as a lengthier period will instead hinder further innovation and creativity by suppressing protected works where they would otherwise be used as an essential input towards generating future IP creations.⁷ Macaulay viewed the monopoly granted by IPRs as an evil, but contended that “for the sake of the good we must submit to the evil; but the evil ought not to last a day longer than is necessary for the purpose of securing the good.”⁸ The justification for granting IPRs therefore fades when a return on the initial investment into an intellectual creation has been rewarded to the owner, and it is here that the circumstances of greatest utility incline towards allowing the subject matter to be freely appropriable to all.

LOCKEAN JUSTIFICATIONS FOR IPRS

An alternative justification for the grant of IPRs in the UK concerns the labour theory most famously asserted by John Locke. A person is deemed to own a property right in their body, therefore owning the labour their body expends, and upon application of one’s labour to an unowned object, it naturally follows that one now has a property right in the object itself.⁹ Having annexed personal labour to the object, it is justifiable to exclude all others from possession.¹⁰ Although Locke’s hypothesis was a justification for tangible property, reference to the mixing of labour with an unowned object draws parallels to the intellectual labour an IPR owner annexes to the resources used as an input for the resultant creation.¹¹ This new intellectual creation is therefore justified in allowing him exclusive rights over the fruits of his labour.¹² However, there are provisos to the appropriation of an object, which can have the effect of negating the justification for exclusive ownership. After appropriation of the previously unowned object there must be ‘enough and as good’ remaining for others, so as to not cause another loss. Additionally, one must not take more than one can use, as there should be no wastage of the objects advantages.¹³

Thus, a common ground between utilitarian ideals and Lockean labour theory is founded upon their mutual acknowledgement that both the interests of IPRs holders and the interests of the general public are worthy of equal consideration. This crucial balance is the determinant factor as to whether IPRs can be said to promote future innovation and creativity, or whether they in fact hinder the achievement of these objectives. In practice, the law endeavours to achieve this balance when

⁴ Zemer, L. “On the vaule of coyright theory” Vol.1 *Intellectual Property Quarterly* (2006) 55-71 at 60.

⁵ Cabinet Office, *Intellectual Property Rights and Innovation* (Green Paper, Cmnd 9117, 1983) at para 1.8.

⁶ Spector, H.M. “An outline of a theory justifying intellectual and industrial property rights” Vol. 11(8) *European Intellectual Property Review* (1989) 270-273 at 272.

⁷ Antonelli, C. “Compulsory licensing: the foundations of an institutional innovation” Vol. 4(2) *The WIPO Journal* (2013) 157-174 at 157.

⁸ As per Macaulay, rt. hn. T. B., HC Deb 05 February 1841 vol. 56 cols. 341-360 at 348.

⁹ Hettinger, E.C. “Justifying Intellectual Property” Vol. 18(1) *Philosophy & Public Affairs* (1989) 31-52 at 37.

¹⁰ Zemer, L. “On the vaule of coyright theory” Vol.1 *Intellectual Property Quarterly* (2006) 55-71 at 62.

¹¹ Spector, H.M. “An outline of a theory justifying intellectual and industrial property rights” Vol. 11(8) *European Intellectual Property Review* (1989) 270-273 at 271.

¹² Spector, H.M. “An outline of a theory justifying intellectual and industrial property rights” Vol. 11(8) *European Intellectual Property Review* (1989) 270-273 at 271.

¹³ Fisher, M. “Classical economics and philosophy of the patent system” Vol.1 *Intellectual Property Quarterly* (2005) 1-26 at 7.

determining the duration, preconditions and exceptions to the exclusive use of an intellectual creation, and it is to this matter that we shall now turn.

THE PRECONDITIONS TO THE GRANTING OF A PATENT

To be worthy of the grant of patent protection in the UK, an invention must be novel, it must involve an inventive step and it must be capable of industrial application.¹⁴ These requirements reflect the Utilitarian ideal that one should only be awarded the grant of an IPR if a new and socially valuable creation that would not have been produced without remunerative incentives arises.¹⁵ However, this position ignores the fact that obvious inventions can still provide utility, yet are afforded no incentive to be produced if a patent cannot be secured. Obvious inventions still involve the investment of time, money, R&D,¹⁶ all of which can also be argued as having provided sufficient expenditure of labour to secure a natural property right. The current requirements for a patent grant may therefore serve to discourage the achievement of innovation and creativity by denying protection to obvious inventions whilst simultaneously restricting the creator's natural right to the fruits of their labour.

In addition to the above preconditions for patentability, the invention must be disclosed in the patent specification,¹⁷ in a manner clear and complete enough to be performed by a person skilled in the art.¹⁸ This disclosure can be said to benefit both the creator and society, as without the assurance of exclusivity of use, reliance might instead be placed on trade secrecy.¹⁹ Not only would society be deprived of the patent specification, the inventor would be prevented from commercially exploiting their creation in a marketable product, for with the unattractive possibility of reverse engineering comes the sunken costs associated with the financial disadvantages of competition.²⁰ Although some argue that inventive ideas are not always costly, and therefore do not always require the assurance of financial return, rarely will the invention be perfected in such a way as to allow its immediate marketing without the further costs of devising a marketable product.²¹

The "exchange for secrets" theory views the disclosure of the invention in the specification as consideration for the grant of the patent monopoly; a bargain between the right holder and the state.²² In this view, the owner receives just reward for his labour and the public, upon expiration of the patent, benefit from acquisition of the means of producing the invention.²³ Both the existence of the disclosure requirement and the reasoning of the exchange theory sit comfortably with the utilitarian notion that a temporary monopoly is a justifiable means of achieving the greatest good, but the same cannot be said for their compatibility with a property rights analysis. Whilst the patent is in force, enough and as good remains for others, as the disclosure in the specification facilitates others to achieve the same utility of the patented subject matter, albeit through a different technical solution.²⁴

¹⁴Patents Act 1977 s.1(1), see also ss.2-4.

¹⁵ Riis, T. "An integrated intellectual property code: the second step" Vol.2 *Intellectual Property Quarterly* (2010) 143-152 at 148.

¹⁶ See for example *Genentech Inc's Patent* [1989] RPC 147.

¹⁷ Patents Act 1977 s.14(2)(b).

¹⁸ Patents Act 1977 s.14(3).

¹⁹ Cabinet Office, *Intellectual Property Rights and Innovation* (Green Paper, Cmnd 9117, 1983) at para 1.8.

²⁰ Fisher, M. "Classical economics and philosophy of the patent system" Vol.1 *Intellectual Property Quarterly* (2005) 1-26 at 5.

²¹ Fisher, M. "Classical economics and philosophy of the patent system" Vol.1 *Intellectual Property Quarterly* (2005) 1-26 at 4.

²² Fisher, M. "Classical economics and philosophy of the patent system" Vol.1 *Intellectual Property Quarterly* (2005) 1-26 at 20-21.

²³ Fisher, M. "Classical economics and philosophy of the patent system" Vol.1 *Intellectual Property Quarterly* (2005) 1-26 at 20.

²⁴Ghidini, G. and Gallego, BC. "Publication Review - Intellectual Property and Competition Law – The Innovation Nexus" Vol.39 (7) *International Review of Intellectual Property and Competition Law* (2008) 879-882 at 880.

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However, as intellectual creations are non-exclusive in nature, it is in breach of Locke's second proviso that the owner is awarded exclusive use, as he is taking more than he can use of a resource that is non-exhaustible and therefore readily capable of concurrent use.²⁵ In this view, the exclusivity granted by a patent allows wastage of the objects' advantages, and the effect of hindering innovation and creativity through the monopolisation of a non-exhaustible source is therefore unjustifiable.

THE PRECONDITIONS TO THE GRANTING OF COPYRIGHT PROTECTION

The preconditions for copyright protection are simple to satisfy, as no registration or other formalities are required.²⁶ However, all works must meet the qualification requirement²⁷ and be fixed in tangible form.²⁸ Copyright will only subsist in a literary, dramatic, musical or artistic work²⁹ if they are original.³⁰ The expression of an idea need not be novel or inventive to be deemed original, it need only to have not been copied³¹ and to have been invested with a sufficient amount of skill and labour, as it is this expenditure that separates the expression from a mere idea.³² A property rights justification accords naturally with the originality requirement, as the expression, a result of the personal skill and labour annexed to the basic idea, is the protected subject-matter and not the idea itself, which ensures 'enough and as good' is left to others. Moreover, the creator has not taken more than he can use, as no wastage of the ideas' advantages can occur if it is available as an input for the creation of countless new expressions.

However, justifying copyright solely on the basis of expenditure of labour would conspire against the promotion of future innovation and creativity. Justifying compilations of information, for example, by the expenditure of skill, judgement and labour in their selection and arrangement, rather than by the expenditure of labour alone,³³ ensures the low level of creativity necessary to pass the originality requirement does not allow copyright to protect that which would otherwise consist merely of a compilation of facts.³⁴ Granting control over facts to copyright owners would cause a monopolisation of basic information, which may lead to the obstruction of future innovation and creativity by denying others access to the factual information necessary as an input for new creations.³⁵ The reluctance to afford copyright protection to a work merely by virtue of the creator's expenditure of labour appears initially to be contrary to a property rights analysis. However, the exclusion of compilations of facts from copyright protection ensures that a creator does not monopolise a non-exhaustible source, thus protecting against wastage of the information's utility and thereby satisfying Locke's provisos.

²⁵ Hettinger, E.C. "Justifying Intellectual Property" Vol. 18(1) *Philosophy & Public Affairs* (1989) 31-52 at 44-45.

²⁶ Berne Convention for the Protection of Literary and Artistic Works 1886, as amended on September 28, 1979 art.5(2).

²⁷ Copyright, Designs and Patents Act 1988 s.1(3) and ss.153-156.

²⁸ Copyright, Designs and Patents Act 1988 s.3(2).

²⁹ Hereinafter 'primary works'.

³⁰ Copyright, Designs and Patents Act 1988 s.1(1)(a).

³¹ As per Peterson J, *University of London Press Ltd v University Tutorial Press Ltd* [1916] 2 Ch 601 at 608-609.

³² As per Lord Hoffman, *Designers Guild Ltd v Russell Williams (Textiles) Ltd* [2001] 1 ALL ER 700 at 706.

³³ See generally, *Ladbroke (Football) v William Hill (Football) Ltd* [1964] 1 All ER 465.

³⁴ See generally, *G A Cramp & Sons Ltd v Frank Smythson Ltd* [1944] 2 All ER 92.

³⁵ See the reasoning of O'Connor J, in *Feist Publications Inc. V Rural Telephone Service Co Inc* 449 US 340 (1991) at 344-361.

THE GRANTING OF MORAL RIGHTS

Additionally, the copyright afforded to directors of films and authors of literary, dramatic, musical and artistic works protects the moral rights of paternity³⁶ and integrity^{37, 38}. The romanticised rationale underlying moral rights sees an attack on one's work as equivalent to a personal attack on one's spirit,³⁹ as the personal expression annexed to the work bestows an indistinguishable extension of their personality upon the intellectual creation.⁴⁰ The grant of such natural rights should not therefore be preconditioned by the operation of any formalities;⁴¹ the mere act of creation should suffice to entitle the author or director to their inalienable, indivisible and unassailable moral rights.⁴² However, the origins of UK copyright law reveal an underlying inability to wholly embrace the spirit of personality rights, whose ideals lack compatibility with the pragmatism of a common law system. The personal nature of moral rights presuppose a high standard of intellectual creativity,⁴³ yet the originality requirement in the UK affords copyright to works with such minimum levels of creativity that they cannot be regarded as morally worthy of such protection.⁴⁴ Despite international legal recognition of moral rights,⁴⁵ copyright law in the UK is viewed as a means of commercial necessity for the promotion of incentives to create, rather than a morally justifiable system favouring the protection of personality rights,⁴⁶ and this is marked most evidently by the controversial need to formally assert the right of paternity.⁴⁷

Although moral rights in the UK remain indivisible in so far as they are not assignable during the lifetime of the author,⁴⁸ they are not absolute, as there remains an option to waive any of the moral rights concerned.⁴⁹ Commercial efficiency demands that property be clearly defined in scope in order to eliminate financial risk,⁵⁰ and it is feared that without the opportunity of waiver, creative works protected by vague notions of morality will become less attractive to the entrepreneurs to whom they are licensed or assigned.⁵¹ Unable to secure financial reward for their works, the function of copyright as an incentive to create would no longer be achievable. The certainty provided by a contractual waiver⁵² is therefore crucial in allowing the creator the freedom to either waive their moral rights in

³⁶ The right to be identified as an author or director, see Copyright, Designs and Patents Act 1988 s.77.

³⁷ The right to object to derogatory treatment of the work, see Copyright, Designs and Patents Act 1988 s.80.

³⁸ Rights against false attribution to authorship or directorship, and a right to privacy for the commissioner of certain photographs or films are also available, see Copyright, Designs and Patents Act 1988 ss.84-85.

³⁹ Newman, S. "The development of copyright and moral rights in the European legal systems" Vol. 31(3) *European Intellectual Property Review* (2011) 677-689 at 682.

⁴⁰ Burkitt, D. "Copyrighting culture – the history and cultural specificity of the Western model of copyright" Vol.2 *Intellectual Property Quarterly* (2001) 146-186 at 159.

⁴¹ Berne Convention for the Protection of Literary and Artistic Works 1886, as amended on September 28, 1979 art.5(2).

⁴² Burkitt, D. "Copyrighting culture – the history and cultural specificity of the Western model of copyright" Vol.2 *Intellectual Property Quarterly* (2001) 146-186 at 159.

⁴³ Newman, S. "The development of copyright and moral rights in the European legal systems" Vol. 31(3) *European Intellectual Property Review* (2011) 677-689 at 682.

⁴⁴ Masiyakurima, P. "The Trouble with Moral Rights" Vol. 68(3) *Modern Law Review* (2005) 411-434 at 414-415.

⁴⁵ Berne Convention for the Protection of Literary and Artistic Works 1886, as amended on September 28, 1979 art. 6bis.

⁴⁶ See generally, Durie, R. "Moral rights and the English business community" Vol. 2(2) *Entertainment Law Review* (1991) 40-49.

⁴⁷ Copyright, Designs and Patents Act 1988 s.77(1) and s.78(1).

⁴⁸ Copyright, Designs and Patents Act 1988 s.94-95.

⁴⁹ Copyright, Designs and Patents Act 1988 s.87(2).

⁵⁰ Durie, R. "Moral rights and the English business community" Vol. 2(2) *Entertainment Law Review* (1991) 40-49 at 44.

⁵¹ Nocella, L. "Copyright and moral rights versus author's right and droit moral: convergence or divergence?" Vol. 19(7) *Entertainment Law Review* (2008) 151-157 at 154.

⁵² Express reservation has been made for the operation of the general law of contract and estoppel in relation to the moral rights of the author, see Copyright, Designs and Patents Act 1988 s. 87(4).

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favour of optimum financial reward, or retain their moral rights and risk lower financial gain.⁵³ Although some fear the weak bargaining position of authors leaves them little choice in the matter,⁵⁴ others highlight the role of traditional contractual rules in ensuring protection against unconscionable bargains.⁵⁵ If granting creators the ability to waive moral rights promotes the achievement of creativity through the use of copyright as a commercial tool, it would appear that “so far as any conflict of commercial and moral rights is concerned, money talks louder than morals.”⁵⁶ The option to waive moral rights is therefore complementary to the promotion of future innovation and creativity, as the ability to secure a higher financial reward by waiving ones moral rights will promote future engagement in innovative and creative ventures.

THE PRECONDITIONS TO THE GRANTING OF DESIGN RIGHTS

Being the most recent and most “neglected [rights] in the IPR toolbox”,⁵⁷ design rights lack the interpretive precedent of case law, so a conclusive examination of their effect on future innovation and creativity is speculative at best. Nonetheless, their importance is far from ambiguous. In 2008, investment in designs constituted the largest contribution to overall intangible investment in the UK.⁵⁸ However, design law has not been harmonised to the same standard as other IP laws,⁵⁹ and there are concerns that free rider activity in countries with more liberal laws coupled with the higher costs of using multiple administrative regimes will hinder financial incentives to innovate and create.⁶⁰ Others argue that harmonisation of IP law is achieved at a level best suited to the economic and social interests of developed countries,⁶¹ and the wide disparity in both design and patent applications between countries with the highest and lowest incomes denotes the utility of IPRs to best serve the former.⁶² Locke understood a legitimate government to be one whose purpose was limited to the protection of “life, liberty and property”,⁶³ and a government bound by laws detrimental to these rights is one in breach of the hypothetical ‘social contract’ between the citizens and the state.⁶⁴ Under

⁵³ Newman, S. “The development of copyright and moral rights in the European legal systems” Vol. 31(3) *European Intellectual Property Review* (2011) 677-689 at 688.

⁵⁴ Masiyakurima, P. “The Trouble with Moral Rights” Vol. 68(3) *Modern Law Review* (2005) 411-434 at 418.

⁵⁵ Newman, S. “The development of copyright and moral rights in the European legal systems” Vol. 31(3) *European Intellectual Property Review* (2011) 677-689 at 688.

⁵⁶ Firth, A. and Philips, J. *Introduction to Intellectual Property Law* 4th edition (Great Britain: Cromwell Press, 2001) at 263.

⁵⁷ Howell, C. “The Hargreaves Review: digital opportunity: a review of intellectual property and growth” Vol. 1 *Journal of Business Law* (2012) 71-83 at 77.

⁵⁸ Howell, C. “The Hargreaves Review: digital opportunity: a review of intellectual property and growth” Vol. 1 *Journal of Business Law* (2012) 71-83 at 77.

⁵⁹ See in particular; Berne Convention for the Protection of Literary and Artistic Works 1886, as amended on September 28, 1979 art. 2(7), 7(4), and Paris Convention for the Protection of Industrial Property 1883, as amended on September 28, 1979 art. 5*quinquies*; See also Agreement on Trade-Related Aspects of Intellectual Property Rights 1994 (WTO) art. 25-26.

⁶⁰ Kingsbury, A. “International harmonisation of designs law: the case for diversity” Vol. 32(8) *European Intellectual Property Review* (2010) 382-395 at 391.

⁶¹ Shao, K. “The global debates on intellectual property: what if China is not a born pirate?” Vol. 4 *Intellectual Property Quarterly* (2010) 341-355 at 343-345; see generally Sun, Haochen “The road to Doha and beyond: some reflections on the TRIPS Agreement and public health” Vol. 15(1) *European Journal of International Law* (2004) 123-150.

⁶² In 2012, ‘higher income’ countries received 207,776 design applications as compared to 2,603 in ‘lower income’ countries (statistics represent both the number of direct applications and applications made via the Hague System). In the same year, ‘higher income’ countries received 1,511,422 patent applications, as compared to 10,431 in ‘lower income’ countries (statistics represent both direct applications and PCT national phase entries), see World Intellectual Property Organisation “IP Statistics Data Center” *WIPO* [online] at <http://ipstatsdb.wipo.org/ipstatv2/ipstats/> [accessed 12 April 2014].

⁶³ Heywood, A. *Political Ideologies – An Introduction* 4th Edition (Hampshire: Palgrave Macmillan, 2007) at 46.

⁶⁴ For a full account of the ‘social contract’ theory, see Heywood theory Heywood, A. *Political Theory – An Introduction* 3rd Edition (Hampshire: Palgrave Macmillan, 2004) at 66.

a Lockean analysis, an absence of harmonisation could therefore be the best way of promoting innovation and creativity worldwide, by ensuring the expenditure of labour on a design is protected in developing countries by way of independent IP laws adapted to their particular economic and social needs.

The UK unregistered design right protects the design of any aspect of the shape or configuration, internal or external, of the whole or part of an article.⁶⁵ A design which has been fixed in tangible form⁶⁶ and has passed the precondition of qualification⁶⁷ need only be original to be eligible for protection.⁶⁸ Akin to copyright, originality means that the work has not been copied and emanates from the authors time, labour and skill, yet unlike copyright a design must also pass the objective requirement that it not be commonplace of the design field in question.⁶⁹ Given that there is little case law in this area, how the breadth of the design field is to be interpreted can only as of yet provide interesting suppositions. If interpreted widely, the design is more likely to be regarded as commonplace, thereby imposing a stricter test of originality compliant with the utilitarian premise that only social valuable creations that would not have been designed but for the grant of an IPR are those worthy of protection. Conversely, a narrow measure of the design field affording greater protection to the fruits of one's labour would accord with Lockean ideals. Although an objective addition to the originality test appears in itself inherently incompatible with the subjective nature of property rights, to allow entirely unrestricted protection of commonplace designs would be contrary to the proviso that "enough and as good" be left to others. It would appear that the exclusion of protection to commonplace designs is necessary in both utilitarian and Lockean terms, and future judicial interpretation of the scope of the design field will be a decisive factor as to whether innovation and creativity is promoted or hindered by the design right.

THE DURATION OF COPYRIGHT PROTECTION AND THE UNREGISTERED DESIGN RIGHT

Similarities between the design right and copyright have incited warning that the "...name should not mask the underlying creature...it is, in effect...copyright available to protect any design or part of a design which is not 'commonplace' – whatever that may mean."⁷⁰ Particular concern is directed towards functional designs, whose workings are often laid out in design documents attracting copyright.⁷¹ Copyright in the two-dimensional drawing is indirectly infringed by making a three-dimensional article to the design,⁷² resulting in a lengthier term of protection for functional designs of great utility "under the protective wings of copyright."⁷³ Copyright in the UK has long been regarded as a deliberate creation of statute, whose protection -- much to the dismay of those who demand perpetual rights -- can and should be limited in duration so as not to hinder future creativity.⁷⁴ This

⁶⁵ Copyright, Designs and Patents Act 1988, s.213(2).

⁶⁶ Copyright, Designs and Patents Act 1988, s.213(6).

⁶⁷ Copyright, Designs and Patents Act 1988, s.213(5), see also ss.217-220.

⁶⁸ Copyright, Designs and Patents Act 1988, s. 213(1).

⁶⁹ Copyright, Designs and Patents Act 1988, s. 213(4). See also *Farmers Build Ltd v Carrier Bulk Materials Handling Ltd* [2000] IP & T 49 at 62 and 69-70, as per Mummery LJ.

⁷⁰ Laddie, J. "Copyright: over-strength, over-regulated, over-rated?" Vol. 18(5) *European Intellectual Property Review* (1996) 253-260 at 255.

⁷¹ Torremans, P. *Holyoak and Torremans intellectual property law* 7th edition (Oxford: Oxford University Press, 2013) at 376.

⁷² See generally, *British Leyland Motor Corp. Ltd v Armstrong Patents Co. Ltd* [1986] 1 ALL ER 850; *King Features Syndicate v Kleeman* [1941] AC 417; *LB (Plastics) v Swish Products Ltd* [1979] RPC 551; Copyright, Designs and Patents Act 1988 s.16(3).

⁷³ Laddie, J. "Copyright: over-strength, over-regulated, over-rated?" Vol. 18(5) *European Intellectual Property Review* (1996) 253-260 at 255; for a discussion of the anomalies of copyright protection for designs, see Cabinet Office, *Intellectual Property Rights and Innovation* (Green Paper, Cmnd 9117, 1983) at 4.14-4.19.

⁷⁴ See generally, *Donaldson v Beckett* [1774] 4 BURR. 2407, overruling *Millar v Taylor* [1769] 4 BURR. 2301.

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reasoning would dictate the duration of copyright to be fixed at a term necessary to ensure the author receives sufficient reward for their creations, and not “a day longer than is necessary for the purpose of securing [this] good.”⁷⁵ The duration of protection for primary works has expanded generously since the Statute of Anne,⁷⁶ and the most recent extension of the term,⁷⁷ to the life of the author plus 70 years,⁷⁸ was argued as necessary for the maintenance and promotion of creativity in the interests of both authors and society as a whole.⁷⁹ Yet, many contend that the exploitation of a copyright work is initiated within a much shorter period of time,⁸⁰ the current term being no more than a result of “unsubstantiated pressure from the copyright industries.”⁸¹ This clearly isolates the duration of copyright protection from any philosophical justification, and concludes its rationale to be one that “simply redistributes wealth between persons, and nothing more.”⁸² If the duration of copyright is contentious in relation to works intended for protection, it is certainly “far too long for essentially functional articles” which “deserve [only] a period of protection to give the designer a market lead over the copier.”⁸³ To ensure copyright in design drawings cannot be used to protect industrial articles, the making or copying of an article to the design is no longer an infringement of the copyright in the design document or model recording or embodying the design.⁸⁴ This has the effect that an action for infringement can be commenced only under the provisions of the unregistered design right, whose maximum duration is limited to a more reasonable term of 15 years.⁸⁵ Legislative reform was not however extended to copyright protection, and unless the legislature is able to substantiate the assertion that the current duration promotes creativity, which it has yet to do despite frequent criticism, the law must be revised to establish a justifiable period of time that we can be assured will not harm future creativity.

THE DURATION OF PATENTS AND REGISTERED DESIGNS

The maximum duration of both patents and registered designs are considerably shorter than that of copyright, being a maximum of 20 years⁸⁶ and 25 years⁸⁷ respectively. The duration of both IPRs are considered much less contentious as they must be maintained by renewal fees if they are to be preserved as the monopoly right of the owner.⁸⁸ The social cost of granting an IPR rises whilst the duration of the right persists, as the subject matter is inaccessible to sequential innovators and

⁷⁵ As per Macaulay, rt. hn. T. B., HC Deb 05 February 1841 vol. 56 cols. 341-360 at 348.

⁷⁶ Copyright Act 1709/10 (8 Anne c.19).

⁷⁷ For an analysis of the expansion of copyright duration, see Davies, G. *Copyright and the Public Interest* 2nd edition (London: Sweet & Maxwell, 2002) at 33-52.

⁷⁸ Copyright, Designs and Patents Act 1988 s.12; as required by Council Directive 93/98/EEC of 29 October 1993 harmonizing the term of protection of copyright and certain related rights [1993] OJ L290/9.

⁷⁹ Council Directive 93/98/EEC of 29 October 1993 harmonizing the term of protection of copyright and certain related rights [1993] OJ L290/9 at recital 10.

⁸⁰ See Kilbey, I. “Copyright duration? Too long!” Vol. 25(3) *European Intellectual Property Review* (2003) 105-110 at 106-109; Laddie, J. “Copyright: over-strength, over-regulated, over-rated?” Vol. 18(5) *European Intellectual Property Review* (1996) 253-260 at 257; Davies, G. *Copyright and the Public Interest* 2nd edition (London: Sweet & Maxwell, 2002) at 274.

⁸¹ W.R. Cornish, “Intellectual Property” Vol. 13(1) *Yearbook of European Law* (1994) 485-496 at 489, as cited by Davies, G. *Copyright and the Public Interest* 2nd edition (London: Sweet & Maxwell, 2002) at 269.

⁸² Riis, T. “An integrated intellectual property code: the second step” Vol.2 *Intellectual Property Quarterly* (2010) 143-152 at 144.

⁸³ Department of Trade and Industry, *Intellectual Property and Innovation* (White Paper, Cmnd 9712, 1986) para 3.26.

⁸⁴ Copyright, Designs and Patents Act 1988 s.51.

⁸⁵ Copyright, Designs and Patents Act 1988 s.216.

⁸⁶ Patents Act 1977 s.25(1).

⁸⁷ Registered Designs Act 1949 s.8.

⁸⁸ Patents Act 1977 s.25(3); Registered Designs Act 1949 s.8(2).

creators.⁸⁹ Renewal fees can be very expensive,⁹⁰ and if the cost of preserving the IPR outweighs the value of retaining it,⁹¹ it is presumed that the owner will naturally choose to let the right expire.⁹² Thus, renewal fees play a vital role in ensuring the duration of these IPRs are long enough to promote incentives to innovate and create, whilst extinguishing those whose financial benefits have expired and whose continued existence would only be to the detriment of these objectives.

EXCEPTIONS TO THE INFRINGING USE OF A PATENT

Any of the various acts constituting infringement of a patent⁹³ may be counteracted by a range of defences,⁹⁴ thus regulating the optimum balance between the interests of the patent owner and those of the general public. For the purposes of examining the effects of a patent grant on future innovation, a notable defence is the exclusion from infringement of acts done for experimental purposes relating to the subject-matter of the invention.⁹⁵ Theoretically, this defence has the effect of preserving experimental innovation whilst the patent grant subsists, yet in practice it may be hard to distinguish experimentation in relation to the subject-matter, as opposed to experimentation with the use of the subject-matter.⁹⁶ The exception allows only for experimentation on the subject-matter itself in order to establish the scope and possible applications of the invention,⁹⁷ and although the defence is not limited to acts for non-commercial purposes,⁹⁸ the defence does not permit experimentation for commercial objectives that are deliberated in such a way as to compete with the patent owners monopoly right.⁹⁹ The difficulty with these limitations is that between experimentation for innovative purposes and experimentation to the detriment of the patent grant “lies...doubtful ground, and prudent people avoid doubtful ground.”¹⁰⁰ Such ambiguity prevents the defence from serving its useful purpose, as a fear of infringement that cannot be curtailed by legal certainty has the effect of hindering permitted forms of innovative experimentation.¹⁰¹ Where a third party uses patented

⁸⁹ Christie, A. F. and Rotstein F. “Duration of patent protection: Does one size fit all?” (2007) *University of Melbourne Legal Studies Research Paper No. 245; Intellectual Property Research Institute of Australia Working Paper No. 04.07* at 7.

⁹⁰ The current cost of renewing a patent for the 20th year is £600, see Intellectual Property Office “Renewing your patent” *IPO* [online] at <http://www.ipo.gov.uk/types/patent/p-manage/p-renew.htm> [accessed 16 April 2014].

⁹¹ The average cost of obtaining, maintaining and protecting a patent for small to medium-sized enterprises is estimated at £20,700, see Howell, C. “The Hargreaves Review: digital opportunity: a review of intellectual property and growth” Vol. 1 *Journal of Business Law* (2012) 71-83 at 79.

⁹² Christie, A. F. and Rotstein F. “Duration of patent protection: Does one size fit all?” (2007) *University of Melbourne Legal Studies Research Paper No. 245; Intellectual Property Research Institute of Australia Working Paper No. 04.07* at 7.

⁹³ See Patents Act 1977 s.60(1)-(3).

⁹⁴ See Patents Act 1977 s.60(5).

⁹⁵ Patents Act 1977 s.60(5)(b).

⁹⁶ Cook, T. “Responding to concerns about the scope of the defence from patent infringement for acts done for experimental purposes relating to the subject matter of the invention” Vol. 3 *Intellectual Property Quarterly* (2006) 193-222 at 201-203 and 211.

⁹⁷ *Monsanto Co v Stauffer Chemical Co and another* [1985] R.P.C. 515.

⁹⁸ The omission to exclude experiments for commercial purposes is notable as the presence of such an exclusion can be found in alternative defences, see for example Patents Act 1977 s.60(5)(a); see also *Monsanto Co v Stauffer Chemical Co and another* [1985] R.P.C. 515 at 538.

⁹⁹ Cook, T. “Responding to concerns about the scope of the defence from patent infringement for acts done for experimental purposes relating to the subject matter of the invention” Vol. 3 *Intellectual Property Quarterly* (2006) 193-222 at 196.

¹⁰⁰ The Royal Society, “Keeping Science Open: The effects of Intellectual Property Policy on The Conduct of Science” (2003), as cited by Cook, T. “Responding to concerns about the scope of the defence from patent infringement for acts done for experimental purposes relating to the subject matter of the invention” Vol. 3 *Intellectual Property Quarterly* (2006) 193-222 at 196.

¹⁰¹ Howell, C. “The Hargreaves Review: digital opportunity: a review of intellectual property and growth” Vol. 1 *Journal of Business Law* (2012) 71-83 at 76.

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information for the purpose of competing with the owners financial activities, this clearly endangers incentives to innovate and create by undermining the ability of the owner to profit from their work. Under a Lockean analysis, the prohibition of experimentation with the subject matter is therefore justified if we are to prevent unfair financial competition and protect the fruits of one's labour. But when the experimentation is not for this purpose, and does not involve the use of the subject matter itself, the 'freezing effect' that the current law generates is not justifiable. The paralysis of all experimentation, even that which is lawful, results in wastage of the object's advantages, and therefore violates Locke's second proviso and undermines the promotion of future innovation and creativity.

EXCEPTIONS TO COPYRIGHT INFRINGEMENT

Similarly ineffective enactments are also evident in copyright legislation, which contains "49 sections of numbingly detailed exceptions to copyright infringement."¹⁰² The details of these provisions can be as hard to rationalise as they are to comprehend,¹⁰³ and their complexity has resulted in widespread ignorance amongst the general public as to what acts are permissible.¹⁰⁴ Fed by the fear of accidental infringement, the 'freezing effect' on creativity transpires once again, impacting all the more severely in the copyright realm than in relation to patents, considering that the absence of a registration system carries the additional burden of tracing the owner of a work.¹⁰⁵

EXCEPTIONS TO THE INFRINGING USE OF A REGISTERED DESIGN

Exceptions to the infringing use of a registered design¹⁰⁶ include its use for the purpose of the repair of a complex product so as to restore its original appearance.¹⁰⁷ The repair clause is intended to promote the interests of consumers by ensuring that monopolistic abuse on the aftermarket for spare parts is not achievable by way of design registration.¹⁰⁸ An internationally recognised 'three-step test' is commonly used to determine whether an exception to the exclusive use of a right-holder is justifiable.¹⁰⁹ Under the 'three-step test', the repair clause must be clearly defined and narrow in scope, it must not generate economic competition with the way in which the right-holder normally

¹⁰² Laddie, J. "Copyright: over-strength, over-regulated, over-rated?" Vol. 18(5) *European Intellectual Property Review* (1996) 253-260 at 258.

¹⁰³ See the criticisms of Laddie, J. in Laddie, J. "Copyright: over-strength, over-regulated, over-rated?" Vol. 18(5) *European Intellectual Property Review* (1996) 253-260 at 258-259.

¹⁰⁴ It is estimated that 73% of consumers do not know what can and cannot be copied, and 44% of peer to peer users believe file-sharing to be lawful, see Howell, C. "The Hargreaves Review: digital opportunity: a review of intellectual property and growth" Vol. 1 *Journal of Business Law* (2012) 71-83 at 73; see also Cabinet Office, *Intellectual Property Rights and Innovation* (Green Paper, Cmnd 9117, 1983) chapt.3. 'Awareness, Accessibility and use of Intellectual Property'.

¹⁰⁵ For an analysis of the difficulties in tracing the owner of a copyright work, see Howell, C. "The Hargreaves Review: digital opportunity: a review of intellectual property and growth" Vol. 1 *Journal of Business Law* (2012) 71-83 at 74-75.

¹⁰⁶ see Registered Designs Act 1949 s.7, s.7A.

¹⁰⁷ Registered Designs Act 1949 s. 7A(5); hereinafter "the repair clause."

¹⁰⁸ Torremans, P. *Holyoak and Torremans intellectual property law* 7th edition (Oxford: Oxford University Press, 2013) at 397; For examples of such abusive conduct, see Case 238/87, *AB Volvo v Erik Veng* [1988] E.C.R. 6211. at 9 and Case 53/87, *CICCRA and Maxicar v Renault* [1988] E.C.R. 6039. at 16.

¹⁰⁹ Originally appearing in Berne Convention for the Protection of Literary and Artistic Works 1886, as amended on September 28,1979 art.9(2); see variations of the test in Agreement on Trade-Related Aspects of Intellectual Property Rights 1994 (WTO) art. 13, 30, 26(2); Directive 2001/29/EC of the European Parliament and of The Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society [2004] OJ L167/10 art.5.(5).

exploits their right, and it must not cause the right-holder an unreasonable loss of income, taking into account the legitimate interests of third parties.¹¹⁰

Being clearly restricted in scope to the repair of complex products as opposed to products generally,¹¹¹ and being confined only to such use that is necessary for the restoration of the original appearance of that product, the repair clause can be deemed to have satisfied the first step. However, allowing another to produce spare parts facilitates economic competition with those produced by the right-holder, and the repair clause thus appears to be in violation of the second step. Yet much depends on what is to be regarded as the *normal* exploitation of the right; if this includes exploitation of the right on the secondary market for spare parts, the repair clause fails, but if this includes only the competition on the primary market for the complex product itself, the repair clause satisfies the second criterion.¹¹² Lastly, a proportionality assessment must be undertaken to consider the impact of the repair clause on the legitimate interests of the right-holder and on those of general society.¹¹³ As expected, a utilitarian analysis would favour the protection of the right-holders financial interests, yet the preservation of competition on the aftermarket for spare parts must also be protected if the law is to accomplish the 'greatest good'.¹¹⁴ The risk of monopolistic abuse on the secondary market for spare parts in the absence of a repair clause can be viewed as a greater detriment than a loss of income to right-holders, as the protection of their financial interests may still be reasonably met by way of their exclusivity of use on the primary market.¹¹⁵ If the assurance of financial reward on the primary market is secure, the repair clause may therefore be deemed a justifiable exception to the registered design right, whose existence is unlikely to discourage future innovation and creativity.

CONCLUSION

IPRs in the UK are commonly justified upon the assumption that they will serve to guarantee the promotion of innovation and creativity. Although both property and moral rights theorists have contributed to the shaping of IP law principles, their virtuous ideologies sit uneasily with the pragmatic character of the UK's common law tradition. Utilitarian ideals facilitate the consideration of the public interest in an arena where few creators seek protection of their works by virtue of them being the fruits of one's labour or the emanations of one's spirit, but rather as products of their financial investments. Preconditions to the granting of an IPR may therefore demand that objective requirements be met before the protection of exclusive ownership is awarded. The duration of an IPR's subsistence must be justified on sensible and evidential grounds, and limited only to the time necessary to promote incentives to innovate and create. Perhaps this task may have been best left to the judiciary, whose independence is not likely to falter under the political pressures of the lobbyist groups to whom the legislature has appeared most vulnerable. Finally, exceptions to the exclusive use of IPRs must be clearly defined, as perplexing laws regarding permitted usage will only serve to provoke the 'freezing effect' that is the antithesis to our technological, cultural and economical

¹¹⁰ Agreement on Trade-Related Aspects of Intellectual Property Rights 1994 (WTO) art. 26(2); see also the interpretation of the three-step test's provisions in World Trade Organisation Panel Report, *United States—Section 110(5) of the US copyright Act* WT/DS160/R of June 15, 2000, as discussed in Davies, G. *Copyright and the Public Interest* 2nd edition (London: Sweet & Maxwell, 2002) at 282.

¹¹¹ Defined as per Registered Designs Act 1949 s.(1)(3).

¹¹² Gerdau de Borja, A. "Exceptions to design rights: the potential impact of Article 26(2) TRIPS" Vol. 30(12) *European Intellectual Property Review* (2008) 500-508 at 505

¹¹³ Gerdau de Borja, A. "Exceptions to design rights: the potential impact of Article 26(2) TRIPS" Vol. 30(12) *European Intellectual Property Review* (2008) 500-508 at 507.

¹¹⁴ For an analysis of the negative effects on innovation due to a lack of competitive pressure on derivative markets, see Case COMP/C-3/37.792 *Microsoft* (Unreported, March 24, 2004) at 724-725.

¹¹⁵ In any case, preventing the monopolisation of a secondary market by imposing conditions of competition may not be regarded as having any detrimental effect on the essential 'reward' function of an IPR, whose purpose does not extend to the reservation of a derivative market, see Joined Cases C-241/91 P and C-242 91 P *Radio Telefis Eireann & Independent Television Publications Ltd v. EC Commission* [1995] ECR I-743 at 28-31.

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growth. With due consideration of the aforementioned issues, the law must illustrate a sensible balance of interests when determining the duration, preconditions and exceptions to the exclusive use of intellectual creations if it is to guarantee that the promotion of innovation and creativity of the present day does not hinder the future attainment of these objectives.