CONVERGENCE OF INTELLECTUAL PROPERTY RIGHTS AND THE
ESTABLISHMENT OF “HYBRID” PROTECTION UNDER TRIPS

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Introduction

Intellectual Property rights are valuable trading assets in regional and global economic regulation debates, and in particular in World Trade Organisation negotiations. Since the TRIPs agreement\(^1\) merely refers to a limited number of Intellectual Property categories\(^2\), the scope of obligations in relation to the national and most favoured nation treatment principles is increasingly obscured. The restriction to the salient categories allows, apparently, for an unlimited inclusion of national or regional “sui generis” or hybrid property titles which, if coupled with reciprocity clauses, present a welcome opportunity to strengthen national positions and gain advantages in global competition\(^3\). The situation is complicated in that national courts will not grant protection for distinct or hybrid subject matter even under complimentary unfair competition actions\(^4\). The existence of bespoke property protection\(^5\) will thus render third country nationals without protection\(^6\).

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2 TRIPs Agreement, Articles 3, 9-14: copyright (including computer programs, collections of data), patents, utility models, designs, semi-conductor topographies, geographical indications, plant varieties, unfair competition. Blakeney, “Trade Related aspects of Intellectual Property Rights: A Concise Guide to the TRIPs Agreement” (Sweet & Maxwell: London 1996), Para 1.01.
3 See STERLING, National Treatment and Reciprocity in the Filed of Copyright, Author’s Right and Related Rights (London 1997); HOEREN, Zur Diskussion um Reziprozitaet oder Inlaendergleichbehandlung im internationalen Immaterialgueterrecht (1990) CR 612-613.
4 Hence, Article 10bis of the Paris Convention is inapplicable against acts of unfair copying, see the German Federal Court of Justice, 64 BGHZ 183, 191; 126 BGHZ 252, 255 (on the droit de suite).
From the viewpoint of reciprocal treatment, this generates a critical situation, as evidenced by the history of reciprocity conflicts in relation to semiconductors and databases, and the ongoing divergence in relation to the protection of computer software, business and diagnostic methods under patent law. The effect of fostering “modern” technologies at national or regional levels, in particular in relation to the information and biotechnology industries, can clearly be witnessed in the much more complex traditional knowledge debate. Developing countries here demand a form of protection against the factual expropriation of such knowledge through existing Intellectual Property rights by third parties. This certainly presents a direct response to the ongoing thickening of information assets in the industrialised world, in particular for the benefit of the information and biotechnology industries.

It is likewise obvious that the introduction of hybrid rights is not just a matter of achieving a superior position for global negotiations, or a simple retaliation weapon. The

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6 On the possible application of complimentary unfair competition protection see WESTKAMP 6 [2003] JWIP 828 (836-841); in relation to the database directive, a violation of Article 10bis has been surmised due to fact that the sui generis rights presents a form of misappropriation in the guise of an Intellectual Property right (see KATZENBERGER, “Internationalrechtliche Aspekte des Schutzes von Datenbanken” (1992) ZUM 332; GELLER, “Neue Triebkraefte im internationalen Urheberrecht” (1993) GRUR 525. However, the obligation to protect against such acts under Article 10bis (2), (3) is doubtful since Article 10bis seems to be directed against acts of consumer/origin confusion and misrepresentation, see HENNING-BODEWIG, “Wirksamer Schutz gegen Unlauteren Wettbewerb nach Art. 10bis der Pariser Verbandsuebereinkunft” (1994) GRUR Int. 151.

7 Semi conductor chip protection was first introduces by the USA (United States Semi Conductor Chip Protection Act 1984, 17 U.S.C. 9), including a reciprocity clause (17 U.S.C. 9 § 902 (a) (ii)). See, further, DREIER, National Treatment, Reciprocity and Retorsion – The Case of Computer Programs and Integrated Circuits, in: Beier/Schricker, From GATT to WIPO (VCH: Weinheim 1994), p. 63.


9 REICHMAN, Compliance with the TRIPs Agreement: Introduction to a Scholarly Debate (1996) Vand. L. Rev. 345, 347.
reasons why hybrid rights are enacted is only inadequately definable as a genuine “horse trading” issue. The TRIPs agreement sets forth the obligation to broadly protect under both copyright and patent law. On a domestic level, one of the aims underlying the introduction of novel Intellectual Property titles results from the ongoing convergence of rights, i.e. the overlapping of categories and protection principles. On regional levels, harmonisation obligations, in particular between the copyright / droit d’auteur systems, may yield such convergence. Legal convergence, thus, is a response to various complex and closely intertwined economic, political and legal evolutions.

First, the increase of economic values in knowledge and information: This is not restricted to the information technology industries\(^\text{10}\) but is equally present in all other modern industries, in particular in the biotechnology sector. Hybrid protection thus presents a primarily pragmatic solution. Assets are either included into existing categories by a subsequent modification and/or by providing bespoke legislative solutions, or implemented through sole standing legislation.

Secondly, Intellectual Property categories are converging due to a general shift from more defined protection principles towards safeguarding an investment. Although this is rarely expressed in statutory law, it is clear that copyright protection for software or databases, or design protection for semi conductors\(^\text{11}\) is not afforded following the insight that the respective subject matter represents aesthetic creations. The relevant Intellectual

\(^{10}\) MCMANIS, Taking TRIPs on the Information Superhighway [1996] 41 Vill. L. Rev. 207, 232, 244.

\(^{11}\) Regulation 87/54/EEC on the Legal Protection of Semi Conductor Topographies leaves the final accommodation and form of protection to the member states. Most members states protect semi conductors for the design of the three dimensional topography but have opted for sole standing legislation coupled with industrial property/registration requirements. The United Kingdom, conversely, has opted for a straightforward “functional” design protection.
Property category is employed as an instrument to achieve specific and express protection. The move towards such investment protection will subsequently bypass the existing categorical framework: The term “investment”, necessarily, requires less significant efforts than any other underlying reason for protection, be it creativity, inventiveness, or even goodwill or origin. In addition, the formulation of investment protection as a now primary objective in Intellectual Property will simultaneously effect an awkward redundancy of subject matter tests, a problem now prominently surfacing in relation to database protection, but which is equally relevant with regard to new and essentially unidentifiable subject matter such as business methods and traditional knowledge.

In essence, convergence of Intellectual Property rights is primarily a response by industrialised nations to the convergence of domestic industries. Yet any form of protection for intellectual efforts and thus information, it may be argued, corresponds to the general aim under both WTO/GATT and TRIPs to foster technology transfer. Whereas it has already led to a dilution of existing boundaries of Intellectual Property rights in national law, the situation is even more complicated by specific legal needs to harmonise diverging standards. This is primarily a problem within the European Union, where divergent protection standards are perceived as a threat to the functioning of the internal market. In relation to copyright, the answer is to harmonise both subject matter and exclusive rights. This has already led to the expansion of national copyright standards. In relation to TRIPs,

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12 See the complex situation which has arisen in British Horseracing Board v William Hill Ltd. [2001] All ER 111 in relation to the determination of what constitutes “qualitatively substantial contents” of a dynamic database.

the – alleged – necessity to harmonise copyright or to create new titles in Europe causes frictions under the existing TRIPs and Berne Categories\textsuperscript{14}.

It is apparent, therefore, that this development on national and regional levels will, consecutively, cause frictions with international standards and lead to uncertainties with regard to TRIPs standards. That said, it should also be noted that the creation of sui generis protection, in many cases, will be advantageous since it may reduce systematic frictions in national law and, perhaps more importantly, since it allows a bespoke solution to specific problem. The ensuing problem is the effect of national and regional convergence for the international framework and the scope of legislative freedom to enact hybrid rights on a national and regional basis.

\textbf{International Intellectual Property Protection: Approaches to a Global Acquis?}

The TRIPs Agreement forms a significant part of the WTO/GATT framework legislation. It aims to create a safe environment for global trade, partly by reference to existing convention law, partly by exceeding that scope: The pre-existing international conventions have, particularly due to their strong focus upon categorisation, revealed shortcomings for the protection of technology related articles, a disparity which was expressly intended to be closed under TRIPs\textsuperscript{15}. Intellectual Property rights are predominantly deemed an instrument to facilitate technology transfer. According to its preamble, the


protection afforded by national Intellectual Property rights must be balanced against the promotion of international trade. In that sense, the Intellectual Property standards set are embedded into the wider framework of the WTO/GATT-Agreement\(^{16}\).

Despite this, TRIPs particularly relies upon the salient categories and existing international instruments\(^{17}\). Here, Intellectual Property rights are still territorial. Hence, reciprocal protection of foreigners must be achieved through international or supranational instruments. The main such agreements are, in the area of copyright law, the Berne Convention and its complementary agreements. In the field of industrial property, the principal agreement is the Paris Convention which grants reciprocal protection for the protection of patents, trade marks, geographical indications and protection against certain acts of unfair competition. The conventions are squarely based upon the reciprocity and minimum standard principles. Limitations or deviations on the acquis are permitted unless to a certain extent\(^{18}\), they constitute a disguised barrier to trade, yet the term limitation is understood as a specific exception in relation to the rights enumerated and does, as such, not refer to the problem of new titles\(^{19}\). The aim is primarily to achieve a certain level of legal and economic certainty for foreigners. The conventions thus are restricted in aim to the grant of reciprocal protection without expressing any further aims.

\(^{16}\) See BHALA/KENNEDY-KENNEDY, World Trade Law, 1100.

\(^{17}\) Cf. DREXL, Entwicklungsmechanismen des Urheberrechts im Rahmen des GATT (CH Beck: Munich 1990) p. 305.

\(^{18}\) See, for example, the three step test for exceptions and defences in copyright under Article 9 (2) of the Berne Convention.

The TRIPs agreement goes further in expressly advocating the aim of technology transfer as a tool for achieving a decrease in barriers to trade. Intellectual Property rights are seen as the primary instrument for creating a safe environment for both the export and import of protected articles and the provision of services protected. The TRIPs agreement thus exceeds the conventional level of providing reciprocity on a minimum basis. The principle of technology transfer and, consequentially, the incentive for innovation, may significantly overshadow any literary interpretation of its scope and render any statutory interpretation dependent upon the overall principles of TRIPs and its context within the entire WTO-GATT framework.

The TRIPs agreement requires reciprocal treatment under the minimum standards and the most favoured nation treatment principles, and incorporates rights which reflect a global acquis. This includes copyright (by reference to the Berne Convention, covering the traditional set of rights and copyright protection for computer programs and original databases). Patents are protected, with certain exceptions for subject matter which was apparently deemed too controversial for a final international regulation, and so are trade mark. Principles of unfair competition are included via a reference to the respective provisions of the Paris Convention.

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marks. Principles of unfair competition are included via a reference to the respective provisions of the Paris Convention\textsuperscript{22}.

This limitation of TRIPs to an enumerated catalogue of subject matter leads to a complex and very current problem. Intellectual Property rights which are not expressly mentioned in TRIPs or are, apparently, not within its scope. This provides members with a certain freedom to invent novel subject matter. On a global scale, such rights can be exercised as retorsion mechanisms in international trade negotiations, not only in relation to a certain pressure to grant subsequent reciprocal protection, but also bargains outside the boundaries of international Intellectual Property.

\textit{Convergence of Intellectual Property Rights and TRIPs}

As noted, however, the boundaries of Intellectual Property categories become increasingly obscured with the introduction of specific rights (allegedly) addressing particular industry needs. Its seems that members to the TRIPs Agreement would be at liberty to implement protection for hybrid rights as long as this does not contradict or violate the standards for protection set under TRIPs\textsuperscript{23}. TRIPs, it may be argued, follows a potentially broad approach. The aim of technology promotion through Intellectual Property rights would be severely contravened once technology based new rights are enacted without granting the minimum requirements set forth under TRIPs.

\begin{flushright}
\textsuperscript{22} See TRIPs Agreement, Articles 3 and 9.
\textsuperscript{23} See, in more detail, WESTKAMP, TRIPs Principles, Reciprocity and the Creation of Sui-Generis-Type Rights for New Forms of Technology [2003] JWIP 827, 846.
\end{flushright}
On the other hand, the scope of the Agreement in relation to substantive law is dubious. In patent law, the obligation stretches to “any” invention yet divergent standards in claim interpretation and subject matter still exist and must be accepted. In copyright law, particularly through the reference to the Berne Convention, interpretation of obligation standards seems easier – copyright may be understood so as to protect the creative author, and it will also cover, once subsistence of copyright has been asserted, the entire set of exclusive and moral rights under the Berne Convention. This becomes even more difficult to reconcile with the TRIPs objectives. Almost all types of “novel” Intellectual Property rights have at least a somewhat technological character. It also appears an extremely tiresome and pointless discussion as to which subject matter reflects such technological features. The traditional dichotomy between copyright and patent law certainly does not assist in finding some clarity.

Typical examples include semiconductors, databases, software patents and copyright, biological material (in particular genetic sequences) and certain forms of traditional knowledge. In addition, it must be noted that TRIPs incorporates unfair competition protection, which may be used as an action to stop instances of misappropriation, imitation or copying under national law.

The following will present different approaches as to when the introduction of hybrid subject matter might be deemed to constitute a violation of the TRIPs agreement, and whether such advances can be considered a legitimate justification. Although the term “violation,” in general public international law, remains undefined, it is clear that it would at least denote a circumvention of the agreements’ minimum obligations by rendering protection unenforceable despite its presence as a protected asset.

The issue of converging Intellectual Property is, in terms of academic discourse, a rather new topic. The term “convergence” has, so far, surfaced particularly in relation to the cumulating of two or more Intellectual Property rights in a single asset, such as the simultaneous protectability of a trade mark by copyright. Here, the primary focus will be on a related issue, i.e. the dissociation of specific subject matter from either copyright or industrial property regimes towards a specified protectionist regime. Such regime can, across the board, be characterised as an amalgamation of principles or legal elements from both poles of the traditional Intellectual Property framework.

The starting point is that hybrid rights are intended to protect a certain investment (rather than genuine creativity or inventiveness) in order to respond to technological changes for a specific industry. As already noted, the term “investment” is difficult to define in relation to the scope of any right but certainly presents the widest connotation of all underlying principles. In relation to the protection of both inventions and aesthetic

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27 The best example is the presence of an artistic copyright in a trade mark, or the cumulative protection of sound recordings under both authors right and phonogram rights. Courts will normally give preference to one category so as to avoid contradictory overlaps.
creations, it is as much a necessary prerequisite as it is for establishing goodwill or reputation\textsuperscript{28}.

**The Obfuscation of Categories**

As noted, convergence, at national levels, is a response to technological advances. These advances have led to a situation in which the boundaries between industries thus far conveniently allocate to either a patent or copyright drawer are becoming blurred. Simultaneously, the main assets now are immaterial and can thus easily be appropriated. To safeguard these industries, the Intellectual Property system must either expand or create specific protection. As will be demonstrated, the effect is a constant move from identifiable subject matter with specific rights towards the approximation of copyright and industrial property and even beyond. As to categories, the term convergence signifies a shift from static and identifiable models under either copyright or industrial property towards specific commodification.

This presents a doctrinal problem since the scope of rights afforded may well exceed the boundaries set by copyright and patents alike. Exceeding both paradigms is, in addition, complicated by the fact that individual jurisdictions will also grant, to diverging extents, complimentary unfair competition protection within their internal system\textsuperscript{29}. A certain obligation to protect against instances of unfair competition is also expressed in Article 10\textsuperscript{bis}

\textsuperscript{28} Cf. on the interface between goodwill and investment protection *US Golf Association v St Andrews Systems* 749 F.2d 1028, 1035.

\textsuperscript{29} Article 10bis (2) of the Paris Convention, which requires national treatment for such instances, is dubious as to scope since Article 10bis (3) lists issues which primarily refer to instances of consumer and / or market confusion. See WESTKAMP, op. cit. (Fn 6).
(2) of the Paris Convention. Since unfair competition constitutes a tort, the possible scope of protection may well amount to an equivalent action in cases in which specific Intellectual Property protection does not exist. Such situation primarily occurs in cases in which the minimum requirements under the Berne Convention are not met but in which the object in question has been copied in a way likely to deter others from investment and innovation\textsuperscript{30}. The law applicable to unfair competition is generally the law of the place in which the harmful event occurred\textsuperscript{31}. It will correspond, in most cases, with the \textit{lex loci protectionis} principle in international Intellectual Property law. But even though such protection may be available in national law, the introduction of specific rights will banish such protection: property titles will encompass unfair competition under the \textit{lex specialis} principle.

\textit{Hybrid Rights and the Existing Framework}

From a legal viewpoint, the development can be traced back to the introduction of neighbouring rights in national legislation. It concerns both “neighbouring” patents and copyright standards. As to patents, those rights nearest are utility models and plant varieties. As to copyright, neighbouring rights are those which require a certain investment and/or organisational effort closely linked to the regulatory framework in copyright for the benefit for culture dissemination and production. The main examples here are the regimes afforded to performing artists, broadcasters and phonogram producers. Historically, these rights reflect answers to advances in technology. In many cases, they stem from unfair competition or broader principles such as general tort law and/or unjust enrichment protection

\textsuperscript{30} See, expressly, Article 5 (d) of the Swiss Unfair Competition Act.
\textsuperscript{31} Cf. the Rome Convention on the Applicable Law in Relation to Contracts and Torts, Article 5 (3).
afforded. These legislative advances, in relation to the convergence problem, were not too complex for national jurisdictions. Although it may well be said that a general “investment protection for endeavours which simply mediate cultural expressions could exceed the level of copyright protection required, national courts have actually dealt with the problem of such interrelation between copyright and neighbouring rights under the infringement test. Hence, copyright standards would trump those standards set under neighbouring rights so that the scope of protection afforded to the information concerned was not exceeding copyright.

Then, with the advent of the information or knowledge society, the true first wave of hybrid subject matter came. This primarily concerns the protection of semi conductors, software and databases. Each of the rights mentioned presents a good example of how the commodification of industrial efforts distinct from the existing patent/copyright paradigms relies upon standards simultaneously deduced from both the patent and copyright concepts. What is apparent in all cases is the fact that the regimes chosen rely on a close proximity to copyright. This reflects a very pragmatic approach which is normally based upon the intention of a high level of protection considered necessary. It can be observed, however, that through the evolution of hybrid rights, from semi conductors to databases, the standards of copyright have shifted from a right pertaining to primarily aesthetic creations to

52 See, for example, FITZGERALD/GAMERTSFELDER, “Protecting Informational Products (Including Databases) through Unjust Enrichment Law: An Australian Perspective” [1998] EIPR 244.

53 In German law, the matter is highly controversial and has particularly surfaced in relation to phonogram protection. Some commentators maintain that phonogram protection is entirely outside the copyright scope and that, therefore, protection is afforded even if the parts taken (in particular, in the case of sampling) do not constitute a personal intellectual creation. Others take the view that neighbouring rights are a simple annex to copyright protection. The French Copyright Law presumably takes the latter stance: Under Article L 211-1 Code de la Propriété Intellectuelle, the exercise of an authors right cannot be restricted through exercising a “droit voisin”.
a right pertaining to primarily a defined category with a technological outlook, and from a set of exclusive rights towards patent standards in granting more or less general use rights.

In general, the implications are problematic: boundaries of protection are shifted to assets which would generally be at the edge of protectability. This is further complicated under a general investment threshold. The convergence issue presents, in this regard, a much more wide-ranging predicament.

*Methods, Structures, Information: The Effect of Hybridisation on the Scope of Intellectual Property*

Convergence, therefore, is not a mere problem of subject matter categorisation. The traditional balance in Intellectual Property has been achieved both through the application of major principles and the fact that the industries regulated used to be apart. These principles and inherent properties of Intellectual Property rights can best be described by reference to the interface between copyright and industrial property law: the subtle dichotomy between industrial property rights – as a right restricted against commercial uses - and copyright as a bundle of exclusive and moral rights in creative expression.

Copyright used to be restricted to a bundle of rights which protected the expression of a work against certain physical acts, and public acts of communications which were defined as largely commercial activities. Hence, the dichotomy between ideas, information and expression generated a suitable pattern for judicial analysis. The necessity to employ the idea/expression dichotomy depends, of course, upon the originality standard required. Countries which protect a personal intellectual creation only need only employ such general
principle if the protectability of subject matter is assumed. The copyright jurisdictions have found various ways to restrict over protection through the application of the substantial test and general considerations in relation to the commercial impact of a copy. Yet today the copyright standards are encroaching upon private uses of information, as evidenced by the simultaneous introduction of a right against transient copying and broad communication rights. In relation to novel subject matter displaying information properties – such as software and databases – the practical judicial analysis will effect an assumption of protectability which is derived from the existing enumeration of traditional high authorship works. In fact, copyright now displays an architecture resembling patent standards yet not restricted to commercial situations. In addition, the introduction of new subject matter will indeed restrict a stricter judicial stance, in particular if aspects such as harmonisation need to be taken into account.

Horizontally, both the copyright and patent edges of the Intellectual Property system are being increasingly diluted by the (existing or premeditated) introduction of new subject matter. This primarily relates to “informational” products displaying a rather modest modicum of creativity or inventiveness. The focus upon information protection (rather than an analysis of patent or copyright eligibility) transforms the salient classification. Copyright no longer is concerned with aesthetic creations, and patents no longer resemble a right in technical inventions but spread to methods.

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The first move towards convergence, however, related to rather definable subject matter, as evidenced in semiconductor chip protection\(^{35}\). Although protection vests in the design of the topography, the protection is based upon patent standards. In addition, the impact of the specific category of integrated circuits on the general perception of Intellectual Property is negligible, if it was ever conspicuous at all. The same may be said with respect to rights which, despite a certain proximity to patents, require examination and registration, in particular plant varieties.

In relation to software and databases, this assertion must be modified. First, because software, despite it reflecting a much more identifiable subject matter than databases, may be protected under both copyright and patent law. The real background, of course, is to safeguard protection for a certain business asset which happens to display both creative or literary and technical features. Computer programs have, thus, been accommodated into the copyright system for very pragmatic reasons, yet with this introduction came either a general lowering of the originality threshold or, in particular in copyright systems, the difficult problem of the scope granted against non-literal copying. In patent law, the patentability of software is still problematic but clearly available as such. Whereas the USA have always generously afforded patent protection to software\(^{36}\), even the exclusion of software under


\(^{36}\) The scope of computer program patents varies significantly; see Sloc & Harris’s Application [1966] RPC 194 – claim restricted to the programmed hardware; Gottschalk v Benson 406 U.S. 63 – claim cannot extend to the simple conversion of algorithm into binary code; Vicom Systems Appn. [1987] O.J. EPO 14 – the effect to increase speed is “technical” in nature. In State Street Bank & Trust v Signature Financial Group Inc. 149 F.3d 1368 (Fed. Cir. 1998), cert. denied, 119 S. Ct. 851 (1999) it was concluded that the judicially accepted exceptions to patentability (as business methods or mathematical algorithms) would only apply if a useful, tangible and concrete result is achieved.
the European Patent Convention\textsuperscript{37} has not restricted protection as long as a technical result has been achieved\textsuperscript{38}. From there, it is only a small step to ascertain the general patentability of information reflecting technological features. In the USA, databases are now protected under a misappropriation model which essentially affords similar protection as the EU Directive\textsuperscript{39}.

In relation to convergence, this cumulative form of protection presents a vicious problem with respect to the impact on the understanding of what Intellectual Property represents. The general perception of protectability unlocks an argumentative foundation to authors and owners of, indeed, all types of business commodities.

As to patent law, the recognition of informational products or solutions may provide arguments for those who favour the patentability of “methods”, be it instructions, diagnostic or business\textsuperscript{40} diagnostic methods. This may well be followed by a further augmentation on the basis of perceptions of the “technicity” of information. As to copyright, the effect is not only an expansion of standards that comes dangerously close to low standards, which will

\textsuperscript{37} Article 52 (a) European Patent Convention.

\textsuperscript{38} See “Proposal for a Directive of the European Parliament and of the council on the patentability of computer implemented inventions”, 20.2.2002, Doc. COM (2002) 92 final, 2002/0047 COD. The reason for the caution exercised so far is the exclusion of software patents “as such” under Article 52 (a) European Patent Convention. The term “as such” has been understood in various meanings, ranging from an a priori exclusion to granting protection if the effect was deemed to be technical, towards the protection of a computer program which has some technical character and, finally, protection if the information required for the program structure itself was deemed technical. Thereby, a computer program which is technical and reflects a personal creation simultaneously may be protected under both patent and copyright.


\textsuperscript{40} The underlying principles in the protection of business methods and software under patent law are much the same, as both will affect a patent for any process or solution “as such”.

cause the protection of instructions and methods likewise. Equally, the protectability of methods can then extend to all “informational” subject matter (i.e. everything) such as biological material and, in particular, to the manipulation of genetic data which defies the emerging international consensus that biotechnology protection requires, due to its ethical impact, examination and registration\textsuperscript{41}. Yet the core protectionist problem of genetic sequences – utility\textsuperscript{42} – would be irrelevant under copyright\textsuperscript{43}.

It follows that software protection, despite its seemingly straightforward allocation to copyright or patent, in fact represents a true hybrid right in that the aim is specifically to protect the investment commercial activities. What is apparent is that such need cannot sufficiently be addressed by the existing categories, precisely because the industry concerned confuses the distinction between technological and informational characters which

A similar problem is caused by the database sui generis right under the European Directive, which proves the potential pitfalls of such legislative hybridisation most aptly. Databases are, as such, structural works the copyright protection of which is limited to the selection or arrangement of data. The sui generis right, in order to close that gap in protection, simply exchanges the originality threshold by an express protection of a

substantial investment. The effect is an imprecise correlation between information and investment: The directive provides for the protection of a substantial part of the information present in a database against both private and commercial acts of extraction and/or re-utilisation. This surpasses both the industrial property and the copyright standard. Protection is afforded against the use of a database as such, in that the directive confers upon the maker a right against transient copying and publicly making available these data. This, in effect, represents a straightforward use right which is, unlike semiconductor protection, not restricted to commercial uses. The main interpretational problem this yields is the absence of a market test on which the investment may be said to be jeopardised. The consequence is an omission of the limiting factors in both copyright and industrial property standards. This is even more complicated by the fact that the directive, despite containing a seemingly elaborate definition as to what a database shall be, is entirely unclear as to its correct object of protection – database, substantial part or investment.

Finally, the discourse on the protection of traditional knowledge should be mentioned. As to date, no model exists detailing or even approaching a clear cut definition of subsistence and scope of economic and exclusive rights. From an international perspective, it is clear that traditional knowledge protection can be utilised as a stock in global trade by developing countries, i.e. an asset which allows access to assets on a reciprocal basis. But from a doctrinal Intellectual Property perspective, the status as “property” remains rather dubious. First, although the proposed regimes are concerned with knowledge or information, any scheme of protection must overcome the fact that such knowledge cannot be allocated or owned. Therefore, it appears to lack a basic feature of other hybrid rights, namely as a function to facilitate technology licensing by providing a safe
legal environment for transactions. Furthermore, the underlying ground for protection significantly deviates from other Intellectual Property concepts – as a form of protection for investments, personality or origin. Any rights attached to forms of traditional knowledge will create public goods for the primary sake of excluding access and use. In that sense, traditional knowledge protection – although it may be deemed “hybrid” in the sense that it may attach to certain but entirely diverse forms of (indigenous) expression or existing assets - does not constitute intellectual property as we know it. In terms of the structure and architecture of such rights, any prototype for protection would therefore potentially follow role models already existing for public goods, i.e. in international cultural property\textsuperscript{44} or environmental law. It is therefore more similar to forms of access prevention under international law, in the sense that protection must be based upon notions of public ownership, inasmuch as states have territorial sovereignty over land. The transformation into some form of “collective” rather than individual “property” – whatever this may signify – is certainly also a consequence of globalization. Yet the dispute over its protection reflects the “spill-over” effect of existing and new rights enacted in industrialised countries. This is true, most notably, in relation to new rights in technology, in particular specific database, topography, or software protection\textsuperscript{45} as norm setting by industrialised nations.

\textbf{TRIPs and Convergence}

\textsuperscript{44} See, for example, the “Convention for the Safeguarding of the Intangible Cultural Heritage 2003”, under <http://portal.unesco.org/en/ev.php@URL_ID=17716&URL_DO=DO_TOPIC&URL_SECTION=201.html>.

\textsuperscript{45} See ULLRICH, “TRIPs and Technology Protection”, in: Beier/Schricker, From GATT to TRIPs, p. 358.
The TRIPs agreement, as noted, particularly aims to promote advances in technology and innovation. At its core lies the unification of divergent Intellectual Property systems through the grant of two main principles, national and most-favoured-nation treatment, which seek to establish a high level of protection. Its wide scope suggests that the rights granted are finite in relation to possible sui generis protection rights. Each conceivable right, it may argued, can be accommodated within the existing concepts. On the other hand, accepted divergent standards in patent and copyright equally suggest a certain freedom for autonomous interpretation as long as no explicit guidance is offered. In comparison to copyright, the obligations as to patent protection are much wider, at least denoting an underlying policy for member states not to introduce barriers via novel non-reciprocal rights. Although the interpretation of claims is still left to members, there can be no doubt that TRIPs aims to achieve wide protection. From the panel judicature it appears that, if copyright protection is afforded to an object, this relates to the entire set of rights under Berne. The ensuing question is whether, and when, the introduction of new standards constitutes a violation of TRIPs, an issue which should be perceived from the perspective of the problems this creates:

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48 This includes the general obligation as to “all inventions” (Article 27) as well as and the rather narrow exceptions (Articles 30, 31). See CORREA, “The GATT Agreement on Trade Related Aspects of Intellectual Property Rights: New Standards for Patent Protection [1994] 5 EIPR 327.
50 See WTO Panel, United States – Sec. 110(5) US Copyright Act, WT/DS160/R, Paras. 6.60 et seq. in relation to Article 11 and 11ter Berne Convention (i.e. the “minor importance” exceptions in US Copyright Law): TRIPs includes any unwritten rules of the conventions.
• Hybrid rights outside the TRIPs categories can be coupled with reciprocity clauses. This, at first glance, does not constitute a violation since a hybrid right is classified by its (domestic) denomination. On the other hand, given both the scope of categories under TRIPs, and the complimentary obligation to protect against acts of unfair competition, it appears that nearly all forms of novel rights may ruin counter to this. Moreover, the express aim of technology promotion may impute a general obligation to comply with the national treatment obligation and thus to strive to accommodate informational items as far as possible into the existing copyright, trade mark or patent framework.

• On a more subtle level, the successive introduction of ever more immaterial commodities may also render the TRIPs framework redundant. As noted, the implementation of rights in information, based upon a more or less definable object, is nearly always directed towards the protection of investments in a particular industry. Already, the inclusion of software, databases and know how in TRIPs reflects norm setting by industrialised nations\textsuperscript{51}, aiming at giving a modicum of national treatment protection under both categories\textsuperscript{52}. The enclosure of technology related rights will facilitate responses from less developed countries in relation to traditional knowledge protection, which in turn may well dilute global standards. In that sense, the question of hybrid rights is closely intertwined to the general problem of the global Intellectual Property dynamics. In particular, if traditional knowledge is finally accommodated into existing frameworks in Intellectual Property rather than streamlined legislation, the impact in turn on domestic Intellectual Property will be

\textsuperscript{52} ULLRICH, TRIPs and Technology Protection, in: Beier/Schricker, From GATT to TRIPs, p. 371.
grave since TK protection, as said, is exclusionary, preventive and unconcerned with individual ownership and commercial incentive. There exists a certain danger that an assumption of a wide connotation of the TRIPs categories facilitates ever more diluting dynamics.

**Hybrid Rights and their Classification in TRIPs**

Hybrid rights develop from an assumed gap in protection standards in relation to specific industries. On a domestic level, the inherent categorisation can be proprietary or regulated under unfair competition or even general tort principles\(^{53}\). The regulatory aim of investment protection is as much a treaty obligation as a domestic or regional necessity. The primary danger, however, is a development of national standards which dissociates certain specific endeavours from the TRIPs *acquis*\(^{54}\). Similar interpretational problems exist if the approach is based upon external qualities following the industrial property / copyright dichotomy, i.e. a categorisation between invention and creation, between some technical characteristics and creative or aesthetic merit. Equally, new property titles will allow the application of the *lex spe\(c\)ialis* or *lex posterior* principles\(^{55}\).

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\(^{53}\) Again, numerous examples exist in which courts have circumvented the infeasibility of Intellectual Property through notions of delict or unjust enrichment. In German law, general protection is afforded, through a form of quasi-property notion, against acts which devalue commercial activities. This includes the protection of rights associated with existing commercial services. In English law, courts have employed unjust enrichment notions due to the value associated with trade names, see *Lever v Goodwin* [1887] 36 Ch 1, 3; *Peter Pan Manufacturing v Cottette Silhouette* [1964] 1 WLR 96.

\(^{54}\) Cf. REICHMAN, Universal Minimum Standards of Intellectual Property Protection under the TRIPs Component of the WTO Agreement [1995] Int. Lawyer 345.

These traditional limitations may serve as a working model for differentiation: if an object falls within either the invention / creation paradigm, sui generis protection would violate TRIPs\textsuperscript{56}. But apart from the severely wide connotation this effects, the distinction is no longer compelling. Hybrid subject matter usually exceeds the core elements set by the traditional understanding. In addition, TRIPs does not require any specific statutory category\textsuperscript{57}. The expanding fusion between technical and aesthetic properties elucidates that this approach is futile endeavour. And although certain conceivable industrial endeavours may be deemed sufficiently “novel” in relation to the written TRIPs acquis, most potential rights can at least be roughly accommodated to either the copyright or patent system.

Such test, based on a simple ontological comparison of protection regimes, would easily admit two equally valid arguments. Either the Intellectual Property right in question is, due to its denomination, outside the protected subject matter enumeration under Article 2.1 TRIPs. Conversely, it may well be argued that each possible notion of information can, necessarily, be located in between the patent/copyright dichotomy. The fact that the scope of protection is now extending certainly gives weight to this. Yet, the inclusion for certain hybrid subject matter proves that such view cannot be reconciled with the TRIPs acquis since the categories mentioned still refer to the status quo of Intellectual Property rights.

\textsuperscript{56} In that sense SHERWOOD, Intellectual Property and Economic Development (Boulder, Oxford: 1990), pp. 32 et seq.

\textsuperscript{57} Hence, protection of plant varieties or semi conductors may be granted by reciprocal sui generis or patent and – in the case of, for example genetic sequences - even copyright legislation.
As the enumeration of possible subject matter in Article 3 TRIPs is unconstrained, the underlying rationale may indeed force a wide interpretation of treaty obligations. There is a certain case for this, in that the criteria for IP allocation may be regarded as definite as long as protection is sought for technology, articulating the overriding rationale of technology protection as broad as possible. This restricts opportunities to grant quasi-IP rights in endeavours either enumerated in TRIPs or classifiable as copyright or patent. But yet again, software protection demonstrates the pitfalls of such narrow view since it is based upon pragmatic rather than ontological considerations. In addition, the transgression of established standards of originality in relation to technology related works from traditional concepts into a harmonised form appears, at the moment, to be unattainable.

If the admissibility of hybrid rights under TRIPs does not pose a linguistic problem, an approach based upon underlying factors for protection perhaps seems more constructive. However, the agreement remains equally silent as to an overriding policy for protection. The principle objective of fostering technology transfer certainly presents a much too extensive concept since nearly every imaginable creation enables such opportunity. If the patent/copyright dichotomy is still placed upon the distinction between a use right and a bundle of rights, the expansion of protection towards both ends of the dichotomy would prove that subject matter exceeding the traditional set of rights need not be incorporated into the general national treatment obligation at all.

58 ULLRICH, TRIPs and Technology Protection, in: Beier/Schricker, From GATT to TRIPs, p. 369.
TRIPs, therefore, allows mutually exclusive perceptions. Yet both solutions fail to answer the question of a violation through hybrid rights: Either members are entirely at liberty, or TRIPs is interpreted so widely so as to include every conceivable effort between the industrial property and copyright concepts, and beyond. Both interpretations would render more advanced lines of reasoning redundant.

Certainly, some starting points can be asserted which would point the analysis into either direction. It is trite that a violation seems more likely the more the subject matter is proximate to an existing category in the traditional sense. Protection for straightforward aesthetic creations would thus circumvent the obligations under Articles 3 and 2.1 TRIPs. The same approach may be taken in relation to potential assets outside the scope of TRIPs, such as diagnostic methods which TRIPs assigns to patent law\(^\text{61}\). Hence the restriction of legislative freedom cannot be deduced from either categorisation.

The issue is thus primarily one of balancing national and global interest under a proportionality test. Such test is not foreseen in TRIPs but exists in various legal instruments, most notably the “Agreement on Technical Barriers to Trade” (TBT) (Article 2.2) and, under the general framework in Articles XI and XX (d) GATT/WTO. Article 2.2 TBT sets forth a general prohibition to introduce legislation which presents unnecessary

\(^{61}\) TRIPs, Article 33.
obstacles to international trade. Likewise, Articles XI and XX (d) GATT/WTO contain a general provision which imputes that measures taken need to be weighed against their detrimental impact upon fundamental standards (i.e. *ordre public*).

What remains open is which factors present viable parameters for a proportionality and which weight they are given in relation to each other. Both TRIPs and the GATT/WTO only seem to allow derogations from the *acquis* if substantial national interests are concerned, typically in relation to national safety and the like. Therefore, Articles XI (d) and XX are inapplicable as such. Perhaps the most convincing approach lies in an application of the principles underlying Article 2 (2) TBT. In that sense, the introduction of new titles would be justified as long as the restrictions on international trade do not pose an *unnecessary* barrier to trade. The question as to when this is the case can be deduced from either TRIPs or general international trade principles. Under a proportionality test, the main issue is the definition of (1) aims which are legitimate under the GATT framework and (2) whether these present an *unnecessary* barrier to international trade. The following constitutes a rough amalgamation of parameters which may be balanced.

*Non-Legitimate Aims: Circumvention as an Intended Barrier to Trade*

The first step in the analysis would certainly exclude the implementation of new property rights for the sole reason of circumventing obligations arising from Article 1.2. TRIPs. As noted, a certain assumption for such advances exists if new titles are introduced...
which previously used to be protected under one of the categories mentioned, for example a specific protection for designs in particular industries or the protection of assets which are least listed under certain category in TRIPs. This would include patent protection for certain methods since the category is mentioned in TRIPs.

Yet the assertion of straightforward cases in which the introduction of hybrid rights would constitute an illegitimate purpose under Articles XI and XX (d) GATT seem very limited. In most cases, further reasons exist which may justify the implementation of hybrid rights. In addition, members will not easily trade in opportunities opened by TRIPs for the apparent danger of retorsion. The introduction of sui generis legislation will thus, as such, only be contemplated if the advantages outweigh such jeopardy. Hence, the practical danger of an international diversification and overlap of rights outside the patent and copyright paradigms will be limited by the self regulatory mechanisms of TRIPs. If the TRIPs rationale of a cumulative fostering of internal and external markets works, it seems that members will not easily trade in the opportunities for patent or copyright protection which may exist in third countries. These considerations considerably limit the problem, since the dissociation of specific subject matter would then occur due to overriding domestic or regional principles. This can be ascertained for subject matter reciprocal protection of which is important for the sake of legal and regulatory certainty in countries in which the protected articles shall be marketed. It follows that the creation of hybrid rights can only be deemed a

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65 It must be noted, however, that national advances for, e.g., specific protection of diagnostic methods or business methods would then require reciprocity as against countries which protect these under patent law. As noted, reciprocity cannot, as such, be made dependent upon an initial category.

66 Here, the GATT framework bears similarity to Article 30 (2) EC which likewise maintains a proportionality in relation to potentially justifiable barriers set by national law. However, from the intention of both the EU Treaty and WTO/GATT it is apparent that the test under EU law is much stricter.
non-legitimate aim once the reason for its introduction is purely to gain a commercial advantage. This may be asserted in relation to the promotion of domestic industries.

*Legitimate Aims and Proportionate Measures: Some Possible Starting Points*

But in most cases, the introduction of sui generis legislation will at least also include further considerations which TRIPs is not concerned with. These may be domestic reasons, issues of cross border harmonisation, ethical issues or issues which do not pertain to Intellectual Property as such. These need to be analysed and balanced. A proportionality assessment – the correct scope of which requires much more detailed research - must take into account both the factors relevant under TRIPs and GATT/WTO. These factors comprise, the existing *acquis*. It seems trite that the implementation of sui generis protection violates that *acquis* if an international consensus as to an allocation can be unmistakeably be ascertained. Given the sheer scope of such ontological exercise, however, such test remains extremely convoluted.\(^67\)

There are, put forward rather tentatively, at least six possible rationales which may substantiate that novel subject matter constitutes a legitimate objective under national or regional law. These are:

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\(^{67}\) The issue is not whether a right portrays certain properties which allow an allocation but, first of all, whether the right is intended to preserve or foster innovation and investment in national markets. As noted, this is specific to semi conductors, databases, software, plant varieties and apparently also to geographical indications. Yet the more it is likely that the right in question has a spill over effect on the regulation of other industries – such as the sui generis right in databases has with the “information” property notion is conveys – the less it is likely that the effect on TRIPs/GATT is necessary.
The general characterisation as typical or atypical Intellectual Property right.

The degree to which the regulation foreseen concerns an identifiable subject matter.

The degree to which it has a “spill-over” and thereby convergence effect, and thus affects subject matter to be protected under TRIPs.

The uniqueness of the industry concerned and the specificity of its needs.

Harmonisation issues, in particular those between the Copyright and Droit d’Auteur Systems in the European Union

Ethical Considerations, such as the exclusion of access to certain commodities (i.e. folklore or biological material).

Very specific forms of Intellectual Property protection normally correlate with specific needs to regulate industries on a domestic level. A good example is the protection afforded to semiconductors. The lack of litigation here proves that the primary object is to facilitate and promote transaction in technology licensing. It appears that the more specific the industry regulated is, the less a violation of TRIPs principles is adamant. In particular, an assumption of a legitimate national regulation interest may exist if examination and registration systems are in place. Here, the apparent national interests override TRIPs.
The problem becomes more aggravated the more akin the subject matter is to conventional categories, in particular with a view to the recent derogation in copyright standards. As to database protection, it may be argued that the obligation under Article 10 (2) TRIPs – pertaining to copyright only – immobilises any further advances, in particular because it may be said that the sui generis protection is a simple accumulation of Anglo-Australian copyright principles which coincides with continental and US-American misappropriation and unfair competition regimes. It may also be questioned as to whether a database industry can be defined given the enormous potential for the protection of all conceivable forms of information collations. However, the main problem with such advance is that it bars any further developments to create more specific and bespoke forms of protection. This must be balanced against the problem of the increasing dynamics facilitated by the accommodation of unsuitable subject matter into existing systems. What is obvious, however, is that if preference given to bespoke protection\(^{68}\) triggers international consultations and may facilitate insights, on an international level, which are be beneficial with regard to the domestic or regional convergence problem.

As to the issue of harmonisation of laws - in particular in EU copyright harmonisation - it seems erroneous to infer a general justification on the basis of harmonisation requirements under European primary obligations. In that sense, the European Union has to observe the same principles as other members\(^{69}\). Moreover, it is

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\(^{68}\) The terminology needs clarification. The term “specific subject matter”, as used here, refers to both the degree to which an object is definable and thus unequivocally attributable to one individual protection regime, and to the degree of uniqueness of rights granted. The more specific rights are in relation to a certain right (i.e. through requirements such as a limited term of protection which reflects the life circle of typical investments in relation to the particular industry)

difficult to imagine a panel discussing the legitimacy of new property titles under EU law\textsuperscript{70} and the degree to which such new title is necessary in relation to the underlying internal market aim. Therefore, the same arguments as pointed out above can be employed. If harmonisation is necessary, as in the case of non-original databases, and can only be achieved through the invention of a new category, the proper solution must lie in a generous interpretation of that right as against third countries\textsuperscript{71}. But perhaps the more complex problem here is the general relationship between EU and WTO law\textsuperscript{72}.

Finally, the question of ethical considerations needs clarification. This is primarily a problem of the protection of traditional knowledge as an exclusionary and preventive means. It is, as noted, an immediate consequence of both the market and physical access facilitated under GATT/WTO. This allows, it is suggested, the application of the principles laid down in Article XX (d) GATT - i.e. the \textit{ordre public} provision – as a basis for a justification of new traditional knowledge assets in developing countries. In addition, the uniqueness of the necessary architecture and its functional difference from traditional Intellectual Property has already been pointed out.

In conclusion, it appears that the various intricacies of the convergence issue have, in relation to Intellectual Property as a global trade asset, significant practical consequences.


\textsuperscript{71} Provided that other aspects are not present, the European Union would be obliged to grant reciprocal status in relation to the database sui generis right to “sweat of the brow” databases.

\textsuperscript{72} The EU does not consider the TRIPs Agreement to have direct effect since it is deemed a flexible and temporary instrument; cf. Council of Europe, O.J. EC 1994, No. L 336, pp. 1-2.
Perhaps the most promising solution is to include provisions in TRIPs which set forth a balancing test applicable to all forms of deviation from its acquis.