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Justifying Property Rights in Native American Traditional Knowledge

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JUSTIFYING PROPERTY RIGHTS IN NATIVE AMERICAN TRADITIONAL KNOWLEDGE

John T Cross¹

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I. INTRODUCTION

During the past twenty-five years, there has been a growing awareness that the scope of the current intellectual property system is in some ways too narrow. Intellectual property law purports to provide legal protection for products of the human mind. And yet broad categories of knowledge fall outside the ambit of existing law. Primary among these is “traditional knowledge”: wisdom that is held communally by members of a particular culture, and that evolves in reaction to the needs of that culture.² Because much of this traditional

1. Grosscurth Professor of Intellectual Property Law, University of Louisville School of Law. This paper was originally presented at the symposium on “Intellectual Property and Indigenous Peoples” hosted by the Texas Wesleyan University School of Law on October 24, 2008. The author is grateful to Mari-Elise Gates and David Kincaid for their work in helping put this article together, and to the symposium participants for their helpful comments.

2. One of the most difficult issues in the traditional knowledge debate is defining exactly what is meant by “traditional knowledge.” For purposes of convenience, this article uses the definition established by WIPO in its ongoing discussions of traditional knowledge protection. Rather than attempting to formulate a precise definition, WIPO lists various characteristics of traditional knowledge. In addition, WIPO increasingly distinguishes between technical and scientific knowledge on the one hand (which it calls “traditional knowledge, and this article will refer to as “traditional technical knowledge”) and traditional expressions such as folklore, song, and dance on the other (which both WIPO and this article will refer to as “traditional cultural expression”). See World Intellectual Property Organization [WIPO], Intergovernmental Comm. on Intellectual Prop. & Genetic Res., *Traditional Knowledge and Folklore, The Protection of Traditional Knowledge: Draft Gap Analysis*, ¶¶ 3–4, WIPO/GRTKF/IC/13/5(b) (Oct. 13–17, 2008), available at http://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_13/wipo_grtkf_ic_13_5_b.pdf [hereinafter “TK Draft Gap”]; WIPO, Intergovernmental Comm. on Intellectual Prop. & Genetic Res., *Traditional Knowledge and Folklore, The Protection of Traditional Cultural Expressions: Draft Gap Analysis*, ¶ 8, WIPO/GRTKF/IC/13/4(b) (Oct. 13–17, 2008), available at www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_13/wipo_grtkf_ic_13_4_b.pdf

knowledge fails the technical requirements for protection under existing intellectual property laws,³ a culture has little if any legal recourse when the knowledge is used or appropriated by others. Fueling the debate are several well-publicized cases in which people from developed nations commercialized—and in some cases even patented or copyrighted—traditional knowledge held by a culture of a lesser-developed nation.⁴ This misappropriation can be prevented, the argument goes, only by creating some form of legal protection for traditional knowledge.

Early proposals for traditional knowledge rights assumed that any rights would resemble patents and copyrights, giving one person or a group a “property right” to exclude others from using the knowledge. More recently, however, the tenor of the discussion has changed, at least at the international level.⁵ Rather than a property right analogous to a patent or copyright, the current proposals now are increasingly based on an unfair competition model. This model does not bar all uses of the knowledge. Instead, in most cases a culture could recover only when there is a “wrongful” appropriation or use, such as when someone acquires the traditional knowledge by deceit or brib-

wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_13/wipo_grtkf_ic_13_4_b.pdf [hereinafter “TCE Draft Gap”]. The features that define both forms of knowledge share important commonalities. Both forms of knowledge are handed down from generation to generation, are held communally, and reflect a community’s sense of cultural identity. Compare TK Draft Gap, *supra*, with TCE Draft Gap, *supra*. For reasons that will become apparent below, these features are highly relevant to the question of the form any protection for traditional knowledge should take.

3. The problems with using existing intellectual property laws to protect traditional knowledge are discussed *infra* at text accompanying notes 35 to 37.

4. The most oft-cited examples are the invalid patents granted by the United States Patent Office on the use of turmeric to heal wounds and on uses of the bark of the ayahuasca plant, as well as the European Patent Office patent on fungicidal uses of the neem tree. The turmeric and neem patents were later held invalid for lack of invention. COMMISSION ON INTELLECTUAL PROPERTY RIGHTS (U.K.), INTEGRATING INTELLECTUAL PROPERTY RIGHTS AND DEVELOPMENT POLICY 76–77 (2002).

5. Several nations have moved more quickly than the international community, adopting domestic schemes of protection for traditional knowledge. See, e.g., The Law of the Republic of Azerbaijan “On Legal Protection of the Expressions of the Azerbaijani Folklore” art. 1.0.2 (2003) (non official translation), available at http://wipo.int/export/sites/www/tk/en/laws/pdf/azerbaijan_folklore.pdf; Decreto No. 17-73 art. 332“A” [Decree No. 17-73], Código Penal de Guatemala [Crim. Code of Guat.], del 5 de julio de 1973; LEY No. 20 [LAW No. 20], Régimen Especial de Propiedad Intelectual sobre los Derechos Colectivos de los Pueblos Indígenas [Special Intellectual Property Regime on Collective Rights of Indigenous Peoples], Gaceta Oficial, del 27 de junio de 2000 (Pan.); Ley No. 27811 [Act No. 27811], Poder Legislativo Congreso de la República [Congress Legislature of the Republic], Gaceta Oficial, del 8 de octubre de 2002 (Peru). Some of these national schemes have the essential features of a property-based system. See “On Legal Protection of Azerbaijani Expressions of Folklore” art. 9 (giving the state a right to prevent use of folklore by third parties when the work is distorted, or when no credit is given to the originating culture); Crim. Code of Guatemala art. 332“A” (limited to tangible cultural attributes such as an artifact); Law No. 20 of June 26, 2000, art. 15 (Pan.) (allows indigenous community to establish conditions for use and commercialization).

ery, or violates a promise not to use the knowledge in a certain way.⁶ Although providing some relief in the most egregious cases, this more restricted traditional knowledge right falls well short of a patent or copyright.

There are certainly many reasons *not* to grant property rights in traditional knowledge. Property rights would certainly present a host of difficult practical problems, such as deciding who “owns” the right⁷ and whether the owner can prevent transformation of the knowledge into new ideas. But the most fundamental objection to providing property rights in traditional knowledge is theoretical rather than practical. Most legal systems proceed from the basic premise that no one generally can “own” knowledge. Instead, the default rule is that

6. The current WIPO proposals—which admittedly remain the subject of a fierce debate—are set out in two documents: WIPO, *Revised Draft Provisions for the Protection of Traditional Knowledge: Policy Objectives and Core Principles*, WIPO/GRTKF/IC/9/5 (Feb. 25–29, 2008), available at www.wipo.int/export/sites/www/tk/en/consultations/draft_provisions/pdf/draft-provisions-booklet-tk.pdf [hereinafter “WIPO TK Proposals”]; WIPO, *Revised Draft Provisions for the Protection of Traditional Cultural Expressions/Expressions of Folklore: Policy Objectives and Core Principles*, WIPO/GRTKF/IC/9/4 (2004), available at www.wipo.int/export/sites/www/tk/en/consultations/draft_provisions/pdf/draft-provisions-booklet-tce.pdf [hereinafter “WIPO TCE Proposals”]. As noted *supra* in note 2, the WIPO proposals draw several distinctions between scientific/technical knowledge and cultural expression. For traditional technical knowledge, Article I of the substantive provisions provides, “Traditional knowledge shall be protected against misappropriation.” WIPO TK Proposals, *supra*, art. 1, § 1. The remainder of Article I defines misappropriation, and includes acts involving “unfair or illicit means,” § 2, and those that mutilate or distort the underlying knowledge, § 3(v).

The provisions governing traditional cultural expression are similar, with one important exception. Articles 3(b) and 3(c) of the substantive provisions limits protection to situations involving wrongful acts such as failure to attribute or distortion. WIPO TCE Proposals, *supra*, at 19–20. Article 3(a), however, does provide a form of property protection. If the traditional cultural expression is “of particular cultural or spiritual value or significance to a community,” the proposals allow the culture to register it. Once the expression has been registered, the culture has the right to prevent *all* “reproduction, publication, adaptation, broadcasting, public performance, communication to the public, distribution, rental, making available to the public and fixation (including by still photography)” of the work. This broad right is similar to a property right like a copyright. *Id.* at 19. The full breadth of this provision turns, of course, on how broadly one interprets the concept of significance, and how willing cultures would be to participate in the registration system.

The WIPO proposals also recommend a form of “negative” protection, which would preclude the granting of patents or copyrights to third parties in existing traditional knowledge. WIPO TK Proposals, *supra*, art. 1, § 3(iii); WIPO TCE Proposals, *supra*, at 3(i). This important component is designed to deal with the issue of wrongful patents discussed *supra* in note 4. For some reason, however, in the case of traditional cultural expression, the right to prevent acquisition of intellectual property rights applies only to the registered expressions of significant value, not to other expressions. This may be an oversight in drafting.

7. Professor Yu’s recent work, for example, hypothesizes a “family feud” within a particular culture, in which different segments of the society disagree on what to do with the traditional knowledge. Peter K. Yu, *Cultural Relics, Intellectual Property, and Intangible Heritage* 81 *TEMPLE L.R.* (forthcoming 2009) (manuscript at 47 n.297, on file with authors).

knowledge remains free for all to use. Of course, as with all default rules, there are exceptions. Intellectual property rights such as patents and copyrights are one of these exceptions. The intellectual property right exception is justified by certain well-established policy considerations. Because granting property rights in traditional knowledge would not further the same policy goals as those justifying patents and copyrights, many have concluded that strong TKRs are not warranted. That theoretical argument played a key role in defeating the original proposals for property rights in traditional knowledge.⁸

This paper reconsiders the theoretical objections to property rights. It asks whether, notwithstanding the differences between traditional knowledge and the inventions and works covered by orthodox patent and copyright law, valid policy reasons might exist for creating a parallel system of property-like traditional knowledge rights. Answering that question requires a close look at why legal systems would ever choose to grant property rights in products of the mind. This discussion, set out in Part II, must include analyses not only of the standard argument in favor of intellectual property rights—the “reward for creativity” theory—but also other possible reasons to grant someone exclusive rights in knowledge. The unique policy concerns associated with traditional knowledge, especially when that knowledge is held by a non-mainstream culture, may make these alternate justifications for property rights more compelling.

The paper also explores the issue of property rights in traditional knowledge from an unusual perspective; namely, the perspective of Native Americans. Most discussions of the traditional knowledge debate frame the issue in terms of the “North-South divide;” the clash between the developed “North” and the less-developed “South.” When the issue is framed in this manner, the discussion invariably turns to a condemnation of those in the North for appropriating ideas and expression from the traditional-knowledge rich South. But framing the issue as a North-South clash overlooks the fact that the developed nations are also rich in traditional knowledge. The United States is certainly no exception. The various cultural groups in the United States hold a rich array of traditional knowledge in their stories and songs, as well as their folk cures and technologies. However, while Native American tribes are by no means the only cultures in the United States that possess traditional knowledge, analyzing the question from their perspective affords a number of benefits. First, Native American traditional knowledge is relatively well catalogued, both by academics and by the tribes themselves. Second, there is often an especially powerful correlation between Native American traditional

8. See, e.g., WIPO, Intergovernmental Comm. on Intellectual Prop. & Genetic Res., *Traditional Knowledge and Folklore, Draft Report*, ¶¶ 88, 94, 135, 147, WIPO/GRTKF/IC/8/15 (Jun. 6–10, 2005), available at http://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_8/wipo_grtkf_ic_8_15_prov.pdf.

knowledge and a tribe's culture. Because the culture-defining function is one of the primary reasons to treat traditional knowledge differently than other sorts of knowledge,⁹ a focus on Native American traditional knowledge puts the question in a clearer light. Third, any effective traditional knowledge law in the United States would inevitably have to come from Congress. Because of Congress's unique authority over certain Native American tribes, an analysis concentrating on Native Americans allows for a more complete and interesting analysis of Congress's powers in this regard.

Before embarking on the discussion, it might be helpful to establish a few definitional conventions. "Property rights in traditional knowledge" is a long and cumbersome phrase. This article will therefore use the phrase "traditional knowledge rights" or the acronym "TKR" to refer to any legally-enforceable private right which bears the hallmark of property; that is, a right to exclude others from using the item being protected. Note too that the article is not particularly concerned with whether a TKR qualifies as "property" in any technical sense of the word. Although copyrights, patents, and trademarks are commonly referred to as "intellectual property," they are very different forms of protection from a legal perspective. What ties the three together, and warrants the label property, is that all three give one person or a group the right to exclude others from using the subject of protection in certain circumstances. Therefore, unlike other scholars who suggest a more limited property model for traditional knowledge—such as the "stewardship" system proposed by Professors Carpenter, Katyal, and Riley,¹⁰ or the modified liability rule suggested by Professors Reichman and Lewis¹¹—this article explores whether a case can be made for a right to exclude as strong as that granted in ordinary intellectual property law.

Second, this article will sometimes distinguish between broad categories of traditional knowledge. Traditional knowledge is a broad concept. It includes stories, dance, music, textiles, agricultural methods, medicines and medical methods, astronomical knowledge, and a host of other types of knowledge. In certain situations, however, it is useful to distinguish between "technical" knowledge such as agricultural and medical knowledge, and "expressions" such as song and dance. When drawing such a distinction, the article will refer to the former as "traditional technical knowledge" and the latter as "tradi-

9. For a discussion of how traditional knowledge rights could help preserve existing culture-knowledge links, see Part III.C. of this paper.

10. Kristen A. Carpenter, Sonia Katyal & Angela Riley, *In Defense of Property*, 118 *YALE L.J.* (forthcoming 2009).

11. Jerome H. Reichman & Tracy Lewis, *Using Liability Rules to Stimulate Local Innovation in Developing Countries: Application to Traditional Knowledge*, in *INTERNATIONAL PUBLIC GOODS AND TRANSFER OF TECHNOLOGY UNDER A GLOBALIZED INTELLECTUAL PROPERTY REGIME* 337 (Keith E. Maskus & Jerome H. Reichman eds., 2005).

tional cultural expression.” At the same time, the author fully understands that in many Native American cultures, the line between technology and expression is not as clear as it is in other cultures. For example, many Native American dances are performed in order to achieve certain “technological” goals such as enhancing crop growth.¹²

In addition, at some points in the ensuing discussion it proves important to distinguish between Native Americans who are members of federally-recognized tribes, and those who are not. This article will employ the legal term “Indian” to refer to Native Americans who are members of federally-recognized tribes. That term also includes Native Alaskans, notwithstanding the many differences in legal treatment. The article will use the more generic term “Native American” to refer to all people of indigenous North American origin.

Finally, it is important to emphasize that the goal of this article is limited. Its purpose is not to advocate a system of TKRs for the United States or any other nation. Rather, its goal is simply to demonstrate that the main theoretical objection to a property-based system is unwarranted. Even if there are strong policy reasons supporting a system of TKRs, the many practical problems involved in actually implementing such a system, including the unfairness that could result from improper allocation of rights, may well make a system of property rights impossible. With that important *caveat*, the discussion can begin.

II. NATIVE AMERICAN TRADITIONAL KNOWLEDGE AND INTELLECTUAL PROPERTY RIGHTS

Most definitions of what qualifies as “traditional knowledge” are extremely broad. According to WIPO, the organization that has spearheaded the debate at the international level, traditional knowledge includes all:

tradition-based literary, artistic or scientific works; performances; inventions; scientific discoveries; designs; marks, names and symbols; undisclosed information; and all other tradition-based innovations and creations resulting from intellectual activity in the industrial, scientific, literary, or artistic fields.¹³

As the cited examples indicate, traditional knowledge overlaps, but also goes well beyond, the subject matter of intellectual property.¹⁴

12. Weston La Barte, *Native American Beers*, 40 AM. ANTHROPOLOGIST 224, 229 (1938).

13. WIPO, INTELLECTUAL PROPERTY NEEDS AND EXPECTATIONS OF TRADITIONAL KNOWLEDGE HOLDERS 25 (2001) [hereinafter WIPO, INTELLECTUAL PROPERTY NEEDS].

14. For example, the WIPO definition quoted in the text would explicitly include discoveries of rules of nature. *Id.* The discovery of a scientific principle usually falls outside the ambit of current intellectual property laws. Under United States patent law, patents are not available for the mere discovery of a preexisting principle. A

What sets traditional knowledge apart from ordinary intellectual property is the requirement that the knowledge be "tradition-based." Under the WIPO definition, tradition-based knowledge systems:

have generally been transmitted from generation to generation; are generally regarded as pertaining to a particular people or territory; and are constantly evolving in response to a changing environment.¹⁵

As even a cursory review of the sociological and anthropological literature reveals, Native American tribes hold both a vast amount and a wide array of traditional knowledge. This knowledge spans the gamut of the WIPO definition, ranging from song and dance¹⁶ to medicine.¹⁷ One notable feature of Native American traditional knowledge is its holistic nature. For example, while customary intellectual property discussions would differentiate between dance (a form of expression) and medicine (applied technology), no such clear distinction necessarily applies to Native American traditional knowledge. Music and dance, for example, often play a role in traditional healing methods.¹⁸ Even the brewing of beer and other intoxicating beverages may have cultural significance.¹⁹

Although this traditional knowledge often has tremendous cultural significance, it may also be valuable to people outside the culture. Many non-Native Americans, for example, have benefitted from Native American healing methods.²⁰ And yet in most situations the tribe has no legal recourse against those who use and benefit from the knowledge. The most obvious basis for protection, the intellectual property laws, will ordinarily prove unavailable. Under the express terms of the federal Patent and Copyright Acts, patents and copy-

patent is available only if the inventor comes up with some practical application for that principle. *Gottschalk v. Benson*, 409 U.S. 63, 71 (1972); *Parker v. Flook*, 437 U.S. 584, 590 (1978). Similarly, the TRIPS agreement, which is the primary international agreement setting out minimum standards for national patent laws, only requires nations to grant patents for inventions that "are capable of industrial application." Agreement on Trade-Related Aspects of Intellectual Property Rights, art. 27, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, Legal Instruments—Results of the Uruguay Round, 33 I.L.M. 1125, 1208 (1994) [hereinafter "TRIPS"].

15. WIPO, INTELLECTUAL PROPERTY NEEDS, *supra* note 13, at 25.

16. See, e.g., Linda Walsh Jenkins & Ed Wapp, Jr., *Native American Performance*, 20-2 THE DRAMA REV., June, 1976, at 7; Thomas F. Johnston, *Alaskan Eskimo Dance in Cultural Context*, DANCE RES. J., Spring-Summer 1975, at 4-5; B.C. Mohrbacher, *The Whole World is Coming: The 1890 Ghost Dance Movement as Utopia*, 7-1 UTOPIAN STUD. 75 (1996).

17. Tarrell A.A. Portman & Michael T. Garrett, *Native American Healing Traditions*, 53 INT'L J. OF DISABILITY, DEV. & EDUC. 453 (2006).

18. Jenkins & Wapp, *supra* note 16, at 7; Portman & Garrett, *supra* note 17, at 458.

19. La Barre, *supra* note 12, at 227-32.

20. Portman & Garrett, *supra* note 17, at 454.

rights vest in individual inventors and authors.²¹ In many cases, the member of the tribe who actually created the knowledge may have been long forgotten or impossible to identify.²² Even if the inventor or author is known, the knowledge she created may be so old that the twenty-year term of a patent²³ or the life-plus-seventy-year term of a copyright²⁴ has long expired. Nor will any other forms of intellectual property protection prove of much avail. State trade secret law, for example, will ordinarily be unavailable because the communal ownership of the knowledge within the entire culture means that the information does not qualify as a secret.²⁵ Finally, while trademark law, as well as other *sui generis* laws such as the Indian Arts and Crafts Act of 1990²⁶ provide legal protection, those laws deal only with false claims concerning the *origin* of the particular product, not appropriation of the knowledge itself.

Native American traditional knowledge, then, would be a prime candidate for a system of United States TKRs. The importance of such knowledge to the cultural identification of many tribes, coupled with the lack of ordinary intellectual property protection, creates a situation in which government could consider granting a set of property rights. Any such attempt to create TKRs in the United States, however, would likely encounter the same theoretical objections as those which plagued the early proposals for international TKRs. The next section deals with the merits of those theoretical objections.

III. RECONCILING TRADITIONAL KNOWLEDGE RIGHTS WITH INTELLECTUAL PROPERTY LAW THEORY

All legal systems recognize property. Generally speaking, a number of benefits can flow from a society's decision to grant one of its mem-

21. 17 U.S.C.A. § 201(a) (West 2005) (copyright); 35 U.S.C.A. §§ 101, 111 (West 1952) (patent). Copyright's "work made for hire" doctrine, 17 U.S.C. § 201(b), under which a copyright may vest in an employer or commissioning party, is logically consistent with this basic principle. See *infra* text accompanying note 79.

22. See Daniel Gervais, *Traditional Knowledge and Intellectual Property: A TRIPS-Compatible Approach*, 2005 MICH. ST. L. REV. 137, 141-42 (2005); Paul Kuruk, *Goading a Reluctant Dinosaur: Mutual Recognition Agreements as a Policy Response to the Misappropriation of Foreign Traditional Knowledge in the United States*, 34 PEPP. L. REV. 629, 650-51 (2007); David R. Downes, *How Intellectual Property Could be a Tool to Protect Traditional Knowledge*, 25 COLUM. J. ENVTL. L. 253, 258 (2000). *Contra* Jenkins & Wapp, *supra* note 16, at 9 (indicating it is not always true that the actual author or inventor cannot be identified. In the case of performances, for example, it is common for the name of the person who created the performance to be passed down from generation to generation along with the performance itself).

23. 35 U.S.C.A. § 154(a)(2) (West 2001).

24. 17 U.S.C.A. § 302(a) (West 2005).

25. The Uniform Trade Secrets Act, which is in force in forty-six states, requires that information be secret in order to be protected. UNIF. TRADE SECRETS ACT, § 1(4)(i) (amended 1985), 14 U.L.A. 538 (2005).

26. 18 U.S.C.A. § 1159 (West 2000).

bers exclusive rights in a certain identifiable thing. Many of these benefits are economic. Because he knows that he will reap all the benefits associated with the thing, the owner of tangible property has a strong incentive to put the thing to its best and most productive use.

“Intellectual property” is a much more recent, and in some ways problematic, development. Ordinary property law protects tangibles (like land and bicycles) and discrete intangibles (like accounts and debts). All of these things share a key characteristic: if they are shared, the value of the thing to each user is less than it would be had that user been given exclusive rights.²⁷ Intellectual property law, by contrast, protects intangibles like creative works or inventions. Unlike the subject matter of ordinary property, works and inventions may be used by any number of people without diminishing the utility of the work or invention to any of the users.²⁸ At first glance, then, it would appear both inefficient and unjust to grant any one person an exclusive right to a work or invention.

Nevertheless, all developed nations *do* grant exclusive rights in certain works and inventions. These nations have come to realize that a grant of exclusive rights to the proper person may, if limited in time and scope, be a useful tool of social policy. The remainder of this section explores some of the policy rationales for intellectual property, and analyzes the extent to which those rationales might also justify a similar regime of property rights in traditional knowledge. The discussion begins with the most commonly cited policy goal, and then considers other, less obvious, justifications.

A. *The “Reward for Creativity” Theory of Intellectual Property*

The standard policy justification for intellectual property rights will be immediately familiar to most. It has become almost a mantra in the courts and commentary that the goal of an intellectual property system is to reward creative activity.²⁹ Unlike previous government

27. *Accord Yu, supra* note 7 at text accompanying note 68.

28. *Id.* Of course, allowing everyone to use a work or invention may decrease the *total* value that a single person can derive from the item. As this author has discussed before in the context of commercial information, information can have both a “use value” and a “monopoly value,” the latter representing the additional benefit that can be reaped from being the only person to have access to useful information. John T. Cross, *Trade Secrets, Confidential Information, and the Criminal Law*, 36 MCGILL L.J. 524, 557–58 (1991) (Can.).

29. *Univ. of Colo. Found. v. Am. Cyanamid Co.*, 105 F. Supp. 2d 1164, 1175 (D. Colo. 2000) (stating that the “fundamental purpose” of the patent system is the “promotion of real innovation in science and technology”); WILLIAM VAN CAENEGEM, *INTELLECTUAL PROPERTY LAW AND INNOVATION* 1 (2007) (“The central argument justifying [intellectual property laws] is that the greater social welfare results where the ‘natural balance’ between imitation and innovation is disturbed to favour the latter.”); Shahid Alikhan & Ragnunath Mashelkar, *INTELLECTUAL PROPERTY AND COMPETITIVE STRATEGIES IN THE 21ST CENTURY* 4 (Kluwer Law International 2004) (“The main objective of intellectual property rights protection is to encourage crea-

grants such as exclusive trade routes or trapping rights, intellectual property rights protect things that only recently came into existence. To the extent that government promises to grant those who innovate an exclusive right to use and sell the innovation, the intellectual property right system provides a significant financial reward for creative activity.

This reward for creativity theory has at least two main variants. The “natural rights” view considers the property right as a just reward for the innovator’s creative activity.³⁰ This theory has seen greater acceptance in Europe than in the Anglo-American nations and appears more often in connection with copyright than it does with patent.³¹ Moreover, in copyright the proponents of the theory also assert that the right reflects the author’s infusion of personality into the work.³² The other main variant of the reward theory views the grant of intellectual property rights in prospective and utilitarian terms; namely, as a financial incentive to encourage people to create. This theory was espoused by early economists,³³ and remains strongly in vogue today, especially among the Anglo-American nations.³⁴ For purposes of this

tive activity, thereby providing for the largest number of people, economically and speedily, the benefit of such activity.”). *But cf.* *United States v. Paramount Pictures*, 334 U.S. 131, 158 (1948) (“The copyright law, like the patent statutes, makes reward to the owner a secondary consideration.”). For an interesting perspective on the reward theory, noting its roots in Western thought, see Gervais, *supra* note 22, at 144–45.

30. *See, e.g.*, Council Directive 2004/48, Enforcement of Intellectual Property Rights, 2004 O.J. (L157) 45, 46, ¶2, available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:157:0045:0086:EN:PDF> [hereinafter Council Directive 2004/48] (“The protection of intellectual property should allow the inventor or creator to derive a legitimate profit from his/her invention or creation.”); GEORGE TRAYNOR CURTIS, A TREATISE ON THE LAW OF COPYRIGHT 17 (1847).

Professor Drahos has argued that there are three rather than two distinct versions of the theory. Peter Drahos, A PHILOSOPHY OF INTELLECTUAL PROPERTY *passim* (1996). However, two of his versions—the natural right version and his separate theory of “justice”—are for purposes of this discussion sufficiently similar to be treated as the same theory.

31. *See* Ulf Petrusson, *Patents as Structural Capital – Towards Legal Constructionism*, in *ECONOMICS, LAW AND INTELLECTUAL PROPERTY* 363, 371 (Ove Granstrand ed. 2003) (discussing how only France historically viewed the patent as a true natural law right; other nations looked more to theories based on the inventor’s labors and Lockean property theory).

32. For an excellent discussion of this author-based theory, see Paul Edward Geller, *Must Copyright Be For Ever Caught between Marketplace and Authorship Norms?*, in *OF AUTHORS AND ORIGINS* 159, 168–69 (B. Sherman & A. Strowel eds., 1994).

33. *See generally* WIPO, INTRODUCTION TO INTELLECTUAL PROPERTY: THEORY AND PRACTICE 49 (1997).

34. Van Caenegem, *supra* note 29, at 1; Alikhan and Mashelkar, *supra* note 29, at 4; *see also* WIPO, Intergovernmental Comm. on Intellectual Prop. & Genetic Res., Traditional Knowledge & Folklore, *The Protection of Traditional Cultural Expressions/Expressions of Folklore: Table of Written Comments on Revised Objectives and Principles*, Annex p. 6, WIPO/GRTKF/IC/11/4(b) (Apr. 12, 2007) (comments of Japan).

discussion, however, it is largely irrelevant whether an intellectual property right is a *post hoc* reward or an incentive to engage in creative activity in the future. Under either variant, the linchpin of the entire system is creativity. It is the author or inventor's contribution of something new to the storehouse of human knowledge that justifies a grant of exclusive rights in something that could otherwise be freely shared by all.

The reward for creativity theory provides little support for TKRs. The problem is not creativity *per se*. The vast majority of both traditional cultural expression and traditional technical knowledge does involve the creation of something new. Instead, the problem is the reward aspect of the theory. In many cases, traditional knowledge has been in existence for many years. The actual author or inventor—or in many cases, multiple authors or inventors—may have been long forgotten. Even if the author or inventor is known, most proposals for TKRs would not award rights to the actual inventor or her heirs, but instead to the culture or tribe as a whole.³⁵ Therefore, in most cases a TKR system would reward someone other than the actual person responsible for the particular creation.³⁶ Regardless of whether the reward encapsulated in a TKR is a post-hoc recognition or a forward-looking incentive, a system that granted TKRs to someone other than the creator would violate the basic policies of the reward theory.

This sort of reasoning is the underpinning of many of the arguments raised in opposition to TKRs. Unless rights are granted to the individual or individuals responsible for the creation, the rights end up being nothing more than a windfall to the tribe. Moreover, in the case of Native American TKRs, this windfall would turn on nothing more than the human creator's membership in a particular tribe. Because a group TKR would not in most cases reward creativity, these opponents of TKRs argue that such a right should not exist. Instead, they are at best willing to grant some non-property based right to the tribe, such as a right to prevent "wrongful" appropriation of the knowledge, or a right to insist on acknowledgement.³⁷

B. *Other Justifications for Property Rights in Knowledge*

However, many of the arguments against a property-based system of TKRs proceed from an unstated premise. They assume that the reward for creativity theory is not merely the leading, but the *only*, justification for granting exclusive rights in expressions, inventions, and the like. Neither cold logic nor actual experience supports that assumption.

35. See WIPO TK Proposals, *supra* note 6, art. 5, at 26; WIPO TCE Proposals, *supra* note 6, art. 2, at 16.

36. In some situations, it might be possible to argue that the culture or tribe is the author or inventor. This issue is addressed *infra* at text accompanying notes 91 to 92.

37. Reichman & Lewis, *supra* note 11, at 349.

First, the legal system recognizes several intellectual property rights that have little, if anything, to do with creative activity.³⁸ Trademark and trade secret laws afford two ready examples. Although both of these laws give the owner a sort of property right, neither developed out of desire to reward creative activity. Trademark law exists primarily in order to protect both consumers and honest sellers from misleading uses of source-identifying symbols.³⁹ Indeed, trademark law allows a party to obtain rights in a well-known existing word, as long as she uses that word in a suggestive or arbitrary way.⁴⁰ Trade secret law is intended to deal with different issues of commercial morality, mainly employee loyalty and to a lesser extent fair play in the competitive process.⁴¹ Although trade secret law does tend to inure to the benefit of ideas that are “new”—after all, a well-known idea cannot satisfy the threshold requirement of secrecy—the law does not require the rightholder herself to create anything original.⁴² The main concern of trade secret law is not encouraging or rewarding creativity, but instead bolstering commercial mores.

Second, even those branches of intellectual property law that protect only original works focus on more than just creativity. Consider how the patent and copyright systems work. Both provide a reward to an author or inventor. However, unlike a cash prize, that reward usually has value only if the author or inventor elects to make the work available to the public. An exclusive right to make, use, or sell has little value if the rightholder simply chooses to sit on her work.⁴³

38. See Downes, *supra* note 22, at 259; WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW* 11 (2003).

39. S. REP. NO. 1333, (1946), *reprinted in* 1946 U.S.C.C.A.N. 1274, 1274–75.

40. See *Abercrombie & Fitch Co. v. Hunting World, Inc.*, 537 F.2d 4, 9–10 (2d Cir. 1976). See also *Mustang Motels, Inc. v. Patel*, 226 U.S.P.Q. 526, 527–28 (C.D. Cal. 1985); *Mushroom Makers, Inc. v. R. G. Barry Corp.*, 441 F. Supp. 1220, 1226 (S.D.N.Y. 1977), *aff'd*, 580 F.2d 44 (2d Cir. 1978); *Cullman Ventures, Inc. v. Columbian Art Works, Inc.*, 717 F. Supp. 96, 119–20 (S.D.N.Y. 1989); *Louis Rich, Inc. v. Horace W. Longacre, Inc.*, 423 F. Supp. 1327, 1337–38 (E.D. Pa. 1976); 2 J. Thomas McCarthy, *MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION* § 11:2 (4th ed. 2008).

Actually, a trademark owner *does* do something original even when she merely borrows an existing word as a mark. Although the owner does not coin a new term, her use of that term will create a new “meaning” for that term when it appears in connection with the owner’s products. As consumers continue to see the term used with a particular product, they will begin to associate their experiences with the product with the mark. That associational meaning in essence creates a new definition. John T. Cross, *Language and the Law: The Special Role of Trademarks, Trade Names, and Other Trade Emblems*, 76 NEB. L. REV. 95, 119–20 (1997). However, the fact remains that the basic purpose of trademark law is not to encourage creativity, but rather to facilitate information flow in the marketplace.

41. *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 481 (1974) (discussing objectives of trade secret law).

42. UNIF. TRADE SECRETS ACT, § 1(4) (amended 1985), 14 U.L.A. 538 (2005).

43. There are admittedly situations in which a party can derive value from an intellectual property right without selling or actually using the protected work or invention. A “blocking patent” is the most obvious example. Consider a case where there

Moreover, to varying degrees both laws require the rightholder to disclose the essence of the invention to the public. The Patent Act goes furthest in this regard, requiring an inventor to disclose both the invention and the best mode for practicing it to a public office, where the information is freely available to all.⁴⁴ Although the Copyright Act no longer requires deposit of a copy of the work as a condition of obtaining a copyright, it still requires deposit as a precondition to suing for infringement.⁴⁵ Finally, a key feature of both patent and copyright is that a person who takes advantage of the federal intellectual property right must “dedicate” the protected work or invention to the public at the end of the statutory term.⁴⁶ All these features make it clear that the copyright and patent laws are concerned not only with the creation of new things, but also with ensuring that the benefits of the creation are made available to the public. Although often glossed over in discussions of intellectual property policy, the importance of dissemination does appear in many discussions of intellectual property, including several United States Supreme Court opinions:

First, patent law seeks to foster and reward invention; second, it promotes disclosure of inventions, to stimulate further innovation and to permit the public to practice the invention once the patent expires; third, the stringent requirements for patent protection seek to assure that ideas in the public domain remain there for the free use of the public.⁴⁷

are two alternate technologies—*X* and *Y*—available to reach a certain end. Suppose one party obtains patents in both. That party may use technology *X*, thereby deriving value. Moreover, its patent in technology *Y* allows it to prevent competitors from competing using *either* process, giving the patentholder a distinct edge in the marketplace. In such a case, the party obtains value from patent *Y* even though it neither uses the invention nor licenses the patent.

44. 35 U.S.C. §§ 111–114 (2000). Another feature of patent law that supports this conclusion is that patents are available for inventions made by accident. 17 U.S.C. § 103 provides that “Patentability shall not be negated by the manner in which the invention was made.”

45. In order to comply with the Berne Convention, Congress had to amend the Copyright Act to remove all formalities for obtaining copyright protection. Because of these amendments, a copyright now arises at the instant a work is reduced to a tangible medium of expression. 17 U.S.C. §§ 102(a), 408(a) (2006). Nevertheless, the Act continues to make registration a prerequisite to suing for infringement. 17 U.S.C. § 411(a) (2006). In most cases, a party still needs to deposit the work in order to obtain this registration. 17 U.S.C. §§ 408(b), (c) (2006).

46. “The rights of a patentee or copyright holder are part of a ‘carefully crafted bargain,’ under which, once the patent or copyright monopoly has expired, the public may use the invention or work at will” *Dastar Corp. v. Twentieth Century Fox Film Corp.*, 539 U.S. 23, 33–34 (2003).

47. *Aronson v. Quick Point Pencil Co.*, 440 U.S. 257, 262 (1979). See also Council Directive 2004/48, *supra* note 30, at 46, recital 2; DONALD S. CHISUM, CHISUM ON PATENTS § 3.01, p. 3–6 (2008). Even sources that focus on the creative side of the process often acknowledge the importance of dissemination. In this regard, review carefully the scholarly works quoted in note 80. Although they stress creativity, they also recognize the importance of making the fruits of the creative effort available to the public.

In short, rewarding creativity is not the sole function of intellectual property laws. Although creativity is a central concern, society is equally interested in ensuring that creations are disseminated, allowing society to realize the benefits. Moreover, as the examples of trademark and trade secret law make apparent, at times society is willing to grant exclusive rights for reasons other than creativity and dissemination. What remains to be seen is whether any of these alternate justifications for intellectual property rights could support a regime of TKRs.

Several different policies could in theory be served by a system of TKRs for Indian tribes. The following discussion, however, will focus on only three: enhancing dissemination of knowledge, ensuring accuracy in the communication and use of knowledge, and preserving cultures. Of all the alternate policy reasons that might be invoked to support intellectual property rights, these three are the strongest. However, limiting discussion to these three is not meant to imply that other policy goals might also apply in the proper case.

1. Encouraging the Dissemination of Traditional Knowledge

As noted above, society is concerned not only with creating knowledge, but also with ensuring that knowledge is disseminated among the members of society. The goal of dissemination is a foundational aspect of the intellectual property system, which concentrates on the dissemination of new knowledge. However, society's concern with dissemination is not limited to new ideas. Provided the knowledge in question is currently unknown to a significant segment of the society, government has an interest in providing a mechanism to encourage the dissemination of all potentially useful ideas.

A system of property rights can provide the mechanism for increased dissemination. This premise may seem counterintuitive at first glance. Because information is a sort of public good, it can be used by any number of people without diminishing the utility to any one user. Why, then, would granting one person an exclusive right lead to greater dissemination? The answer lies in transaction costs. Works and inventions can be used by any number of people without a diminution in utility . . . *but only after the underlying knowledge is transferred from the original holder to others.* Moreover, that transfer of knowledge is rarely cost-free. Unless the holder of knowledge can command a price for the effort involved in knowledge transmission, she may not be willing to go to the trouble of teaching others. And although the holder could in theory charge for the time spent in educating, absent some form of legal protection for the information itself, those who seek to acquire the knowledge may be able to find ways to acquire the knowledge surreptitiously, thereby avoiding payment. A system of property rights is one way—although admittedly not the only way—to facilitate sharing of knowledge.

Because the dissemination rationale applies both to new and to old, but unknown, knowledge, it would authorize the grant of exclusive rights not only to creators, but also to anyone who is in possession of knowledge. As with a patent or copyright, the holder could achieve the full value of her exclusive right only by sharing it with others. Depending on the value of the underlying knowledge, this property right would allow the holder to command a quasi-monopoly price for the knowledge, providing greater incentive to disseminate.

In the case of traditional knowledge, a system of TKRs could in some cases encourage tribes to disseminate their knowledge to others, while at the same time helping to keep in check the more egregious cases of misappropriation. However, the effectiveness of such a system in achieving widespread dissemination of traditional knowledge is likely to be quite mixed. If the culture is willing to share its information, the property system may help facilitate wider dissemination. But in many cases tribes possess traditional knowledge that they would rather not share. Much traditional knowledge plays a role in defining the culture's sense of identity. Moreover, a significant percentage of traditional knowledge—both traditional cultural expression and traditional technical knowledge—is sacred in nature.⁴⁸ When traditional knowledge exhibits this cultural and/or sacred feature, a tribe may prove far less willing to offer the knowledge on the market to those outside the tribe.⁴⁹ In fact, granting TKRs in these cases will actually run counter to the goal of dissemination, as the grant of property rights will give the tribe the legal tools it needs to lock the knowledge up in the tribe. On the other hand, Congress may well determine that any policy of dissemination is less compelling where sacred or cultural knowledge is concerned. Indeed, one advantage of a property model is that it leaves it to the tribe to decide when it is willing to share.⁵⁰

2. Accuracy in the Transmission and Use of Traditional Knowledge

In some situations, the goal underlying a grant of exclusive rights is to prevent mistakes in the use or transmission of knowledge. Licensing requirements for certain professions or dangerous activities are common examples.⁵¹ By allowing only those with a demonstrated ex-

48. Sarah Harding, *Value, Obligation and Cultural Heritage*, 31 ARIZ. ST. L.J. 291, 313–14 (1999); see also Portman & Garrett, *supra* note 17, at 455 (discussing the sacred nature of healing traditions).

49. See *infra* text accompanying notes 61.

50. Moreover, as Professor Riley has pointed out, giving control to the tribe furthers tribal self-determination. Angela Riley, *Recovering Collectivity: Group Rights to Intellectual Property in Indigenous Communities*, 18 CARDOZO ARTS & ENT. L.J. 175, 204–05 (2000).

51. Of course, license requirements are not “property” rights in the technical sense of the term, as they usually do not give the licensee a private right of action to enforce her exclusive right. That technical feature is not relevant to the thesis of this article. This article focuses on whether there are justifications for granting cultures

pertise to apply certain knowledge, licensing requirements help prevent mistakes. In the realm of intellectual property, the tarnishment branch of trademark dilution law helps the owner of a mark prevent distortion in the message consumers receive when they encounter the mark.⁵² Additional analogies exist outside the civil law, including the customs of “exclusive” story-tellers or song singers in many North American tribes,⁵³ and the canon law rule that only a priest may read from certain parts of the Bible.

A similar reasoning might justify TKRs in a tribe.⁵⁴ If a particular tribe has developed expertise in certain knowledge, allowing others outside the tribe to transmit or use that knowledge could lead to mistakes. For example, members of a tribe might be better able to relate that tribe’s creation stories to others. Similarly, members of a tribe that had mastered a medical treatment would be the logical choice for the grant of an exclusive right to practice the method.

In theory, government could grant exclusive rights in order to prevent any mistakes involving traditional knowledge. However, in some situations the case for government interference is far more compelling than in others. Consider the two examples cited in the prior paragraph. In the case of the creation story, the only harm likely to be caused by a mistake in transmission is “internal”; that is, harm to the knowledge itself. In the case of the medical treatment, by contrast, a mistake may cause external harm to the patient subjected to the treatment. Similarly, both licensing requirements and tarnishment laws deal with external harm. Licensing prevents harm to third parties, while tarnishment prevents harm to the holder of the knowledge itself. Although government could in theory act to prevent both internal and external harms, in practice it is far more likely to act when there is some threat of external harm. At least in the United States, government does not ordinarily perceive its role as that of defining the truth. Instead, government normally lets knowledge and ideas evolve of their own accord, even when this process of evolution involves mis-

exclusivity in traditional knowledge, not on the mechanics of how such exclusivity would be enforced within the legal system.

52. Lanham Act § 43(c), 15 U.S.C. § 1125(c) (Supp. 2006). In general, dilution protects famous marks against various sorts of harm that may arise when others use similar marks, without regard to likelihood of confusion. “Dilution by tarnishment”—as compared to “dilution by blurring”—is defined in § 43(c)(2)(C) as “association arising from the similarity between a mark or trade name and a famous mark that harms the reputation of the famous mark.”

53. See e.g., Jenkins & Wapp, *supra* note 16 (exclusive rights to engage in performances); James H. Howard, *Pan-Indianism in Native American Music and Dance*, 27-1 ETHNOMUSICOLOGY 71-82 (1983); David P. McAllester, *New Perspectives in Native American Music*, 20-1/2 PERSP. OF NEW MUSIC 433-46 (Autumn 1981-Summer 1982).

54. The Azerbaijani law is especially concerned with distortion. The Law of the Republic of Azerbaijan, “On Legal Protection of the Expressions of the Azerbaijani Folklore” arts. 6.2, 9.1.1 (2003) (non official translation), available at http://wipo.int/export/sites/www/tk/en/laws/pdf/azerbaijan_folklore.pdf.

takes. Only when the mistakes cause harm to people or the environment—as opposed to the information itself—is government likely to step in and prevent mistakes.

A similar principle should underlie any TKR statute in the United States. Government might elect to grant TKRs to a tribe in situations where misuse of the traditional knowledge poses a threat to people (*e.g.*, a traditional medical practice) or the environment (*e.g.*, an agricultural method). There may also be cases where allowing outsiders to use or transmit traditional knowledge would pose a threat to the tribe itself. For example, in the creation story example discussed above, the inaccurate rendition of the story, if associated with the tribe, could harm the tribe's reputation. Absent such external harm, however, government is unlikely to grant the tribe the exclusive right to control its traditional knowledge. The threat of outside influence on the traditional knowledge would not ordinarily be enough of a reason to step in and thwart the natural development of the underlying knowledge.

3. Cultural Preservation

As a general rule, the mere fact that knowledge originated in a culture is not in and of itself a sufficient reason to give that culture exclusive control over the knowledge. However, the prior two sections demonstrate that if certain additional considerations are present, a system of exclusive rights may be warranted. First, government may choose to grant property rights to encourage the culture to disseminate its knowledge to others. Second, exclusive rights may be a way to prevent mistakes involving traditional knowledge, at least where such mistakes may harm the culture or its members, third parties, or the environment. Either of these considerations would apply with equal force to all traditional knowledge, regardless of whether the culture that possesses such knowledge is mainstream or non-majority.

This section explores whether the special considerations relevant to Native American cultures may provide one or more additional justifications for property rights in knowledge. There are, of course, innumerable differences among the many cultures present in the United States. In fact, differences between two Native American cultures may be every bit as great as between a particular Native American culture and some other cultural group. But as compared to a mainstream culture, virtually all Native American cultures share one common feature: the existence of ongoing threats to their continued existence.⁵⁵ In many cases, there have been purposeful attempts to eradicate Native American culture and to force Native Americans to

55. Of course, Native American cultures are not the only cultures facing threats.

assimilate into mainstream society.⁵⁶ Equally important, however, are a number of systematic, unintended threats to culture. In an age dominated by the media—a media which tends to focus on mainstream cultures—non-mainstream cultures may find themselves overlooked or lost in the discussion.

Years ago, most would have written off the disappearance of non-mainstream cultures as an unavoidable result of “progress.” Today, however, governments generally follow (or at least purport to follow) a quite different policy. The era of assimilation is officially over. Instead, human rights doctrine, both at the domestic and international level, seeks to preserve the existing multiplicity of cultures. The 2005 UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions, which encourages nations to adopt measures “for the protection and promotion of the diversity of cultural expressions on their territory,” is already in force in almost one hundred nations.⁵⁷ This goal of cultural preservation is relevant not only to the intended policies of assimilation, but also to other, unintended threats to cultures.

Traditional knowledge plays a crucial role in culture, and therefore in cultural preservation. In many cases, a culture’s traditional knowledge helps that culture identify itself as unique and separate.⁵⁸ Loss of that knowledge-culture link could negatively affect the culture’s sense of identity, ultimately leading to the loss of the culture itself.⁵⁹

Cultural preservation, then, could be another policy justification for property rights in traditional knowledge. Moreover, it is a policy consideration unique to threatened cultures such as Native American tribes. This is not to suggest that only non-mainstream cultures identify themselves through their traditional knowledge. Mainstream cultures similarly have their own unique technical knowledge and expression. However, mainstream cultures face far less of a threat to

56. There are hundreds of sources describing the assimilation movement. See *THE STATE OF NATIVE AMERICA: GENOCIDE, COLONIZATION AND RESISTANCE* (M. Annette Jaimes ed., 1992), for a particularly provocative study.

57. Gen. Conference of U.N. Educ., Scientific, & Cultural Org. [UNESCO], Oct. 3–21, 2005, *Convention on the Protection and Promotion of the Diversity of Cultural Expressions*, art. 1(h), U.N. Doc. CLT-2005/CONVENTION DIVERSITE-CULT REV. (Oct. 20, 2005).

58. WIPO, *Intellectual Property Needs*, *supra* note 13, at 117 (discussing how knowledge forms part of a “politics of memory”).

Some definitions of traditional knowledge apply that label only to knowledge that helps a culture identify itself as unique. This article adopts a broader definition. While the difference is merely one of semantics in this section, the policy goals of dissemination and preventing mistakes could justify protection of communal knowledge regardless of whether that knowledge played a role in cultural identification.

59. *Id.*; U.N. Econ. & Soc. Council [ECOSOC], Sub-Comm’n on Prevention of Discrimination & Prot. Of Minorities, Working Group on Indigenous Populations, *Study on the Protection of the Cultural and Intellectual Property of Indigenous Peoples* ¶ 30, U.N. Doc. E/CN.4/Sub. 2/1993/28 (July 28, 1993) (*prepared by Erica-Irene Daes*).

their continued existence. Therefore, it would be a rare case indeed for government to deem it necessary to grant an exclusive right to a mainstream culture's traditional knowledge in order to preserve the culture.

Whether a grant of exclusive rights would actually help stem the loss of Native American culture is a more difficult question. For example, a grant of property rights would do little to impede purposeful efforts to force Native Americans to assimilate. Forced assimilation typically involves efforts to ban the use of language or the observance of traditional cultural rituals. In the case of traditional knowledge, forced assimilation could include banning performance of traditional songs and stories, or the use of traditional healing techniques. Granting a tribe a property right in those same songs, stories, and techniques would have no impact on this sort of forced assimilation. After all, a TKR, like other intellectual property rights, is merely a negative right. While it would give the tribe authority to prevent others from using the knowledge, it would not give the tribes any positive right to use the knowledge itself in the face of laws restricting or banning such use.

Property rights would be more effective in dealing with the loss of culture that arises when a tribe's traditional knowledge interacts with that of mainstream cultures. Even here, however, a TKR would be of limited use. Interaction between cultures can lead to the loss of cultural identity in a number of different ways. While TKRs could help prevent cultural loss in some situations, in others they would prove of little use.

Conceptually, there are two basic ways in which the interplay between cultures can result in the loss of traditional knowledge. The first, and most obvious, is *substitution*. Exposed to knowledge from outside cultures, members of a tribe may replace the tribe's traditional knowledge with other forms of technical knowledge and expression. Substitution is already occurring on a wide-scale basis in North America. The predominance of modern music and film in the media has led to a situation where members of a tribe, especially the young, abandon traditional song and dance. Similarly, many tribes have adopted modern agricultural and medical methods out of a perception that these methods are cheaper, more efficacious, or easier to master. As with expression, failure to practice traditional technical knowledge can ultimately lead to loss of the knowledge, further reducing the culture's sense of identity.

The second way in which cultural interaction threatens traditional knowledge is in many ways just the opposite of the first. Often, a particular tribe's traditional knowledge will be perceived as preferable to other bodies of knowledge, not only by members of the tribe, but also by others. There has been something of a resurgence, for exam-

ple, in the popularity of Native American songs and stories.⁶⁰ When this occurs, others outside the tribe may adopt the traditional knowledge.

Adoption of a culture's traditional knowledge by those outside the culture can actually result in two distinct harms, depending on the particular facts. The first harm is *corruption*. Lacking sufficient understanding and/or training in the nuances of the particular traditional knowledge, an outsider who uses the traditional knowledge may distort the knowledge itself. If the distorted knowledge in turn changes the meaning of the knowledge in the originating tribe, the underlying message will be distorted. Corruption is, of course, in many ways analogous to the issue of accuracy discussed in Part II.B.2 above. The primary difference is that the loss is not physical harm to an individual or reputational harm to the tribe, but instead a threat to the continued existence of the tribe as a culture. Nevertheless, this situation is sufficiently similar to the earlier discussion to allow corruption to be treated as a subcategory of accuracy.

The second type of harm that may result from adoption of traditional knowledge by outsiders is *homogenization*. This phenomenon may occur even when the outsiders faithfully use the traditional knowledge. Even when the use does not distort the meaning, there is a threat to the relationship between the traditional knowledge and its associated culture. Unlike the case of substitution, the threat here is obviously not loss of the knowledge itself. Instead, the threat is to the close identifying link between the knowledge and the tribe's identity. If others outside the culture sing the same traditional songs or use identical healing methods, the ability of that particular traditional knowledge to define the tribe's sense of identity may diminish. Indeed, in many situations, secrecy itself is crucial. A sacred ritual or other expression loses its significance if it is learned by others.⁶¹ Even when knowledge is not tainted by loss of secrecy, use by others can affect the strength of the knowledge-culture link. And if the tribe's sense of identity diminishes, the members may cease viewing the tribe as a distinct culture. Homogenization, then, poses a less obvious, but still very real, threat to tribal culture.

Although seemingly technical, this distinction between substitution, corruption, and homogenization is useful when one considers the potential effectiveness of a property-based system of TKRs. Property rights could prove effective in keeping corruption and homogeniza-

60. See, for example, Terese M. Volk, *Folk Musics and Increasing Diversity in American Music Education: 1900-1916*, 42-4 J. RES. MUSIC EDUC. 285, 285-305 (1994); PAULA GUNN ALLEN, *THE SACRED HOOP: RECOVERING THE FEMININE IN AMERICAN INDIAN TRADITIONS* (1992).

61. Harding, *supra* note 48, at 313-14. As Professor Yu puts it, "[t]he ability for these peoples to keep ideas and knowledge secret is, therefore, very important." Yu, *supra* note 7, at n. 114.

tion in check. The key to a property right is the power to exclude. If the tribe can exclude others from using the knowledge, it can prevent both distortion and loss of the identifying features of the traditional knowledge.

TKRs, by contrast, would have little if any effect on substitution. TKRs would give the tribe control over its own traditional knowledge. But they would not do anything to help the tribe limit its members' exposure to outside knowledge. Therefore, if the goal is to prevent substitution, a system of TKRs would prove at best ineffectual, and could conceivably even result in greater substitution.⁶²

Of course, even in cases where they would be effective, property rights designed to limit cultural interaction are by no means a panacea. First, such rights could well create tensions within the tribe, and ultimately defeat the legislature's purpose. If the tribe has the legal right to exclude, it could in theory agree to accept compensation for licensing or waiving its rights. The lure of monetary benefits might prove too great to resist for some tribal leaders, leading to the very corruption or homogenization the law was enacted to prevent. Second, the policy of limiting interaction conflicts in several ways with the aforementioned policy of encouraging the dissemination of traditional knowledge. Any system of TKRs intended to restrict others from using the traditional knowledge would accordingly need to be carefully crafted to ensure it accomplishes its goal without too many unintended negative consequences.

C. *Constitutional Considerations*

The prior discussion discussed various cases in which valid policy considerations support a property-based system of TKRs. Should government decide to adopt such a regime, federal TKR legislation would be the only realistic option. Any attempt by a state to create TKR rights would face several hurdles. First, there is a real possibility that a state law would be preempted by the federal patent and/or copyright laws. Those federal laws prevent a state from providing a parallel type of protection for the sorts of innovations that fall within the subject matter of patent or copyright, regardless of whether the innovation actually meets the statutory requirements for protection.⁶³ As traditional knowledge comprises both the sorts of expressions that fall

62. Property is generally alienable. If a tribe can transfer its traditional knowledge, it can also charge the recipient. Of course, it is unlikely that a tribe would charge its members for traditional knowledge. But if a tribe did choose to levy a charge, the tribe could actually accelerate the process of substitution. A charge for traditional knowledge would increase the price of that knowledge compared to the outside knowledge, making those with no strong preference for traditional knowledge more likely to acquire the outside knowledge.

63. *See, e.g., Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 144 (1989) (holding that a state law that forbade the copying of boat hulls was held to be preempted by the Patent Act). Copyright preemption is governed by 17 U.S.C. § 301.

within the subject matter of copyright and the useful products and processes that fall within the realm of patent, states would have very limited authority to provide any sort of patent or copyright-like protection.

Second, even those state laws that escaped preemption would be of very limited utility due to the territoriality rule that applies to intellectual property rights.⁶⁴ That rule would limit the geographic reach of any state TKRs to the boundaries of the state in question, leaving people just across the state line free to use the knowledge. A federal TKR statute, by contrast, would apply throughout the United States, including Puerto Rico and the federal territories and protectorates.⁶⁵

Therefore, if the United States hopes to enact meaningful TKR protection, it will be up to Congress to enact the necessary laws. However, federal legislation raises a different set of issues. The most significant of these issues is constitutional. The United States Constitution provides for a federal government of limited, delegated powers. Unless Congress could point to a grant of legislative authority in the United States Constitution, it would be powerless to enact a federal TKR law. Determining whether a federal TKR system is possible accordingly requires considerations of the possible sources of Congressional legislative jurisdiction.

1. The Copyright Clause

The most obvious font of federal legislative jurisdiction for a TKR statute is the “Copyright Clause” of Article I, section 8, clause 8.⁶⁶ That clause provides authority not only for the federal Copyright and Patent Acts, but also for various other federal intellectual property legislation such as the federal trade secret criminal statute⁶⁷ and the Semiconductor Chip Protection Act.⁶⁸ Because most proposals for

That section preempts state laws that provide rights that are “equivalent” to rights afforded by the Copyright Act.

64. *See, e.g.*, *Subafilms, Ltd. v. MGM-Pathe Communications Co.*, 24 F.3d 1088 (9th Cir. 1994) (holding that the Copyright Act does not apply to infringing acts that occur outside the borders of the United States, even when the foreign act is authorized from within the United States). *But see* *McBee v. Delica Co.*, 417 F.3d 107, 110–11 (1st Cir. 2005) (demonstrating that the territoriality principle is less strict in trademark law, especially when the complained-of acts are committed by a United States citizen).

65. Of course, the territoriality principle would also mean that a federal TKR law could not reach acts of infringement occurring in other nations. Nevertheless, a TKR, like existing intellectual property laws, could also limit importation of infringing goods into the United States. Keeping foreign copies out of the United States would help limit the harm to Native American tribes that would result from foreign infringing acts.

66. U.S. CONST. art. I, § 8, cl. 8, provides that Congress has the power “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”

67. Trade Secrets Act, 18 U.S.C. § 1905 (2006).

68. 17 U.S.C. § 904 (2006).

TKRs envision something akin to a patent or copyright, it is likely that Congress would look first to the Copyright Clause for legislative jurisdiction.

Like all constitutional grants of legislative jurisdiction, the Copyright Clause contains several important limits. Three limits in particular loom as potential problems for federal TKR legislation. First, intellectual property rights enacted under the clause must be limited in time.⁶⁹ Second, the Clause specifies that copyrights and patents may only be granted to “authors” and “inventors,” respectively. Third, a series of Supreme Court decisions interpreting the Clause indicates that Congress may only grant rights when the item to be protected is original.⁷⁰ This section will first address the “limited Times” issue. Because the issues of author/inventor and originality are logi-

69. This restriction comes from the clause’s reference to “limited Times.”

Trademark laws are not subject to the limited times restriction. The current federal trademark statute is not grounded in the Copyright Clause, but rather in Congress’s Article I, § 8, cl. 3 power to regulate interstate commerce. S. REP. NO. 79-1333, *supra* note 39, at 1277. Therefore, the fact that federal trademark protection can be renewed forever as long as the mark remains in use presents no constitutional problem.

70. It is unclear what role, if any, the “necessary and proper” clause of Article I, § 8, cl. 18, plays in defining the scope of Congressional jurisdiction over patents and copyrights. That clause provides that Congress has the power “[t]o make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers, and all other Powers vested by this Constitution in the Government of the United States” In most other situations, Congress can use the “necessary and proper” clause to enact laws related to one of its other explicit powers, even though the law in question might not fall directly within the explicit grant. For example, in *Hanna v. Plumer*, 380 U.S. 460 (1965), the Court held that the clause gave Congress the power to enact the Federal Rules of Civil Procedure, as a necessary incident to its explicit power to create the lower federal courts. In theory, then, Congress could use the same power to augment the Copyright Clause, arguably passing laws—such as a law that provided for a right of unlimited term—that would not fall within the explicit grant of that clause, but nevertheless served the same general end.

The primary obstacle to such a law would be the Supreme Court’s venerable opinion in *Gibbons v. Ogden*, 6 L. Ed. 23 (1824). In that case the Court suggested that Congress could not utilize the Necessary and Proper Clause to avoid the explicit restrictions set out in the Copyright Clause:

The power [over patents and copyrights], as granted in the constitution, is a limited power. It is a clear principle, that when the means of executing any given power are specified in the grant, Congress cannot take, by implication, any other means, as being necessary and proper to carry that power into execution.

Id. at 34. Although this proposition makes sense as a matter of constitutional interpretation, the passage is technically *dictum*, as the real issue before the court was *state* power to grant intellectual property rights. Nor is there any indication in the more recent precedent that the Court would decide differently today. Although at least two lower courts have suggested that the Necessary and Proper Clause does augment Congress’s powers under the Copyright Clause, neither of these opinions explored whether the limited times and author/inventor restrictions were affected by the clause. See *Schnapper v. Foley*, 667 F.2d 102, 112 (D.C. Cir. 1981); *Mitchell Bros. Film Group v. Cinema Adult Theater*, 604 F.2d 852, 860 (5th Cir. 1979). Given that these restrictions operate as defined prohibitions rather than words defining the outer boundaries of the grant of jurisdiction itself, the correct view is probably that expressed in *Gibbons*.

cally intertwined, the discussion will then address those two limits together.

a. The “Limited Times” Requirement

Most proposals for TKRs seem to assume that any protection would be perpetual.⁷¹ Indeed, if the legislature’s motive for enacting protection is to ensure accuracy or preserve the existence of the associated culture, perpetual protection may be a practical necessity. A federal law providing a permanent TKR, however, would violate the limited times requirement of the Copyright Clause. Therefore, any federal right enacted under the Copyright Clause would have to terminate at some defined point set out in the statute.

It might be possible to argue that the limited times restriction would not apply to a federal TKR statute. Although Article I, § 8, clause 8 is commonly thought of as the clause giving Congress the authority to provide for copyrights and patents, in truth it is a much more expansive grant of legislative jurisdiction. Professor Walterscheid’s exhaustive and excellent study of the clause convincingly demonstrates that the clause is really a broad grant of authority “to promote the Progress of Science and useful Arts,” with the reference to copyrights and patents inserted merely to make it clear that Congress might choose these particular means to achieve its goal.⁷² Thus, the Copyright Clause would also give Congress the power to establish a federal library or university.⁷³ As the limited times requirement only applies to copyrights and patents, these other means could be permanent. By the same logic, then, if Congress chooses to create a new type of right—a TKR—under the Copyright Clause, it would similarly not be bound by the limited times restriction.

Although this argument has some facial appeal, in all likelihood the limited times requirement would also apply to TKRs. Although TKRs are technically not patents or copyrights, they are functionally similar enough to be treated as a patent or copyright for purposes of the Copyright Clause. To the extent that a TKR involved any private right to exclude others from using or communicating the underlying traditional knowledge, it exhibits the key feature—namely, exclusivity—of the more familiar forms of intellectual property mentioned in the Clause. Therefore, while Congress could provide some limited protection to traditional knowledge—*e.g.*, a right to be acknowledged

71. The WIPO proposal, for example, has no time limit. WIPO, TK Proposals, *supra* note 6, art. 9, § 1; WIPO TCE Proposals, *supra* note 6, at 19.

72. EDWARD C. WALTERSCHEID, THE NATURE OF THE INTELLECTUAL PROPERTY CLAUSE: A STUDY IN HISTORICAL PERSPECTIVE 4 (2002). Professor Walterscheid points out that the framers thought it necessary to include an explicit authorization of patents and copyrights because of the strong dislike for monopolies in the common law. *Id.* at 241–42.

73. WALTERSCHEID, *supra* note 72, at 166–78.

as the source, or protection against unfair appropriation—without regard to the limited times limitation, its ability to provide a more significant property-style right would be subject to that limit.

In truth, however, the limited times requirement would not bind Congress's hands all that much. Copyright now extends for the life of the author plus seventy years. Yet the Supreme Court in *Eldred v. Ashcroft* had no trouble concluding that that term was a limited time.⁷⁴ Moreover, *Eldred* held that Congress could extend the term of a copyright during the life of the original copyright. Nowhere does the *Eldred* majority hint that the limited times requirement imposes any absolute maximum term.⁷⁵ It is accordingly conceivable that a TKR with a term of 200 or even 500 years would satisfy the requirement. Indeed, borrowing on the existing copyright law upheld in *Eldred*, it is even possible that a term defined by outside factors—such as the “life of the tribe”—would satisfy the Clause's requirements.⁷⁶

b. Authors, Inventors, and Originality

The second and third limits on the Copyright Clause are that Congress may only grant exclusive rights to an “author” or “inventor,” and only when something “original” is involved. Unlike the limited times restriction, the author/inventor and originality requirements could prove to be significant obstacles, at least for some types of traditional knowledge. These two limits are in truth closely intertwined. The originality limit stems in large part from the Copyright Clause's reference to authors and inventors.⁷⁷ Notions of originality also inform how courts define who qualifies as an author or inventor. Nevertheless, although the two limits are related, they remain separate concepts, and it is accordingly useful to focus on what each requires.

Like the limited times requirement, the author/inventor and originality restrictions technically only apply to patents and copyrights.⁷⁸

74. *Eldred v. Ashcroft*, 537 U.S. 186, 199–200 (2003).

75. *Id.* at 199–201.

76. This last conclusion is, of course, more conjectural. A human has a finite life. A culture or tribe does not. In this regard, it is interesting to note that when dealing with works for hire – where the copyright may vest in a non-human employer such as a corporation, the Copyright Act establishes a term of a fixed number of the shorter of 95 years from the date of first publication, or 120 years from creation. 17 U.S.C. § 302(c) (2006).

77. See *infra* text accompanying notes 81 to 85.

78. As noted *supra* in text accompanying note 95, the so-called Copyright Clause is better interpreted as a clause giving Congress broad powers to enact measures designed to further the progress of art and science. Copyrights and patents are simply two explicitly authorized means to this end. However, when choosing to use patents and copyrights, Congress is limited to grant the rights only to “authors” (in the case of copyrights) and “inventors” (in the case of patents). This interpretation flows naturally from reading the clause in its parallel form: “securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.” As will be discussed shortly, the originality requirement comes not from the language of the clause itself, but from a judicial gloss on the clause.

Nevertheless, a court would almost certainly find that they also applied to any system of TKRs that granted exclusive rights in traditional knowledge. The same policy arguments that justify limiting patents and copyrights to authors and inventors, and only in return for originality, would apply with as much force to TKRs as to their more established cousins.

The author/inventor requirement is set out in the Copyright Clause itself. The basic meaning of the restriction is fairly clear; the full implications and underlying policy less so. In short, exclusive rights in products of the mind may only be granted to a person who is in some way “responsible” for that product. However, the terms “author” and “inventor” are not technical definitions. Congress has some flexibility to define who will be treated as the author or inventor. The “work made for hire” rule in the Copyright Act, for example, grants copyright to an employer for works actually produced by an employee, and to the commissioning party in the case of certain commissioned works.⁷⁹ Although the employee or artist may be the author in some absolute sense, the work made for hire rule reflects Congress’s ability to define authorship: when the creative impetus for producing a certain work comes from an employer or commissioning party, the employer or commissioning party is sufficiently responsible for the genesis of the work to qualify as an “author” under the constitutional definition.

The originality rule reflects the dominant policy argument discussed in Part II.A; namely, that intellectual property rights are a way to encourage creativity in the arts and sciences. Although that policy argument does not appear on the face of the Copyright Clause itself, several courts and scholars have suggested that the Clause incorporates a notion of originality, barring Congress from creating rights except in cases where there has been something minimally original.⁸⁰ This view is based in large part on a series of United States Supreme Court opinions, spanning a period of more than 125 years, indicating

These restrictions apply only to patents and copyrights. Should Congress choose some other means of furthering progress, it could choose to benefit someone other than an author or inventor, and need not be concerned with originality. Thus, a charter for a national university could be given to anyone, not merely someone who came up with something new.

79. 17 U.S.C. § 201(b) (2006) provides that the copyright in a work made for hire vests in the “employer or other person for whom the work was prepared.” 17 U.S.C. § 101 (2006) defines “work made for hire.” The definition includes not only all works created by employees within the scope of their employment, but also certain commissioned works.

80. See, e.g., Paul Heald & Suzanna Sherry, *Implied Limits on the Legislative Power: The Intellectual Property Clause as an Absolute Constraint on Congress*, 2000 U. ILL. L. REV. 1119, 1162–63 (“We cannot emphasize strongly enough that the historical, structural, and precedential evidence all indicate that legislation creating a suspect grant must be in the form of a bargain: author or inventor creates, then author or inventor gets reward.”); WALTERSCHEID, *supra* note 72, at 311 (“Simply put, novelty is a constitutional requirement.”) (speaking of patents).

that creativity is a constitutional *sine qua non*. The first of these is the Supreme Court's 1879 decision in *Trade-Mark Cases*.⁸¹ Although the oldest case, *Trade-Mark Cases* remains arguably the most important of the Court's originality decisions, because it is the only case in which the Court actually struck down a statute that protected non-original things. *Trade-Mark Cases* dealt with the nation's first federal trademark laws.⁸² Congress enacted these laws relying on the authority granted to it under the Copyright Clause.⁸³ The Court held the legislation without Congress's legislative jurisdiction.⁸⁴ It reasoned that the Copyright Clause's language limiting copyrights and patents to "writings" and "discoveries" requires at a bare minimum a certain level of purposeful creativity. The act of adopting a trademark, the Court reasoned, often fell below this minimum:

The ordinary trade-mark has no necessary relation to invention or discovery. The trade-mark recognized by the common law is generally the growth of a considerable period of use, rather than a sudden invention. It is often the result of accident rather than design, and when under the act of Congress it is sought to establish it by registration, neither originality, invention, discovery, science, nor art is in any way essential to the right conferred by that act. If we should endeavor to classify it under the head of writings of authors, the objections are equally strong. In this, as in regard to inventions, originality is required. And while the word writings may be liberally construed, as it has been, to include original designs for engravings, prints, &c., it is only such as are original, and are founded in the creative powers of the mind.⁸⁵

81. *In re Trade-Mark Cases*, 100 U.S. 82, 92 (1879), *superseded by statute*, Lanham Act of 1946, ch. 540, 60 Stat. 437 (1946) (codified as amended at 15 U.S.C. §§ 1051-1127 (2006)).

82. Two federal statutes were actually at issue in the case. The first was an 1870 statute providing for a federal registration system and a private civil cause of action. Act of July 8, 1870, ch. 230, 16 Stat. 198 (revising, consolidating, and amending the statutes relating to patents and copyrights). The second was an 1876 statute adding criminal sanctions for intentional infringements of registered marks. Act of Aug. 14, 1876, ch. 274, 19 Stat. 141 (punishing the counterfeiting of trade-mark goods and the sale or dealing in of counterfeit trade-mark goods).

83. Congress never clearly indicated the source of its authority to enact the 1870 statute. However, given that the trademark provisions were a small part of a broader statute revising the existing patent and copyright laws, and that the title of the act nowhere mentions trademark, it is almost certainly the case that Congress thought it was acting under the Copyright Clause.

Interestingly, although *Trade-Mark Cases* is best known today for its restrictive interpretation of the Commerce Clause, the Commerce Clause was not considered in the lower courts. That argument was first raised by the Attorney General before the Supreme Court. *Trade-Mark Cases*, 100 U.S. at 85.

84. *Id.* at 94. The Court's holding concerning the Commerce Clause is set out *id.* at 94-98.

85. *Id.* at 94. In addition to establishing originality as a constitutional floor, this passage also suggests that there is a constitutional difference between inventions made by "accident" and those made by "design." In other words, it implies that unless an innovator intends to create a new work or devise a solution to a scientific

Later Court decisions both reaffirm and elaborate on these basic notions. In *Graham v. John Deere Co.*, the Court discussed in *dictum* how patents may constitutionally be granted only when there has been an advance in knowledge:

The [Copyright] clause is both a grant of power and a limitation. This qualified authority, unlike the power often exercised in the sixteenth and seventeenth centuries by the English Crown, is limited to the promotion of advances in the 'useful arts.' * * * The Congress in the exercise of the patent power may not overreach the restraints imposed by the stated constitutional purpose. Nor may it enlarge the patent monopoly without regard to the innovation, advancement or social benefit gained thereby. Moreover, Congress may not authorize the issuance of patents whose effects are to remove existent knowledge from the public domain, or to restrict free access to materials already available. Innovation, advancement, and things which add to the sum of useful knowledge are inherent requisites in a patent system which by constitutional command must 'promote the Progress of * * * useful Arts.' This is the standard expressed in the Constitution and it may not be ignored.⁸⁶

Graham suggests that, at least in patent law, the Constitution requires not only originality, but also some benefit to society. Twenty years later, in its 1991 decision in *Feist Publications Inc. v. Rural Telephone Service Co.*,⁸⁷ the Court elaborated at great length—albeit again in *dictum*⁸⁸—about how originality was a prerequisite for the grant of a copyright, concluding that “originality is a constitutional requirement.”⁸⁹ *Feist* also indicated that the Copyright Clause does not allow for rights in mere “discoveries” such as mathematical formulae and laws of nature.⁹⁰ Instead, protection is allowed only when the author or inventor has created something new.

The author/inventor and originality limits rarely are issues under the Copyright and Patent Acts, in large part because the statutes explicitly incorporate both principles. However, the limits could pose a far more serious problem for a federal TKR system. Although TKRs do resemble patents and copyrights on the surface, there are at least

problem, intellectual property rights may not be available. This suggestion has largely been ignored by the courts and the patent office. It is clear today that patents are available for accidental inventions. And accidental works are rare.

86. *Graham v. John Deere Co.*, 383 U.S. 1, 5–6 (1966). The discussion is *dictum* because the decision was based primarily on an interpretation of the Patent Act itself.

87. *Feist Publ'ns Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991).

88. The *Feist* Court's discussion of originality as a constitutional requirement is *dictum*, because the Court had already concluded that Congress incorporated an originality requirement into the Copyright Act. *Id.* at 346. Therefore, the issue of whether the Copyright Clause would allow Congress to protect unoriginal works was not necessary to the decision.

89. *Id.* at 345–46. The Court similarly referred to originality as the “*sine qua non*” of copyright, *id.* at 345, the “touchstone” of copyright protection, *id.* at 347, and a “bedrock principle” of copyright law, *id.*

90. *Id.* at 345.

two important differences that raise potentially serious issues under the Copyright Clause. First, TKRs would be group rights, rather than individual. Second, TKRs might very well protect not only useful applications of knowledge, but also knowledge of basic principles of nature.

Patents and copyrights are usually individual rights, giving one person or a small group of people the power to exclude others.⁹¹ Most proposals for TKRs, by contrast, envision a sort of group right, which is held by a tribe or other social association for the benefit of its members. The reasons for a group TKR are based both on policy and practical considerations. As a matter of policy, traditional knowledge is often shared by all members of a culture. If the knowledge is already communally “controlled,” giving rights to one particular person in the culture would be incongruous. Moreover, as a practical matter, a system of individual rights would often prove impossible to administer. Although traditional knowledge is not always ancient, in many cases the original inventor or author will have died, perhaps many years ago. Moreover, because of the communal nature of the knowledge, in numerous cases the name of the author or inventor will have been long forgotten. A group TKR therefore better reflects the reality of ownership and control, and provides a feasible way to enforce the rights.

In some cases a grant of rights to a tribe could satisfy the author/inventor requirement. As discussed above, traditional knowledge often develops through collaborative effort, with numerous members of the group playing a part. Moreover, that communal effort is often an attempt to solve a shared problem of the entire group, rather than an individual problem. Building on the logic of the work-made-for-hire rule in copyright, in these cases it would be reasonable to conclude that the tribe, rather than any individual member, is the author or inventor—the “driving force”—behind the traditional knowledge that results. Nevertheless, although this rationale may allow tribes to hold some TKRs in certain cases, there remain a significant number of cases where rights in the tribe would violate the author/inventor limitation of the Copyright Clause. In these cases, only a grant to the individual author, her designee, or her heirs is constitutionally permissible.

Unless the tribe is the author, granting rights to the tribe presents a serious problem under the author/inventor requirement. Admittedly, that requirement is not so stringent so as to require that the rights must always be granted to the actual author. In patent law, the inven-

91. Intellectual property rights do not always vest in individuals or groups of individuals. As noted *supra* in note 79, a corporation may be deemed the author in the case of a “work made for hire.” Similarly, under the Bayh-Dole Act, universities, not the actual inventor, are entitled to patents for most inventions made with federal funding. See 35 U.S.C. § 202 (2000).

tor may assign her patent application to a third party, in which case the patent will actually issue to the assignee.⁹² Similarly, if an inventor dies before the patent issues, the patent goes to her legal heirs.⁹³ But these features of current law do not violate the author/inventor requirement. As a matter of policy, the purpose of the author/inventor rule is not that the author or inventor hold the right itself, but merely that she receive the *benefit* of the rights. In the examples cited above, the inventor retains the ability to control who receives the actual right, and accordingly still benefits, albeit indirectly, from the patent. A rule that automatically vests rights in the inventor's tribe or culture, by contrast, does not necessarily afford any benefit to the inventor.

The originality requirement may also pose a problem, but is likely to affect fewer cases than the author/inventor limit.⁹⁴ The vast majority of traditional knowledge is sufficiently original to satisfy the minimum requirements of originality set out in *Trade-Mark Cases*, *Graham*, and *Feist*. Creating a new story or song, or devising a new medicinal use for a local plant, certainly exhibits the sort of creativity that these cases envision. Although ascertaining authorship or inventorship may be a problem, that is an issue for the separate author/inventor limit, not for the originality limit.

However, originality problems may still arise. The definition of traditional knowledge includes a wide range of knowledge, ranging from folk songs to astronomical knowledge. In some cases that knowledge develops in a way that does not fit neatly into modern-day notions of creativity and originality. That knowledge includes not only practical applications, but also basic principles of nature. Much of what is considered traditional technical knowledge involves discoveries of principles of nature, such as weather and astronomical patterns.

The real issue is whether any requirement of originality inherent in the Copyright Clause prevents Congress from protecting discoveries

92. *Id.* § 261. It is interesting to note, however, that even after the assignment of the application, the patent document will still name the *assignor* as inventor.

A similar rule used to exist in copyright law. However, when Congress amended the law to allow for copyrights to arise from the moment of fixation, rather than following an application, copyright now automatically vests originally in the author.

93. *Id.* If the inventor dies prior to filing the application, the inventor's heirs may file and prosecute the patent application. *Id.* § 117.

94. Actually, as this author has argued before, one can make a strong argument that originality is *not* a constitutional requirement, at least for copyrights. The primary difficulty with the Court's argument is that the Copyright Clause does not contain the word "original," nor any synonyms such as novel or new. Nor can an originality requirement be implied from the text. John T. Cross, *The Lingering Legacy of Trade-Mark Cases*, 2008 MICH. ST. L. REV. 367, 383-87 (2008). Because this article deals with both inventions and copyright works, it assumes for the sake of argument that the Court will continue to require originality as a matter of constitutional law.

of principles of nature. *Feist* admittedly does state that discoveries cannot be protected under the Copyright Clause. But that conclusion runs counter to the text of the Copyright Clause. Although the Copyright Clause speaks of inventors, it does not contain the word “inventions.” Instead, the Clause explicitly provides that Congress may grant patents for an inventor’s “discoveries.” While granting exclusive rights to the discovery of a law of nature or mathematical formula will rarely be justified as a matter of policy, in certain situations Congress could conceivably choose to grant rights in a discovery.⁹⁵

In short, the originality requirement, viewed in isolation from the author/inventor limit, presents no obstacle for a federal TKR system. All traditional knowledge will involve creativity and originality, if viewed as a systemic whole. Moreover, that originality exists regardless of whether the knowledge constitutes a mere discovery rather than a practical application.

Overall, then, Congress’s power to enact federal TKR legislation under the Copyright Clause would be limited. The most significant restriction stems from the author/inventor requirement. This provision would require Congress to grant rights only to the individuals actually responsible for the knowledge, rather than the tribe as a whole, except in those cases where the tribe could be considered the author or inventor. That requirement alone could frustrate Congress’s intentions. In addition, there may be cases where the originality requirement would stand in the way of full protection. Although the vast majority of traditional knowledge meets the minimal originality requirement imposed by the Constitution, there may be some knowledge that is so derivative as to fail that test. Even though protecting that knowledge might be crucial to the tribe’s cultural and political survival, Congress would be powerless to protect it under the Copyright Clause.

2. The “Indian Power” as an Alternate Source of Congressional Authority

Of course, the Copyright Clause is not the sole font of federal legislative jurisdiction. Article I, together with various other provisions of

95. Professor Walterscheid has argued that discovering a law of nature does not qualify for protection under the Copyright Clause because it does not by itself lead to progress in the useful arts. WALTERSCHEID, *supra* note 72, at 364–69. That conclusion does not necessarily follow. Consider the discovery of magnetism. Although that discovery itself is not progress in the useful arts, it can generate a number of practical applications using the principle. Therefore, granting legal protection to the discoverer can ultimately lead to significant progress in the useful arts.

Professor Gervais has also pointed out that protecting discoveries of laws of nature may run afoul of TRIPS, because of Article 27’s requirement that the invention be “capable of industrial application.” Gervais, *supra* note 22, at 152. The argument in the prior paragraph—that such discoveries will in time be put to practical use—may not be enough to resolve this inconsistency.

the Constitution,⁹⁶ enumerate many other subjects that Congress may regulate by legislation. In addition, the Supreme Court has implied other sources of legislative jurisdiction from the language of, and policies underlying, the Constitution.⁹⁷ Even if Congress is precluded from enacting a fully effective TKR law under the Copyright Clause, it may be able to rely on one of these other grants as a basis for legislative authority.

Several federal powers could conceivably provide a basis for a federal TKR law. For example, to the extent that the United States enters into a treaty dealing with the protection of traditional knowledge, it could conceivably use its treaty power to enact domestic TKR legislation.⁹⁸ But in the case of federally-recognized Indian tribes, the most obvious source is the federal "Indian power." Congress's power to enact laws dealing with federally-recognized tribes is often said to be "plenary," extending to all subject areas without regard to whether Congress could pass a law dealing with that topic where non-Indians are concerned.

Congress's Indian Power is not explicitly set out in the Constitution, at least not to the extent it has been recognized in the Supreme Court. Although Article I, section 8 gives Congress the authority to regulate commerce with Indian tribes, that power taken alone cannot be the source of Congress's broad Indian Power. Rather, the Supreme Court has cobbled Congress's Indian Power together from various sources, including not only the power to regulate Indian commerce, but also the federal trust relationship with the tribes.⁹⁹

A law granting TKRs to federally-recognized tribes¹⁰⁰ would certainly have enough of an "Indian flavor" to fit within Congress's plenary Indian Power. Because the law creates a special rule applicable

96. See, e.g., the grant of legislative jurisdiction to enact laws dealing with full faith and credit in U.S. CONST. art. IV, § 2, and the provision in U.S. CONST. amend. 14, § 5 authorizing laws to enforce the terms of the fourteenth amendment.

97. See, e.g., *McCulloch v. Maryland*, 17 U.S. 316 (1819) (holding that Congress had the implied power to establish a national bank).

98. *Missouri v. Holland*, 252 U.S. 416 (1920). This author has previously analyzed the extent to which the treaty power could be used to support federal trademark laws. Cross, *supra* note 94, at 374–76. The same arguments could be invoked in the case of limited rights in traditional knowledge, especially a right to demand attribution. However, the arguments of that article do not necessarily translate well to the case of property-based TKRs because of the very different nature of protection and the author/inventor restrictions of the Copyright Clause.

99. *United States v. Kagama*, 118 U.S. 375, 381–84 (1886) (holding that the guardian-ward relationship between Congress and Indian tribes serves as a source of legislative jurisdiction).

100. It is not completely settled whether the Indian Power extends to Native Americans who are not members of federally-recognized tribes. To the extent that the power derives from the trust relationship, it would follow that it would be limited to Indians. On the other hand, Congress considers itself to have the power unilaterally to reestablish the trust relationship even after that relationship has been terminated, an act that applies directly to non-Indians. See, for example, the *Menominee Restoration Act*, 25 U.S.C. §§ 903–903f (2006). If Congress is correct, it may derive its

only to Indians, it qualifies as a valid exercise of the power.¹⁰¹ The real question, however, is whether Congress could utilize the Indian Power to avoid the author/inventor and originality requirements of the Copyright Clause. The answer to that question turns on two related subissues; namely (i) the exact scope of Congress's "plenary" power to regulate Indians, and (ii) the real nature of the author/inventor and originality requirements of the Copyright Clause.

The notion of "plenary" power is a vague concept in constitutional law. Depending on the situation, "plenary" can mean several different things. For present purposes, however, we need only consider two competing interpretations. The first, which can be labeled the "federalism" option, can be summarized as follows:

If the matter falls within the area of plenary authority, Congress may regulate it even if there is no other grant of power that would justify the law, so that the matter would have otherwise fallen only within state authority.

This interpretation arises in a number of cases involving the Indian Power. For example, in *United States v. Kagama*, the Supreme Court held that Congress could enact general criminal legislation for the Indian lands even though Congress neither had general authority to enact criminal laws, nor could point to any other explicit head of jurisdiction for the law.¹⁰²

The alternative interpretation of "plenary" can be called the "unlimited option." Although it sounds much the same, it is, as its title implies, infinitely broader:

If the matter falls within the area of plenary authority, Congress may regulate it even if the regulation would violate other restrictions set out in the Constitution or binding international law.

Under this interpretation, Congress could enact Indian legislation notwithstanding that it would otherwise abridge fundamental limits such as freedom of speech or the right to a jury trial in a criminal case. Note that in these cases Congress's power exceeds that of the states, as states would remain subject to most of the constitutional civil rights.¹⁰³

power to deal with non-Indian Native Americans from the Necessary and Proper Clause. See *supra* note 70.

101. By definition, an "Indian law" is one that applies exclusively or primarily to Indians, regardless of the subject-matter of the law.

102. *United States v. Kagama*, 118 U.S. 375, 375, 386 (1886). See also *United States v. Lara*, 541 U.S. 193, 196 (2004) (holding that Congress may enact a law removing a tribe's inherent inability to prosecute misdemeanors committed by non-Indians).

103. Of course, not all of the Bill of Rights has been applied to the States. For example, neither the Sixth Amendment right to a grand jury nor the Seventh Amendment right to a jury in certain civil cases at common-law applies to the states. *Duncan v. State of Louisiana*, 391 U.S. 145, 154-55 (1968).

The unlimited option is so broad that it seems difficult to accept. And yet the Supreme Court has never explicitly either rejected or endorsed it. Admittedly, in *United States v. Sioux Nation*¹⁰⁴ and *Hodel v. Irving*,¹⁰⁵ the Court held that federal Indian laws were invalid because they violated the takings limit of the Fifth Amendment. However, both of those cases involved the civil rights of either individual Indians (*Hodel*) or the tribe itself (*Sioux Nation*). In that respect, the takings argument is best perceived as an inherent part of the trust responsibility owed to Indians, rather than as an external limit on the Indian Power itself. In other words, Congress's plenary power over Indians, viewed in light of the trust relationship which underlies that power, does not give Congress the authority to pass an Indian law violating an Indian's constitutional rights. In a case where the federal act would only impair the civil rights of non-Indians, these cases do not necessarily control, as Congress owes no trust duty to the injured parties. Nor is the one Supreme Court case rejecting a civil rights challenge by a non-Indian controlling. *Morton v. Mancari*¹⁰⁶ did admittedly hold that a law which discriminated against non-Indians did not violate the Equal Protection Clause. However, the basis for the Court's holding in that case was that "Indianness" is not a racial categorization prohibited by the Equal Protection Clause, but rather a *political* distinction designed to further Indian self-government.¹⁰⁷ A political distinction, the Court surmised, need only be "reasonable" to survive an Equal Protection challenge.¹⁰⁸ Finding the law facially reasonable, the Court had no trouble rejecting the constitutional challenge.¹⁰⁹ Thus, far from holding that the Equal Protection Clause is not a limit on the Indian power, the *Morton* Court merely held that any requirements imposed by that Clause were not violated by the federal law's "political" distinction.

In conclusion, it is unclear whether Congress's Indian Power frees it from all constitutional fetters (the unlimited option) or merely those provisions that allocate authority between the federal and state governments (the federalism option). If the unlimited option is the rule, Congress could pass any TKR legislation that it might deem appropriate, provided that law granted rights only to federally-recognized

104. *United States v. Sioux Nation of Indians*, 448 U.S. 371, 424 (1980).

105. *Hodel v. Irving*, 481 U.S. 704, 717 (1987).

106. *Morton v. Mancari*, 417 U.S. 535 (1974).

107. *Id.* at 553 n.24.

108. *Id.* at 554.

109. The law at issue in *Morton* was a Bureau of Indian Affairs employment preference in reservation employment for members of the tribe. In finding the law reasonable, the Court noted that the United States Constitution itself contains an analogous preference in the Article I, section 3 rule requiring senators to live in the state they will represent. *Id.*

tribes.¹¹⁰ But under the federalism view, Congress's authority is probably more restricted. First, Congress would clearly be bound by the Bill of Rights and any other limits on government authority. Second, it might even be bound by the author/inventor and originality limits of the Copyright Clause. Even though those limits on their face apply only to the Copyright Clause, they might be deemed sufficiently fundamental to affect Congress's other powers when the exercise of those other powers encroach on the terrain of intellectual property.

Determining whether the Copyright Clause restrictions carry over into the Indian Power requires further consideration of the nature of those restrictions. And viewed in the context of Congress's other Article I, section 8 powers, those limitations are somewhat unusual. Some of the section 8 limits attempt to define the boundary between the delegated federal and reserved state authority. Thus, Congress may enact "uniform laws on the subject of Bankruptcies;" leaving it to the states, at least in the absence of conflicting federal law, to regulate bankruptcy on a statewide level. Similarly, Congress may call for the militia only to execute federal law, or to deal with insurrections or invasion. The limits of the Copyright Clause are not necessarily of this same ilk. When that Clause indicates that Congress may grant copyrights and patents only to "Authors" and "Inventors," it is not really implying that states have the authority to grant similar rights to non-Authors and non-Inventors. Rather, the limitation to Authors and Inventors, as well as the limited times requirement and the original works requirement, is arguably something more fundamental in nature, something more akin to one of the Bill of Rights protections or the limits set out in Article I, section 9.¹¹¹ If so, the limitations established by the Copyright Clause may constitutionalize a sort of public domain, at least at the federal level.¹¹² Under that interpreta-

110. As discussed *supra* in note 102, it is unclear whether the Indian Power gives Congress authority to enact legislation dealing with Native Americans who are not members of federally-recognized tribes.

111. Other provisions in Article I, section 8, operate in a similar way. For example, clause 12 allows Congress to appropriate money to the armed forces, but limits the term of any such appropriation to two years. Similarly, clause 17 allows Congress to create a capital district, but limits the size of that district to ten square miles. Neither of these restrictions implies that states have any power to act outside these restrictions. Nothing suggests that states may appropriate money for the national military (either for less than or longer than two years), or enact a federal capital district of any size.

112. It is unclear whether states would be bound by any public domain established by the Copyright Clause. The Supreme Court's 1824 decision in *Gibbons v. Ogden*, 6 L. Ed. 23, 24 (1824) hints that states are bound by the limited Times and author/inventor restrictions of the Copyright Clause. After discussing how those restrictions shackled Congress, the Court stated:

[T]he States have exclusive authority to promote science and the arts, by all other modes than those specified in the constitution; without limitation as to time, person, or object; and the Legislature is the sole judge of the expediency of any law on the subject.

tion, Congress could not sidestep the Author/Inventor and originality requirements by the expediency of enacting a regime of TKRs under its Indian Power or any other power. Indian TKR legislation would accordingly face the same constitutional problems regardless of which power Congress invoked. If Congress's plenary power is unlimited, by contrast, it could pass much broader TKR legislation under the Indian Power, subject only to the basic principle that the law must in truth regulate Indians.

IV. CONCLUSION

At present, it is impossible to predict whether international law will ever develop a minimum standard for protecting traditional knowledge. Nevertheless, it seems a safe bet that any minimum standard which may be adopted will not involve property rights. Granting property rights to traditional knowledge raises a whole host of difficulties, ranging from practical concerns to deep-seated policy objections to property rights in a form of knowledge so different from ordinary patentable inventions or copyrightable works.

This Article has tackled one subset of the objections to a property system; namely, the argument that property rights in traditional knowledge would not satisfy the policy justifications for a grant of exclusive control in information and expressions. It demonstrates that sound policy reasons do exist for granting tribes exclusive control over some of their traditional knowledge. Reaching this conclusion requires a close look at all the possible reasons for granting exclusivity, not merely the "reward for creativity" rationale that predominates discussions of ordinary intellectual property.

Even if government policymakers agree that a system of TKRs can be justified as a matter of policy, it would be difficult to enact such a regime in the United States. State laws are not a viable option for

But this power [to grant patents and copyrights], though limited in Congress, is still (as has been seen) concurrent in the States. It follows, then . . . that a State may exercise it *by the same means, and towards the same persons and objects with Congress.*

In other words, although a state may promote knowledge by means other than patents and copyrights without regard to the limits of the Copyright Clause, when it exercises its reserved power to grant exclusive rights, it may reward only authors and inventors.

Whether this passage accurately reflects the states' powers is unclear. Given the territorial restrictions on state authority, coupled with the fact that until the Civil War the Constitution did not place many restrictions on the states, the framers may simply have been willing to leave the issue of state power to encroach on the public domain to state constitutions and state law.

Today, of course, the question of state power to encroach on the public domain is largely hypothetical. Given the broad preemptive scope of the federal patent and copyright acts, see *supra*, states would today have no authority to grant perennial protections for inventions or works, or any sort of protection to people other than authors or inventors.

several reasons. A federal law raises different concerns. Several constitutional restrictions on Congressional legislative jurisdiction, most notably the “author/inventor” limit on intellectual property laws, would seriously hamstring any attempt by Congress to provide enforceable rights to a tribe in its traditional knowledge.

Finally, it warrants repeating that the purpose of this Article is *not* to advocate for property rights in traditional knowledge. Its only aim is to demonstrate that the policy arguments often offered in opposition to TKRs are not as compelling as they may seem at first glance. Even if the policy objections can be overcome, there remain a number of practical and fairness issues that would make it extremely difficult to craft a workable regime of TKRs. This Author’s hope is that by removing the policy arguments from the debate, future discourse may focus on whether these many problems can be overcome.