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Protecting the economic patrimony of indigenous nations: the case of the Shuar

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Abstract This article concerns contemporary problems of indigenous peoples and human rights. In general, the human rights of indigenous people occupy marginal space in the global discourse. Overcoming cultural hurdles, and recognizing that indigenous peoples are not objects of juridical concern, not abstractions of analytically precise units of analysis, but in fact are subjects who come with perspectives of identity, demand and expectations, is a necessary starting point for both the scholar and the advocate. This article deals with a particular indigenous nation in the Amazon: the Shuar. The Shuar hold important perspectives of identity, demand and expectation encompassing the critical values that sustain their lives in the community.

Keywords Indigenous · Shuar · Human rights · Patrimony · Intellectual property · Real property · Policy sciences · Biopiracy · Civil law · Roman law

Introduction

This article concerns contemporary problems of indigenous peoples and human rights. In general, the human rights of indigenous people occupy marginal space in the global discourse. This is not necessarily a conspiracy of silence. The problems which undermine the human rights of indigenous peoples are difficult to grasp from book-learning or conventional legal sources. Thus, more is required of the concerned scholar or activist than is conventionally the case with human rights scholarship and advocacy. On the ground, field experience is a critical dimension of competence in this arena. Overcoming cultural hurdles, and recognizing that indigenous peoples are not objects of juridical concern, not abstractions of analytically precise units of analysis, but in fact are subjects who come with perspectives of identity, demand and expectations, is a necessary starting point for both the scholar and the advocate.

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This article deals with a particular indigenous nation in the Amazon: the Shuar. The Shuar hold important perspectives of identity, demand and expectation encompassing the critical values that sustain their lives in the community. Understanding these perspectives is culturally complex, but when understood in human rights terms generate greater clarity. In addition, the perspectives of expectation are distinctive understandings of eco-social reality, grounded in universal idealism and a deep and ancient wisdom.

Background on the Shuar: a first nation of Ecuador

The Shuar have contemporary problems which parallel the problems indigenous nations face globally; they also have many distinctive qualities that also make their challenges distinctive and worthy of deliberative consideration. The most important historical fact of the Shuar is that the archeological evidence shows that they have occupied the Shuar territories for thousands of years. Second, the Shuar are the only indigenous nation in Latin America who have not been subjugated by colonial conquest. As a result, they have exercised a degree of control over most of their territory and have kept it in pristine condition. The rich biodiversity on this territory has had an important cultural impact on the Shuar. That biodiversity has generated a powerful Shamanic healing tradition which is skilled in the uses of the available biodiversity for healing therapies. This combination of biodiversity and culture has led to the Shuar having an enviable and substantial tradition of traditional knowledge. Culture, Shamanism, biodiversity and the community healing process have been integrated so that these elements of the society are central to its continued survival. This traditional knowledge is a matter known to global pharmaceutical interests, and considerable efforts are made to appropriate this knowledge and use it for the exclusive benefit of the appropriator. Thus, the first problem that the Shuar confront as it positions itself against the forces of modernization is that it must consider contemporary strategies for protecting its interests in the integrity of its traditional knowledge.

The second major issue confronting the Shuar is one that is typical of the position of indigenous communities regarding their traditional lands. In most of Latin America, the states have followed the novel constitutional invention of the first Brazilian Constitution. That model proclaimed as a constitutional principle that all resources beneath traditional lands were owned by the state. By implication, this suggested that indigenous peoples had "rights" to their lands that were attenuated. In effect, they had occupancy or grazing rights but in effect no title in terms of a contemporary legal system. This approach to the titles over indigenous lands permitted states to license and/or tolerates invasive intrusions from colonists, settlers and predatory business interests. The central insight from anthropology about indigenous conceptions of the community's relationship to the land is that land is not as in modern capitalist systems, an aspect of the society that can be brought, sold and traded. In indigenous culture land is the "basis" of the community (Bohannan 1963). It is so central to the survival and well-being of the community that its appropriation by outsiders is essentially a threat to the survival of the group. In Ecuador historical circumstances were different. The Shuar were never colonized, and therefore, the state could not exercise governance control over the territory (Rubenstein 2001). The first constitution said little about traditional lands but placed indigenous people in a position of civil law juvenile status. In this status, it was the Church that served as the legal guardian of the minor.

This has meant that for most of Ecuadorian history, the Shuar had no independent *locus standi in judicio*. Thus, the Shuar could never test an affirmative claim that they had to

their resources and neither could they challenge claims of the state or others to those resources. The central problem for the Shuar is that the territory they occupy is rich in mineral resources. This includes petroleum, natural gas, gold, silver, copper, nickel and precious gems. When the state sought to modernize the constitution it confronted claims from many indigenous groups including the Shuar that the constitution should recognize their ownership rights to their land. The state negotiators responded that the resources under the ground vested ownership in the state on the basis of the civil law of the state. The civil law predates the constitution. The reference to the civil law includes the foundational background in the tradition of the civil law which is the Roman Law. Without an ability to vest ownership rights in the resources relating to their lands, the Shuar have been unable to develop programs that might provide for a sustainable level of community development.

Advising the Shuar (external intervention)

In advising the Shuar on the protection of their traditional knowledge and the economic resources, I along with Craig Hammer and Fellows of my Institute[1] proposed several strategies to bring some predictability and objectivity to the claims they had relating to their economic resources (Nagan 2002/2005; Nagan et al. 2010). The first and most important insight into the organization of the Shuar was that the territory was divided up into small community groups spread throughout the territory. These communities sent delegations annually to a Grand Assembly of the Shuar. The Grand Assembly held elections and leaders competed to be elected to their Directiva of the Shuar. The political organization of the Shuar made them the most organized indigenous community in Ecuador. The Directiva had a number of functional ministries which included education, development, health, etc. Under Ecuadorian law, the Directiva and the Grand Assembly had limited legislative powers to legislate for internal matters. The first piece of advice was that the Shuar draft a declaration on the fundamental rights of the Shuar and have it adopted by the Grand Assembly.[2] The central insight here is that if you have claims to economic and other resources, you have to provide an objective foundation for the claim and more importantly you must claim what you think is yours or you may lose it. This declaration was based on the then-Draft Declaration of Indigenous Peoples' Rights (which has since provided a new global platform for international collaboration between indigenous peoples, national governments, and international organizations, particularly traditionally apolitical development organizations, some of which have changed course from a 'do no harm' approach to a 'do good' approach in regional and local operations which might impact indigenous peoples), but which was at the time stuck in the UN decision process. We followed the Declaration carefully but included in it a provision tailored to the Shuar's central problems:

> **Article 36:** "In order to protect the patrimony of the Shuar for this generation and for generations to come, it is solemnly declared that the sovereignty over the land of the Shuar belongs to the Shuar now and to the generations to come. All consultations affecting any rights contained in this Declaration must be performed through the authority of the Federation. Any agreement, contract, conveyance, sale, concession, license, or any other form of agreement or understanding made pursuant to a

[1] The Institute for Human Rights, Peace, and Development at the University of Florida Fredric G. Levin College of Law.

[2] *Declaration on the Fundamental Rights of the Shuar (Shuar Bill of Rights)*, ArizonaNativeNet (2002).

consultation with the Federation shall be committed to writing and must in every particular conform to the rights declared in this instrument. Such document shall be a public record and available to the Federation and to any Shuar citizen upon request. Any agreement or understanding generated from any prior consultation at any time must now be renegotiated and involve a new consultation to ensure that such agreement or understanding is fully consistent with all the rights declared in his instrument."[3]

This provision was essentially designed to limit the states sale of mining concessions in the Shuar territory without the consent or consultation of the Shuar. This provision also contained a tacit claim that the territory of the Shuar and its resources involved residual ownership rights which vested in the Shuar. I should add parenthetically that the day the document was adopted the Shuar were confronted with a Shuar lady who had been spying for the state. This was a serious charge and the Assembly usually voted on guilt or innocence and traditional punishment. The traditional punishment was extremely severe and would have been considered to be a human rights violation. We were able to draw the Assembly's attention to this issue, and the punishment was substituted for a benign sanction consistent with human rights standards.

To provide greater clarity to the question of title to land, I researched the civil law and found that the civil law was completely the opposite of what the state had represented. The civil law makes no distinction regarding the ownership of interest beneath the ground and above the ground. The civil law has an extremely strong and undivided concept of ownership. Thus, if the state were to be using the civil law to define indigenous rights, the state would have no rights to the ownership to the resources in the subsurface of the land.[4] Having discovered this by research, the Directiva then requested that a petition be filed with the Inter-American Commission for a declaration of their rights to the ownership of land.

The general understanding of the legal aspect of indigenous rights to ownership is that indigenous systems have no concept of ownership and title (Pienaar 2008). Since the community owns everything, no one owns anything. Additionally, conventional legal theory defined law in such a way that indigenous rules and prescriptions fell outside of the boundary of conventional law. Anthropologists began to chip away at this assumption. For example, the observer participant Malinowski had determined that indigenous systems had effective legal systems which tended to provide legal prescriptions for protecting social needs (Malinowski 1926). The distinguished anthropologist Edward Adamson Hoebel collaborated with Karl Llewellyn and produced a famous book on the law of American Indians, namely "The Cheyenne Way" (Llewellyn and Hoebel 2002). Later, Hoebel wrote an important book titled, "The Law of Primitive Man" (2006). What was distinctive was that he used the jurisprudence of one of the most influential legal philosophers of the twentieth century, Wesley Newcomb Hohfeld (Hohfeld 1919). Hohfeld had developed a

[3] Shuar Bill of Rights, art. 36 (2002).

[4] Winston P. Nagan, et al., *Legal Theory and the Anthropocene Challenge: The Implications of Law, Science, and Policy for Weapons of Mass Destruction and Climate Change: The Expanding and Constraining Boundaries of Legal Space and Time and the Challenge of the Anthropocene*, 12 J.L. & Soc. Challenges 150 (2010); See also Winston P. Nagan, *Human Rights: The World Quest*, Oxford Round Table, Oxford, UK (July 19–July 24, 2009); See also Winston P. Nagan, et al., *Misappropriation of Shuar Traditional Knowledge (TK) and Trade Secrets: A Case Study on Biopiracy in the Amazon*, *Supra*; See also Rubenstein, S., *Colonialism, the Shuar Federation, and the Ecuadorian state*, *Supra*; See also Winston P. Nagan, *Dancing with the Shuar: Novel Aspects of Human Rights Development and the Defense and Promotion of First Nation Rights in Ecuador*, *Supra.*

powerful linguistic grammar of a working legal system. Hohfeld's system applied effectively to modern systems (Balkin 1989).

What Hoebel did was to show that this sophisticated system worked in indigenous systems as well. This demonstrated that the line between traditional legal theory and indigenous legal systems was artificial. In short, with proper anthropological tools involving the participant observer, indigenous cultures could be seen to have a vibrant "living" legal system. The conclusion: the idea that indigenous people have no concepts of law, rights or legal value was a myth. In the effort to clarify the theory from the point of view of the practice of law, it is the human rights law framework that has provided for a practical confirmation of the theory. In the context of Ecuador, there is no Constitutional expropriation of the economic resources of the indigenous land, particularly the resources of the subsurface. Indeed in 2002, the Ecuadorian Congress passed legislation to recognize the Economic patrimony of indigenous Ecuadorians to the resources of the sub-surfaces of the land they occupied (Fernando 2005). However, when the legislation was transferred to the Presidency for signature, the President vetoed the legislation on the basis that it was unreasonable to give indigenous people decision-making authority over such valued resources. The question that this raises is whether this veto violates the human rights property provisions of the Interamerican Human Rights Convention. To aid in the provision of advice to the Shuar, an analysis of the human rights practice regarding the legal rights of indigenous people to land interest was in order.

The practice of human rights law and indigenous land rights

One of the most important innovations in the practice of international law was the development of a framework of human rights law as applied to the fundamental interest of indigenous peoples: The United Nations Declaration on the Rights of Indigenous Peoples. This has generated an important level of practice and application. In this sense, the practice of human rights law relating to indigenous interests has provided a confirmation of the idea that indigenous communities have legally protectable interests in their variously situated resources. For example in the case of *Diana Ortiz v. Guatamala,*[5] the Commission determined that the denial of a person's access to lands significant to that person's practice of religion violated her religious human rights. The Commission also held that expulsion from lands central to religious practice violated religious freedoms (Star et al. 1999).

The Inter-American Court of Human Rights has recognized that communal property rights fell within the human rights provisions of protected human rights under the Inter-American Convention. And in the case of the *Mayagna* (*Sumo*) *Awas Tingni Community v. Nicaragua*, the Court determined that these rights, "[i]n a sense which includes, among others, the rights of members of the indigenous community within the framework of communal property."[6] In this case, the Court also determined that the terms of the human rights treaty have an autonomous meaning and therefore cannot be equivalent to the meaning given in domestic law. Moreover, the Court said that possession of land should be sufficient for indigenous communities lacking real title under state law to obtain official recognition of that property.

[5] Diana Ortiz v. Guatamala, Inter-American Commission on Human Rights, Report 31/96, Case No. 10.526 (1977).

[6] I/A Court H.R., Case of the Mayagna (Sumo) Awas Tingni Community v. Nicaragua. Merits, Reparations and Costs. Judgment of January 31, 2001. Series C No. 79, par. 148.

Courts have held in a multitude of decisions that special measures of protection are owed to members of an indigenous community to assure the full exercise of their human rights.[7] The question of whether the recognition of titles to land includes the rights to the natural resources in the land has been determined in the *Saramaka Case* which affirms the Inter-American Commission's assertion that the Saramaka people have the right to the use and enjoyment of natural resources that lie on and within the land, including the sub-soil natural resources.[8] The idea that under the state's law, the Saramaka had no per se property rights but merely a privilege or permission to use and occupy land was rejected. The state claimed that under the constitution and its mining decree ownership of all natural resources vested in the state.[9] In effect, the state was claiming inalienable right to explore and exploit those resources for itself. The Inter-American Commission on Human Rights held that the cultural and economic survival of indigenous peoples depends on their access and use of natural resources which are related to their culture. The Commission found that Article 21 of the Inter-American Convention protects their rights to such natural resources.[10] Indeed, consistent with the jurisprudence of the Inter-American system indigenous communities have the right to own natural resources they have traditionally used and occupied for centuries. Without those resources, physical and cultural survival is at stake.

The Court suggested that the protection of land and resources is necessary to prevent the extinction of indigenous people. Hence, the purpose of special measures are of human rights importance to protect the traditional way of life, cultural identity, social structure, economic system, customs, beliefs and traditions. Although the case law and practice does not address the question of the ownership of traditional knowledge and the possibility of its appropriation by fraud, stealth or subterfuge the intricate connection of traditional knowledge to the human rights dimension of special measures to protect the traditional way of life, cultural identity, social structure, economic system, customs, beliefs and traditions, suggests that traditional knowledge is a form of property from the perspective of the developments of the indigenous dimension of human rights law. The Inter-American Commission is expected to rule anytime on the Shuar Petition. However, I recently met with Ecuador's Minister of Indigenous Affairs; during the meeting, she was called to a meeting with the President. When she returned she informed me that the President had told her of a recent meeting he had had with the head of the armed forces. According to the President, he was told that something had to be done about the Petition before the Commission. He added that he was informed that the dominant families in Ecuador would not stand for a decision that gave title to traditional lands to indigenous people.

The specific problem of the theft of traditional knowledge

It is widely acknowledged in the "scientific", ethno-botanical community that the Shuar have an immense store of traditional knowledge of possible commercial and medical value

[7] Indigenous Community Yakye Axa v. Paraguay 17 June 2005, Inter American Court of Human Rights; Case of the Sawhoyamaxa Indigenous Community v. Paraguay, Judgment of 29 March 2006 Inter-American Court of Human Rights; See The Mayagna Awas Tingni v. Nicaragua, Inter-American Court of Human Rights (2001) hereinafter the Awas Tingni Case 2001.

[8] *Case of the Saramaka People v. Suriname,* Inter-American Court of Human Rights, Judgment of November 28, 2007 (Preliminary Objections, Merits, Reparations, and Costs) (2007).

[9] *Id.*

[10] *Id.*

(Nagan et al. 2010). Some of this traditional knowledge was stolen from the Shuar. By way of brief background, the U.S. Congress had provided a budgetary allocation for the promotion and conservation of biodiversity. Initially the program simply funded bioprospectors to appropriate natural plant resources and bring them to the United States for further laboratory testing.[11] This was an uneconomic process, since few samples yielded information of scientific and commercial value. At this point, the ethnobotanical lobby sold itself. If the material acquired could be done through the lens of traditional knowledge, the statistics were elevated immensely for finding items of value. One of the ethnobotanical institutions of note was the New York Botanical Garden. They received a grant from U.S.A.I.D. to send a team of "bio-pirates" into the Shuar territory in order to collect as much traditional knowledge and samples as possible. The bio-pirates were secretly secreted into a small, isolated Shuar village. The cover story was that they were idealistic teachers and they were coming to the village to teach the children in the village about botany and their ecosystem. At the end of the period, they were to produce a school book in the Shuar language on the botanical heritage of the Shuar. They set up a camp on the outskirts of the village and used the children to collect plant specimens of commercial and or medicinal value. The children were to inquire from their parents which plants to collect and what they were used for. The children were also encouraged to have their parents acquire knowledge from the Shamans concerning plants and roots of community value. The bio-pirates officially collected close to 600 botanical samples with explanations of their uses. These were meticulously documented in reports which were passed on to U.S.A.I.D. and the New York Botanical Garden. U.S.A.I.D. passed the reports on to the N.I.H. The N.I.H. passed the material on to the N.C.I. The material was put on the register of the N.C.I. with a restricted access, confined to the large pharmaceuticals. It is unclear whether the bio-pirates also kept selected samples for themselves and whether the New York Botanical Garden was similarly given traditional knowledge and samples not disclosed to U.S.A.I.D. and the N.I.H. In order to secure a destruction of any claim based on a trade secret, the N.Y.B.G. published a full report in an internal publication, thus rendering any Shuar traditional knowledge valueless since as trade secret property it had been publicly disclosed. The central question here is, if the Shuar are bereft of legal rights to property, then the theft of their traditional knowledge by fraud, misrepresentation, and subterfuge leaves them with no legal recourse whatsoever. It is therefore crucial that the flexible conception of the human right to property of indigenous peoples be sufficiently elastic to cover the form of economic interest that is now described as traditional knowledge.

The extension of property concepts to traditional knowledge

In this section, we provide a more thorough explanation of the proposition that indigenous knowledge is knowledge that has special measures human rights property dimension. The traditional knowledge of many indigenous communities is a knowledge that is generally preserved, cultivated, and transmitted to future generations of traditional knowledge specialists in the community (Coombe 2001). An aspect of specialization is knowledge about human well-being and health. In the Shamanic tradition of Amazonia, the training of a Shaman involves rigorous and arduous methods (Davidov 2010). The training is partly spiritual, partly psychological, and partly material. Thus, a trained Shaman has tools to

[11] *Id.*

diagnose the ailment or malady of a patient using multiple vantage points or foci (King and Carlson 1995). In other words, the patient's problems may have its roots in a spiritual crisis, a psychological dysfunction, or a largely material cause, such as injury resulting in a broken limb. The Shaman's diagnosis must generally account for multiple factors to determine what is required to relieve the suffering and cure the patient. An important tool at the disposal of the Shaman is the knowledge of what in the natural available eco-system may facilitate the diagnosis of the patient's problem and how to treat it (Davidov 2010).

The Shamans in the rainforest of Ecuador are well trained in their profession. They hold an unusually deep understanding of plants and other available natural resources of the rich biodiversity characteristic of the ecosystem of the rain forest (Nagan 2002). They know what plants, barks, and other life forms are of important medical value in the sense of material insight, psychological insight, as well as spiritual understanding. Shamans vary in the intensity of their training as well as in the various skills they can bring to health care. However, the plants, roots, and other elements of the environment require the thorough understanding of how these living organisms are to be used, combined, and prescribed. The material medicines are often combined with insights into the psychological foundations of dysfunctions, sometimes described as energy dysfunction or the unequal distribution of energy in the patient generating the symptoms and effects of certain kinds of illnesses. Some of the plants or plant combinations are intense in their impact on the human physiology as well as on the mind. In the control of an untrained or ignorant practitioner, these medicines can do serious harm to a patient and can even kill. It is for this reason primarily that in the Shamanic tradition of the Shuar, the entire process of training a Shaman requires enormous sacrifices and the extensive discipline as well as commitment. This includes recognition of the value of this traditional knowledge. This knowledge is also part of the very definition of the roots of cultural identity and social solidarity. The values of traditional knowledge are not casually acquired or irresponsibly distributed; it is effectually a professional secret. The transfer of this aspect of culturally sensitive and valued knowledge is structured to inform the future generations who may define ultimately, the survivability and well-being of the community. It is correspondingly a tightly controlled and critical aspect of traditional secret knowledge. It follows that in the Shuar community, Shamanic knowledge is powerful and highly valued. It is carefully nurtured and distributed only to those who are accepted as trainees for the future. Such acceptance requires the trainee to be committed, serious, responsible, and capable of experiencing great mental and physical deprivations to strengthen the mental and spiritual faculties for effectively becoming a community Shaman healer. It is for this reason that it has been so difficult for bio-prospectors and unreliable opportunists to acquire a full and coherent account of the Shuar traditional store of knowledge. The bio-prospectors who seek to acquire such traditional knowledge using fraud and deceit would certainly compromise the trade secret value of traditional knowledge but in a complex manner. The bio-prospector would assume that a crude, stealthy appropriation of such knowledge is optimal knowledge and thus, exhaust the value of such knowledge in commercial and/or therapeutic terms. In fact, the knowledge acquired may be very shallow and though of value for further research may misunderstand and depreciate its important value to science, or indeed its optimal commercial values and uses.

Bio-prospectors, who misappropriate the Shuar knowledge work on the erroneous assumption that each plant does one simple discreet thing, be it a medical, cultural, or economic. In fact, the Shamanic knowledge is not static. A Shaman works continually at improving the depth of psychological and spiritual insight into the inner nature of plants and related items of the resources of the rainforest (Nagan et al. 2010). Thus, Shaman

practice is in part about traditional knowledge—Shamanic epistemology. This epistemology is continuously broadened and shared with other qualified Shaman to respond to the practical problems that Shuar experience living in the rainforest. For example, the Shaman may use several plants in complex combinations to produce an exponential range of possible therapeutic values. This is another reason that Shamanic knowledge is regarded as a secret, and this secret is transmitted only to those who are qualified, or who are in training or who themselves are engaged in broadening the boundaries of the knowledge base of the Shaman profession. The interest of modern science in the traditional knowledge of the Shuar has itself influenced an entire economic field, namely economic botany. This is a field well established in the industrialized society and highly rewarded professionally and economically. A specific branch of this field is another vast field of botany known as ethno-botany. Ethno-botany targets traditional knowledge about botanical assets considered to be of high economic value. If traditional knowledge has no economic value, no commercial value, and therefore cannot be protected, how does such a view compare to the importance that scientists and bioprospectors pay to ethno-botany as a major scientific field? If ethno-botany were completely economically and scientifically worthless, why is there a specific U.S. governmental policy and a vastly aggressive strategy to appropriate as much of this knowledge as possible and exploit its benefits.

Protecting traditional knowledge and the ideological assumptions and misconceptions of contemporary intellectual property law

In 1993, a conference in Bellagio, Italy considered the problem of intellectual property as currently constructed in national law and conventional international law (treaty law). The outcome of this conference was the Bellagio Declaration. In the Declaration, a clarification is provided of the assumption behind intellectual property law, stating, "Contemporary intellectual property law is constructed around the notion of the author, the individual, solitary and original creator, and it is for this figure that its protections are reserved."[12] This Declaration is appropriate as far as it goes but in fact makes a grievous error. It does not adequately reach the notion that patent law may be used to aid and abet a naked fraud, theft, and the widespread misappropriation of the intellectual property of others. In short, the tools in the system reflect not legal neutrality but a process by which a stranger may steal another's property or knowledge, lodge documents in a foreign state, meet the formal requirements, which are limited to that state's law and proclaim ownership worldwide. It is precisely this legal technicality, which creates a legal vacuum, which facilitates the misappropriation of the intellectual property of others. The international regime appears to want to speed up the registry of patents without the inquiry as to its origin or possible shared originators. This is largely a current global debate about the proposed changes and supplementation of the Convention on Bio-Diversity, in particular Article 8[J].[13] There the debate is about whether a certification is a practical and effective pre-condition prior to filing for a patent.

[12] The Bellagio Declaration from the 1993 Rockefeller Conference "Cultural Agency/Cultural Authority: Politics and Poetics of Intellectual Property in the Post-Colonial Era," Mar. 11, 1993, available at http://users.ox.ac.uk/~wgtrr/bellagio.htm.

[13] *Id.* Article 8(J); See also Bonn, *Decisions Adopted by the Conference of the Parties to the Convention on Biological Diversity at its Ninth Meeting* (19–30 May 2008); UNEP/CBD/COP/9/29.

The misappropriator has an immense advantage in the sense that once the patent is filed and possibly approved in a distant state it is virtually impossible to challenge the patent holder for the violation of a trade or industrial secret, especially if the plaintiff is an indigenous group or community. Apart from any other difficulties, it is vastly expensive and beyond the reach of most indigenous communities to mount an effective challenge to the system at present. In addition, the patent law will rarely if ever, demand that the entity registering the patent certify the origin of the idea and the related materials from which the patent is constructed. I and my team of researchers recently reviewed more than 3,000 patents of major pharmaceutical entities and could find no evidence indicating the origins of the sources which inspired the research. The critical question is of course the idea that traditional knowledge may have a property legal consequence in the light of the special measures component of human rights law. Second, it is also possible to show that in legal theory, traditional knowledge has the elements of a protectable property interest. It is thus apparent that the concept of property from the perspective of contemporary jurisprudence is reconcilable with traditional concepts of ownership and property and amenable to the protections of modern law including modern international human rights law.

Possible legal strategies to protect indigenous economic patrimony

There are multiple ways in which law, as an effective process of intervention, may be developed to provide an adequate authoritative and controlling response to the processes and practices of bio-prospecting in order to ensure that the misappropriations of traditional knowledge may be adequately protected. The most important issue here is to clarify the idea, as we are sort to do, that indigenous people have property interest and in particular property interests in those forms of traditional knowledge that follow in the broad framework of the protection of intellectual property expectations on a regional and global basis. There are juridical strategies that may be deployed by advocates who seek to provide for justice and equity for variously situated indigenous nations.

The first of these is to explore scope and relevance of the foundational concepts of trade and industrial secret law. A review of practices in the civil law, in the common law, in representative statutory law states as well as international law shows there is a common core of legal concepts that consistently recur in all the criteria that touch on the protection of trade and industrial secret (Stevenson 2000). Second, related to this idea is the recurring concept of piracy, which is an international legal concept, which in general confers universal jurisdiction. The concept of piracy as international law wrong has been expanded from robbery on the high seas to the highjacking of planes and ships (Dahlvang 2006). It has also been expanded in the age of cyberspace to cover electronic commerce and communications (Stephenson 2001). Using the techniques of modern communication theories, there are strong juridical foundations for the construction of a customary international law rule, which by legal analogy may appropriately cover the international wrong of bio-piracy (Arewa 2006). Third, the concept of property of indigenous people may be logically extended to include traditional knowledge as intellectual property and thus provide a firm human rights juridical foundation for the protection and the provision of remedies for the misappropriation of traditional knowledge (Drahos 2000; Downes 2000; Brush 1993). The fourth possible avenue of legal recourse is in part contingent upon the soundness of the description and analysis of traditional legal rights as protecting property interest of indigenous people. If the concept of a trade or industrial secret is a formal property that forms the basis of a claim under a conventional international treaty, that claim

would still have to be characterized for the purpose of civil litigation in a domestic tribunal. In general, in both civil and common-law systems, the wrongful misappropriation of a trade or industrial secret is regarded as been either *delictual* or tortuous in character (Stevenson 2000). A fifth stratagem may now be outlined; the principle in point four feeds into a related but important legal stratagem. The above premise suggests there is a juridical foundation to support a claim in a domestic court, for the violation of a substantive property interest in a domestic court. The claim is based on the principle that the prescriptive norm that rules the case is one drawn from the field of private international law. In short, the *lex loci delictus* is authorized to prescribe that law for the wrongful, *delictual* taking of a property interest. Thus, the law of the state where the wrong or delict occurred is authorized under international law, including private international law to supply the rule of decision in such a case.

In contemporary choice of law, this test is varied somewhat but there appears to be a growing consensus that the operative rule of decision would be the law of the place having either a significant relationship to the events or occurrences or at least having a reasonable relationship to those parties involved in the allegedly wrongful events. In addition, the wrong could be a civil law and common law wrong in the consent jurisdictions thus obviating any notion that there is a true conflict between the concerned states or jurisdictions. However, the logic leads to even a strong argument, if such a claim is filed in an appropriate federal court in the United States.

We now come to a sixth legal stratagem; principles four and five contain two premises which provide us with a direct claim in law which may be based directly on the concept of an international tort directly in violation of the Law of Nations. United States practice has specialized in this area. For example, Section 1350 of 28 United States Code is of relevance. This section popularly known as the Alien Tort Claim Statute holds that the federal courts may determine cases brought by an alien for a tort in violation of the law of nations.[14] This statute has been applied in the several federal judicial districts in the United States, and the section has been affirmed most recently in the *Sosa Case* by the United States Supreme Court.[15] If the logic is compelling that the elements of a tortious wrong in the area of protecting trade secret knowledge and traditional knowledge, as trade secret knowledge, and if the elements of this wrong are consistent with the standards for declaring the existence of a rule of customary international law, then there is a possible claim under section 1350. The claim would be based on a tort of an international law wrong of biopiracy, and thus an alien may sue under section 1350 if there is jurisdiction over the defendant.

A seventh possible stratagem to seeking legal redress for the misappropriation of traditional knowledge may be even stronger than the concept of an international tort of biopiracy. Here, the analysis would focus on traditional knowledge as intellectual property, which is property for the purpose of Article 17 of the Universal Declaration of Human Rights. Article 17 holds that: "(1) Everyone has the right to own property alone as well as in association with others; (2) No one shall be arbitrarily deprived of his property." The case law of Inter-American Court of Human Rights has taken a broad and liberal view of the concept of property as applied to indigenous nations of Latin America. It is not yet extended the concept of property under the Inter-American Convention to traditional

[14] *The Alien Tort Statute or Alien Tort Claims Act (ATCA)*, 28 U.S.C. § 1350—"The district courts shall have original jurisdiction of any civil action by an alien for a tort only, committed in violation of the law of nations or a treaty of the United States."

[15] *Sosa v. Alvarez-Machain*, 542 U.S. 692 (2004).

knowledge as a protectable property interest but as we show there is a strong basis in human rights law and theory as well as the practice of the Inter-American Court that this is a protected human right. Consequently, a possible remedy could lay in the jurisprudence in the Inter-American Commission and Inter-American Court of Human Rights. Thus, there already exists the principle that under the Inter-American system at least there is a compelling case that traditional knowledge falls within the protection of the human right property. The arbitrary deprivation of this right or the misappropriation of this right thus constitutes a wrong under international law. Since the wrong is analogous to protecting industrial and trade secrets, it is a wrong, which also has a tortuous and delictual character. This may be prima facie sufficient to establish that it is a tort in violation of the law of nations for the purpose of domestic litigation under section 1350.

The eighth possible stratagem for action may be the claim for legal redress for the misappropriation of traditional knowledge based on the current prescriptions on the CBD. The CBD provides some degree of protection for indigenous interests based on traditional knowledge and other genetic materials localized to such communities. However, the precise language of the relevant article and its relationship to other related articles in the CBD is very ambiguous and generally considered to be incomplete. Thus, there is a continuing discourse designed to improve upon the basic expectations in this instrument concerning the interests of indigenous people. Notwithstanding the limitations of the CBD, the convention does provide for extraterritorial jurisdiction concerning issues arising out of the CBD.

The CBD also provides for judicial settlement for disputes under in International Court of Justice in Article 27(3)(b). This may have the possibility of a state's party litigating the rights associated with indigenous interests before the ICJ in certain situations. From the perspective of the identification of treaty-based legal interests for indigenous people concerning both traditional knowledge and the genetic inheritance, the key article is 8(j). Article 8(j) provides that traditional knowledge can be protected by formal certification for access and benefit sharing regarding the gains derived from such knowledge. This is a method which is also giving rights to the development of more detail protections as indicated in the Bonn Guidelines.[16] These guidelines are moral guidelines and do not necessarily generate specific legal rights should they be violated. However, they could implicitly be read as providing an authoritative gloss on rule 8(j) and thus read in the light of the principles of jurisdiction and judicial settlement could provide a form of legal redress for malicious violations of the provisions relating to access, certification, and benefit sharing. There are currently negotiations under way to define the scope and character of Article 8(j) of CBD, and these negotiations are now being influenced by the recently adopted General Assembly Resolution, Declaration on the Rights of Indigenous Peoples.

Current developments concerning biodiversity and the protection of traditional knowledge of indigenous communities

The United Nations Convention on Biodiversity as indicated above has important provisions that implicate the rights that indigenous communities might have over the control and regulation of their traditional knowledge as a community resource. The protections given

[16] *Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization*, Secretariat of the Convention on Biological Diversity (2002).

in the convention must be seen in the light of the major purpose of the Convention, which is to provide a degree of international control for the protection of the earth's biodiversity resources. This means that whatever interpretation is given to the provisions in Article 8(j) that refer to a regime of access and benefit sharing, which implicates the status of traditional knowledge, requires as well that access should be conditioned by the major purposes of the Treaty as indeed is the benefit sharing expectation in Article 8(j). Since these issues are complex, the Convention has created a 'Conference of the Parties' to the Convention on Biodiversity (COP).[17] The Conference has met regularly for over 10 years and has created specific working groups specializing in the complexity of generating a fairly precise regime to secure the implementation of Article 8(j). In addition, the issue of access and benefit sharing in the context of protecting biodiversity also implicates in a direct manner the international legal regime that regulates intellectual property. This therefore contains important interests for the World Trade Organization (WTO) and the World Intellectual Property Rights Organization (WIPO). It should be noted that the fundamental objectives of the regime that has been established to protect private property rights of patent holders are influenced by the objective of stabilizing a high degree of enterprisory freedom, often influenced by the economic ideology of neoliberalism. It therefore would be clear that constructions given to the communitarian rights related to traditional knowledge may be incompatible with the enterprisory freedoms, in establishing a private property right derived ultimately from traditional knowledge but which serves a significant economic function from a neo-liberal perspective that is given a preference under WTO's standards.

Neo-liberalism, private property and nature/biodiversity

One of the classic assumptions that drive the neoliberal approach to wealth accumulation is the way it conceives of nature. In general, nature is a kind of global commons, and it is somewhat unlimited and the challenge to a rational economic actor is the appropriation of aspects of nature which can be converted into the private property of the appropriator and can be vested with a property right that is close to being inviolable. In this sense, when we view the resources that constitute biodiversity, the entrepreneur sees a commodity that can be appropriated by him, be assigned a price according to the market and sold or exchanged. Viewing the same resources of biodiversity from the perspective of an indigenous community, the entire biodiverse landscape is not simply an aspect of the group which is a perspective of the neoliberal actor; it is the basis of the group itself. As a consequence, the idea of making a commodity out of the resources that sustain biodiversity is possible only if appropriation trumps the idea that community and environment are completely interdependent and the well-being of each is a matter of mutual inter-determination. This is the challenge that the negotiators both in the Conference of the State Parties on Biodiversity and the officials involved in policy making matters in the WTO.

With these fundamental ideas, we must introduce a new variable; the bio-prospector. The bio-prospector initiates intervention into indigenous communities in environments of rich biodiversity as a scientist, seeking enlightenment. Soon the enlightenment is broadened to include the idea of intervention as an economic ethno-botanist. This provides a sharper linkage into the economic value of appropriated research for developing products for the global market in various forms of health services. The incentives of the bio-

[17] Conference of the Parties (COP), http://www.cbd.int/cop/.

prospector have become accentuated because the information that he may appropriate about plants and plant products may be channeled to interests, including his own, which may unlock the specific form and types of molecules which on further development will find a ready global market. This results in a process in which the resources of community and environment sustained by biodiversity may be privatized. Privatization requires the recognition of a new form of property and that new property, intellectual property, will be protected by the international treaty regime, which governs intellectual property rights under the WTO. The outcome of the privatization of property in the traditional knowledge biodiverse context leads to the marketing of traditional knowledge and biological resources, which influence it. The result is that there is now the ascendance of a new legal regime of ownership and market exchanges which implicate intangible or value-added components to these resources or forms of knowledge. The current struggle is in part a legal and jurisprudential policy issue. On the one hand, there is the interest of the community inventors of traditional and biological knowledge and how to secure the community interest in a way that is fair and just and the values of the private entrepreneur who beliefs that traditional knowledge and biodiversity are merely a part of the global commons of nature waiting to be appropriated by private initiatives, for the exclusive benefit of the appropriator. Further insights into these processes are suggested by Noel Castree;

> "rival theoretical discourses on the 'selling nature to save it' approach to environmental conservation… currently *de rigueur* in mainstream global environmental organizations, is touted by its advocates in the academic and policy world as an effective tool for 'green developmentalism'. For a cohort of university-based left critics, however, bioprospecting is one more troubling example of 'post-modern ecological capital' in action, representing the further commodification of nature for profit purposes" (Bavikatte and Robinson 2011).

The policy struggle may, without distortion, be seen as a struggle between largely indigenous communities who inhabit rich areas of biodiversity and who have a significant stake in the resources that they generate and the appropriateness of a legal regime that recognizes their claims to value in a context of environmental biodiversity. On the other side are vested economic interest, who see in the expression of economic power by the appropriation and construction of inviolable private property rights the right to take the benefits generated by the cultures shaped by biodiversity, and to provide no tangible benefits to those cultures. The developments under the COP of the CBD have been significant in attempting to reconcile these conflicting fundamental issues. As early as 2004, the COP decided to mandate that the open-ended working group on access and benefit sharing should cooperate with other working groups as well as other stakeholders in developing the outlines of an international regime on access to genetic resources and benefit sharing with the objective of an instrument that would give effect to Article 15 and Article 8(j) of the CBD.[18] A central element of this process was the concern that Article

[18] *Seventh meeting of the Conference of the Parties (COP 7), 2004*, Access and Benefit Sharing (ABS) Main Achievements Factsheet by The Secretariat of the Convention on Biological Diversity (2009)—At its seventh meeting in Kuala Lumpur, Malaysia, in 2004, the Conference of the Parties followed up on the WSSD call and mandated the Working Group on ABS to elaborate and negotiate an international regime on access to genetic resources and benefit sharing with the aim of adopting an instrument/instruments to effectively implement the provisions in Article 15 (Access to Genetic Resources) and 8(j) (Traditional Knowledge) of the Convention, and the three objectives of the Convention. The COP also agreed on the terms of reference for the Working Group, including the process, nature, scope and elements for consideration in the elaboration of the regime (decision VII/19).

8(j) on 'Access and Benefit Sharing' had no teeth. Additionally, there is nothing in 8(j) about a mandatory prior informed concerned process, or indeed the distribution of mandatory benefits. Additionally, if reliance were placed on Article 15, it is an Article that does not mention any rights in indigenous communities. These and other issues became the critical background issues that set the stage for COP 10 in Nagoya and the adoption of the Nagoya Protocol. These technical battles, which involved furious debate, ultimately provided for the developments that emerged from the Nagoya Protocol. The developments that emerged and were put on the table for Nagoya were the following:

1. An insistence on an inseparable link between genetic resources and traditional knowledge;
2. Clear requirement for informed consent and benefit sharing with regard to traditional knowledge;
3. Compliance with traditional law and community expectations when seeking to access community resources and traditional knowledge;
4. The sovereignty of States was circumscribed, so the State has an obligation to facilitate the recognition of indigenous rights;
5. The interpretation of these issues was to be influenced by the recognition of the United Nations Declaration on the Rights of Indigenous People (Bavikatte and Robinson 2011).[19]

The following five provisions emerged from the COP 10 in Nagoya and the Nagoya Protocol and represent the most recent developments in the clarification of the rights of indigenous communities to the genetic patrimony and traditional knowledge.

1. The elimination in Article 8(J) of the words 'subject to national law'. In effect, this suggests that the State cannot simply dispose of the resources of its indigenous populations without the recognition that they have rights directly under international law.
2. That the references to customary law and community expectations be included in the text of the protocol in order to firmly establish the Treaty obligations of States to respect the local community forms of governance;
3. To firmly ground the rights of indigenous people over the genetic resources, the Protocol would create a precedent that interpretation of the CBD be done in the light of the UNDRIP;
4. To ensure that the reference to the UNDRIP is expressed in the preamble of the Protocol to ensure that the values of the UNDRIP will influence the interpretation of the CBD;
5. To prevent the issue from being transferred to the WIPO and to maintain that the envisioned Protocol is the principal instrument for defining and interpreting rights over genetic resources and traditional knowledge (Bavikatte and Robinson 2011).

Conclusion

These and other considerations have a significant bearing on a number of other issues that implicate protections for traditional knowledge. First, it is not absolutely clear that the

[19] Kabir Bavikatte and Daniel F. Robinson, *Towards a People's History of the Law: Biocultural Jurisprudence and the Nagoya Protocol on Access and Benefit Sharing*, *Supra.*

concept of benefit implies that there is a legal enforceable right to a benefit in the CBD. This issue may be implicated if there is clear sense that the idea of prior informed consent is also an enforceable legal right. This in turn requires that there be some juridical framework for the recognition of such interest. Hence the development of the idea of *sui generis* systems based on the customary law of the community, this is a monumental task and continues to be discussed. Another important issue, which has implications for the above, is the idea that there should be a code of ethical conduct that is to define the appropriate spheres of legitimate expectation between the appropriator and the indigenous community. The Bonn Guidelines appear to remain influential but even if such guidelines are developed will they have any juridical efficacy. Or will such guidelines negate the efforts of Nagoya indicated above? Finally, it is important to note that these issues do not address an important problem of the bio-prospector, becoming a biopirate, and how such issues should be understood in terms of both the CBD and the standards of the WIPO, regarding traditional interests in patents which rely on intellectual property. Here, one of the most crucial issues resisted by developed countries is whether a patent, when registered, should include an international certificate of origin/source/legal provenance.

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