

MA MAJOR RESEARCH PAPER

TRADITIONAL MEDICINAL KNOWLEDGE, RECOGNITION AND REGULATION

NICOLE AYLWIN

Dr. Rosemary J. Coombe

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International negotiations over the rights to and the protection of traditional medicinal knowledge must always take place along side issues of the legal, political and cultural recognition of indigenous peoples and their knowledge. Recognition of indigenous peoples in the international legal and political forum has never been a given; it has been indigenous peoples themselves who have been responsible for demanding the recognition of their rights and their knowledge on a global scale. Recognition is by no means a straight forward concept; it invokes a number of questions: who and what is entitled to recognition? For what purposes is recognition granted? What does being recognized entitle one to? Critically important to answering these questions, is asking tougher questions still: who or what defines and articulates how far the boundaries recognition will reach and with what consequences?

Globalization is the context in which to situate debates over the rights to and the protection of traditional medicinal knowledge (TMK). The failure of many struggling nations to provide adequate healthcare for their populations has become a global concern, the increasing recognition of the legitimacy and scientific utility of indigenous knowledge has prompted transnational pharmaceutical conglomerates to engage with TMK and its holders, and the fear of a global biodiversity crisis has catapulted TMK into global debates ranging from the importance of traditional medicinal knowledge to environmental sustainability projects, to debates over intellectual property rights.

As a number of global legal and political institutions grapple with ways to recognize and integrate TMK into their institutional frameworks, how traditional practices are 'recognized', and what work 'recognition's being asked to do become key questions. Three international frameworks that play a key role in recognizing TMK in the international arena are the Convention on Biological Diversity, the World Intellectual Property Organization and the World

Health Organization. By examining the way in which these three bodies have recognized and integrated TMK into their respective regimes, while and drawing on the scholarship of anthropologists, critical legal scholars, intellectual property experts and legal and policy literature, I will argue that the recognition of TMK in the international legal and political arena has led to the creation of complex legal and political spaces where recognizing traditional medicinal knowledge has fragmented it, siphoning off the social, cultural and spiritual aspects of it that remain incompatible with the current neoliberal paradigms. Simultaneously, recognition and integration have been used to co-opt traditional knowledge in order to extend governance regimes that integrate TMK and its holders without challenging the basic, outdated and highly unequal and unethical power relations on discourses of recognition are based.

Defining Traditional Medicinal Knowledge

There are always difficulties and risks involved when attempting to define a concept such as TMK without resorting to broad generalizations and all-encompassing assumptions. For this reason, there still remains (appropriately) no single adequate definition of TMK. However, for analytical purposes, at the very least, a working definition of TMK is necessary. In search for his own working definition legal scholar Chidi Oguamanam draws from a larger overarching definition of indigenous knowledge (IK) proposed by Howard Mann. According to Mann:

Indigenous Knowledge as a concept concerns information, understanding, and knowledge that reflect symbiotic relationships between individuals, communities, generations, the physical environmental and the other living creatures, and the spiritual relationships of people. Indigenous knowledge evolves as ecosystems and other factors change but remains grounded in the more enduring aspects of identity, culture, generations and spirituality (Oguamanam, 2006, p.25-26 citing Mann).

Oguamanam values this definition for its attention to the dynamic character of indigenous knowledge and its ability to side step the contentious issue of defining 'indigenous' in order to establish what can be termed as indigenous knowledge. For Oguamanam, TMK forms one part of the larger category of indigenous knowledge but can be defined in its own right as:

The use of plant genetic resources for medicinal or curative purposes as opposed to agriculture or food...Traditional medicine emphasizes healing practices, including belief systems that are usually associated with medicinal knowledge in the use of plant resources. (Oguamanam, 2006, p.28)

The recognition of a larger body of indigenous knowledge in which there are smaller particular subsets is endorsed in this paper. Indigenous knowledge as a category can include a diverse fields of knowledge including ecological knowledge, agricultural knowledge, spiritual and cultural knowledge, as well as medicinal knowledge. However, Oguamanam's definition of the subset of TMK loses some of the dynamic interactions that his larger definition of indigenous knowledge supports. In anchoring his definition of TMK to 'medicinal knowledge in the use of plant resources', Oguamanam limits TMK to only that knowledge which can be steadfastly linked to flora and fauna, making botanical knowledge the all important center of this knowledge furthering the assumption that if TMK is not directly linked to biological resources it does not count as TMK. Botanical and ecological knowledge certainly inform and contribute to TMK practices and any definition of TMK must necessarily link TMK to physical space and the biological resources within it; however, Oguamanam's definition allows no room for rituals, songs or dances used without biological resources in a healing ceremonies to be considered TMK.

Anthropologist Chloe Frommer also distinguishes between a larger body of indigenous knowledge and the subset of TMK. She defines the subset of TMK as, "knowledge informed by

medicinal traditions specific and unique to territory (2003, p.11).” Not only does this definition ground TMK in place and territory, it is flexible enough to accommodate a larger number of ‘medical traditions’ including ritual healing ceremonies. as TMK. This is not to suggest that plant resources and the use of botanical knowledge are not integral to the workings of TMK, they are just not the only ones, nor automatically the most important ones. Frommer manages to provide an analytically useful definition, and gives shape to the concept of TMK without limiting its scope; for this reason it will be the one supported in this paper.

Making Traditional Medicinal Knowledge Visible

The recent attention garnered by traditional medicine in international discourse begs the question of why after so many years, the concept of TMK, long of interest primarily to anthropologists and ethnobotanists, has been pushed to the forefront of international policy debates, and discussions of global economic trade, environmental sustainability and human rights. There is no single simple answer to this question. The rise of TMK can be understood as the outcome or conjuncture of a number of colliding international circumstances that began to see TMK as an important international actor.

In 1993 the World Health Organization (WHO) estimated that nearly 80% of the population in non-industrialized countries relied upon TMK for their healthcare needs (Bodeker, 1999, p.263). According to the WHO this widespread use of TMK could be attributed to the lack of access to affordable alternative state provided allopathic healthcare (WHO, 2002). TMK provides an accessible and much more affordable healthcare option to many of the world's poorest people. Given that most state coffers are unlikely to swell sufficiently to provide ‘modern’ medical treatment to all citizens, given multilateral financial policies that discourage state spending, the WHO has made the recognition and promotion of TMK one of its top

priorities and encouraged the integration of TMK into the development of national healthcare policies (WHO, 2002).

Alongside this crisis of access to modern western healthcare, was a growing appreciation of the commercial value of TMK to the life sciences industries. 'Research and development firms' and pharmaceutical companies discovered that TMK could be used to lower the amount of time it could take to discover a useful pharmaceutical property within a biological resource. The chances of discovering one useful plant sample out of 1000 that can be turned into a marketable pharmaceutical rises from 22 to 78 percent when TMK is involved in the research process (Horton, 1995, p.5), while using TMK to help screen plant samples for medical properties increases productivity by 400 percent (Oguamanam, 2006, p. 5). This realization led to an increasing emphasis on the intersection of TMK and issues of intellectual property rights, where the contentious issues of patent rights, benefit-sharing with local communities and (mis)appropriation of TMK (an element of what has become known as biopiracy) became contentious points of debate in international deliberations. Graham Dutfield is quick to note however, that IK (of which TMK is a subset) is most valuable to indigenous peoples and local communities themselves (2005, p. 505). Many indigenous and local communities depend on IK to maintain their livelihoods and health, and they rely on IK to sustain their environments and exploit their resources (Dutfield, 2005, p. 505). Dutfield argues that the recent interest in IK can be largely attributed to the perception that IK aids failing local economies (2005, p.505) while reducing state responsibilities for citizens well being.

Finally, the recognition of IK as imperative for ecological sustainability catapulted it on to the world stage in the 1980s and early 1990s when growing fear over the loss of global biodiversity began to materialize. IK and consequently TMK with their strong ties to

bioresources were seen as vital agents in helping to avoid this crisis an indigenous peoples' knowledge of local ecosystems suddenly made them potential partners in the enterprise of sustaining biological diversity.

All of these factors combined have made TMK much more than a topic of esoteric study and, they have given TMK a place of pride on international platforms from which a multitude of political, economic and policy debates are launched.

Traditional Medicinal Knowledge and Biodiversity

In the 1980s the fear of an impending biodiversity crisis captured the global public imagination. There was evidence to suggest that biodiversity, or the variety of biological and genetic resources that exist in our global ecological systems, (the variability in and between species) was in danger of becoming exhausted (Oguamanam, 2006, p.4). Pressure from mass industrialization, development projects, land clearing, forest cutting and the rapidly growing use and harvesting of biological resources by life science industries such as pharmaceutical companies, had resulted in the declining availability of medicinal and other plant resources (Oguamanam, 2006, p. 4). Corresponding to this fear of a biodiversity crisis was the acknowledgment by the United Nations Environment Program that the concomitant treaties that dealt with biological resources existed only in piecemeal and there was no comprehensive convention designed to protect and promote of biodiversity (Mgbeoji, 2006, p. 76). As a result in 1992 the United Nations Conference on Environment and Development was held in Rio de Janeiro and the outcome of this meeting was *United Nations Convention on Biological Diversity* (CBD) (Gibson, 2005, p.191). The CBD was ratified in 1993 and has now been signed by 188 countries (Gibson, 2005, p.192). The CBD was the first global Convention which addressed

biodiversity in all of its manifestations and it set the agenda for addressing key concerns relating to conservation and protection of bioresources.

The question of protection and recognition of indigenous peoples and their knowledge was quickly linked to concerns over the loss of biodiversity in an international legal arena in which indigenous peoples' rights already occupied decision makers. IK was heralded as essential to the project of environmental sustainability as indigenous peoples often maintain subsistence lifestyles where direct links to the land and its bioresources are imperative. There appears to be a link between biodiversity and cultures which are distinct from those of industrialized societies, "4-5000 of the 6000 languages in the world are spoken by indigenous peoples... Those countries which contain peoples speaking the largest numbers of languages are also those that house the greatest biological diversity in terms of species and interspecies variations" (Coombe, 2003, p. 277 citing Nettle and Romaine, 2000). For these reasons, the CBD with its attention to the project of sustainability and biodiversity was also a project that involved recognizing and thinking about the appropriate ways in which to recognize and protect indigenous knowledge.

The CBD created a framework that sought to govern access, distribute and share biological resources, and ensure the benefits deriving from their use (Oguamanam, 2006, p. 5). This was an important convention for indigenous communities, and particularly those in the global south, since it is estimated that the tropical rainforests of the south harbor between 50 and 90 percent of all species and they remain the oldest land ecosystems (Oguamanam, 2006, p.39). The main objective of the CBD is the "conservation of biodiversity, sustainable use of its components and the fair and equitable sharing of the benefits" (The Convention on Biological Diversity, Article 1 as quoted by Oguamanam, 2006, p. 80). The CBD also provided for the first

time a template by which national and regional biodiversity conservation and access regimes could be modeled and means for their evaluation. Biopiracy, or the misappropriation of indigenous resources, was recognized as an ongoing problem in areas occupied largely by indigenous peoples and what became known as “local communities embodying traditional lifestyles” (Mgbeoji, 2003, p. 13).

Oguamanam notes that there is an important distinction that must be made between biological resources (bioresources) and biological diversity (biodiversity). Bioresources differ from biodiversity insofar as bioresources are the tangible and isolatable products of biodiversity (Oguamanam, 2006, p.37). This distinction touches on the crux of debates over the successes and/or potential success of the CBD to recognize and respect IK. The CBD has been critiqued for its commercial approach to the protection of bioresources, and has been charged as being yet another overarching economic framework (Oguamanam 2006; Gibson 2005; Mgbeoji 2006). For legal scholar Johanna Gibson, the CBD continues to articulate bioresources in terms of international trade norms, where there is an emphasis on the protection of natural areas in order to preserve a resource intended for consumption, rather than an emphasis on the protection of natural areas-period (2005, p.195). Ikechi Mgbeoji echoes this argument by suggesting that although the concept of sustainability is built into the CBD; ‘sustainability’ has been largely conceptualized within the paradigm of capitalism making sustainability fundamentally a product of economic ideology. Protecting resources for their commercial consumption value is an objective very different from promoting biological diversity for its own sake.

Chidi Oguamanam has also identified the commercial tendencies of the CBD as detrimental to its overall objective and argued that the emphasis is put on biological resources because unlike diversity, ‘resources’ can be owned and exchanged (2005, p. 34). This economic

imperative has a severe impact on what knowledge and resources are to be protected and who, if anyone, is entitled to royalty benefits. For example, when a plant resource is collected for its medicinal properties and if it is found to have no potential as a medical resource, it will not be included within the framework of protection and the knowledge holders that may have contributed to the discovery of that plant have no rights to compensation, regardless of the larger value of this plant knowledge to indigenous healers (Oguamanam, 2006, p. 42). These economic approaches to biodiversity that conceptualize bioresources as separable from diversity often run in opposition to the indigenous knowledge systems from which the knowledge was derived.

For most indigenous communities, health and the environment are intimately linked together within a holistic system of balance. To be healthy is to exist in equilibrium with the past (maintaining a connection to ancestors), the present (maintaining harmony within the community), nature, the spirits, and between mind and the body (Posey, 2002, p. 201). In indigenous world views, maintaining this interconnectedness is imperative to good health. As Gerard Bodeker notes, “the breaking of this interconnectedness of life is a fundamental source of *dis-ease*, which can progress to stages of illness and epidemic” (Bodeker, p.263). For this reason, medicinal healing treatments do not aim only to treat the bodily manifestations of the illness; they are often designed to repair the imbalance that was created (Bodeker, p.263). Clearly the *extraction* of information to treat illness is not possible according to the indigenous understanding of health. Furthermore, the process of information extraction is not only incommensurable with TMK systems, but in some cases information extraction is simply dangerous. The Shamans and Curaderos Mazatecs of Southern Mexico confer with plant spirits in order to determine how to treat a patient. To be a successful healer, a Curaderos must develop the skill of listening to the plants (Posey, 2002, p. 202). For the elders of the Kayapo Indians in

Brazil, there is great concern that the collection and harvesting of plants would trap the spirits embodied in the plants, making their emergence impossible, forever trapping the knowledge of those spirits (Posey, 2002, p. 205). These beliefs may be presented metaphorically, but talking to plants, or the spirits embodied in plants is representative of the practices of knowledge development and discovery, and may provide important insights into the characteristics of these biological resources. For example, 'talking to plant spirits' may be one way of expressing and noting changes in the environment and thus changes in the nature of particular plants and their medically efficacious properties. Unlike dominant Western science, which continues to view nature as an object, TMK systems do not separate the knowledge from the land but treat it as a part of the ecosystem.

The commercial approach to biodiversity identified in the CBD is embedded within a larger regime of neoliberalism and the commodification of information. Many of the conditions of neoliberalism, such as privatization, the proliferation of global trade agreements, the declining role of the state and the growing role of transnational corporations and particularly transnational corporations, along with the trend of economic globalization, have progressively encouraged an economy which values non-tangible informational goods over material goods. This commodification of immaterial resources is at the heart of the global growth of informational capitalism. According to Arun Kundanani, in the current global era the technological possibilities for the instantaneous flow of information has increased the potential value of informational and symbolic goods (Kundanani, 1998, p.50). In order for corporations and firms to compete within this global informational environment, they must remain in a perpetual cycle of innovation. A company's success or failure depends on its ability to produce, respond, market and utilize information at a lightening fast speed; the growth of a corporation is dependant upon its

continual ability to innovate. Under these conditions, biological resources are more useful and valuable as informational resources that can that can be utilized, bought, sold, exchanged, altered or discarded at the lightning fast pace required..

As Rosemary Coombe points out, although tangible biological resources such as medicinal plants were once considered material resources they have become informational goods through the process of assigning human labor as an integral part of their development and ‘innovation’. At James Ridgeway describes this:

So called genetic engineering gives scientists the tools to change small elements in the DNA structure of a living thing in order to create, in effect, a new living thing. This relatively new science has genetic engineers around the world busily combining genes, inserting genes across species or even among plants, animals, and humans. And the entities for which these scientist work – governments, universities or most often, private corporations are claiming proprietary rights not only over the processes of genetic manipulation but over the newly created organisms themselves. (Ridgeway, 2004, p.206).

This process effectively turns material resources into informational resources (Perry, 2000). According to Chloe Frommer, within the information economy, information or intellectual resources are the depersonalized, abstract and transportable resources whose legal value is derived from their limited engagement with the public domain—in other words their discovery in the laboratory (or through other legitimated modes of discovery). Their ‘privacy’, is what makes them rare and valuable resources (2003, p.12). One cannot claim a patent on an innovation that is already public knowledge. On the other hand, cultural recourses which are responsible for the enactment and reproduction of the social environments which actually produce the knowledge are considered “natural common heritage” and thus can be “dismissed as ‘raw, unsophisticated resources” (Frommer, 2003, p. 12).

One example of how TMK is informationalized, i.e. 'information' becomes extracted from the resource, is the case of Mamala tree. The healers of the Samoan had been for years using the bark of the Mamala tree to treat an array of medical problems, one of them being hepatitis. By using the TMK of the Samoa healers researchers were able to derive important compounds from the bark of the tree one of which led to the development of prostratin, an anti-AIDS compound (WIPO, p. 24). The knowledge of traditional healers, along with the material resources were used to extract informational qualities that could then be patented as an innovation.

The CBD contains provisions to ensure that indigenous knowledge holders are credited and rewarded for their contribution to bioresources through benefit-sharing agreements. However, the value and amount of labor invested into the creation of 'new' bioresources is one criteria that is used to evaluate who is eligible to receive in what amount the benefits deriving from the bioresource. A number of neoliberal tendencies and indications of the informational capital ideology are at work here. As Johanna Gibson points out, although indigenous communities are recognized as contributors to the creation and maintenance of bioresources, the mere concept of benefit sharing still derives from the principles of 'remuneration' for providing access to goods (2005,p.197). Benefit-sharing arrangements still remain contractual agreements where most often indigenous knowledge holders come to the negotiating table with far less power than the large corporations they are contracting with (Ghindini, 2005, p. 698). Developing countries and indigenous communities are clearly at a disadvantage. Given the tremendous amount of economic power and legal backing large pharmaceutical conglomerates and other research and development companies come to the bargaining table with what is defined as 'fair and equitable benefits' is more often than not determined by the major corporation. However, as Gustavo

Ghindini points out, “fair and equitable sharing” does not automatically mean, nor does it have to mean, strictly financial compensation for genetic resources (2005, p.698). For many indigenous communities whose TMK is highly sacred and spiritual, financial compensation does not, and cannot always meet the conditions of a fair dealing.

In Zimbabwe, social relationships guide the economic activities related to the payment of the healer and the sharing of the knowledge (Frommer, 2003, p. 27). It is not merely enough to pay out of pocket for a healer’s service. Payment or the ‘gift’ for traditional healing services is an integral part of maintaining social and cultural relationships; the payment made for the knowledge is not the primary concern, it is the actual exchange that signals and solidifies good faith relationships within the community (Frommer, 2003, p.27). Unlike a ‘payment’ where once a good is exchanged for a product or service neither party retains any obligation to the other, a ‘gift’ exchange binds those two people into a continuing relationship with one another (Wiener, 1992, p.102). ¹ An argument could be made that fair and equitable sharing means that pharmaceutical companies should be required to enter into benefit sharing agreements that are consistent with the practices and wishes of the community (whether these wishes are strictly financial or otherwise) in a show of good faith and respect, if not yet as a matter of law. There are possibilities for alternative modes of compensation that do not rest primarily on an economic reward system and do not measure the value of knowledge strictly in financial terms. However intrinsic in the intellectual property system is the invisible assumption that all knowledge is equivalent to information and thus protectable as an economic commodity and commensurable with dominant means of exchange (money).

¹ For a more thorough discussion on how reciprocity and the exchanging of inalienable positions create and maintain social networks see, Annette B. Wiener, “Inalienable Possessions: The Paradox of Keeping While Giving” (University of California Press: Berkeley: 1992).

Although the CBD is an international agreement, it actually firmly plants control over how the aspirations of the Convention are met in the hands of individual nation state. This emphasis on national sovereignty allows for states to co-opt bioresources for national projects and ensures that the ground work is laid for all biodiversity related dealings to be carried out as contractual agreements (Coombe, 2003, p. 282). By making the state the primary actor in the protection of biodiversity, the CBD ignores the violent colonizing histories and relationships that many indigenous groups have had and continue to have with the modern nation state.

The CBD is jurisdictional in nature, and it works to fulfill its mandate through the protection of bioresources, not the conditions through which biological diversity is maintained. To do this the CBD effectively commodifies biodiversity into resources that can be codified, categorized and filed away for further use (McAfee, 1999). It works to protect this inventory of resources, but not the communicative and longstanding social systems that produce them.

Traditional Medicinal Knowledge and the World Intellectual Property Organization

The World Intellectual Property Organization (WIPO) has taken significant steps to develop strategies to promote and protect TMK. It has attempted to find ways to integrate TMK within the legal frameworks of intellectual property law. Just as the CBD responded to indigenous knowledge at a particular moment in time, so too did WIPO engage with IK and TMK for particular purposes. Under neoliberal conditions, WIPO's role in the information economy is to ensure the fair and equitable exchange of knowledge, but also to ensure that the exchange of knowledge continues smoothly. Given the importance of information exchange in the context of informational capitalism, the certainty of exchange must be protected. WIPO however, still operates under the conditions of a neoliberal information economy that make it

difficult if not impossible to fully integrate TMK with spiritual dimensions into intellectual property regimes.

Solidified by the 1995 World Trade Organization's (WTO) *Agreement on the Trade Related Aspects of Intellectual Property Rights* (TRIPS), intellectual property rights have become the most valuable form of property in our globalized economy. TRIPS was passed with almost no public input or involvement by elected officials, and as a legally binding document, governments are required to abide by its provisions (Coombe, 2003, p. 281). When signed in 1995 the TRIPS agreement effectively homogenized intellectual property regimes across the globe by demanding that all WTO members maintain identical 'minimal' standards of intellectual property protection regardless of their economic or development status, putting developing countries and other marginalized groups (such as TMK holders) at a severe disadvantage. Any state wishing to join the WTO must also adopt the stringent intellectual property standards laid out by the agreement (Drahos, 2002, p. 10).

The TRIPS agreement is clearly an expression of the neoliberal agenda vis-à-vis the new information economy. The intellectual property system, as a strictly economic framework, is a system of evaluation which determines the worth of knowledge based on the perceived legitimacy of the labor involved in producing that knowledge (i.e. individual authorship, originality and the author's contribution of innovation) and thus enables it to have an exchange value. This is a framework of valuation and exchange that clearly puts indigenous communities and their knowledge at a disadvantage. Alternative modes of reciprocity and sharing, and the sociocultural labor embedded in the production of knowledge, are rendered illegitimate or at least delegitimated as sources of value. In refusing to recognize the spiritual and social processes of knowledge development, and their role in the communication of knowledge, protecting

intellectual property becomes a simple economic investment and return model. This misrecognition of labor accounts for the mainstreaming of intellectual property rights. Only those activities and knowledges that demonstrate wealth generating potential (i.e. the preservation of medicinal plants, recording traditional ecological knowledge, the search for medicinal plants that can be turned into pharmaceutical, cosmetics, toiletries and pesticides) remain eligible for the maximum level of protection (Dutfield, 2005, p. 501).

The intellectual property rights system offers two main avenues of protection to TMK holders, the first being positive protections and the second being defensive protections (Dutfield, 2005, p. 495). Positive protections are proactive; the IK holders themselves seek to acquire the rights to their own knowledge by attempting to secure patents or copyright for their traditional knowledge (Dutfield, 2005, p.495). Positive protections can involve the creation of *sui generis* regimes. These regimes are adaptable to the specific nature and characteristics of the particular knowledge for which protection is sought. At the same time, *sui generis* regimes offer the chance to gain some compensation for IK that has already fallen into the public domain (Dutfield 2005a; Correa 2001). Alternatively, defensive protections seek to control third party appropriation and misuse of IK knowledge. “Rights to Disclosure of Origin” is a defensive protection which is intended to ensure proper accreditation to the community in which the knowledge originated, thus ensuring proper benefit sharing agreements are reached (Dutfield 2005a).

It is important to note however that protection as conceived in the intellectual property framework is not often consistent with indigenous peoples’ understandings ownership and rights. As Frank Weasel Head, a member of the Kannai Blood Tribe explains:

It has [been] interpreted [that] the ownership of our bundles became...owned by individual families or persons of First Nations, instead of our case [where] theses belong to the whole community. So when [we] tried to repatriate those bundles,

we had a heck of a time proving who owns them. Ownership in our community, in our way, is different from a white man's ownership and view. We believe that we don't own thing[s], that they belong to the Creator and in bundles given to our people for specific purpose. Use [the] medicine pipe bundle and [the] medicine pipe bundle ceremony is what the Creator gives us those bundles for... (Frank Weasel Head in Bell, 2007)

This statement by Frank Weasel Head stresses a distinct conception of property ownership is quite different from the western notions of ownership. Although Frank Weasel Head is speaking of material cultural property, other indigenous assertions with respect to intangible forms of cultural knowledge and expression indicate that even the concept of protection as expressed in intellectual property rights is inadequate (Bell, 2007). This was earlier stressed by Erica Irene Daes, in her 1993 Human Rights Commission report, *"Discrimination against Indigenous Peoples: Study on the protection of the cultural and intellectual property of indigenous peoples."* The Special Rapporteur notes:

Above all, it is clear that the existing forms of legal protection of cultural and intellectual property, such as copyright and patent, are not only inadequate for the protection of indigenous peoples' heritage but inherently unsuitable...Subjecting indigenous peoples to such a legal scheme would have the same effect on their identities, as the individualization of land ownership, in many countries, has had on their territories- that is, fragmentation into pieces, and the sale of the pieces, until nothing remains. (Daes, 1993, p. 10)

Protection through intellectual property rights may do more harm than good and further contribute to the fragmentation of TMK. Indigenous conceptualizations of protection, property and ownership are not given equal standing compared with those already firmly established in the current intellectual property system.

Corporations may very well welcome this increased emphasis on intellectual property rights, given that the intellectual property system favors scientific innovation and information in its commodity form. According to anthropologist Cori Hayden, built into protection mechanisms

(such as benefit sharing agreements) is the market logic that IK is a site for transmission rather a site of production. As one Mexican ethnobotanist phrased it to her “Plant vendors are merely vectors of transmission of information-they’re not sources...” (as quoted in Hayden, 2004, p.125). This distinction that the intellectual property system makes between knowledge and the extracted ‘information’, also allows for the distinction between knowledge and ‘information’ to be used to eliminate TMK holders as beneficiaries of a royalty agreement through the devaluation and dismissal of their ‘non-scientific’, ‘non-innovative’ labor contributions (Hayden, 2005, p.125).

Anthropologist Elizabeth Povinelli offers a striking example of how the social, spiritual and cultural labor of indigenous groups has been reorganized (or translated) under the neo-liberal information economy into the category of ‘tradition’. In an attempt to reconcile aboriginal land claims, the Australian government has made Australian aboriginal traditions a key factor in determining the validity of a land claim and demanded that indigenous peoples show a continuity of cultural practices with relationship to the land in question. Povinelli argues that the preferred mode of judicial assessment has siphoned off cultural referents of great significance to Belyuen in order to avoid the difficult job of reconciling and evaluating cross-cultural definitions of labor (Povinelli, 1995, p. 505). The Dreaming practice of the Belyuen Australian aboriginal community both requires, and produces, a significant amount of intentional community labor, that contributes to the way in which the physical and social environment of the community is produced. The Dreaming works to produce the environment, and through this reciprocal relationship the people are produced by it (Povinelli, 1995, p.513). The community’s interaction with the land through the Dreaming “provides all humans, animals, and objects with the potential to act as an agent, all events may be a result of a Dreaming’s, animal’s or objects’ subjective

intentionality. ... Everyone, including small children monitor bodies, objects, and the environment for changes or odd behaviors that might portend critical meaning...” (Povinelli, 1995, p.509). For Povinelli, both the presence and absence of people in the environment is crucial. The Dreaming determines the health of land, and the freedom to move freely through the land they have historically possessed and in important ways created is imperative to the Belyuen Communities. The Dreaming is in fact labor that is imperative to the maintenance and vitality of the environment not merely an expression of cultural tradition. But this Belyuen Aboriginal understanding of labor does not transfer to the workings of the law. When land claims are addressed, courts address “the facts”, that is, the economic and environmental impact of the aboriginal activity on the land in the service of ‘cultivating’ or improving it to make ‘it’ productive in the sense of producing measurable yields (Povinelli, 1995, p.507). Traditions may be well and good, but they must be explained against a backdrop of westernized frameworks of empirical research and economic activity. Traditions must be interpreted and then translated into the knowable language of the West. In this context an attempt at recognition and integration ends up looking a lot like a forced translation where cultural labor is acknowledged, yet devalued simultaneously.

In the case of the cultural labor enveloped in the Dreaming, the western objectification of nature, the western understandings of the relationships between humans and nature, and the perceived control of nature by humans determines and limits what can be defined as environmental labor. It also determines what labor is worth in economic terms. A similar process is at work in the translation of TMK into intellectual property that can be protected. The cultural, spiritual and social labor of indigenous peoples is misconstrued as transmission rather

than as important contributions to the creation of the knowledge that yields precious 'information'.

This equation for determining value leaves little room for the accreditation of knowledge whose value is perceived to originate from factors outside of the economy, and whose value is derived from its relationship to social, cultural and spiritual networks. For healers in Zimbabwe, spiritual rituals are used as a vehicle for dispensing TMK. All ritual healing ceremonies involve the use of drums, songs, and visual performance; these acts are not simply performances but are also functional (Frommer, 2003, p. 25). The dispensing of TMK heavily relies on the timing, social climate and immediate environmental factors influencing the ritual, each which is taken into consideration by the healer (Frommer, 2003, p. 24). The ability to evaluate both the physical and emotional state of the community is considered the essential 'intuition of the healer', which allows him/her to dispense the TMK most appropriate to a particular person at a particular time (Frommer, 2003, p. 24). These performative aspects of Zimbabwe rituals are also used to invoke community imagination, inform community heritage, and make TMK accessible to willing participants (Frommer, 2003, p. 28). Yet, these performative and communicative actions have no currency in an intellectual property system that recognizes labor as a private, individual action that elicits monetary return. Furthermore, this type of labor valuation also provides a convenient loophole for those wishing to appropriate communal knowledge that is believed to exist in the 'public domain'².

²In many instances the wrongful appropriation and misuse of Indigenous traditional knowledge has been defended with the argument that much of it lay in the public domain. Due to the fact that IK (especially ancient and longstanding traditional practices which have only been recorded orally) does not subscribe to the standards of individual ownership and authorship and has not been 'recorded' in a manner that proves authorship, the argument is often made that that knowledge can be used freely. A full discussion of the dynamics and problems with the concept of the public domain in intellectual property rights is outside the scope of this paper, but for an insightful look at this issue see Chander, Anupam and Madhavi Sunder (2004) "The Romance of the Public Domain," *California Law Review* 92: 1331-1369.

Given these conditions, an indigenous community that wishes to undertake the daunting task protecting their sacred and communal IK is often forced to reduce their complex knowledge systems into forms that coincide with the value assessment schemas of a commodity based economy. Despite moves to create more inclusive frameworks for the protection of indigenous knowledge, such as the creation of *sui generis* regimes, none have yet overcome the conceptual differences between a secular conception of knowledge and value and a more holistic understanding of how the value of indigenous knowledge is derived from its sociocultural and spiritual contexts. (Oguamanam, 2006, p. 194) The variations of protection that are available though WIPO lend themselves to a particular climate of information valuing and transfer that promote the protection of information by ensuring a reward system is in place for the production and exchange of information. By continuing to make Western capitalist definitions of information and value the touchstone of protection, WIPO leaves indigenous groups little choice except to find a way to negotiate the use of their knowledge using the language of intellectual property.

Traditional Medicinal Knowledge and the World Health Organization

Medicine itself has always played a key role institutionalizing and evaluating particular types of knowledges in order to regulate them for state use. Anthropologist Joseph Alter argues that the state has always played an explicit role in policing the narrative of medicine. Nation states have tended to promote a singular systemic medicinal system with the center focused primarily on site of the body - limiting what can be considered medicine, and over time naturalizing the ideology of medicine as the ‘culture-that concerns-the-body’ (2005, p. 15). Despite the seeming neutrality of the medical discipline, the narrative of medicine has always served to articulate dichotomies that devalue alternative amodern understandings of health and

healing (i.e. scientific vs. superstitious, modern vs. traditional, progress vs. extinction). The hegemony of the category of medicine is kept intact and alternative ways of knowing are expunged (Alter, 2005, p. 20). Much of this categorical work has been done through the implementation of a 'logic of healing', which focuses the object of medicine primarily on illness and disease, medical science and objectivity (the two latter qualities being markers of progress and easily regulated and controlled), and eliminating medical philosophy, religion, botany etc. from the category of medical practice (Alter, 2005, p. 16). This 'logic of healing' and the naturalization of a particular method of evaluation within the discipline of medicine is similar to the process by which TMK is informationalized. As medical philosophy, religion, botany etc. are not considered to be instrumentally necessary to the scientific advancement of healthcare and practices; they are considered an unnecessary and inconvenient residue. Institutionalizing them and addressing them in a legal framework is especially difficult because there are no approved instruments to take their measure. As we have seen with the CBD and the intellectual property system, by eliminating these 'other' qualities, the international medical system seeks an easily monitored and regulated form of practice.

As the WHO works to incorporate TMK into its world healthcare policy, integrating TMK becomes a matter of adapting it to biomedicine in a way that is consistent with international norms of appraisal. The increasing commodification of knowledge has made it more and more difficult to address a holistic conception of health when what is rewarded is not the healing but the cure (or worse yet, just treatment – which then ensures continuous revenue) to the disease (patents have become synonymous with cures). As knowledge becomes fragmented so too does the practice of using that knowledge. Ritual and ceremony become quaint practices that in no way impact the dispensing of 'real' medicine. Modern dichotomies between culture

and tradition vs. progress and science are maintained. What is not grasped in this approach to healthcare is that indigenous systems of health are directly related to the communicative workings of a community and the production of this important knowledge.

Although not directly concerned with the protection of TMK in the same way as the CBD and WIPO, the World Health Organization obviously plays a key role in the recognition and promotion of TMK on an international scale. The mandate of the WHO, is “to help save lives and improve health by closing the huge gap between the potential that essential drugs have to offer and the reality that for millions of people—particularly the poor and disadvantaged—medicines are unavailable, unaffordable, unsafe or improperly used” (WHO, 2002, p.4-5). The WHO has been officially recognizing TMK as a mode of primary health care since 1978 through the *Primary Health Care Declaration of Alma Ata*, but it was only in 2002 that the WHO committed itself to its first major attempt to integrate TMK into international healthcare standards by releasing a *Traditional Medicinal Strategy*. The release of the *Traditional Medicinal Strategy* was a response to the growing recognition that TMK was the primary method of health care for people whose states were failing to meet even the basic healthcare needs of their residents. In 2002 the WHO estimated that nearly 80% of Africa relied solely upon TMK for their healthcare needs, where as the Indian Government estimated that for 65% of its population TMK was the only method of health care available (WHO, 2002, p. 13). Even if alternative forms of healthcare are provided by the state, in most cases, traditional medicine may still be the only affordable option.

This instrumentalization of traditional knowledge is nowhere more evident than in the traditional healthcare policies of the WHO. The WHO has adopted a conception of medicinal knowledge that reifies the scientific informational properties of knowledge, while dismissing,

and in many cases, cautioning against the more spiritual and cultural dynamics of TMK. For the WHO this has meant that although TMK is recognized as integral to the successful fulfillment of its mandate, TMK is not acceptable in its more culturally embedded form. The WHO's protection and promotion of IK is filtered through qualities such as safety and efficacy, and the usefulness the knowledge is evaluated and measured by its ability to accept and integrate the institutional policy frameworks of scientific rationality and value.

For anthropologist Shane Greene, the integration of TMK into healthcare policies represents an epistemological shift from the adulation of biomedicine to a more critical approach recognizing the importance of a medical pluralist approach that includes alternative healthcare systems (1998, p.636). Greene notes however, that despite the acknowledging of ethnomedicine as an alternative healthcare resource, the integration of TMK is still based on outmoded conceptions of traditional medicine that view it as superstition and witchcraft. In other words TMK may be incorporated into healthcare, but first it must be updated and subjected to the rigorous standards of biomedicine, and the measures of efficiency, scientific integrity and safety that legitimate it (1998, p. 637).

The WHO's *Traditional Medicinal Strategy* outlines a four part approach that is meant to aid governments in integrating TMK into national healthcare policies. The strategy calls for the integration of traditional medicine with national health care systems ("Policy"), promoting the safety, efficacy, and quality of traditional medicine by providing guidance on quality assurance standards ("Safety, efficacy and quality"), increasing access and affordability ("Access"), and promoting the "sound use of appropriate [traditional medicine] by providers and consumers" ("Rational Use") (WHO, 2002, p.45). This language of 'safety', 'efficacy', 'quality', 'sound use', and 'rational use' support Greene's warnings that the recognition of medical pluralism is a

facile one. This pluralist approach is in actuality the promotion of a singular allopathic medical system that has integrated TMK under its own directives' and singular gaze. The WHO has certainly recognized the need to adopt traditional medicine as a healthcare resource; however as we will see integration becomes one means by which the expertise of those holders of TMK can be captured and utilized by states to promote their interests.

The four WHO categories ('policy', 'rational use', 'access' and 'safety, efficacy and quality') make it easy to appreciate the way the informationalization of knowledge is highlighted and the distinction between the value of traditional knowledge and scientific medical knowledge has been maintained. Under "Rational Use" the WHO states:

In many countries, considerable more activity is required regarding: qualification and licensing of providers; proper use of products of assured quality; good communication between TM/CAM providers, allopathic medicine practitioners and patients; and provision of scientific information and guidance for the public. (WHO, 2002, p.25-26)

Within this brief statement, scientific *information* is clearly held as the norm by which acceptable standards of alternative healthcare practice will be compared. The "proper use of products of assured quality" points to a system that has internalized international legal norms that demand appropriate licensing and regulation to ensure surveillance of product use. The promotion of TMK by the WHO is subject to the same fragmentation as the CBD and WIPO. In order to promote its mandate (one that is contextualized through a neoliberal lens heavy on regulation) the WHO can only integrate TMK through its institutionalization. The emphasis on licensing and regulating practitioners also serves to suggest that without regulation traditional healers are unlikely to be considered appropriately 'qualified' and thus may introduce differential and discriminatory 'tiers' of healthcare into communities.

In many cases traditional healthcare systems have been in place for generations and healers and Shamans continue to be responsible custodians of the healthcare systems in their communities. For the shamans of Zimbabwe, TMK rituals inform community heritage by invoking community participation and imagination that connects the community to their ancestors through the continual production and reproduction of community self-knowledge (Frommer, 2003, p. 28). The rituals surrounding TMK also work to mark the shaman as genuine. This increases the dissemination of healthcare since willing participants will recognize the validity of both the healer and the ritual and feel comfortable seeking these services (Frommer, 2003, p. 30). As we will see, subjecting traditional healers to unnecessary (and insulting) forms of registration and regulation may actually undermine a healer's authority rather than increase it. Instead of providing support for these already established traditional healthcare systems and encouraging cross-cultural medicinal collaboration, the WHO seeks to impose strict Western regulatory frameworks on traditional practitioners. These frameworks are consistent with western conceptualizations of healthcare that continue to define medicine as the absence of disease, rather than attempting understanding health as a balancing of the spiritual, cultural, social and environmental life forces. In expanding regulatory policies that reorient the focus of TMK on standards of measurement and efficiency, the social processes through which TMK does its spiritual and cultural work of healing become lost. Despite the appearance of a framework which supports a pluralistic approach to healthcare, then, the WHO continues to perpetuate the biomedical hegemony of the West (Oguamanam, 2006, p.108).

The Residue of Regulation or TMK as a Dangerous Supplement

Each of the three international frameworks explored here have their own jurisdictional mandates and intentions that guide the way they seek to protect, recognize and integrate TMK.

Each certainly is related to the other given that the overall recognition of IK has not been limited to one institutional body but continually crosses paths in a number of ways; intellectual property is used to protect the important knowledge about bioresources and their informational content that are the concern of the CBD, biodiversity is imperative to providing traditional healthcare to the poor which interests the WHO etc. Nonetheless, each institution interest in the recognition of TMK diverges considerably and as result, although there has been a general recognition of IK within the international community, a fragmentation of how this knowledge is recognized, integrated, respected and valued has become a byproduct of their primary work. The CBD in its concern for the protection of biodiversity, informationalizes TMK in order to inventory it for the purposes of future consumption and commodification and use by humanity. WIPO on the other hand is committed to helping facilitate the exchange of information, under the understanding that proper intellectual property protection methods that assign value to information will aid in the project of ensuring continual innovative and discovery. Finally, in recognizing TMK the WHO puts its emphasis upon safety, understood primarily in terms of instrumental use of medicine in and upon the body. Just as the other two organizations have recognized the contribution of IK to global society, the WHO realizes the impact that TMK can have on larger humanitarian projects, such as the deliverance of affordable healthcare, and the advancement of medical research.

Given the limited scope of each institution, the casualties of this pinhole approach to the recognition of traditional knowledge are the local, social sacred and spiritual aspects of TMK. This is not surprising given the global nature of these institutions and the political and economic climate of neoliberalism in which they are operating. The sociocultural dimensions of TMK, are perceived to be of little consequence to achieving their overall objectives. It has been impossible for the CBD, WIPO and the WHO to successfully erase these important dimensions of TMK

from their purview. Recognition of TMK has also involved NGOs, indigenous organizations and other interested parties seeking to find ways to ameliorate the effects of this fragmentation of knowledge by insisting that the residue receives its own forms of recognition and protection.

The Convention on Biological Diversity and Article 8(j)

What many consider to be the saving grace of the CBD, is Article 8 (j) which contains the provisions for effectively recognizing the contribution of IK to the conventions objectives:

Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices (Convention on Biological Diversity, Article 8(j))

Article 8(j) guarantees the participation of traditional knowledge holders in discussions surrounding the use and protection of IK, 'with the approval and involvement of the holders of knowledge', and it provides an important platform for questioning the reward and protection mechanisms in place for traditional knowledge (Oguamanam, 2006, p. 195). Also significant is the fact that Article 8(j) was included in the CBD as direct result of the participation of indigenous peoples who successfully pushed for its inclusion (McAfee, 1999, p. 23).According to geographer Kathleen McAfee indigenous groups have used their role in the negotiations to press for:

"...alternatives to the existing IPR system for the protection of indigenous people's knowledge," the prohibition of "claims of non-indigenous peoples to IPRs over the processes and products associated with indigenous peoples' knowledges and genetic resources," and for "a moratorium...on bioprospecting and ethnobotanical collections within indigenous peoples' territories until adequate protection mechanisms for indigenous knowledge are established (McAfee, 1999, p 23)

According to Oguamanam, Article 8(j) offers several ways in which to honor the overall objectives of the convention while responding to the demands of indigenous peoples above; using intellectual property as a form of protection is just one of the many and need not be the only one (Oguamanam, 2006, p. 195).

Johanna Gibson (2005) argues however, that promises of 8(j) have been overstated and that an important chance to encourage a commitment to cultural diversity has been lost. She argues that the conversations surrounding 8(j) have been very much focused on *in situ* conversations, which still privilege the protection of a ‘tangible physical area’ over the social and cultural relationships that actually produce diversity. Furthermore, she notes that 8(j) has been heavily criticized for the romanticization of traditional lifestyles:

Art (8j) has been subjected to considerable criticism by indigenous peoples. It has been noted, for example that the phrase “embodying traditional lifestyles” suggest that this provision applies only to “indigenous people who are isolated, fossilized in some cultural timewarp living in a never changing present”, and excludes peoples who have ‘adapted their lifestyles to reflect the contemporary and continuing colonial situation in which [they] find [themselves]’ (The International Alliance of the indigenous Peoples of the Tropical Forests , 1996, p.733 as quoted by Gibson, 2005, p. 201.)

It appears that we must be tentative in our assumptions regarding how instrumental Article 8(j) can and will be in the overall recognition and protection of IK. It does hold possibilities certainly, but it also suggests a clever institutional integration of the leakages caused by the fragmenting of IK.

WIPO and Traditional Cultural Expressions

WIPO began its work on IK in 1998 when it launched exploratory fact-finding missions to 28 countries (WIPO, p.14). These fact-finding missions were designed to discover and identify the intellectual property needs of traditional medicinal knowledge holders worldwide (WIPO,

p.14). In 2001, WIPO established the *Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore* (IGC) to deal primarily with issues of traditional knowledge as they related to intellectual property. WIPO has also found ways to integrate the aspects of TMK that it has marginalized through the creation of a separate category of Traditional Cultural Expressions that are distinct from Traditional Knowledge. WIPO has released a series of booklets which provide an overview of IK³ and its place within the intellectual property system. Booklet no.2 *Intellectual Property and Traditional Knowledge* covers a wide range of topics related to intellectual property and IK, including what can be defined as IK, the protection methods currently available for IK and of course, anecdotal success stories demonstrating positive achievements in protection. One subject that remains strikingly absent from this booklet is a discussion of the protection related to songs, dances, rituals, storytelling, oral history etc. which all play an integral role in producing and reproducing IK. Why is a discussion of these aspects of IK absent? As WIPO explains in the introduction to the booklet, these forms of knowledge, the “traditional know-how, [the] innovations, information practices, skills and learning of IK systems such as traditional agricultural, environmental or medicinal knowledge” are differently categorized as Traditional Cultural Expressions/Folklore (TCEs) (WIPO, p.4).

According to WIPO there is a clear distinction between IK, i.e. the useable, transportable, objective information that can be extracted from the knowledge, and the process by which that knowledge has been discovered, produced and reproduced over generations—this is simply the ‘know-how’. This is an interesting division given that WIPO often takes great pains to recognize the holistic nature of IK.; yet still this split continues to privilege labor and knowledge that is

³ WIPO does not distinguish between ‘traditional knowledge’ and ‘traditional medicinal knowledge; for WIPO TMK is included under the general term of ‘traditional knowledge,’ which mainly refers the biological resources that can be and are protected by intellectual property. .

produced in the laboratory over “traditional know how”. Booklet no.2 continues with an explanation of this split arguing that IK and Traditional cultural expressions are obviously linked—they are just subject to distinct legal practice thanks to their very nature (WIPO, p.4). The implication that somehow the ‘informational’ aspects of IK are alienable from the practices which produce IK is consistent with the compartmentalization and unequal valuing of ‘useful’ patentable information, that if is not practiced rhetorically, is certainly practiced as a matter of policy. The split made by WIPO between IK and the Cultural Expression of IK, underscores the way in that the categories of culture and tradition have been used to recognize and deligitimate indigenous knowledge simultaneously.

The World Health Organization and Traditional Medicinal Knowledge Systems

The WHO has also used these constructions of cultural and tradition to integrate while simultaneously denigrating the value of TMK. The WHO makes allowances for these categories through the continual encouraging of national governments to integrate TMK into their own healthcare systems, provided they do not challenge the overall safety and efficacy frameworks its has established. This has resulted in national governments working to integrate traditional healing practices into their healthcare systems. One country that has been at the forefront of these integration initiatives is Zimbabwe. On September 6, 2006 it was announced by the deputy health minister of Zimbabwe Edwin Maguti that traditional medicinal practitioners would be eligible to grant up to one week’s sick leave for patients (CBC News, 2006). However, this recognition of the validity of traditional healers is not as encouraging as this first glance may reveal. Only *state-sanctioned* healers are eligible to take advantage of option, firmly establishing that regulatory control of traditional healing is paramount.

For Chidi Oguamanam the WHO's failure to fully support a cross-cultural, pluralistic healthcare system is a failure to truly grasp the "psychosocial exchange that is at the heart of traditional medicine" (2006, p.108). However, for Greene, this type of intense adherence to regulatory policy must be recognized for what it is, an expansion of medical power (1998, p.26). There is a difference he argues between "health for all" and the expansion of a regulatory framework (Green, 1998, p.26). The former involves access to medical services (in any form), the availability of healthcare products and essential medicine, while the latter simply imposes an institutional healthcare framework (Greene, 1998, p. 26). Without the courage to promote a fully equitable pluralistic medicinal framework for healthcare, the WHO merely reinforces the primacy of biomedical science by transferring institutional structures on to traditional healthcare system. As the WHO's guidelines expand and begin to influence national healthcare policies, despite its admirable attempt at recognizing and protecting TMK, the WHO continues to unconsciously fill the role of the "directing and coordinating authority".

Foiling Tradition

Although no longer demonized and characterized as a 'foil' to progress, 'tradition' has found a new place in the current discourses of cultural recognition. Unlike the once widely held belief that the continuation of traditional practices signaled a primitive existence, tradition has become regarded as indivisible from the success or failure of international development projects, ecological sustainability initiatives, the growth of the global economy, and has been cited as a major factor in reaching the goal to provide health for all citizens of the globe. As we have seen, the 'traditional' in a particular form is also considered integral to disease research, the expansion of patentable scientific discoveries, and the promotion of biological diversity. Recognition of the 'traditional' has become a way of integrating TMK into the discourses and policies of the

international organizations such as the WHO and WIPO and the CBD without truly challenging the boundaries and the ideologies underpinning the economic, political and social assumptions on which these organizations rest. In many cases the visible recognition of TMK creates the ideal conditions for the expansion and further naturalization of unequal power relations.

The artifice of cultural recognition is important here. Indigenous groups and communities have no choice except to make claims to rights and recognition based on the discourses of these international institutions. The continuing expansions of the regulatory frameworks that define the terms of participation in the international governance system only contribute to this difficulty. As a result, new subjectivities are being negotiated within indigenous communities; borrowing a phrase from Arun Agrawal; some mental furniture has had to be rearranged in order to find new places of living within these new foreign languages of international recognition (Agrawal, 2005, p. 1174).

Creating Healthcare Subjectivities

One of the externalities of the recognition of TMK and its consequent inclusion into international legal frameworks is an increase and expansion of governing bodies such as the WHO and WIPO that seek to define, monitor and address the place and protection of TMK within these larger frameworks. As the policies of WIPO and the WHO and conventions such as the CBD continue to affect regional and national policy, finding ways to 'fit into' the new regulatory system of recognition is altering the way in which indigenous groups and communities view and practice their own TMK.

The integration of TMK into international legal frameworks and healthcare policies, has led to indigenous healers and their communities having to redefine their 'own position[s] in relation' to new frameworks of management. The WHO, in its attempt to recognize TMK, has

created TMK as a healthcare project. The recognition of TMK as a valid source of healthcare came only after the recognition that replacing TMK with an allopathic western medicinal system was not only economically unviable but also nearly impossible (Greene, 1998, p.638). So as a result 'collaboration' has taken place to produce new subject positions, new 'experts' and new forms of visibility and surveillance to policy the boundaries of TMK integration and use. Consequently, TMK holders have developed new subject positions in which they must interpellate themselves in order to integrate into the new system cultural recognition. .

There is a substantial amount of scholarly work (Agrawal 2005; Bryant 2002) surfacing which draws on Foucault's concept of governmentality to suggest that increasingly forms of governmentality are escaping from the exclusive purview of states and shaping the activities of transnational institutions and actors, while they are simultaneously internalized as a form of self regulation by indigenous groups as they seek to negotiate their new place within international legal and political arenas. Recognition and regulation in other words, are two sides of the same coin

For many communities and their healers, the recognition of TMK by international institutions has meant having to inhabit particular subject positions in order to gain agency. Despite the fact that traditional healers are recognized as practitioners in Zimbabwe and can grant sick leave, that agency is given only to those who have registered with the state while all others continue to remain 'witchdoctors'. In order to navigate these new international discourses that create agency through regulation, indigenous groups have had to identify with subject positions provided by these discourses.

In his recent work on the creation of environmental subjects, anthropologist Arun Agrawal observes how this process of recognition and collaboration was successful in

rearticulating the subject positions of the forest dwelling residents of village of Kumaon, India (2005). Many of the Kumaon's forest residents had no original interest in protecting the forest surrounding their village, but through the states deployment of the 'technologies of government' many of them view the environment as a protection project in which they are an active part (Agrawal, 2005, p.162). Agrawal asserts that this project was undertaken by the local government after it recognized its own failure to control the way in which the Kumaon people utilized the local forests. By using techniques such as 'returning' the forest to the Kumaon, 'recognizing' the Kumaon peoples as the common owners of the forest, and making them responsible for its management, the government was able divest itself of environmental responsibility while successfully rearticulating forest conservation as a community-managed project, that enjoyed the enthusiastic cooperation of indigenous peoples.

As the policies of the WHO influence the creation of national healthcare policies, new healthcare subjectivities are being formed on local, regional and national levels. In her work with the healers of Zimbabwe Chloe Frommer gives an interesting example of how traditional healers occupy new subject positions. The Zimbabwe National Association of Traditional Healers (ZINATHA) is one of several organizations that use TMK under an alternative set of institutional rules than other traditional healers in Zimbabwe who maintain their traditional practices outside of official organization and recognition (2003, p.32). Its members are recognized as members of a 'non-customary' group and the organization is recognized by the state as a body of 'official' traditional medical practitioners (Frommer, 2003, p 32).

This institutionalization of healers in Zimbabwe offers both opportunities and constraints to healers and their prospective patients. Mobilizing themselves for state recognition serves the interest of the healers who wish to disseminate TMK more widely, and they do so without

shouldering the same type of responsibility to the community as non-unionized traditional healers (2003, p. 32). This freedom from responsibility may be both alluring and potentially more profitable. Even the president of ZINATHA recognizes that “the social matrix in the TMK system is in danger of being made obsolete through various professionalization and officialization schemes” (Frommer, 2003, p.32). For Frommer, organizations such as ZINATHA displace and undermine the relationships that link healers to their community, while also displacing the traditional spiritual and social authority of these healers (Frommer, 2003, p. 32). This displacement of authority, leads to questions regarding authenticity, and contestations over who ‘owns’ knowledge, what constitutes authentic knowledge, and who has the rights to share the knowledge-if it is to be shared at all. Much like the Indian government’s environmental project in the Kumaon forests, traditional healthcare becomes a government project manifested in state sanctioned organizations that internalize new forms of governmentality. Practice is legitimized through a unified official stamp of ‘authenticity’ that bears little relationship to the ‘traditions’ it authenticates; in many cases this works to undermine the social and environmental systems under which traditional medicinal expertise emerged, had efficacy and could be held accountable to the community that sanctioned it.

Making Alternative Claims

Globalization is not a synonym for homogenization, and the flip side of globalization is the flourishing of diversity and the opening of spaces of resistance (Coombe 2005b; Oguamanam, 2006). Although the recognition of traditional knowledge and the expansion of global intellectual property rights and healthcare policy has come with the expansion of governance, increased recognition and the new place of the ‘traditional’ in the international arena have allowed indigenous groups to make claims based on culture that previously had no

standing. Even the *TRIPS* agreement which has been the largest propagator of the neoliberal view of culture as a commodity, has as a result crafted a highly visible international forum in which claims to culture and rights become paramount (Helfer, 2004, p.63). As we have seen, the international frameworks are never securely bound and although they often work to contain leakages, residues (such as 8(j), TCEs and the integration of traditional medicinal systems) of incompatibility have become grounds of struggle—a dangerous supplement to the dominant order. Increased recognition on an international level has meant the expansion of new spaces of articulation, negotiation, and resistance.

One such site of resistance has manifested itself through the insistence on the fact that intellectual property are a set of *rights*, not merely a instrument of economics, trade and law, but a set of rights and responsibilities that must be placed within a larger framework of rights including human rights and cultural rights. The *Universal Declaration of Human Rights*, along with both the *International Covenant of Civil and Political Rights* and the *International Covenant of Economic, Social and Cultural Rights*, guarantee both individuals and cultural groups certain rights in regards to maintaining and participating in cultural life, along with the rights to enjoy equal benefits and protections for any works of progress (scientific and artistic) that are produced. Rosemary Coombe has argued extensively that that intellectual property rights are one right within a larger framework of human rights and must be recognized such (2005, 2005b, 2005c, 2003, 2001). Intellectual property rights are “integrally related to other recognized human needs bearing on cultural expression, the maintenance of cultural diversity, the protection of cultural heritage, and the right to participate in cultural life of the arts and sciences in culturally specific ways” (Coombe 2005, p.611). Acknowledging that intellectual property rights are small threads intimately woven into a larger weave of human and cultural rights becomes

exceptionally important as we begin to witness intellectual property rights becoming political and legal tools for many indigenous communities.

Recognizing intellectual property rights as central to community and cultural vitality and placing these rights within a larger rights discourse has allowed for indigenous groups and other communities to make claims of cultural difference that refute the neoliberal commodification of culture and the idea of market superiority (Coombe 2005, p. 16). Using the cultural rights framework, claims of cultural difference initiated by indigenous groups in some cases have even been successful in securing material claims to land and resources (Robbins and Stamatopoulou, 2004). Many indigenous groups have also been successful in using intellectual property rights to secure protection against unauthorized and offensive usage of their cultural heritage and its properties (Coombe, 2005, p. 16). Some developing countries have also used the discourse and its new conceptualization of culture to create markets for traditional local goods, stimulating local economies (Coombe, 2005, p.12).

Using the intellectual property framework to make claims for the protection and recognition of TMK is by no means unproblematic, often the very concept of intellectual property is incompatible with indigenous cosmologies, and using this framework carries the risk that any new challenge to the system will be co-opted back and reconstituted as a new system of governance. Nonetheless, despite the increasing subjectivities of governance, indigenous groups are finding new and creative ways to adapt the new international governance frameworks to their own needs, not only pressing for secure and equitable protection, but also challenging the way their knowledge and their lifestyles are recognized within these frameworks. The intellectual property arena has in particular seen some developments that may offer potential for disrupting international frameworks of recognition.

The Rights of Silence and Secrecy

Disclosure and transparency play a large role in the new systems of healthcare governance and they remain requirements if an indigenous group wishes to make a claim to intellectual property rights. As witnessed, both the intellectual property framework and the WHO's traditional medicinal knowledge strategy only assign value to knowledge that is derived through careful scrutiny and discovery (as defined in the West). The need for complete disclosure is integral to the current neoliberal recognition of traditional knowledge and it is a nonnegotiable aspect of becoming officially recognized within the healthcare policies of the WHO. This need is often in conflict with the sacred healing practices in many indigenous communities where some, if not all knowledge, is meant to be held only by a community sanctioned healers or groups of healers. Nonetheless, the internalization of policy and the formation of governmental subject positions are never fully complete or entirely successful; slippages and leakages abound. Despite the importance of transparency and disclosure in the intellectual property regime as well as the healthcare regime, secrecy and nondisclosure have become one way in which indigenous groups have resisted the discourse of legitimation and regulation that has accompanied the recognition of TMK.

Trade secrets or breach of confidentiality law protect against the use of information that is held secret or is shared in confidence with another party. Holding a trade secret does not require an application or any official approvals; so long as the information remains a secret, the holder retains the rights to protect and prevent the disclosure of that knowledge (Stevenson, 2000, p.1154). For these reasons using trade secrets to protect secret and sacred knowledge from being released to the public has been one way in which indigenous groups have used the current intellectual property system to address their particular needs and protect the integrity of their

traditional practices and positions by keeping them out of reach of the governing arms of the institution.

In the much cited case of *Foster v Mountford*, members of the Pitjantjatjara Council in Australia were successful in preventing the publication of a book entitled the "*Nomads of the Australian Desert*." Contained within this book was information that had been divulged in confidence to the anthropologist Dr. Mountford 35 years prior. The members of the Council successfully argued that "revelation of the secrets contained in the book to their women, children and uninitiated men may undermine the social and religious stability of their hard-pressed community"(Stopping the Rip-Offs, 1994). By arguing that the disclosure of knowledge would undermine their sense of cultural identity the Pitjantjatjara were able to protect their knowledge without having to reveal their knowledge in ways harmful to the community (Stopping the Rip-Offs, 1994). In this case damages were not assessed by strictly economic standards, but in relation to their detrimental effects on community, social and spiritual identity.

Trade secrets are by no means unproblematic. As one arm of the intellectual property system the use of trade secrets to protect IK still requires the imposition of foreign western logic and categories IK. Claims made under the condition of a trade secrecy or confidentiality still usually presuppose that the information held secret contains some type of value that is measurable in damages and remedies that are economic in nature. One of the requirements for trade secrecy is that the information held secret must contain and retain commercial value by virtue of its being kept a secret (Stevenson, 2000, p.1155). However, the with increasing body of soft law that has determined the minimum level standards in which nations must recognize indigenous rights, and the increasingly common approach to placing intellectual property law within a wider framework of human rights and cultural rights, it has become possible to make

damage claims and prevent the disclosure of knowledge using an alternative conceptualization of what constitutes ‘damage’ (as was done in *Foster v. Mountford*).

In light of this trend, WIPO has been moving forward in attempting to rethink legal options for those indigenous communities who wish to keep knowledge a secret, while still maintaining protection rights over that knowledge. WIPO has provided some language that may be useful in this effect. In its 2004 *Draft Development of Policy Objectives and Core Principles for the Protection of Traditional Knowledge*, the ICG recognized that any attempt to protect traditional knowledge using intellectual property should recognize the customary context in which that knowledge has been developed. WIPO recognizes that:

The guiding principles suggest that concepts such as “unfair means,” “equitable benefits” and “misappropriation” should in particular cases be guided by the traditional context and the customary understanding of IK holders themselves (Seventh Session, B.1 (4), 2004).

WIPO further notes that currently there are some instances where customary law has been used in *sui generis* regimes to guide the nature and distribution of remedies when an infringement of a community’s intellectual property has taken place (Annex, 2004)

In an earlier session, the IGC dealt with the protection of Traditional Cultural Expressions, and concluded:

Communities and others argue that the remedies available under current law may not be appropriate to deter infringing use of the works of an Indigenous artist-copyright holder, or may not provide for damages equivalent to the degree of cultural and non-economic damage caused by the infringing use. Damages awarded by courts could take such cultural issues in to account... (Sixth Session, Section IV, 2004)

Furthermore, if damages and remedies need not be determined by economic standards, and if customary law and practice must influence the modes of protection that are acceptable and

useful to indigenous communities, it becomes possible to propose an alternative *sui generis* protection regime modeled on trade secret law, while still avoiding the pitfalls contained within the dominant legal regimes.

In 2001 WIPO released its report on its 28 fact finding missions and identified three broad informal protocols that were commonly used in the indigenous protection of traditional knowledge (Oguamanam, 2006, p. 209). One of the highlighted protocols was a secrecy regime. This regime used ritual, magic, myths and superstition as proactive devices that both worked to keep knowledge a secret but also worked to obscure that knowledge in order to prevent exploitation in the case that it was ever made public (Oguamanam, 2006, p. 210). This type of secrecy regime can be considered an informal version of intellectual property protection -- one that has in fact been maintained as customary law for generations. By combining the recognition of the customary relationships of secrecy and responsibility with the trade secret framework, it may be possible to develop a line of protection that would protect TMK as cultural secrets.

Trade secrets are already founded on the customary way in which secrets are shared between two parties (Bone, 1998, p. 244). One person tells the other a secret under the understanding that they will hold this information in confidence. For this reason, infringements and violations of trade secrets are in essence breaches of confidence, the violation of trust between two people (Bone, 1998, p. 244). Ultimately, it is the breach of a relationship that causes harm. The custodians of TMK often have a fiduciary duty to the community to care for and keep knowledge privileged. In a case where they do not, they could be punished or exiled from the community for failing to honor this trust (Frommer, 2003, p. 23). This type of fiduciary relationship is clearly amenable to the core principles of the trade secret law, which suggest violations of this relationship, are what constitute infringement of a trade secret.

More likely, however, it would be the improper use of information that was shared with a member outside of the community such as in the *Foster v. Mountford* case that would provoke an action. In a case such as this, the same principle of breach of trust would apply. If a third party took advantage of any knowledge (including TMK regarding plant samples, genetic knowledge, ecological knowledge) that gained its value through secrecy, and was shared in confidence, it would certainly be a case of breach of confidence. Much like trade secrets, the value of TMK is found in its limited circulation; only the damage incurred by the release of this information comes in the form of cultural damage rather than economic loss. Any breach of this relationship whether from inside or outside the community should be evaluated based on the cultural loss incurred by this breach of trust.

The secrecy of knowledge is also important as it often marks the healer as authentic. If confidence was breached, it would violate the integrity of the community since it would not only bring harm to the healer, but may prevent the continuing dissemination and creation of knowledge. The public sharing of secret information may discredit the healer and remove him/her from his/her place within the sociocultural network of the community. This would ultimately disrupt the social networks of the community and, much like the disclosure of a trade secret, the public release of sacred knowledge may render it useless.

Furthermore, just as with trade secrets, the transmission of sacred medicinal knowledge is transmitted on a 'need to know basis'. The holders of TMK are often considered the custodians of that sacred knowledge. Zimbabwe traditional healers pass on TMK through family lines, and even within the family there are restricted channels of access (Frommer, 2003, p. 23). This indicates that often there are highly sophisticated networks of relationships in place that act to protect secret sacred knowledge. To qualify for a trade secret it must be shown that reasonable

measures have been taken to exclude others from gaining access to this knowledge. With this type of sophisticated transmission network in place, clearly all measures have been taken to ensure the secrecy of this knowledge.

Given the highly developed protocols that keep knowledge a secret, it is evident that customary practices of knowledge protection have been in place for generations, demonstrating that the secrecy of knowledge has been carefully and intentionally maintained (a key aspect of trade secret protection). This careful use in the community would qualify Cultural Secrets for protection as long as these relationships were sustained. One suggestion noted by WIPO, during the IGC's sixth session proposes that the protection of IK could coincide with the life span of the community; so long as knowledge remains in use (which is often dependant upon its secrecy), protection would be maintained (Sixth Session, 2004, Section IV).

A suggestion such as this attempts to re-imagine alternatives for the protection and inclusion of sacred knowledge by dismantling some of the inherent value biases that we have observed in the CBD, the intellectual property system and the WHO. Protection afforded to cultural secrets would not have to presuppose that the value of knowledge is derived from current neoliberal economic frameworks that value only information only in its commodity form. The worth of knowledge could be determined by its social and cultural importance to those who hold it and act upon it in communities. It could also challenge organizations such as the WHO to recognize customary practices of TMK in their own right; it would not require any official mobilization, monitoring, or surveillance by the state.

Conclusion

TMK as a commodified 'resource' has found itself linked to and burdened with the responsibility of protecting biodiversity, propping up failing healthcare systems and offering possibilities for scientific medical breakthroughs and innovations, prompting an increasing emphasis upon finding ways to recognize and protect it. However, this recognition of TMK in international frameworks such as the CBD, WIPO and the WHO has not challenged the underlying Western assumptions of on which these institutional frameworks and discourses are based, but rather have worked to integrate TMK into larger frameworks of governance. Although, indigenous groups have by no means been wholly assimilated into the international governance network there still remains significant forms of misrecognition created by the forced translation of TMK. TMK is a living ecology of knowledge; a communicative process that creates, maintains and continually transforms not only the traditional knowledge, but social relationships, actor networks and the communities of which TMK is a part. By refusing to recognize that TMK is inalienable from these processes, recognition has become a new form of regulation that threatens to alienate healthcare from community.

In pushing the boundaries of recognition indigenous communities are creating opportunities not just for strengthening the protection of TMK but for challenging the inequitable ideologies that underpin discourses of recognition. Further questioning of how current international legal and political institutions 'recognize' TMK will continue to be key to ensuring that 'recognition' does not translate only into regulation and new forms of governance in which communities are granted ever less agency.

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