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This paper deals with the issue of intellectual property rights (IPRs) regarding the intellectual commons from the philosophical perspective and pays particular attention to it in respect to the preservation of biodiversity. In other words, the paper explores by means of conceptual analysis the idea of extending of intellectual property right to cover indigenous knowledge about the natural world. So, it examines what are the logical limits of the IP system and how the IP system can, and should, be modified to make it ecologically sustainable and socially just.

Environmental economists and anthropologists seem to declare unanimously that the state of institutional vagueness and uncertainty foils the possibility of rational and sustainable resource management and thus worsens ecological conditions in many places. As a group of scholars has formulated the problem:

In fact, most environmental problems can be seen as problems of incomplete, inconsistent, or unenforced property rights. Without a solution to the property rights problems, the environmental problem will remain. (Hanna et al. 1995 17.)

This kind of analysis of the nature of the problem has emphasised the necessity of creating and enforcing a system of well-defined property right regimes regarding natural resources. Thus established system could form the basis of sustainable, long-term resource management. When it comes to genetic resources, the nature of the problem remains to some extent as the same. The present international agreements do not recognise knowledge of *natural* species, including their genetic constitution, as intellectual property object. Similarly, often national laws do not assign special status to indigenous knowledge systems to protect them. In this respect the actual system of intellectual

property is ineffective to support biodiversity preservation on the communal level. One step towards enclosing the genetic resources was made by the US Supreme Court in its decision that artificial microbiological organisms can be patented, but instead of protecting the community-level innovation, it bolsters, according to critics, the interests of multinational corporations and western institutions.

To clarify the anomalous situation, to increase social justice and to promote sustainable use of genetic resources, one prominent thesis advocates the idea that decision making regarding the use of genetic resources ought to be decentralised so that the role of local communities (including indigenous peoples and traditional communities) would be properly acknowledged. Politically this means that local communities are assigned somewhat autonomous position in matters of resource management so that they were responsible for their use. It is an open question whether this autonomy includes or whether it should include the possibility for traditional and indigenous communities to apply for patents on their knowledge of the genetic resources that reside in their territory and obtain royalties from the use of these resources. So the main question is: can traditional and indigenous communities be authors of intellectual property objects in an appropriate sense and thus be granted intellectual property rights to genetic resources? And if they can, should they then have patents on these objects?

It is evident that international instruments are needed to protect indigenous peoples and local communities against forceful external interests but it is at issue whether the right way to protect their interests is to implement a system of intellectual property rights or whether we need entirely different institutional arrangements and sets of norms.

Local communities and the governance of genetic resources

It is often stated that the existence of biological diversity and cultural diversity are linked. Though it is difficult to explicate the precise meaning of this statement, the intuition behind it is something like that socio-cultural diversity contributes to the maintenance and, to some extent, formation of biodiversity (see e.g. Swanson 1995, 6). Because their relation is one of interactive, it is plausible to assume that biological diversity gives a rise to the diversification of cultural practices. Most of crucial regions in biodiversity preservation are situated in the third world countries, many of them being inhabited by culturally heterogeneous groups of indigenous peoples and other traditional communities. Though many of these communities have ancient traditions to exercise sustainable resource management, at the present the lands they inhabit are under serious development pressures that form serious threat to

biodiversity. This predicament has arisen in spite of the economic and other values to be found in these natural biotic communities.

It has been suggested that often the best way to block the genetic erosion is to empower the local people to take care of biological and genetic resources. In this arrangement they can utilise these resources so as to avoid a more uncomfortable situation where they would have to reap the biological resources in their surroundings without being concerned with the long-term sustainability of resources. Broadly, this kind of management requires institutional arrangement according to which these peoples, as collective entities, have some kind of exclusive rights to genetic and other renewable resources in their habitats to prevent the "tragedy of the commons" (Hardin 1968). If they misuse or fail to value sufficiently these resources in a well-enforced and decentralised order, they would harm themselves in the long run, because the variety of genetic material is the most valuable asset they have. Without the continuous existence of plant and animal diversity their sources of livelihood would be impoverished to a great extent and the risk of a famine increases. Because of their responsibility of their own lives, they are highly motivated to use renewable resources in a sustainable way. On this idea rests the dictum "use it or lose it" -- when something can be used, there is a reason to manage it. According to it, humans will necessarily attempt to meet their needs and desires and the best way to do it is to make them realise the immediate impacts of the short-term exploitation and overconsumption. Thus, ideally, they restrain their own needs and desires and meet those that they regard as compatible with the sustainable use of resources. As I have argued elsewhere (Oksanen 1998), the general model of reasoning in the ecological defence of communal ownership and private ownership have some common features (and some distinctive features). In particular, both in private and in communal ownership the feedback mechanism compels the self-regulating communities and autonomous individuals to sustainable use. The existence of mechanism does, of course, not invariably determine that individual persons or communities will react to the changes in the conditions of living so as to readjust their ways of life but if they do not react in any way to these changes, the likelihood of unfortunate future increases.

The second reason to defend traditional and indigenous communities is to claim that they have acquired context-specific knowledge -- such as what plants are edible or have therapeutical effects and in what form they should be used in order to obtain the desired aim -- and practical skills to manage biological diversity of their locality (Gadgil et al. 1993, 154). These peoples base their environmental management on traditional community knowledge, or indigenous knowledge (ibid.). The significance of this knowledge will be emphasised due to an assumption that many species of wild plants, animals and micro-organisms contain biochemical qualities which form an essential part of their

health care system. The standard Western way to protect the (industrially applicable) systems of knowledge is to grant patents on them. Patents operate as a normative means to channel certain benefits in the form of royalties to the inventive people. In this sense, the patent system is regarded as just as it rewards these people and encourages others to compete and develop even better applications and innovations. When the indigenous knowledge systems and the genetic material in their tracts of land is protected by some norm-constrained system, such as the patent system, they have incentives to sustain their habitat as biologically diverse because diversity generates (economically) valuable things (see Vogel 1994). A third reason to defend indigenous rights to genetic resources stems from considerations of social justice. Many people think that it is morally unfair to regard indigenous cultural achievements -- or the biological wealth in the third world countries in general -- as belonging to the common heritage of humankind. This is so because then they would be vulnerable to the greater economic and political power of the rest of humankind: multinational corporations and western universities seek functional genetic substances which they could modify and for which they could apply for a patent. There are many examples of which one of the greatest importance is the case of neem.

So there are many reasons to support the idea that indigenous and traditional communities should be in charge of management of genetic resources in such a way that they could benefit from their conservation efforts. A conventional way to arrange the allocation of benefits is to grant intellectual property rights regarding genetic information to the party of claimants. But there is a conceptual difficulty. Namely, the intellectual property systems have evolved within a legal and cultural context that does not recognise informal, indigenous innovators to the full (Crucible Group 1994, xxi-ii). It follows that it is not clear whether the traditional and indigenous communities can be authors of intellectual property objects in a sense that they can be granted intellectual property rights in genetic resources.

Conventional view of patenting

The conventional view of patenting holds that the patentholder has an exclusive right to use the information or the artifacts that results from his or her intentional creative activity.¹ So, the conditions

¹ Relating inherently to this concept, the justification of intellectual property rights typically rests on instrumentalist, particularly on utilitarian, considerations (see Hettinger 1989; Drahos 1996, 46). It is supposed that granting of rights functions as a rewarding incentive to creativity and realisation

of obtaining a patent are that there is a clearly identifiable author of the object and the patentable information has characteristics of 'novelty', 'nonobviousness' and 'being capable of industrial application'. Juhani Pietarinen (1998) has suggested that patentable objects are *artifacts*. Let us take a closer look at what it means.

In order that a person can obtain intellectual property rights to an object, it is required that this object must have its origin in that person. He or she has made the object and thus is its author. The word 'author' is used here, following Hilpinen (1993, 155), in its old sense, and this sense is wider than its usual contemporary meaning which denotes a writer of a book. Hilpinen refers to *Oxford English Dictionary* according to which an author is a person who 'gives rise to an action, event, circumstance or a state of things' or 'originates or gives existence to anything'. In *Oxford Advanced Learner's Dictionary of Current English* 'author' is defined as a 'person who creates or begins something'. Often it is easy to identify the author, like in case of modern works of art: Picasso is the author of *Guernica*. But consider for instance national epics such as Homer's *Iliad and Odysseus* or *Kalevala*, a collection of traditional oral poetry which was collected, transcribed and possibly even narrated by a Finnish scholar Elias Lönnrot. It is clear that Homer and Lönnrot are not authors of the works in the same sense than James Joyce is the author of *Ulysses*. In fact it is rather difficult to trace back definitively the origins of these epic achievements and to identify their authors. Therefore, they are regarded as parts of the "objective world of knowledge" (Drahos 1996, 54) or as belonging to the common cultural heritage of humankind: anyone gifted to understand ancient Greek and Finnish (or the translations of the original texts) can use them as sees fit (*ibid.*, 55). Joyce's *Ulysses* is an exploitation of the ancient motif, but solely he -- according to the modern idea of authorship -- is entitled to copyrights of *his* masterwork because it is a new object which has resulted from his intentional and original work. (When Joyce created a new artifact by "recycling" the ancient motif of odysseys, he acquires exclusive right neither to his idea of "recycling" the old motif nor to the motif in

of socially the most advantageous utilisation of property objects, perhaps their maximal use. However, the exclusivity predicates rather the patent-system than openness. For this reason, there are people who doubt the legitimacy of the patent-system purely on utilitarian grounds. For example, Hettinger (1989, 35) points out "the burden of justification is very much on those who would restrict the maximal use of intellectual objects" (cf. Drahos 1996, 64).

itself.) Intentionally made objects are called artifacts, and they have a characteristic of being brought into the existence by an author.

All theories of ownership need an explication of what is being owned. In case of intellectual property rights, the objects of property share the characteristic of abstractness, and thus unlike real property law, intellectual property law assigns rights to abstract objects. The formulae for penicillin and *Für Elise*, a musical work of art, are examples of abstract objects. The formulae for penicillin can be protected by means of trade secrets or patents, and the musical works of art by means of copyrights. In general, most, if not all, intellectual property objects are artifacts.² In case of patenting, the artificiality is a necessary condition that something is patentable subject matter, and no one can hold a patent on a thing which exists independently of human labour and inventiveness.

The conventional view of patenting posits that patentable object is an artifact which is made for a certain purpose. Patentable objects are identified in terms of *information* which specifies the artifact. The specification can be done by means of "drawings or written descriptions of machines, instruments and processes, explanations of their operating principles, and descriptions of purposes for which they can be used" (Pietarinen 1998). A drawing, for example, contains information which serves to specify the patentable subject matter, that is, as Pietarinen (ibid.) puts it, "it gives the type-description of the objects to be patented". In the late 1970's, the US Supreme Court interpretation of the patent law rejected the view that a necessary condition of being patentable is to be non-living. The landmark case in this respect is that of *Diamond v. Chakrabarty*. Ananda Chakrabarty developed by means of genetic manipulation an organism which was capable of digesting crude oil, and this property was conceived man-made which meant that the quality did not occur in any known species of bacteria in nature.³ In this sense, the bacterium was an artifact, that is, it was manufactured

² This principle seems to cover even the most simplified forms of intellectual property, i.e., trademarks. In many cases trademarks are words which are often artifacts, i.e., they have an identifiable author who has invented the word for a special commercial purpose. (See Hilpinen 1993, 173ff.) What about those common words which are used as trademarks? Consider Finnish company names like *Kone* (meaning 'machine') or *Tieto* (meaning 'knowledge'). These terms are not artificial in the same sense as, say, *Pepsi-Cola*.

³ In his *The Diversity of Life* (1994) E.O. Wilson gives a luminous account of the present state of biological knowledge.

by an identifiable author for particular purposes and it met the criteria of patentability. (See Adler 1984, 358-9; Hilpinen 1993, 167.)

The decision made in the case of Chakrabarty -- and the decision bears worldwide significance -- opens up the prospect of ownership in genetic resources. The current legal debate on patenting focuses on whether or not genetic information in wild organisms fulfils the criterion of being invented. In this controversy, the key concepts are "discovery" and "invention". Conventionally, mere discoveries of beneficial qualities of wild organisms are not considered to fulfil the criterion of patentability, because these organisms and their properties are non-inventive things, not invented artifacts.

But why we should hold to the conventional view, and why should we not instead advocate a view which allows patents on a wider range of genetic entities and extends the range of possible patentholders?

Patenting and forms of ownership

When a person, or a group of person, are bestowed with property rights they have the greatest recognised interest in the object itself or in the stream of benefits it generates (Honoré 1987, 162). The institution of ownership consist of rules that determine relations between persons with respect to property objects, regardless of the fact whether property objects are tangible or intangible. The patentholder has a claim to obtain royalties from others who use his invention for commercial purposes. If we regard, following Bromley (1991, 2), property as "a benefit stream" and property right as "a claim to a benefit stream", it seems, despite certain differences, that intellectual property is a distinctive instance of property: it is an exclusive claim to benefits that generate from one's own invention or alike. The beneficiaries of benefit streams, the owners, can be both individuals and

He says that the biosphere is unexplored to a great extent and that merely a tenth of actually living species has been examined, that is, described and classified. Regardless of the present state of the art, the US Supreme Court put forward an argument that Chakrabarty's bacterium was not "found in nature": there is a possibility for its "natural" existence. Although, some could find this bacterium living in nature, it is compatible still to regard the patented bacterium as an artifact.

collective entities. So, it has been suggested that property rights should be extended to the objects, both tangible and intangible, which have thus far existed outside exclusive property right regimes.

In the literature, the following fourfold classification of type of property rights regimes is often used (see e.g. Bromley 1991). In case of *open-access resources*, no one exercises exclusive control over them and in principal no one is excluded from their use. The transfer of biological and genetic resources from one country to another was virtually unregulated before the Rio Convention on Biodiversity. In this sense genetic resources were open-access resources resulting, among other things, the so called Columbian Exchange: transfer of New World plants to Europe and introduction of some Old World plants in America. When intellectual property rights are recognised in plant genetic resources, these resources are, one by one, removed from the domain of open accessibility to the domain of closed accessibility. One basic feature of ownership is the exclusion of non-owners. This means that for non-owners the access to a thing is closed or strictly limited on such conditions as the will of the owner or the payment of royalties. For example, the owner of the patent on a plant variety can debar the non-owners from using its seeds for commercial purposes. However, the owner has the power to transfer these rights to other people. In addition to the possibility that a thing x belongs to no one particular person, it can belong to the state, community or individual. *State property* belongs to the state and the national legislation governs and regulates its use. Resources are in *communal ownership* when an identifiable group of persons governs them as a collective entity. For example, traditional commons are used and managed under a system of rules which is known as customary law which dictates how, when and by whom the resource basis can be exploited. In case of *private ownership*, resources are held by individuals who may use them as they please, provided that ways of using are socially and legally acceptable. This division is applicable also to intellectual property. Normally, it is taken for granted that intellectual property objects belong to the domain of open-access resources. In a special situation, the party which applies for a patent can be an individual, a community, or the state but this party has to indicate the reasons why it would be granted patent and why it would be entitled to the exclusive rights.

Commons and collective artifacts

Do traditional communities meet the formal requirements so that they would be authors of intellectual property objects and thus have patents to genetic information? Some people think that it is conceptually infeasible to regard indigenous communities as being capable of producing intellectual property objects and thus being entitled to intellectual property rights. According to these contenders

the idea of communal ownership leads to "suspect organicist ideas of communities as independently-existing entities" (Stenson & Gray 1997, 191). But there are other ways to approach the problem, which are based on the basic tenets of methodological individualism and which thus do not subscribe to "suspect organicist ideas". In this analysis the key concept is collective artifact. These artifacts have a special feature of being produced by several authors who form a group. This group exists over a certain period of time. In some case, the authors are easily identifiable. Eddy Zemach has examined how should we regard such an artistic product as singing a *Lied*. He says:

What you hear is a work of art, *one* work of art. But if it is a single work, whose work is it? The poet who wrote the words (--) created a work of art, but so did the composer, who wrote the music, and so did the singer, who is an artist in his own right. (Zemach 1990, 296 -- quoted in Hilpinen 1993, 167.)

Risto Hilpinen suggests that in cases like this, the performance has three authors: the composer, the poet, and the singer. Together they make this artifact, i.e., the performance of the lied. To produce the collective artifact, the performers have some common intentions and beliefs about the appropriate course of action that aims at bringing about the artifact (see Lagerspetz 1989, 14). The production of collective artifact requires the existence of an institution in which the artifact has been produced and classified as being a certain kind of artifact. Institution consists of certain rules and beliefs concerning both the social and the physical reality, and all relevant individuals acknowledge these rules and beliefs are shared thus making social action and the production of the collective artifact possible. When it comes to the royalties and allocation of admission fees of the performance of the lied, though these are matters of contract and the nature of happening, in principle all producers of the artifact are entitled to certain recognition or even to returns. This is how methodological individualism tries to explain the emergence of collective artifacts: there are individuals, mutual beliefs hold by relevant individuals and coordinated courses of action.

The nature and existence of the kind of collective artifacts such as the performance of a lied seems to be accountable in a rather simple way when compared with folklore, for example. But from this does not follow that we cannot regard the collective, culture-specific knowledge as a kind of artifact. This knowledge consists of information of beneficial qualities of some species and their sustainable management. E. N. Anderson writes about the Maya culture:

The Maya have survived the millennia by knowing every use of every significant living and nonliving thing, and by managing these in a sustainable way to safeguard the investment of time and effort embodied in that vast learning pool. Maya men and women take their children with them to the forest. Together they collect wild resources, together they farm, and together they work in the home garden. Children learn by doing, but they also receive continual instruction. Education is not mindless matter of copying the parents. Parents work hard to motivate their children. They are incredibly long-suffering teachers, but, as we have seen, they are quick to sanction appropriately when children do wrong. (Anderson 1996, 79.)

Human understanding of particular local circumstances is inherited from the earlier generation and transferred to the next. It is called traditional ecological knowledge, and it consists of "a cumulative body of knowledge and beliefs handed down through generations by cultural transmission about the relationship of living beings, (including humans) with one another and with their environment" (Gadgil et al. 1993, 151). Traditional knowledge accumulates but it can also change as a response to changes in the conditions of living. But it is clear that the existence of knowledge presupposes that there are people who have collected the body of knowledge and thus created system of artifacts.

In the performance of the lied, the number of actors is limited and they are easily identifiable. To identify of which individuals an indigenous community consists is often extremely difficult and subject to political controversies, particularly in cases in which the membership in a group is of certain benefit. Moreover, what exactly is the origin of traditional community knowledge, in other words, is it possible to identify the party who has first acquired the piece of knowledge? It is been claimed that

with traditional knowledge, however, there is no single act of creation: traditional knowledge is not the discovery of a single person or group of people, but the result of centuries of collective experience -- in which case there was never any one person or group of persons *entitled* to private property in this knowledge. (Stenson & Gray 1997, 190.)

So, it is conceptually difficult to claim that certain communities are entitled to property rights regarding their knowledge systems and related genetic resources. Moreover, this implies that traditional ecological knowledge is part of the intellectual commons in a *non*-exclusive sense of the

term. In other words, the relationship between indigenous knowledge and protected knowledge is like the relationship between Homer's Odysseys and Joyce's Ulysses: anyone capable of using indigenous knowledge may use it. The problem here is that to consider collective knowledge as a collective artifact can be *explained* even with principles of methodological individualism but these principles are incapable of *justifying* the ownership of long-endured collective artifacts. It is clear that the indigenous knowledge systems and technologies are in that respect intellectual commons in a non-exclusive sense due to difficulties in the specification of the act of creation and identification of the author of the patentable object. Another thing is how to specify what is the precise nature of the indigenous community's relation to the plants and animals in their habitat. It is obvious that indigenous communities have not developed the beneficial qualities of organisms in laboratories, in *ex situ* conditions, but it is apparent that could they have put somehow a distinctive mark in these material resources by means of selection and so removed them from the state of nature. Namely, if and when their relation to the environment and plant genetic resources is considered in terms of management, intentional cultivation and improvement of germplasm by breeding, which provides them a secure source of livelihood, then they seem to have a *prima facie* claim to these resources. It seems that in order to create and implement a system based on intellectual property right as it exists now, we have to modify it and to extend it beyond its conventional boundaries. It is needed to reconsider both the idea of authorship and the concept of inventiveness. If the individual creativity in the modern western sense and the communal-level innovability do not accord easily, we have to pose the question why should we hold to the idea that they are part of the same category and why not to differentiate them and to justify them in different ways?

Indigenous interests

The conventional view of patenting has been contested from various positions. One piece of criticism stems from the perception that the conventional view tends to belittle the significance and exigency of investing in biodiversity as a source of potentially valuable objects and services. If exclusive rights in genetic resources were recognised, there would exist an incentive to promote their sustainable use because of its long-term advantageousness (Vogel 1994).

Another source of criticism stems from doubts that the system of intellectual property rights is socially unjust, particularly when considered from the viewpoint of the traditional and indigenous communities. As it stands it is rather difficult to extend it to cover legal protection their cultural achievements, such as inventions, works of art, narratives and knowledge of the natural world

and of therapeutical effect of biochemical substances, not to speak of the land they live upon. As long as it holds that "the developing countries are likely to derive little or no benefits from their biotic heritage after years of conservation" (Khalil 1995, 232), their interest in investing in biodiversity protection may not intensive. In this sense, if one party contributing to the development of the germplasm is being compensated, the contribution of others can be arbitrarily ignored: thus the solution is socially unbearable. This may promote such way of utilising natural resources which is incompatible with protecting biodiversity. This may promote technological colonialism according to which the north could exploit the genetic resources and knowledge about them that actually belongs to the south. One key term in the debate is "biopiracy" (Mies & Shiva 1993). It is used for the purpose of indicating the unjustified nature of the attempts of the multinational corporations to obtain patent on slightly modified genetic resources that originate in the south and that has been locally used. Those who use the term require that the theft of common intellectual and biological property should be impeded. The logical presupposition of the notion of biopiracy -- as that of the theft in general -- is that the stolen object is somebody's property: a thing cannot be stolen when it belongs to no one. Whether these commons are owned by someone is a cardinal issue in political philosophy from the middle ages to the present (see Drahos 1996, 57-60). To put it roughly, there are two contrasting ideas of the nature of community regarding the common resources. The notion of negative community means that the commons are no one's property and there are no limitation whatsoever regarding the access to them. If intellectual commons are resources of this kind, it implies that the appropriation (or enclosures) from the commons does not require permission from the rest of society. Were intellectual commons held in common by the positive community, such a permission would be a necessary condition for any act of appropriation. But this division does not answer to the question whether the appropriation, particularly in the form of patents, is justified or not.

The issue of original ownership of genetic resources is closely related to the relationship between patenting and possessing. Stenson and Gray (1997 185) call the proximity theory a view according to which the physical proximity and possession creates an intellectual property right in a thing. They (p. 187) quote Suman Sahai who has argued that

if the copper found in Canada is Canadian and the coal found in Germany is German, then by the same principle, genetic resources found in the third world will have to be considered their property. There cannot be two sets of rules.

According to the conventional view of patenting, possession of the genetic resource is not a sufficient criterion of having intellectual property in something. However it can imply a set of legitimate claims with respect to genetic resources in at least two senses. First, in a sense of owning the raw material. Second, in a sense of simply being the possessor of the object. Both of these claims can lead to incomes in the form of royalties paid to the possessors of genetic resources or in the form of selling the raw material to those who can process them into merchandisable products.

There are also some practical barriers to protect indigenous knowledge systems through the policy of implementing a system of intellectual property rights; among these problems is the one that patent system is alien to many non-western cultures and they think it as outrageous the idea of patenting and owning life and living beings (see Posey 1996, 7-9). In fact, this is a crucial point: if they reject the notion of intellectual property, the body of reasoning practically collapses. However, these issues are beyond the present scope of inquiry.

Concluding remarks

It is justified to assert that the patent system has been used to promote the interest of industrialised countries, but it does not follow from this that the patent system in itself is of no use as a means of social and environmental policies. The system of intellectual property rights is one way to protect and/or defend why indigenous communities are entitled to certain benefits (e.g. royalties) from their knowledge systems and the related genetic resources. But it is a problematic one.

Provided that societies have adopted such system of rules in which traditional communities have legally protected rights, the possibility of biodiversity still depends on many other variables which are both internal and external to the community. The external conditions of successful, long-term use of genetic resources requires that there are not other option more profitable to the community. Concerning many third world countries, the prevailing social values and governmental policies, such as subsidy system (see Pearce 1991, 8), has encouraged further the conversion of forest land to pastureland. This has occurred at the expense of biodiversity loss. Although the institutional structures were modified to promote nondepletive use of biological resource, it is impossible to create such a lasting encouragement for conservation that avoid the loss of some forms of life. But this does not undermine the reasonability of trying to refrain from causing anthropogenic extinction whenever possible. Although the individual creativity in the modern western sense and the communal-level innovability do not accord easily, it is not self-evident that we have to hold to the idea that only one of

them deserves the protection in terms of rights. To find a solution is a matter of political will as far as it is a matter of conceptual difficulty.

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