## Is a just system also fair? Traversing the domain of knowledge, institutions, culture and ethics<sup>1</sup>

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What is a fair system of knowledge attribution and utilization when norms of an institution celebrate extraction, and unfair exploitation? Should institutional justice take precedence over fairness of means versus fairness of outcomes for individuals? How do we create a fair way of treating asymmetries in pricing the knowledge produced by corporations and the unattached citizens? When researchers document people's knowledge (as ethnobotanists have done for ages) and bring it in public domain without any prior informed consent (PIC) of communities or individuals, they are being *just* because they are following the norms of their profession. But is that exchange also *fair*<sup>2</sup>?

The fairness in any knowledge exchange can be defined in terms of the equality of opportunities among different actors involved in the exchange to seek, provide, acquire, interpret, share, disseminate or critique the knowledge without fear of being excluded or reprimanded for the views one has( it is obviously more than just the procedural justice). Therefore, fairness is the measure of access, ability to interpret, freedom to disseminate or critique and capacity to deny the right to acquire or use or share one's knowledge. The justness in the exchange would depend upon the compliance with the existing norms of profession, organization and society. It is possible that just norms at one level may become unjust at another level. For example, organization may demand confidentiality and compliance with the organizational norms even if certain practices are contrary to the societal norms. In the absence of legitimate whistle blowing function, any act which jeopardizes the future of the organization may be called unjust by the member of the organization. But, if someone blows the whistle or if her stand is vindicated at the societal platforms such as courts then her so called unjust actions within the organizations become a just action in the societal terms. Therefore, compliance in a fair manner ( without discriminating among various members of the group) with norms which are not justified at the larger level in the larger context may lead to unjust actions.

Let us assume that even if one asks a community about its consent, it gives it because it believes that knowledge could be shared without restriction. But the products based on that knowledge are covered by IPRs and are not accessible to the community whose knowledge made those products possible. The system is *just* but not *fair*?

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objectively unfairness in resource exchange may be considered under certain social condition as morally fair; Nicholos Humphrey (2006), Introduction: Science Looks at Fairness, Social Research, 73(2) 345.

Justice may be derived by prevalent models of ethics and institutions. After all apartheid institutions had courts, which dispensed justice, but in what, many will call, an "unfair" manner.

If the rules (according to which distribution of gains by adding value to traditional knowledge takes place), are so designed that they favour organized sector over unorganized, articulate over tacit, literate over illiterate and written word based system over oral tradition, then norms of fairness will depend upon the ethical and cultural values of a given society In several institutions of higher learning, a case method is used for teaching concepts of management or operational efficiency. When such case studies are based on the knowledge or the data provided by the formal sector organizations, then norms of such organizations require that these cases are cleared or authorized by the data providing organization for the purpose. Without written permission and 'no objection' from the data providing organization, the case cannot be registered and is not formally authorized for use in the class. However, if the same writer writes a case based on the oral knowledge of people in the unorganized informal sector, then the same institution of higher learning does not require an informed consent from such knowledge providers. This is an example where the norms of fairness are biased in favour of organized sector as compared to the knowledge from the unorganized sector. Though both kind of conduct are just given the norms.

We argue that we can not address the issue of fairness in knowledge systems without bringing into question the very basis by which justice is defined by institutions regulating and monitoring the interface between formal and informal knowledge systems. Once we do it, we can indeed move towards a theory which will give priority to fairness vis-à-vis contemporary justice. It may also help in bringing in the issue of inter generational justice requiring intra-generational fairness. The former implies the ability and willingness of a society to respect the rights of unborn and those who cannot vote in the current decision making system such as non-human sentient beings.<sup>3</sup> The latter refers to fairness in exchange of goods and services among different sections of society living at present. Here the equality of opportunity and enabling arrangements for the disadvantaged to have a reasonable chance of gaining access to resources.

National Innovation Foundation (NIF) was set up by Department of Science and Technology, Government of India in 2000 to scale up the Honey Bee Network based approach to scouting and documentation of grassroots network covered by the prior informed consent, build value chain, protect intellectual property rights and ensure fair distribution of benefits if any. We provide an operational framework in which NIF and Honey Bee Network are trying to address these dilemmas. Honey Bee Network<sup>4</sup> started

<sup>&</sup>lt;sup>3</sup> They are also called perfect strangers, i.e., unknown and unknowable. We cannot find out the preferences of a generation unborn. Likewise, we do not know what the ant on the wall or a bird in the window thinks about us. Justice towards the next generation is defined as inter-generational justice.

<sup>&</sup>lt;sup>4</sup> The Honey Bee philosophy refers to primarily four principles (a) connecting people to people by encouraging knowledge exchange in local languages so as to facilitate cross pollination of ideas, (b) the knowledge providers must be acknowledged and sourced while referring to their knowledge. They should not become anonymous and should not feel short changed while sharing their knowledge. This is akin to

the dialogue 19 years ago on the issue of fairness and justice-in- knowledge exchange among local communities, individuals, professionals attached to the institutions or otherwise, state and markets.

Knowledge gets produced when people observe, analyze, abstract, absorb, assimilate or just feel. It is obvious therefore that there is a considerable variation in the way knowledge is produced, validated, abstracted and disseminated. For some, the prior feelings and beliefs cannot be separated from the subsequent knowledge that is gained by a person. For others, it is possible to gain knowledge as an objective fact without bringing feelings into the picture<sup>5</sup>. However, both the perspectives may converge on at least one issue. And that is, the interpretation, use and consequences of the knowledge gained through emotive or instrumental means are certainly influenced by our values, past experiences and future expectation about the social order. Therefore, if we believe that we can and should use knowledge for larger social good, then both the *means* through which we gather that knowledge and the *ends* for which we use that knowledge may get connected.

In Gandhian philosophy, the *means* often are considered more important than the *ends*. If knowledge is collected through unfair means, no matter how just the distribution of that knowledge is, the problem will not go away. This is the problem that we wish to address in this paper.

While working through the Honey bee Network we realized that the prevalent norms of knowledge exchange, governed by the rules created by institutions of state and civil society at that time, did not find any unfairness in the extraction/collection of peoples' knowledge (traditional as well as contemporary, tacit as well as explicit) without any attribution, acknowledgement, prior informed consent or any reciprocity towards the knowledge providers. The only resource, as we have argued, in which poor people were often rich was their knowledge about use of resources, coping with risks of climate or other environmental factors, dealing with stresses and managing survival. This knowledge whether of material nature or institutional nature was scouted and documented by outsiders and shared in a language that local communities did not know. The act of bringing private knowledge or community knowledge in public domain without the consent (Gupta and Sinha, 2003) was considered just because the larger number of people benefited from the use of that knowledge. The largest good of larger number of people, a utilitarian logic produced the norm according to which no injustice was caused. It was argued that local communities did not lose anything by sharing their knowledge. In any case, the ethics of these communities often guided them to share their knowledge unhesitatingly. The providers of knowledge in many cases did not ask for

the flowers not complaining when bees collect their nectar; (c) attributing not only the knowledge provider but also those through whom we identify the knowledge provider and (d) if any wealth is generated, a reasonable share goes back to the people whose knowledge enabled the wealth generation.

<sup>&</sup>lt;sup>5</sup> Rummel criticizes Rawlsian concept of 'veil of ignorance' for assuming that separating the personal preferences or feelings will lead to fairer norms of societal allocation of resources. The notion that people receive what is their due, he argues, strongly depends upon what different groups of people *believe* is their 'due' (Rummel, 1981, emphasis mine). R J Rummel Understanding Conflict and War.Vol 5 The Just Peace. Beverly Hills, California: Sage Publications, 1981.

any report of what the knowledge seekers did with the knowledge so obtained<sup>6</sup>. Therefore, by not providing access to the analysis or the publication, the outside researchers or corporate agents did not, apparently, do any *injustice*. However, is it not a violation of human right when something is taken from someone who is not aware of its true worth, or does not care to ask for the products developed by the knowledge seekers. Most local communities around the world are very generous in sharing their knowledge. they do not even ask the investigator as to what would they do with the knowledge they provide. In their culture, sharing is the most natural and expected behaviour. Thev don't realize that majority of the outsiders who access local knowledge do not feel obliged to either disclose their purpose or to inform them when something of commercial value is developed based on that knowledge. In the absence of any written agreement, the local communities don't even know as to what products actually came out of the knowledge which they had shared. The question of sharing benefits does not arise. The tragedy is that when young people notice that most of the knowledge rich, older people often remain economically poor, they don't take interest in acquiring, experimenting and maintaining the knowledge. The erosion of knowledge starts because young people don't want to remain poor by continuing with the traditional sharing ethic.

#### Criteria for assessing adverse consequence for knowledge providers:

How do we derive the criteria by which fairness can be judged? Rawls had said, "When an adverse consequence of an exchange occurred for, or affected even one person, the process would be qualified as unfair." Therefore, a community or an individual knowledge provider could be considered as a sufferer if any of the following four things happen: (a) knowledge provider needs access to a product, say a medicine, based on the knowledge he provided but cannot afford or access it, (b) by sharing the knowledge, the other people come to know and the demand for the skills and/or the local resources goes down because the people can obtain knowledge and/or resources from other sources, (c) the social esteem of the local community or the individual knowledge holder does not increase even when the knowledge they provided proves to be extremely useful to the larger world because they have not been acknowledged or sourced while sharing the knowledge (for instance, provision of the knowledge of Cinchona as a malarial control plant by the American Indians to the European settlers who could use this knowledge to dominate and control the Indian tribes) and (d) the younger people within the community lose respect for the knowledge that elderly people shared with the outsiders without any reciprocity because they find that knowledge rich elders are often economically very poor. And there could be other criteria by which the adverse consequences on one or many knowledge providers can be assessed.

#### Criteria for assessing adverse consequence for knowledge seekers:

My second contention is that unfairness can also arise if we look at the possible adverse consequences for the knowledge seekers using even unfair means to get the knowledge.

<sup>&</sup>lt;sup>6</sup> Britz and Lipinski( 2001) cover this issue under commutative and contributive justice; J J Britz and T A Lipnski, Indigenous Knowledge: A moral reflection on current legal concepts of IP, Libri, 2001 (51) 234-246

Let me illustrate ways in which this can happen. (a) the respect for oral communications and tacit knowledge goes down in the profession because scholars notice that not acknowledging oral knowledge of tacit and traditional communities is not very different from ignoring similar knowledge of modern communities or individual scholars, (b) the interactional opportunities among the scholars go down leading to decline in trust, social capital and production and cummulation of knowledge, (c) enforcement of ethical values among the scholarly communities becomes difficult because of the guilt or fear of being faulted for using different values while dealing with similar knowledge from informal sources, (d) the respect among younger scholars and students for senior scholars goes down when they realize that the professional norms of just way of dealing with knowledge actually appeared to cause lot of unfairness in the dispensation of the justice, and (e) the organizers of the conference regretfully find that there is no dearth of potential participation from the scholars who follow similar norms of unfair knowledge extraction but those few scholars who are sensitive and responsible do not participate in such conferences. The adverse consequences even for a few of the knowledge seekers may create similar dilemma as the adverse consequences for knowledge providers.

#### Motives of knowledge extraction and Consequences of different motives:

My submission is that the fairness in knowledge exchange should not be judged only by the consequences but also by the motives of the knowledge extractors. Even if consequences are good (unfair extraction of knowledge about a traditional medicine leads to development of a cheap affordable drug), and lot more lives are saved then would have been the case without such extraction, the exchange without attribution and reciprocity would still remain *unfair*. This situation becomes more complex when the knowledge providing communities or individuals are either not able to access this drug because of the poor infrastructure or low purchasing power or suffer from other disabilities which cannot be overcome even with the access to drug. The consequences are often easy to measure; the motives have to be inferred. While the norms of justice would apply in a conflict within the constitutional framework, the norms of fairness would require the prevalent ethics to be put in a larger social and political context. By not signing the Convention on Biological Diversity or other such treaties, a dominant country can escape from the legal consequences and thus may still be operating with in the domain of justice. But, will such conduct be called fair. Assume for a minute that legally a state being the sovereign right holder over natural resources within its boundary decides not to honour the knowledge rights of the local communities. In fact, it passes a law in the parliament which makes all the oral knowledge practiced by anybody anywhere as a prior art and thus in public domain. Now the professionals who document such knowledge without attribution have a legal justification for exploitation. Because the knowledge of the local communities is in public domain, there is no reason why any norm of seeking permission should be followed. Whether copy right of the communities be considered is an issue is equally complex. It is difficult many times to find the precise authors of a traditional knowledge. Even though it may be possible to find the outstanding practitioners of such knowledge with or without contemporary improvements. Let us take the case of a traditional knowledge which is widely distributed and has been brought in public domain. Scholars who collect such knowledge and use it to produce contemporary commercial products don't see any reasons why they should either enrich the public domain or

enhance the capacity of the communities to keep the knowledge intact so that future generations may be able to either improve upon it or analyze its operational context. As we restrict the conditions of diffusion, awareness or practice of the knowledge, the complexities increase. The motives of the scholars who collect knowledge from local communities may be benign. When they publish the knowledge of people, their motive may be to explain the public domain. However, if in the process the knowledge providers lose the rights to such knowledge, the consequences that follow are not always benign. In some cases, one labels such exchanges as bio piracy.

If the purpose is to keep the crucible of creativity in which knowledge is produced, reproduced, debated and refined intact, then the present discourse has to look at the relationship between knowledge, institutions, ethics and culture.

I, therefore will discuss the interface between these four dimensions next. i.e. knowledge, institutions, ethics and culture.

If knowledge is conceptualized like "words" in a sentence, then institutions are like "grammar". The culture connotes the "thesaurus" and the ethics is underlying the embedded meanings in certain phrases or usages. It is possible that we use the words very precisely and arrange them in a grammatically correct manner with sensitivity towards the usage, yet the meanings could cause injury to the interests of certain classes of society if not used appropriately. The sign of swastik is one such example. Misuse of the sign by one of the worst tyrants in the history has imbued a specific meaning to the sign in a given cultural, historical and social context. In another context, usage of this sign does not evoke even remotely similar feelings. It is this "context" specific meaning and its bearing on the "content" of the meaning which may cause a problem of unfairness. People who have suffered at the hands of that tyrant would like the whole world to show this sensitivity and rightly so. Every right thinking human being must recognize the problem. At the same time, a tribal community or a local community in another part of the world oblivious of this connotation may use the sign with a very different meaning and with no intention to cause hurt to anybody. Here the importance of motives becomes even more paramount. If motives are proper, can a wrong action be justified?

#### What is a normal professional and institutional behaviour?

Many scholars, we now revert to our original context, would argue that when they extracted the knowledge of local communities without any acknowledgement, they did not do it to exploit the people. They did it because that was a *normal* thing to do as per the professional standards or norms of institutional behaviour. What is 'normal' need not be governed either by the dominance of the institutions which define normality or by the discomfort caused to those whose conduct gets questioned. No journal of ethnobotony refuses a publication because the content of the articles have not been shared with the knowledge providers in local language or because the sources of the information have not been acknowledged as authors, or prior informed consent has not been taken before putting the knowledge of the local communities in public domain. In Honey Bee,

we have faced these problems squarely and have tried to evolve norms which could be considered *just as well as fair*.

But, what we practice, even if imperfectly, is yet not the norm of the profession or social science research councils of European or developing countries. A Ph.D thesis will not be rejected in Germany or USA because the student did not take permission from the local communities and fulfilled other responsibilities mentioned above. And yet, a certificate is signed by the guide that all acknowledgements, which were due, have been made. How do we include or deal with the acknowledgements which have not been made and thus not considered 'due'?

The norms of justice can converge with norms of fairness if we grapple with the problem of means and ends. In oral societies the legitimacy of oral tradition exists and therefore, the values of certain kind matter more than others. Same societies may be very unjust in the treatment of women, handicapped people or even minorities. However, the right to have one's knowledge treated in a fair and just manner is not divisible and substractable. Therefore, one cannot argue that a traditional healer convicted for murder has no right over his healing knowledge because he has committed a murder. Several of his constitutional rights may get superceded because of his offence. But his knowledge right will not be compromised, in my view.

### Policy challenges: what next

The discussion so far provides the framework of fairness in which arguments about justice can be pursued to design institutions that can serve right ends through right means. National Innovation Foundation (NIF) set up by the Department of Science and Technology, Government of India is mandated to build a national register of grassroots unaided innovations and traditional knowledge. Many times, similar innovations are developed by several people simultaneously. But some of them come to know about NIF or SRISTI on their own or its Honey Bee Network collaborators discover them early. Some are discovered much later. If an innovator is honoured for an innovation which he or she disclosed to NIF first, the norms of justice would have been followed. But, surely the innovator who comes to know of it later may feel unfairly treated. In such a case, the institution must have norms, which are flexible, friendly and fair to those who developed the innovation first but were not smart enough or lucky enough to be noticed early or reach the NIF early.

In the case of traditional knowledge, similar problem may arise. Same plant may be used for somewhat similar purpose by many communities, not all of whom may be able to reach us or be able to be discovered by NIF. The knowledge of some of the communities may have been documented by the scholars in past and published. These communities may have developed very valuable knowledge but will be denied any recognition because some scholars in past without their permission and in an unfair manner publish their knowledge. This community is not at fault. But, the ends of justice will be compromised if the novelty in the innovation is not appreciated. Sometimes, an innovator has developed a solution which some other individual or community in another part of the world may have discovered or developed earlier and independently. Should such a person be given credit if it is established that he may not have had any access to international knowledge base and thus may have tried to develop the knowledge *de novo*. If the purpose is to promote creativity, originality, novelty and experimental ethic, then the norms by which an arrangement is called just and fair be different than the case where purpose is only to grant patent.

# Within the context of intellectual property rights, I have raised the following issues, which involve similar dilemma:

- a. *First to file versus first to invent:* It is completely a just system if patent office grants patents to an innovator who comes first. Except in USA, where first to invent system is followed, in most other countries; the first to file system is followed. From legal point of view, it makes sense. Now look at the transaction cost for a small inventor or innovator who has developed his or her innovation in a remote corner, away from the big cities and being often unaware of the modern systems of protection. He does not have the resources to hire the best attorneys and therefore cannot file an application earlier than someone else who is more resourceful. He loses his rights. Should we now accept the fairness of this system because it rewards resourcefulness over resourcelessness? Is this the only way to address the problem?
- b. *Lawful and rightful disclosure:* Since 1993, Society for Research and Initiatives for Sustainable Technologies and Institutions (SRISTI) and I have argued that every patent office must require each patent applicant to file an affidavit declaring that all the knowledge and /or resources used for making the claims have been obtained, 'lawfully' and 'rightfully'. If India does not have a law requiring prior informed consent of local communities/individuals, whose knowledge is collected by outsiders for any commercial or non-commercial use, then it is perfectly lawful not to obtain their consent. But is it 'rightful' also? Just because a country does not have a law or does not have the capacity to implement a law, should not the ethical and fair conduct become indispensable?
- c. *Is traditional knowledge a prior art:* The patent laws of many countries consider TK as prior art and therefore beyond any protection. Is there not a case for modifying such provisions to discriminate between widely known and widely practiced TK vis-à-vis widely known, rarely practiced, or rarely known, rarely practiced TK? Should not the norm of *reasonable accessibility* be applied while evaluating the classification of a particular knowledge as prior art? The rights of local communities need not be evaluated only from the legal framework but should be seen in the ethical framework of fairness.
- d. *Sacred marks:* From the legal point of view, there may not be any restriction on using of sacred marks of one community in branding commercial goods of another community. However, communities for which these marks are

sacred, the norms of fairness are violated when indiscretion is performed in such matters. The protection of sacred marks should become inevitable. I do not know whether every unfair action must require expansion of the justiciable boundary of the concept. That will make legal system very cumbersome and moral boundaries very restricted.

e. *Open source innovations:* There is a widespread consciousness that public domain must be expanded for empowering civil society discourse and dialogue. However, this must happen voluntarily and through mutual consent. At the same time, any corporation or private organization, which draws upon public domain knowledge contributed by the local communities, should consider making contribution towards enlargement of the public domain. Various incentives can be developed by which innovators and inventors could be compensated and then persuaded to bring their knowledge in public domain. Development of such incentives and their popularity could be considered as a good indicator of the extent to which norms of justice and fairness are getting converged in a society.

Concluding Comments:

I have argued in this paper that in many cases it is easier to be just than to be fair. I am suggesting the need for developing a theory, which gives primacy to fairness while ensuring justice. Sometimes, intra generational fairness because of the reasons mentioned above is a precondition for ensuring inter-generational justice. If the children of local knowledge experts do not have incentive to keep the knowledge systems alive, then the future generations will be deprived of the access to a living laboratory of experimentation and creativity. A grave injustice to future generations will follow because we could not develop norms of fairness in the current generation.

The asymmetry in rights and responsibilities are inevitable. None of us are able to achieve the goals of complete justice and fairness in our personal lives. We realize that in our anxiety to be fair to different roles, we cause injustice to some or the other stakeholders. These tradeoffs in every day life perhaps make us insensitive to the need of avoiding these tradeoffs in larger society. This is a call we can avoid only at the cost of eventually becoming fair to each constituent.

I submit that knowledge asymmetries have provided the spur for social dialogue, engagement and encounter in the society for centuries. The challenge is to maintain the incentives for local expertise to evolve and grow without legitimacy being granted to unfair means of overcoming the asymmetry. Local knowledge being linked to the place and time invariably encompasses certain universal values of compassion, creativity and collaboration. I am not suggesting such to be the case in every instance. I am only saying that the probability of such a thing happening is higher when a knowledge production, consumption and distribution system is linked to a place and people inhabiting that place.

The institutional context of technological, cultural and social knowledge production becomes therefore extremely important. Those who produce knowledge should take into account the values, which increase the chances of putting such knowledge to environment friendly and socially compatible use. I am aware that social compatibility can sometime be a constraint rather than an opportunity. At such moments, an individual has to listen to the call of conscience and decide. No major innovation would have taken place if compatibility with existing norm of society had been a precondition. At the same time, the norms of social fairness and justice require that while developing knowledge and institutions to manage it, we do not disregard the envelope in which the message is communicated. The institutional envelope for technological and social knowledge has to be calibrated so that it can contain a fair extent of variety.