

CHAPTER FOUR

Searching Intrinsic value in Nature

Introductory

In the previous sequel it has been established that all biotic community in the biosphere deserves equal moral status. In this chapter we propose to explain in what sense natural entities do possess intrinsic value. The prime objective of environmental ethics is to restore the intrinsic value of nature. There is no question of doubt that natural entities do have instrumental value or use value. But if we confine ourselves within the instrumentality of nature or natural entities, then the question of regarding all biotic species as equal appears to be otiose. This is what, we have already stated, that traditional ethics have recognized. In traditional ethics, it has been recognized that only human beings are the legitimate moral agents by virtue of possessing humanity as well as rationality. Hence everything is there for humans, for the utilization of human's needs and desires. So barring humans, all other sentient beings deserve only instrumental value. So there is no point to equate other sentient beings with humans. Unlike traditional ethics, environmental ethics has appeared and emerged as an important branch of ethics which tends to hold that all natural entities or non-human beings have intrinsic value. In fact environmental ethics is a normative commitment to the intrinsic value of non-human nature. This statement, however, implies that non-human natural entities deserve moral consideration due to their possession of intrinsic value irrespective of how such value bears on human interest

The main objective of this chapter is to highlight the significance of nature's intrinsic value. This is mainly because of the fact that as long as the intrinsic value of nature cannot be established, the significance of environmental ethics as a whole remains groundless. However, before delving into this issue, we have to clarify the concept,

classification, varieties, sources and the distinctive features of intrinsic value. In the first section we propose to analyze the concept of intrinsic value and non-intrinsic or popularly known as instrumental value. In the next three sections, we shall confine our discussion on the varieties of intrinsic value; sources of intrinsic value and the distinctive features of intrinsic value. Then we will delve into the main theme of the chapter in what sense nature does possess intrinsic value. In the concluding section we propose to incorporate the importance of intrinsic value of non-human entities in environmental ethics. In this section, we propose to show how respect and moral consideration towards non-human nature by humans helps to promote a peaceful co-existence of humans with nature.

The Concept of Intrinsic Value:

The genesis of ethics is linked with morality which aims to objectify values on many accounts. That is why ethics at times is called normative science. Irrespective of many classifications and subdivisions of values, one can broadly outline ethical value in two senses, viz., intrinsic as well as non-intrinsic value. Intrinsic value is objective in nature, whereas non-intrinsic value lacks objectivity to a great extent. Since environmental ethics is a recent development or edition of ethics in general, it is predominantly concerned with the two classifications or forms of values, namely, instrumental as well as non-instrumental. Intrinsic value is on a par with non-instrumental value and non-intrinsic value is on a par with instrumental value. Instrumental value again is linked with non-anthropocentrism and non-instrumental value is linked with anthropocentrism. The prime objective of environmental ethics is based on the very division of anthropocentrism as well as non-anthropocentrism. Anthropocentrism which deals with instrumental values interprets values in terms of practice, hierarchies as well as in derivative sense. On the contrary, non-anthropocentrism which is associated with non-instrumental value completely ignores the domination and subjugation of one

species by the other. It tries to annihilate value dualism and value hierarchies within the biotic community. It tries to establish the inherent association of all species of the biotic community. The very objective of this section is to explain the fundamental distinction between instrumental value and non-instrumental or intrinsic value.

In environmental ethics, values, whether it is intrinsic or extrinsic, can mostly be interpreted in terms of the relationship between human and the rest of the nature. The relationship between man and nature, though maintained from primitive ages, was not recognized before the appearance of environmental ethics at the early 70's. With the emergence of environmental ethics the relationship between man and nature has been focused to tackle the environmental degradation cropping up due to the advancement of science and technology. The introduction of instrumental value is the outcome of technological development. Although instrumental value existed within the biosystem along with intrinsic value, it was not recognized in its proper sense before the emergence of environmentalism.

A clear discussion of instrumental and intrinsic value with certain examples will bring out the true meaning of the said values. Instrumental value is related to the usefulness of the object in question or in other words, one can say that an object has instrumental value if it is used to satisfy a given end or is used to attain something else of value. Thus, coal is useful to man since it can be burnt to cook food or run railway engines or used in various industries to produce goods. Thus, coal is valuable to man or coal possesses instrumental value for human satisfaction. Now, if coal is substituted by something else, for example, petroleum, the usefulness of coal is reduced, i.e. its value decreases, whereas the instrumental value of petroleum increases. When we speak of natural resources we speak about the instrumental value of resources, since the very term 'resource' denotes usefulness of an entity or object. Thus, many of the environmental concerns are related to the instrumental value of nature. Speaking in the direction of many environmentalists, nature

and its wildness needs to be preserved since it is a vast storehouse of resources to be used by humans for their own satisfaction. Clear air and water is required for good human health, the fruits of the trees are required to satisfy their hunger, different species of flora and fauna are required to manufacture medicines or many other examples of the utility of nature to meet an end can be cited. But to focus only on the instrumental value of nature and to build up an environmental ethics concerning only instrumental value will make it unstable in the long run. Therefore it is necessary for the environmental ethicists to give due attention to the other type of value, as already stated earlier, i.e. non-instrumental or intrinsic value.

What is intrinsic value? Intrinsic value of an object is that value which is recognized or found in that object rather than given by any valuer. In other words, it can be said that an object possess intrinsic value if it is good in itself and is not valued for its uses. More specifically, it can be said that a value is used in two senses. In one sense it is used not as a means to an end and in the other sense it is used not as a means to an end, but as an end in itself. Intrinsic value is a kind of value that can be used not a means to an end, but as an end in itself. This point needs to be clarified with an example. If we value nature for its aesthetic beauty, we may say nature has intrinsic value as an end in itself. But instead of that if we use or consider nature as a storehouse of resources and ascribe value for the usefulness of natural resources to meet an end then the value is said to be instrumental as here nature is used as a means to fulfill some needs. It is, however, incorrect to conclude that nature possesses only instrumental value for humans and therefore humans are the sole holders of intrinsic value. In reality nature also possesses both intrinsic as well as instrumental value going side by side without human presence and existence. In an ecosystem, organisms value other organisms and they use the resources of nature instrumentally for their survival. This has been justified and exemplified by Holmes Rolston 111. Here we quote a few lines from Rolston. Rolston says,

“Organisms are selective systems. Plants make resourceful use of water and sunshine. Insects value the energy that plants have fixed by photosynthesis; warblers value insect protein; falcons value warblers. Value capture and transformation propel an ecosystem. An organism is an unit on the hunt for instrumental values.”²⁵ It thereby follows that organisms value natural resources or other organisms belonging to lower tropic levels instrumentally. The warbler feeds on an insect because it is the warbler’s food for the warbler’s own survival and for the increase of its own kind within the ecosystem. Thus, many one say that being a warbler is a good thing. Life of the warbler possesses intrinsic value and therefore should be defended without any contributory reference. Although the warbler is good in itself and its life possesses intrinsic value, it is however, instrumental to the falcon who feeds on the warbler. Thus, both intrinsic and instrumental values are present with the ecosystem and both the values were present before human existence. Rolston III therefore utters “the system in a web when loci of intrinsic value are meshed in a network of instrumental value.”²⁶

In the present era, when modernization has crept in, fallacious human activity is continuously degrading the environment by destroying nature. All biotic natural entities have life and therefore possess intrinsic value. Thus, destruction of nature for satisfying one’s interest actually reveals disrespect for intrinsic value. The main theme of environmental ethics thus holds that all forms of life including humans possess intrinsic value and therefore deserve moral consideration and due reverence.

Understanding various senses of Intrinsic Value in Environmental Ethics:

²⁵ Rolston III, Holmes: *Environmental Ethics*, Temple University Press, 1988, pp.186-87.

²⁶ Ibid. 187.

Although the concept of intrinsic value has been discussed vividly in the last section, but there are many senses of intrinsic value. So when it is claimed that nature does possess intrinsic value, it is very necessary to specify in what sense nature possesses intrinsic value. So before delving into this question it is necessary to spell out the various senses of intrinsic value available in the discourse of ethics. Only after that we would be in a better position to claim that nature or natural entities do possess intrinsic value in a very specific sense for which natural properties deserve moral respect like human beings. It is important to note here that in traditional ethics the concept of intrinsic value has been discussed, but what has been ignored is that nature or natural properties do not possess intrinsic value at all. They have only instrumental or use value. So the question of conferring moral dignity to nature or natural properties simply does not arise. Since environmental ethics confers or recognises equal moral dignity of all biotic community by virtue of having or possessing intrinsic value, it tries to establish or has to establish the view that nature possesses intrinsic value without valuers. Let us examine the various senses of intrinsic value. Broadly speaking there are three different senses of intrinsic value. These are as follows:

In the first sense, intrinsic value is understood to be synonymous to non-instrumental value. As already discussed that an object possesses instrumental value because it is a means to an end, or in other words it satisfies the demands or desire of other beings, whereas an object has intrinsic value if it is an end in itself. One can say that the universe is occupied by entities possessing not only instrumental value but also intrinsic value. The proponent of environmental ethics holds that non-human natural entities or states of affairs possess non-instrumental or intrinsic value.

In the second sense it may be said that an object possesses intrinsic value by virtue of its intrinsic properties. The value possessed by an object can be identified as intrinsic or degree of intrinsic value can be ascribed to an object in question as proposed by Moore. Here intrinsic

value means non-relational property of an object. Thus, one can conclude that non-relational natural objects are intrinsically valuable because of their non-relational property.

In the third sense intrinsic value is equated with objective value, i.e. a value which an object possesses irrespective of the valuations of the valuers. This opposes the subjectivist view which imposes value on objects in accordance to valuation or preference of the valuers, i.e. an object has subjective value if it is given preference by the valuer or if it satisfies its demand.

In environmental ethics the term intrinsic value is used in all three different senses. Very often it has been seen that the first and the third sense of intrinsic value has blended and is used interchangeably. The whole issue of intrinsic value hinges on the question whether nature has an order, a pattern which has been abided by the humans. In traditional ethic the concept of intrinsic value is understood subjectively. Intrinsic value is subjective in the sense that it has no value irrespective of the valuers. That is to say that the so-called intrinsic value as interpreted in the traditional ethics is based on the valuers. If there were no valuers, there would not be any intrinsic value at all. Such kind of intrinsic value is not well accepted in the environmental ethics. Environmental ethics seeks a kind of intrinsic value which is non-instrumental, objective. The so-called subjectivist's interpretation of intrinsic value is contrary to objectivists' interpretation of intrinsic value, because the objectivists' interpretation of intrinsic value can be substantiated without a valuer. If we adhere to Moorean view of intrinsic value where he defines intrinsic value as non-naturalistic properties, it seems to us that such kind of value may be independent of the valuers. But the view that nature may have intrinsic value irrespective of valuers finds strong challenge from traditional ethicists. They maintain that it would be ridiculous to ascertain that nature has intrinsic value irrespective of valuers. In fact traditional ethicists admit only instrumental values of nature or natural properties. So when we delve into the relevance of

environmental ethics, we have to establish that nature has intrinsic value irrespective of valuers.

Regarding the question that nature has an order; a pattern there underlies two options, namely, positive and negative. That means one can affirm or deny the above question. If one affirms the above question, he thereby confers the intrinsic value of nature. On the contrary, if he denies it, he thereby rules out the intrinsic value of nature. Those who admit the intrinsic value of nature belong to non-instrumental camp and those who deny the intrinsic value of nature belong to the instrumentalist camp. Instrumentalists conceive nature as a 'storehouse of resources'²⁷ to be utilized by people. The vital point that needs to be addressed here is that if anybody adheres to the view that nature is a mere storehouse of resources for human use, then it directly turns down the natural order. So as far as the natural order is concerned there we have two options, viz. nature has its own independent order by means of which nature decides its own course and secondly nature has no independent order and it is there for the use according to humans' desire. We think no body would deny the independent order of nature. Even the believers of traditional ethicists hardly deny it, but what they deny is that nature or natural properties are not moral agents by virtue of lacking rationality. Since they are not moral agents, the question of morality, or perhaps the question of intrinsic value in the objective sense simply does not arise in these properties. Worster seems to have conceived the third sense of intrinsic value as non-instrumental and 1 and 2 jointly apprehends as instrumental value. Here instrumental value is understood specifically in the sense of denying natural patterns and orders. This kind of instrumental value in another word may be called a subjectivist meta-ethics which claims that non-humans only have instrumental value. Thus, there we have an apparent conflict between subjectivist meta-ethical standpoint and objectivist standpoint regarding the question whether nature has intrinsic value in isolation or not.

²⁷ Worster, D.: *Nature's Economy*, Cambridge University Press, 1985, p.xi.

We think that the question cited above is based on an important point. In order to solve the above question, we have to dig out the source of values regarding the objects. According to the subjectivist the source of value lie submerged in the evaluative attitudes of humans. But from this it does not follow that the only ultimate objects of value are the states of human beings. Objectivists, on the other hand incline to say that the source of value does not depend on the attitudes of valuers. Thus, there again arises a conflict between the subjectivists and the objectivists regarding the source of value. Subjectivists take the standpoint of anthropocentrism which is closely affiliated with emotivism. On the contrary, an objectivist takes the standpoint of non-anthropocentrism and thereby denies emotivism.

It is important to note here that by admitting the attitudes of valuers in determining the source of value a subjectivist takes a clear shelter under emotivism. In this regard we can call upon the name of Stevenson who himself voices the relevance of speaker's attitudes in determining moral judgments. According to him since moral judgment is the outcome of emotion, it is no longer related to facts. However, Stevenson himself outlines a clear account of intrinsic value by saying that an intrinsic value is on a par with non-instrumental value—a value which is intrinsically good, i.e. not good as a means to something else, but good for its own sake. This definition of Stevenson again recalls the Kantian definition of good. According to Kant something is good if it is good in itself.

We think that there underlies some serious difficulties if we stand by the emotivist account of intrinsic value. It appears from the above emotivist interpretation that humans alone are the locus of all values. If human alone are said to be the locus of all values in the emotivist line of thinking then we have to say that a world without humans contains nothing of value. But environmental ethics in no context admits the above standpoint as propounded by the emotivist. The basic tenet of environmental ethics is to cohere all biotic communities in the same level of dignity of value.

So far we have discussed and examined the first sense of intrinsic value which is predominantly based on the principle that the intrinsic value is something which is good for its own sake. Now let us pass 'on to the second sense of intrinsic value which is solely based on the intrinsic nature of the thing in question'.²⁸ Here intrinsic value is understood on the basis of the properties of an object which are non-relational properties. What is meant by non-relational properties? Regarding the question there we have at least two interpretations namely weak interpretation and strong interpretation of non-relational properties. According to the weak interpretation a non-relational property of an object is the kind of property which can exist or persist independent of the existence or non-existence of other objects relating to that object. On the other hand, the strong interpretation of non-relational properties of an object is that which can be designated and characterized by forfeiting the reference of other objects.

In order to understand the non-relational property of an object one must first grasp the meaning of what is meant by relational property. Rarity, for example, possesses irreducibly relational property. Rare value can be assigned to an object in the absence of other objects or without reference to other objects. Such value assumes a special status and is assigned to disappearing of unusual species of fauna or flora within the ecosystem and the rarity of such objects demands its preservation. Thus, we can say that a high status of value is assigned to rare objects in nature which are often related to diversity. Thus, we may say that rare objects do not have intrinsic value by virtue of the relational property and therefore finds no proper place in environmental ethics.

An object having instrumental value or all objects of non-instrumental value do not possess intrinsic value in the Moorean sense. An object may be valued by virtue of its relational property, as for example, rarity despite its non-instrumental value, i.e. its inability to satisfy

²⁸ Moore, J.E. *The Conception of Intrinsic Value*, Philosophical Studies, London: Routledge and Kegan Paul, 1992, p.260.

human demand. This point can be explicated more by distinguishing the following senses regarding value objects as expounded by O' Neil. These are as follows:

- (i) Value objects can have in virtue of their relations to other objects;
- (ii) Value objects can have in virtue of their relations to human being;
- (iii) Value objects can have in virtue of being instrumental for human satisfaction.

If we carefully focus on the above three senses of valuing objects, it appears clear to us that second sense of set of value is the proper subset of the first sense of value. However, the second set of value is no longer co-extensive with the third set of value. It is important to note here that an object may be valued by virtue of its relation to human beings without being instrumental for human satisfaction. As for example, Himalayan beauty is valuable in spite of much imprint of human activity or despite of its non-instrumental value. Thus, we may say that Himalayan beauty is valued in spite of the absence of human beings and their activity. We may also say that such beauty is valued by virtue of its relation to human beings without being instrumental for human satisfaction. Hence the third set of value is a proper subset of the first and the second set. All objects possessing non-instrumental value may not be intrinsic in the Moorean sense. Since Moore completely ignores intrinsic property of instrumental values and also claims that some non-instrumental value as well may not have intrinsic property, it is therefore needed to be explored under what condition some non-instrumental objects do possess intrinsic value. We have already pointed out that an object possesses intrinsic value solely in virtue of its intrinsic properties, according to Moore.

Now the question is: what is the relation between Moorean sense of intrinsic value and objective value? There is no question of doubt that both the Moorean sense of intrinsic value and objectivism are completely different from subjectivism in which value is determined

instrumentally. But if an object has value only in virtue of its intrinsic nature, does it mean to say that it has value independently of human valuations? We think that the answer of this question actually hinges on the clarification of the phrases 'depends solely on' and 'only in virtue of'. If the above two phrases are being interpreted irrespective of human valuation as understood by Moore, then the answer to both these questions would be yes. But one cannot evade at this juncture the subjectivist account of intrinsic value in which valuing agent assigns value to objects solely in virtue of intrinsic nature of the object. Thus, there we find a considerable relevance between the subjectivist interpretation of intrinsic value and the Moorean sense of intrinsic value. If we adopt the subjectivist account of intrinsic value, then in at least some cases we may claim that some objects have intrinsic value in Moorean sense. Thus, we can say that Moore takes a liberal stand of interpreting intrinsic value. His notion of intrinsic value is a mixture of both objectivism and subjectivism. He does not take the full force of objective interpretation of intrinsic value by ignoring the intrinsic value of all non-instrumental objects and thereby comes close to the subjectivist interpretation of intrinsic value. But he is neither a subjectivist, nor an objectivist in accounting intrinsic value in nature.

So far we have discussed the two senses of intrinsic value. Now we pass on to discuss the third sense of intrinsic value, viz., the objectivist account of intrinsic value. According to an objectivist account of intrinsic value the evaluative properties of objects are real properties of objects which are possessed independently of the valuation of valuers. Here human beings have no role in determining whether something has objective value or not. An object has intrinsic value in the objective sense if it is valued in itself, i.e. if it is valued not as a means, but as an end in itself. We shall return back to this discussion more elaborately later on.

The Sources of Intrinsic Value:

In the previous two sections we discussed about the concept of intrinsic value and its various sense available in the field of ethics. Let us pass on to discuss the sources and locus of intrinsic value. Environmentalists at times distinguish between the source and locus of intrinsic value. There are two diametrically opposite views of which one holds that biotic nature is the locus of intrinsic value and human consciousness is the source of all values. The other view holds that since values are not subjective feelings of humans, humans alone cannot be the source of intrinsic value. According to this view values exist independent of humans. Environmentalist like Callicott seems to have conceived that a world without human consciousness is a world without values. Callicott's own observation actually suggests that humans alone are the source and locus of intrinsic value. Does it make sense to say that non-human natural beings do not possess any value according to Callicott? Non-human natural beings are valuable not 'in themselves', but 'for themselves'. In this regard, we can remember the famous dualism of Hume in between fact and value based on the two points such as (a) that human feelings create and endow the world with values and (b) that the world of nature studied by science is devoid of all value. We think that Hume's own observation is anthropocentric in nature and loses its ground in the eyes of modern environmentalists. Morality in the eyes present environmental outlook is not something human centred rather it is based on the sentiment of sympathy humans possess. The so-called sympathy is extended even through Darwinian thesis which states that natural selection leads to an increase in both the extent and the intensity of sympathy in the human species. This web of sympathy is further strengthening with the appearance of environmental ethics which adheres to the view that all natural beings are members of the same biotic community. Thus human sympathy gradually leads to and transforms into bioempathy which states that values can be conferred by humans without being necessarily homocentric.

Rolston, a leading environmental ethicist, expresses Callicott's own conception of bioempathy as he feels that such way of interpretation of value ultimately fail to serve the ultimate objective of environmental ethics. For Rolston so long values are to be treated as anthropocentric or human centered, it would be regarded as a 'truncated sense' of intrinsic value even though they are not necessarily tied up with human interest. Rolston further claims that such type value theory is unsound as it commits 'a fallacy of the misplaced location of values.'

²⁹ For Rolston humans can discover the values in natural world, but in no sense create or generate value in natural world. So it would be a great mistake on the part of philosophers who adhere to the view that humans are the locus of values. It is true to say that the value of a tree is different from the value of the greenness of tree leaves. The greenness of tree leaves is in fact conferred by the humans on the basis of their observation in different situations, but the value of a tree cannot be conferred by the humans. Unlike the greenness of tree's leaves, the value of a tree is valuable in itself irrespective of the presence of humans or not in the natural world. This leads us to say that humans are merely the beholders of the value, but in no sense would be the value holder. In our example, tree is the value holder of its leaves, but humans are merely value beholders of conceiving the leaves as green. That is why, philosophers like Lee following Rolston, says, "...non-human nature is not merely the locus, but also the source of value, if sources means "generator" rather than "discoverer". Humans may discover such values but do not generate them."³⁰

Thus, as far as the source and locus of intrinsic value is concerned, there we find at least two contradictory views in nature of which one holds that humans are the source and locus of intrinsic value (i.e. value holder) and the other holds that natural world is the value

²⁹ Rolston, Holmes, III, *Environmental Ethics*, Philadelphia: Temple University Press, 1988, pp. 212-217.

³⁰ Lee, K. "The Sources and Locus of Intrinsic Value: A Reexamination" included in *Environmental Ethics: Anthology*, edited by Andrew Light and Holmes Rolston III, Blackwell Publishing, 2003, p.155.

holder and humans at best can merely be the value beholders. Which view is correct is a matter of great discussion and we shall try to make a way out from this dichotomy. We think this issue should be looked at not in terms of the Humean thesis of projectivism, but rather in terms of the thesis of the rational linguistic capacity possessed by humans. We must also specify the subtle distinction between two sense of intrinsic value, such as being valuable 'for itself' and being valuable 'in itself'. The phrase 'being valuable for itself' is associated with biotic components and is connected with their capacity for maintaining their functional integrity. But the phrase 'being valuable in itself' is associated only to humans and their unique type of consciousness, reason as well as language. Now every value has two aspects of which one is known as 'recognized articulated values' and the other is known as 'mutely enacted values'. Recognized articulated values are associated with a cluster of characteristics such as consciousness, reason and language and are unique to humans. So it is valuable in itself. However, mutely enacted values are associated with non-human nature, so it is valuable for themselves. Since mutely enacted values are associated with non-humans, it can therefore exist independent and irrespective of the presence of human consciousness. So it can be said that humans are the source and locus of recognized articulated values which are valuable in itself and nature is the locus and sources of mutely enacted values which are valuable for themselves. In this regard, it can be said that nature is the holder of intrinsic values and humans are the beholders of the same. Recognized articulated values are anthropogenic, whereas mutely enacted values are non-anthropogenic.

We have already conceived that instrumental and non-instrumental values exist side by side in nature irrespective of human existence. A goat may possess instrumental or use value for man as it satisfies his hunger. Grass, in turn, is of instrumental use to goat who feeds on it. In this example, it is quite clear that instrumental value not only exist between human agent and nature. In fact one natural entity may be of

instrumental use to another natural entity irrespective of human presence or absence. In continuing the above example it may be said that goat feeds on grass not only to become food for higher level animal like lion or tiger, but it feeds itself to maintain its own functional integrity. Thus, it may be said that goat possesses intrinsic value in itself, i.e. recognized articulated value. The goat equally possesses instrumental value for a lion who in turn tries to maintain its own functional integrity. Thus, here lion too possesses intrinsic value in itself. Even this would be true in the case of a plant as well. Plants use nature's abiotic resources like water, soil, carbon-dioxide and nitrogen from air, sunlight and soil nutrients to flourish not only to be food for cows, goat or sheep, but to maintain its own functional integrity. In this sense grass is the possessor of both instrumental as well as intrinsic value. Thus, from the above consideration we can formulate a logical argument in the following manner through which it can be established that natural world does possess intrinsic value irrespective of the valuers. The argument is as follows:

- (i) Instrumental or use value exists in nature irrespective of human existence and in this regard natural world is the holder of instrumental value.
- (ii) Recognized articulated values exist in nature without the presence of human agents.
- (iii) From (ii) it can be said that humans are not only the source of values.
- (iv) From (i) and (ii) it can also be concluded humans are not the locus of bearers of intrinsic value even in the sense of recognized articulated values.

From the above examples, one can easily conclude that humans are not the sole source and bearer of intrinsic value. However, humans are of course unique in the sense that they possess consciousness, rationality, reason and the capacity of language which uniquely enables them to recognize not only what is instrumental for them in nature, but also the instrumental value in one part of the nature for

another part of nature. An animal, a non-human natural entity, can only recognize what is instrumental for itself. For example, a cat can recognize a mouse for the satisfaction of its hunger, but it does not know the usefulness of the higher animals, plants or humans for itself. Thus, human beings have the capacity to recognize or identify entities that have 'good of their own' or the bearers of intrinsic value (a). This unique capacity of recognition possessed by humans enable them to decide reasonably whether to destroy the bearers of intrinsic value (a) with their built up science and technology or to refrain from destroying those natural entities. Non-human entities are unable to take such decisions due to the lack of reasoning capacity and consciousness. They, however, destroy other bearers of intrinsic value (a) for their own instrumental use but cannot refrain from destroying others with 'goods of their own' since they are unable to recognize other bearers of intrinsic value which humans can do. Thus, humans who are valuable 'in themselves' and 'for themselves' not only have 'good of their own', they can also recognize natural entities who also have 'good of their own'. This exceptional capacity gives them the reasoning power to take a decision about the destruction of nature or natural entities or instrumental usage of nature through advanced technology or to treat the bearers of intrinsic value (a) with moral considerability. This view about the humans is comparable to Kantian or Cartesian ethics according to which humans are the sole species among all species that possess 'rationality necessary to be capable of morality'.

From the above discussion it is clear that humans may be the sole source and locus of intrinsic value (b), because of their rationality, consciousness and language capacity, but it is, however, wrong to say that humans are the sole source and locus of intrinsic value in general since we have already discussed that nature and all non-human entities are the possessors of intrinsic value (a). In other words, in a world without humans there will be entities that are valuable for themselves but not valuable in themselves.

From the above consideration, it seems clear that nature has intrinsic value in the sense (a) as discussed above and it has been recognized by human beings as well. But quite importantly, it is to be noticed that from the very recognition of human beings regarding the intrinsic value of nature, does not mean to say that human beings, even consciously, are liable to respect nature. Human beings in general are very much aware regarding the contributions as well as participation of nature in maintaining a proper biotic community. But this cannot refrain human tendency to disvalue nature by extinguishing or destroying them. This is mainly because of the fact that the notions of intrinsic values are not the arbitrary projections of human feeling and emotion. This point can be justified and defended by calling upon the remark of Callocott who says, "Objective personal world is value free from a scientific point of view" as "though, sensation and value have ever seen beenregarded as confined to the subjective realm of consciousness."³¹ But whatever the significance Callicott's remark deserve, many proponents of environmental ethics does not admit the theme of the metaphysics of scientific naturalism as expounded by Callicott. Truly speaking, although natural individuals, such as, plants and to some extent animals do not possess high degree of rationality and consciousness like the humans, still they do strive to maintain their functional integrity and thereby possess intrinsic value (a). Alternatively, it can be said that plants and animals have some needs which is required to be fulfilled consciously or unconsciously for their own survival. If these needs are not met, they become extinct because of human intervention. This point can be explicated with the help of an example as cited by Lee. The application of insecticides like D.D.T by humans for protection of agricultural crops from insects may cause harm to birds or even other animals if it spreads into their environment. The birds which have inhaled too much of this harmful chemical may produce eggs having thin shells which crack before they are hatched. These harmful effects of D.D.T. can remain even after the

³¹ Callicott, *On the Intrinsic Value of Non-Human Species*, p.141.

extinction of human species who introduced it. Moreover, the damage caused to the eggs of the birds cannot be reduced even if human beings begin to realize and conceptualize or become conscious about the harmful aftereffect of their action. Thus, we may say that there is disvalue created in the world due to human and such devaluation continues irrespective of human consciousness, his presence or absence. However, the birds which produce damaged eggs cannot realize the harm caused to them by the humans. The absence of humans will however not change the fact that the needs of the birds have been disrupted which in turn has brought about disvalue in the world.

In the previous example, it has been observed that the needs of non-human species has been disrupted or subverted. Such subversion of need can be brought about in any of the two ways, namely, through human intervention as cited in the above example or through natural processes which further may be of two kinds, such as, (a) any natural disaster like volcanic eruption, earthquake, flood or landslide and (b) the natural process of extinction or through a prey-predator relationship of life where a bird feeds on a rat or in other words where species belonging to higher trophic levels feed one species belonging to lower trophic levels. In both cases disvalue is created in the natural world. But if disvalue is generated through human intervention, human beings ought to become conscious and prevent themselves from bringing about disvalue in the world. However, if disvalue is generated in terms of natural processes, i.e. in terms of evolution, it cannot be prevented. One cannot interfere natural evolution as it is desirable for nature as such. But what is wrong with the disvalue arising out of human intervention? This is supposed to be wrong as human intervention is non-natural, artificial, arising out of fulfilling unlimited greed instead of need. So humans' as such in isolation has no moral right to intervene in to the natural order and in isolation has no right to disvalue anything and thereby tries to generalize it. Natural intervention cannot be prevented as to prevent such disvalue will

mean to destroy life. This point is justified by Lee as he says, "The process of life and evolution are such that without the destruction of life there can be no life. In other words, value is predicted upon disvalue, we human, as a part of those process, also have to destroy life in order to sustain life."³²

Disvalue created due to human intervention can be admitted or as ethically acceptable as long as nature is used instrumentally for their survival, or for the maintenance of their functional integrity. But when humans through their super intellect and advanced technology utilize nature for their material benefit, they destroy life or create disvalue by violating ethics or denying the fact that non-human natural entities possess intrinsic value (a). Although human beings, the only possessors of intrinsic value (b), are consciously destroying nature for their own benefit and thereby creating environmental and ecological problems, it is again the human beings themselves who can realize and ask themselves the moral question whether nature is there to serve or satisfy only human ends or whether it is their moral duty to preserve nature or recognize and respect the possessors of intrinsic value (c) in order to maintain a proper balance of the biotic community. The human beings are capable of realizing the significance of nature as they are the unique possessors of consciousness, rationality and language capacity, i.e. intrinsic value (b) or recognized articulated value. Thus, we may say that human consciousness is the source of recognized articulated intrinsic value.

The distinction between intrinsic value (a) and (b) as cited above can further be illustrated by considering the outer and inner meaning of a sentence along with its content. Let us consider the sentence S which stands for: Snakes feed on / eat insects. As far as the environmental survivability is concerned there we find some hierarchical steps in context of both snakes and insects which can be valued both in the sense of intrinsic as well as non-intrinsic. The outer meaning of the

³² Keekok, Lee: "The Source and Locus of Intrinsic Value: A Re-examination", included in *Environmental Ethics: An Anthology*, edited by Andrew Light and Holmes Rolston III, Blackwell Publishing, 203, p.159.

sentence which reflects the surface level of the sentence is determined by a linguistically competent speaker and is related to the fact that Snakes eat insects. This surface level of the sentence leads us to the next immediate level of sentence through which it can be apprehended that insects possess instrumental value for Snakes. This again helps us to realize that Snakes can survive and preserve their functional integrity by eating insects, which means that Snakes are conscious for themselves for preserving their functional integrity and survivality and thereby possess intrinsic value (a). It is interesting to note here that there underlies value up-down process in the sense that by generating intrinsic value the Snakes, equally disvalue the insects which also possess intrinsic value for themselves.

Thus, it seems clear that independent of human consciousness, rationality and decision there always underlies a value transmission process among the species of the biotic community in order to preserve their own integrity and survivality. That means the locus of the so-called mutely enacted value is non-humans, i.e. it cannot be based on human consciousness and attitudes. Of course, humans can play a significant role only by determining and recognizing the so-called mutely enacted values of the sentence S. In this regard, humans can be considered to be the source and locus of only recognized articulated values. Accordingly, it can be said that humans cannot only generate intrinsic value (a), but also (b). That means humans are valuable not only for themselves but also in themselves. Since value determinism is a coherent process among all the species of the biotic community, humans, though not the locus of value (a), but may not be isolated from the locus of value (a). Understandably, humans of course do value instrumentally certain plants attacked by insects in uttering S and according consider insects as morally bad and Snakes as morally good. It follows that any attempt of devouring insects by Snakes is also a good thing. Thus, there underlies a gulf between Snakes and insects as far as value-free datum is concerned. When Snakes eats insects independent of human consciousness for

maintaining their own survivality, it is supposed to be value free to the human beings simply because it does not draw human attention. But when it is claimed that 'Snakes eat insects' is a good thing, it reflects human preferences and attitude on nature. By devouring insects Snakes generate indirect instrumental value to man since insects destroy plants instrumentally valuable to humans. Humans generate intrinsic value (a) as well when they eat the fruits of the plants attacked by insects. Although, it is supposed that humans can generate intrinsic value in the sense of (a), this point is highly debatable whether humans can at all generate intrinsic value (a), still humans cannot be supposed to be the locus of intrinsic value (a). Since value determination process goes along with the coherent system among the species of the biotic community, there underlies the concept symmetry in between them. Unquestionably, human beings by virtue of their unique characteristics of consciousness, rationality and linguistic capacity are possessors of recognized articulated values without which no mutely enacted values can be articulated and recognized. Mutely enacted values, though related to recognized articulated values, are by no means dependent on human presence or existence.

The above observation certainly goes against the metaphysics of scientific naturalism which upholds the distinction between mutely enacted values and recognized articulated value in an arbitrary fashion based merely on human consciousness. Upholding the view of scientific naturalism equally means to uphold the view of human consciousness as the source of value. But we do not consider such view as tenable in perspective to environmental ethics. We have seen in the course of our discussion that by possessing unique consciousness and rationality, human beings at certain level may create or generate intrinsic as well as extrinsic value. But at the same breath, we derecognize that human consciousness is the sole agent of considering the locus of intrinsic value.

We have repeatedly asserted in the course of our above discussion that during the life process of the biotic community, each and every species, animate or inanimate, can generate instrumental as well as non-instrumental values. This means to say that the value generating process existed before the appearance of human beings in the natural world and perhaps will continue to exist even after the disappearance of human beings from the natural world. This gives us the guarantee that human beings can never be the sole source and locus of recognized articulated values; every living organism can generate recognized articulated values in its life process. So, it would be wrong to suggest that humans alone are the source and locus of recognized articulated values. Furthermore, humans cannot be considered as the source and locus of mutely enacted values. Mutely enacted value is not something that can be generated, rather it is something which is valuable as an end in itself. We therefore conclude that the sole loci of mutely enacted values are non-humans. Lee says, "The source and locus of recognized articulated values are indeed humans; the source and locus of mutely enacted values are, in addition, other natural non-humans beings."³³

We think that the whole debate of intrinsic value is centered on the conception of Callicott and Rolston. In fact it is true to say that Callicott is right in distinguishing between the source and locus of values as well as his own apprehension of the distinction between the phrases 'valuable for themselves' and 'valuable in themselves'. However, Callicott is wrong in failing to distinguish between recognized articulated values and mutely enacted values. That is why he seems to conceive wrongly that human consciousness is the source of all values. If we adhere to the view of Callicott, then we are forced to conceive that humans' consciousness is the source and locus of recognized articulated values and in this regard humans may be said to be valuable for and in themselves. Moreover, Callicott is right when he say that non-humans are the loci of mutely enacted values, i.e.

³³ Ibid. p. 160.

they are valuable for themselves, but unlike humans they are not valuable in themselves. Callicott certainly overlooks the fact that non-humans are not only the loci of mutely enacted values, but they are also their source.

We think in this regard Rolston is right in pointing out the mistakes or laps of Callicott as unlike Callicott, Rolston conceives nature as the holder and humans are the beholder of intrinsic values. However, Lee observes that even Rolston fails to conceive the subtle distinction between mutely enacted values and recognized articulated values. Lee inclines to say that Rolston, of course, is right to conceive that nature is the value holder, i.e. nature is valuable irrespective of its valuers. Humans are value beholders in the sense that humans are in no position to generate intrinsic value in the sense of mutely enacted values, rather humans can discover the values already there in the nature. So there is no harm to adopt a resolution that nature is the value holder of instrumental as well as intrinsic value. In fact it is not a serious task to establish the view that nature is the value holder of intrinsic value. In fact the object of environmental value is not anthropocentric. The objective of environmental ethics as we stated in the earlier is to examine and establish whether nature has intrinsic value as a value holder. Rolston raises a charge against Callicott, because for him Callicott at times conceives values anthropocentrically. But for Rolston mutely enacted values are necessarily non-anthropogenic, only recognized articulated values are anthropogenic.

Many environmentalist would like to say that Callicott is right in criticizing Kantian ethics which is centered to rational being with language, but he is wrong about intrinsic value (b) where there underlies the relevance of metaphysics. Lee observes that Callicott is unnecessarily over impressed by the thesis of projectivism which ignores the capacity of reason and language and reason based morality unique to humans. Callicott rejects human's capacity of bioempathy which is directed towards an arbitrary human preference

and is also committed to the view that both humans as well as non-humans are intrinsically valuable (a), that humans as well as non-humans can be of instrumental value mutually to and for each other. Rolston, on the contrary, says that it is better to realize this unique form of human consciousness without conceding anything to the thesis of human projectivism. So, one would like to say that as far as the conceivability of nature's intrinsic value is concerned Rolston is more right than wrong, while Callicott is more wrong than right.

