

## **“REDEFINING ‘SUSTAINABLE DEVELOPMENT’: TOWARDS AN ALTERNATE UNDERSTANDING”**

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There are radical differences between various discourses of ‘sustainability’ depending upon the perspective such as social, political, economic, et al. There is, however, one overreaching concern that requires consideration while dealing with environment, that is, ethical. It is under this consideration that the primacy of ‘sustainability’ can be evaluated. The present paper seeks to clarify ‘sustainability’ as an ethical concept without which the entire discourse on ‘sustainable development’ is conceptually inadequate.

### **I**

There are as many definitions of ‘sustainable development’ and ‘sustainability’ as there are individuals or groups trying to define them. Scholars are aware of the difficulties faced in defining the two concepts. For instance, T. O’Riorden (1985), observing the difficulty, had described the task of defining ‘sustainability’ as ‘exploration into a tangled conceptual jungle where watchful eyes lurk at every bend’.<sup>1</sup> Spedding as early as 1996 observed that there are large number of books, chapters in books and articles that have the terms in the title, but have not defined the terms.<sup>2</sup> Wilson (1992) probably influenced by his ‘deep ecology’ inclination lamented: ‘The raging monster upon the land is population growth, in its presence, sustainability is but a fragile theoretical construct’.<sup>3</sup>

A reflection on various definitions of 'sustainability' or 'sustainable development' shows predilection of individual authors or groups in understanding the concepts. For instance, when Brundtland (1987)<sup>4</sup> said that "Sustainable development is development that meets the needs of the present without compromising the needs of future generations to meet their own needs", it prioritises 'needs' of the poor while restricting the use of exploitation of environment to that extent that 'needs' of future generations is not affected. Harwood (1990)<sup>5</sup> while extending the concept to apply to non-human species says: "Sustainable agriculture is a system that can evolve indefinitely toward greater human utility, greater efficiency of resource use and a balance with the environment which is favourable to humans and most other species." Pearce, Makandia & Barbier (1989)<sup>6</sup> provides a broadest possible definition when he claims that "sustainable development involves devising a social and economic system, which ensures that these goals are sustained, i.e. that real incomes rise, that educational standards increase that the health of the nation improves, that the general quality of life is advanced." Again, Conway & Barbier (1990)<sup>7</sup> extending the concept to agriculture defined sustainability as the ability to maintain productivity, whether as a field or farm or nation. Productivity in this context is defined as the output of valued product per unit of resource input.

Critiques of attempts of 'precise' definitions point out not only to the fact that definitions in terms of 'economic' benefits are inadequate, but also to the fact that inherent essentialist definitions are disservice to such 'primitive' concept. IUCN, UNEP, WWF (1991)<sup>8</sup> points out that 'sustainable development', 'sustainable growth' and 'sustainable use' have been used interchangeably as if they refer to the same concept. Nothing physical can grow indefinitely, hence 'sustainable growth' is a contradiction in terms. The expression 'sustainable use' is applicable in case of resources renewable. And finally, 'sustainable development' is the strategy of 'improving the quality of human life whilst living within the carrying capacity of the ecosystems.' Although development implies realisation of resource potential, 'sustainable' development implies recognition of limits to the development processes even when

technology can overcome some of the limitations. Holdgate (1993)<sup>9</sup> highlighted the fact that sustainability of technology be judged by a criterion, namely, whether increase of production retains the inherent capacity of environment for productivity. Consequently, ‘sustainable’ development is concerned with the development of a society where the costs of development are not transferred to future generations or at least an attempt is made to compensate for such costs, as Pearce (1993)<sup>10</sup> argues. A society that looks for ‘sustainable’ development tries to reconcile between the developmental needs such as higher standards of living of the recent generation and that of the future generations by protecting the environmental resources as well as enhancing their potential.

Above attempts at defining ‘sustainable development’ and ‘sustainability’ and its cognates clearly reflects both complexity and ambiguity of the concepts. This led Daly (1991)<sup>11</sup> to argue that ‘lack of a precise definition of the term ‘sustainable development’ is not all bad’ - it allows ‘a considerable consensus to evolve in support of the idea that it is both morally and economically wrong to treat the world as a business in liquidation’. Besides, as Heinen (1994)<sup>12</sup> argues, given the variety of scales inherent in different conservation programmes and different types of societies and institutional structures, no single definition of ‘sustainable development’ or framework is consistently useful.

An analysis of ‘sustainability’ as defined in various text books, primarily concerned with economic development, reveals types of ‘sustainability’ depending upon the resources, living or non-living, thereby leading to various types of sustainability; biological, etc. Again we can categorize ‘sustainability’ on the basis of the conceptual association it has with community, business, agriculture, etc.; social sustainability, economic sustainability, agricultural sustainability, etc. At another level, analysis of the above definitions reveals that (a) The processes of development are limited to the extent that ‘sky is not the limit’ to growth; (b) There is an inseparable connection between development, society and environment; (c) There is need of equitable distribution of resources and opportunities.

## II

Although there is considerable difficulty in defining 'sustainable', 'sustainability' and 'sustainable growth', one could begin with World Commission on Environment and Development (WCED) Report<sup>13</sup> attempt at redefining the terms. The WCED defines 'Sustainable Development' as development that meets the needs of the present without compromising the ability of future generations to meet their needs. There are two important concepts that need clarification. First, the term 'needs' refers to essential needs of world's poor and secondly, the idea of restriction imposed on technology and political and social organisation on 'exploitation' of environment in view of environment's capacity to meet the needs of future generations. Critiques of the above definition<sup>14</sup> have pointed out that 'sustainability models' created on the basis of the above definition tend to forget the inequity in the existing social and economic relationships, while emphasising the futuristic needs.

To highlight inadequacies of the present sustainability discourse, it is appropriate that we have a cursory glance at the theories and strategies developed by the protagonists of sustainable development.

In order to discuss the concepts and principles that are inherent in sustainability, one may have to look at the most appropriate of the definitions and easily the most accepted one by the scholars involved in the discourse on sustainability. The definition provided by The Brundtland Report that defines 'Sustainable Development' as development that meets the needs of the present without compromising the ability of future generations to meet their needs, be taken as the point of our analysis. The most emphasised objectives of sustainability or sustainable development are ecological health, social equity, and economic welfare. These are manifest objectives designed to aid professionals in evaluating and directing their activities, particularly when developing, deploying, and employing technology. The pursuit of three above objectives grounded on ethical commitments, in sustainable development, need to be balanced so as to ensure well-being of contemporary populations at the same time not depriving opportunities for future generations. Consequently, sustainable development has to

pursue both *intergenerational* and *intragenerational* benefits from within the framework of ethical values.

The credo of ‘sustainable development’ has given rise to societies and communities, professional, scientific and cultural that are not only committed but make concerted efforts at solving energy problems, waste disposal issues, development of green spaces, urban planning, development of local economies, etc. Contemporary economics literature is full of references to ‘sustainability discourse’ making us believe that the planet earth shall not survive, if we commit ourselves to sustainable development.

A brief review of some of the ‘frameworks’ may not be out of place so that when we come to its critique, we will be able to see the deficiencies of such frameworks. What are the presuppositions of such frameworks?

The Natural Step (TNS), a framework developed by Karl Henrik Robert, oncologist based upon four scientifically derived System Conditions:<sup>15</sup> (1). In order for a society to be sustainable, nature’s functions and diversity are not systematically subjected to increasing concentrations of substances extracted from the Earth’s crust. (2). In order for a society to be sustainable, nature’s functions and diversity are not systematically subjected to increasing concentrations of substances produced by society. (3). In order for a society to be sustainable, nature’s functions and diversity are not systematically impoverished by overharvesting or other forms of ecosystem manipulation. (4). In a sustainable society resources are used fairly and efficiently in order to meet basic human needs globally. The Natural Step besides laying down the ‘system conditions’ envisages a systematic approach to implement the framework.

In 1992 William McDonough<sup>16</sup> developed a set of foundational principles for sustainable ecological design which in fact provided a definition of *sustainable design* as the “conception and realization of ecologically, economically, and ethically responsible expression as part of the evolving matrix of nature.” These foundational principles have since come to be known as *Hannover Principles* which have the potential of ethical interpretation. The Hannover Principles are nine

'commandments' that an ecologically sustainable designer has to keep in mind: 1. Insist on the rights of humanity and nature to coexist; 2. Recognize interdependence; 3. Respect relationships between spirit and matter; 4. Accept responsibility for the consequences of design; 5. Create safe objects of long-term value; 6. Eliminate the concept of waste; 7. Rely on natural energy flows; 8. Understand the limitations of design; 9. Seek constant improvement by the sharing of knowledge.

The third 'framework' that may be reviewed is *Three Legged Stool Interpretation* which demands that there should be balance between ecological, economic and social systems. The three legged stool of interpretation envisages equal 'value' to all the three systems. The primary objective of sustainability is a strong and healthy society in which the needs of its population, present and future, are met. For such a society, it is imperative that there should be a strong economy to meet the needs of its population, provide jobs, adequate health care and take care of needs after the productive years are over. Thirdly, both the society and the economic system must respect centrality of our planet's ecological systems on which the society and the economy are utterly dependent.

A growing consciousness among the world business establishments, who came under pressure from the non-governmental organizations to control their 'greed', the need for sustainable development, has resulted in another framework, namely, Corporate Social Responsibility. This corporate sustainability movement at one level seems to be tokenism, but at another level there seems to be concerted efforts on the part of the business world to apply sustainability to guide the behaviour of business with respect to both society and the environment as well as its responsibility to stakeholders. In this new framework, responsible financial establishments highlight their success stories not solely based upon its annual profits but also on their social and environmental performance.

The difficulties of the first framework have been highlighted by many groups. However the most prominent seems to be the fact that TNS is more of an 'educational tool' rather than an avowed practical framework for companies to use for the progress toward sustainability.

The framework as a definitional paradigm suffers category mistake when condition four is fundamentally different from the first three conditions. In fact condition four is *raison d'être* for the three earlier conditions. It is precisely because a large population lacks adequate nutrition while another population have more than what they need, there is lack of fairness with regard to meeting basic human needs.

*Hannover Principles* developed a sustainable design for architects, urban planners and industrial designers wherein products and processes are seen as dependent on environmental, economic and social systems surrounding them as against purely utilitarian considerations of earlier models. The model was never meant to be a ‘framework’ for sustainable development. However, since the principles have been quoted in various discussions as definitional framework of ‘sustainable development’ it may be pointed out that it lacks clarity regarding the first two principles when placed along the other seven.

This model based upon common sense understanding of sustainability suffers from some inherent conflicts and contradictions. This may be due to the very structure of ‘stool’ which places mankind outside the environment instead of being embedded in environment or is part thereof. It suffers from same issues as the neoclassical economic model, the fundamental obstacle to the adoption of sustainability as an international framework for decision making. Thus humanity is embedded in the ecological system as is the economy.

Since Corporate Social Responsibility is an application of three-legged stool model, it suffers from the inadequacies mentioned above. However, the internal contradictions between profits and social responsibility has given rise to criticisms that corporate world at best is indulging in philanthropy rather than accept ethical commitment to protect ecological system as core in which both humanity and economic systems are embedded.

### III

In this section of the paper, we shall discuss the ‘rights of future generations’ and argue that it is only this context that an adequate

definition of 'sustainability' is possible. There are two fundamental objections to the 'orthodox' approach to environment protection. The first objection is that while valuing environment, the values of future generations must be taken into account. Secondly, 'orthodox' approach ignores the 'intrinsic value' of environment. These objections are in fact part of the 'positivistic' economics, the official doctrine upon which all economic theories are based. An ethical definition of sustainability has to take into account these objections. What follows is an attempt to lay the foundation of 'intergenerational equity' on the basis of which 'sustainability' is justified.

The general concerns for environment are reflected in the orthodox method of how we derive environmental value by inquiry into how much we are willing to pay to protect the environment. But how do we elicit information about values that the unborn or future generations attach to environment? It is therefore necessary that we find a method by which we can both find out the 'values' of future generations as well as what would constitute 'intrinsic' value of environment. It is true that we cannot know what value future generations will place on environment. However, it is not unreasonable to attempt a guess based upon a philosophically relevant method. We can therefore have a fairly good idea of what would happen to the environment over a period of time, if the current trends are not reversed.

Philosophers have used 'thought experiment'<sup>17</sup> as an useful method in philosophical methodology. Imagine we are living hundred or fifty years from now. What would we wish that our previous generation had done with respect to the environment? Two answers come to mind which reveal two plausible interpretations, depending upon the level or extent of 'sustainability'.

Minimum that should have been done is that the previous generation should not have left us with environmental catastrophe. If in a hundred years' time global temperatures have risen as far as currently predicted, it seems reasonable to suppose that the generation living then will not thank us for the legacy. Indigenous people in the rainforest today would surely make the same judgement of generations before the present one. People in the mining belt of developing countries would

wish that something had been done to reverse the trends towards degradation. This is the basis of intergenerational *equity* inherent in the concept of ‘sustainability’.

As we have seen in the first section of this paper, the term ‘sustainability’ is used in varied senses, facing the risks of becoming bland if not meaningless. But inherent to the term is a useful intuitive meaning, namely, the capacity to last or continue. The above thought experiment gives direction to accord precise meaning to the term, and at the same time justify the use in context of environmental ethics.

Secondly, we may not be satisfied with merely avoidance of catastrophe. We may like to have a high level of environmental consumption as previous generations had, if not more on the basis of advancement of technology. When one generation degrades the environment by consumption, it deprives the next generation of opportunities that the earlier generation enjoyed. The benefits enjoyed are not merely economic as exploitation of mineral resources in the process of creation of wealth, but also deprivation of aesthetic delights to the next generation. The next generation may feel great injustice done to them when the environment is irreversibly degraded due to extinction of species or loss of unique habitats or even depriving the generation of aesthetic pleasures of walk in sylvan forests. The earlier generation may not have the obligation of increasing the potential level of environmental consumption of the next generation, but cannot deprive the next generation of equal opportunity for consumption of both wealth and aesthetic delights.

The two versions of ‘sustainability’ can be summed up in the following; ‘Weak’ or ‘minimal’. ‘Sustainability’ requires that all environment is sustained so that the future generations are guaranteed the avoidance of environmental catastrophe. In other words, we should not act as if there were no tomorrow. ‘Strong’ or ‘maximal’ ‘sustainability’ would demand that the future generations are left the opportunity to experience a level of environmental consumption at least equal to that of the present generation. Someone said, ‘we do not inherit the world from our parents, we borrow it from our children’. It is

imperative that we leave the world as beautiful, productive and stable as it was lent to us.

Care should be taken while defining 'environmental consumption' so that one does not exclude functions which do not fall within the range of functions that economists are concerned with. Sustainability will then be meaningful only when one decrees that the future generations are left equal opportunity of such consumption measured and defined at current levels if not at enhanced levels.

The two versions of 'sustainability', *minimal* and *maximal*, could, in theory, necessitate different courses of action. It may be quite easy to provide the *same* degree of environmental capacity when environmental resources are abundant... Whereas *maximal* sustainability would require that the number of trees or volume of soil, were held constant, the *minimal* version might allow quite significant degradation. It is, in this sense that the differences between the two different versions may have significantly blurred, at least in terms of course of action to be taken to ensure intergenerational equity.

The concept of sustainability has given us a means of taking into account the interests of future generations. But still it has an anthropocentric approach as it identifies value of environment in terms of interests of humans. The second objection against the orthodox approach is that environment has intrinsic value and must be sustainable. If we are to respond to this objection, a defence of 'ecocentric' view will have to be articulated in an effort to overcome the anthropocentrism of orthodox view of environment. There are broadly two versions of ecocentric view. First, one can ascribe *intrinsic value*<sup>18</sup> to individual members of non-human species. Second, one can locate *intrinsic value* not in individual members of non-human species in ecosystems as a whole.

The 'speciesists' or 'human chauvinists' insist on the radical difference between humans and non-humans on the ground that it is only humans that can be regarded as ends-in-themselves. All other species are merely instruments for the well-being of humans. This criterion is based upon the assumption that only humans are part of moral community, and that such a characteristic is not applicable to

other species. And therefore, it is not proper to accord moral status to anyone other than humans. Some philosophers, however, differentiate between various types of species on the basis of consciousness or sentience, i.e. ability to have experiences such as pain.

This may be intuitively justifiable. It is also part of the official doctrine that has come down through history of philosophy. But it is inadequate to act as a guide to environmental policy, since it does not apply to animals and plants lower down the evolutionary scale. Some ecocentrists have, therefore, argued that the possession of life itself is sufficient to give intrinsic value. But this leads to the problem of how to rank different life forms in the moral scale. Some ‘deep ecologists’ have argued for ‘biotic egalitarianism in principle’. But few people will acknowledge moral equivalence between plankton and a human being, even if this could in any way act as a basis for action. In the absence of a guide to moral ranking, ecocentrism does not provide much help in the formulation of environmental protection policy.

More importantly, locating intrinsic value in individual members of non-human species does not provide an argument for preserving species as a whole. It is doubtful that individual animals and plants can be said to have ‘interest’ in the reservation of number or diversity of the species as a whole; yet it is this which is often the key question at issue in environmental policy. An ethic concerned with protecting individuals offers no guarantee of protection to the ecosystems of which they are a part; indeed, to what is characteristically thought of as ‘nature’ itself. Imagine that a development corporation wanted to build a theme ark on a wetland noted for its many and rare species. The ark would be so profitable that the corporation could offer to remove (humanly) all the animals and the plants on the wetland and place them in a zoo, where they could be protected even from one another. Few ecocentrists would regard this as desirable, yet an ethic concerned solely for the welfare of individuals would have difficulty arguing against it.

Alternatively, the *second* version of ecocentrism is an attempt to locate intrinsic value not in individual members of non-human species but in the ecosystem as a whole. Aldo Leopold’s Land Ethic was an attempt in this direction when he argued ‘a thing is right when it tends

to preserve the integrity, stability and beauty of biotic community. It is wrong when it tends otherwise.<sup>19</sup> There are issues that need clarification in case of land ethics, particularly concepts such as 'beauty', which is commonly viewed as an anthropocentric concept. Again, land ethics leads to some unacceptable moral and societal conclusions. It envisages that if human beings, like other living things, have value insofar as they contribute to integrity, stability and beauty of ecosystems, we would seem to have a justification for culling people.

The difficulties of Land Ethic does not invalidate the need of assigning intrinsic value to ecosystems. There are strong intuitive grounds for wanting to extend the class of morally valuable things beyond just human beings. The attitude of 'reverence to nature' which is the foundation of the ecocentric view is almost certainly an essential psychological and cultural element of any policy towards its protection.

In spite of the difficulty that the ecocentric view does not offer a coherent approach to environmental protection, the framing of a policy to protect environment, is performed by the concept of sustainability as discussed above. 'Sustainability' (particularly, its strong version) provides environmental protection that would have been given by a coherent ecocentric position. In declaring that future generations should be left the opportunity to experience a level of environmental consumption equal to that of the present generation, sustainability imposes substantial constraints of all and varied economic activity. There is no doubt that sustainability is anthropocentric. It wishes to preserve the environment for the benefit of future generations. But unlike the orthodox approach it does not 'benefit' in terms of economic demands. It makes no attempt to calculate how much future generations will value environment in terms of their willingness to pay for it. It simply recognizes that future people probably will want the environment to be preserved, and that the current generation therefore has an obligation to give opportunity to enjoy it. This enjoyment is understood in widest terms— not just use of the resources but appreciation of nature's diversity and beauty. This emphasis on equality between generations leads to a view of environmental protection which has more in common with the ecocentric standpoint than with that of the use of orthodox 'valuation' approach.

#### IV

The discussions justifying sustainability on the basis of intergenerational equity and ecocentrism are clearly ethical in character. This is the difference between the arguments provided by the orthodox approach which are based upon positivistic methods of environmental valuation. Such evaluations render sustainability a different sort of concept from one dealing with environmental evaluations that sustainability ought to be. Those who defend evaluation approach to environmental protection believe that their ‘positive’ approach helps them to measure objectively ‘desires’, ‘interests’ of living humans who reveal their likes or dislikes, interests or disinterestedness, through their behaviour. This methodological framework used by economists creates an environmental protection that is not based, according to them, on what ‘ought’ to be, but on what is. The resultant environmental valuations are empirically measured valuations and not ascriptions of interests to future generations.

On the other hand, sustainability as an ethical concept, has an element of normativeness whether positivist-orientated social scientists and economists accept it or not. Admittedly, the general concept of sustainability can be proved by appeal to facts or can be empirically measured. However, as an ethical concept, ‘sustainability’ argument based upon the method of thought experiment is neither arbitrary nor subjective based upon the values of the chooser. It is the nature of ethical concepts that the same are justified or measured in terms of statistics or matters of fact. Similarly, is the concept of ‘sustainability’ as an ethical concept.

An orthodox economist will not accept a position that defines ‘sustainability’ as an ethical concept and will always place ethical considerations outside the realm of economics. There are two reasons why such a position is untenable. One, ‘sustainability’ in the present context, cannot but be an ethical concept otherwise it will suffer from the same criticisms that ‘gross utilitarianism’ suffers from. Secondly, the belief that economics as a ‘positivist’ science is free from value judgements is unacceptable. One must remember that every policy

decision involves ethical choice as the same is based upon perceived choice of different groups with regard to other people or living things. But this does not mean the choices are purely subjective. These choices can and are measured by interests and desires of the people in the given context. In short, value judgements are necessary constituents of 'sustainability' and to impute interests of future generations does require reflection on specifying what interests taking into account what level of environmental protection is morally right.

One has to accept analysis of ethical nature of sustainability not because it functions as a critique of general economic framework used for valuating environment, but because of the very nature of the environmental concerns. One cannot avoid value judgements while dealing with environmental protection, for that matter, dealing with any aspect of the environment. Value judgements are not accidental incursions but are necessary constituents of environmental discourse.

To assert that the task of environmental protection is a moral one does not belittle the concept of sustainability. In fact it enhances it and corrects the false sense of 'objectivity' projected by the positivist economics. Ensuring that sustainability is essentially an ethical concept renders a proper understanding of environmental crisis and allows a rational inquiry into the relationship and conflict between the rights of present and future generations. In evaluation approach, either the interests of future generations are ignored, or we have to accept the ethically constructed concept of sustainability. This choice too is an ethical one. We have to ask the all important question of how important are the lives of future people?

### **Notes and References**

- 1 T. O'Riordan (1988) argues for maintaining a distinction between sustainable use and sustainability, where the former has been typically seen as an alternative growth and planning concept. Here, sustainability is seen in a much broader sense, embracing ethical norms pertaining to the survival of life forms, the rights of future generations, and institutions responsible for ensuring that such rights are fully taken into account in policies and actions.

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  - 11 Mary Daly (1978), *Gyn/Ecology*, Boston: Beacon, pp. 9-10.
  - 12 J. T. Heinen, (1994), “Emerging, diverging and converging paradigms on Sustainable development”, *International Journal of Sustainable Development and World Ecology* 1, 22-32.
  - 13 World Commission on Environment and Development (WCED) Report based upon *Our Common Future*, more commonly known as the Brundtland Report.
  - 14 Shrad M. Lele, (1988) *Sustainable Development: A Critical Review*, Energy Resource Group, University of California. Berkeley.
  - 15 The natural Step organization website [www.naturalstep.org](http://www.naturalstep.org).

- 16 *The Hannover Principles: Design for Sustainability*, is available at the McDonough and Partners website, [www.mcdonough.com/principales.pdf](http://www.mcdonough.com/principales.pdf)
- 17 Richard Sylvan proposed such 'thought experiments' in order to test our intuitive findings. He had used conceptual problems on the basis of *last man* or *last people* examples. Richard Sylvan, earlier known as Richard Routley, 'Is There a Need for a New, an Environmental Ethic?'. *Environmental Ethics* (eds.) Andrew Light and Holmes Rolston III, Oxford: Blackwell Publishers, pp.47-52.
- 18 For a more detailed discussion on this issue refer to my article 'On Ascribing Morals to Animals: A Study in Evolutionary Ethics', *Sandhan*, Vol.IX, No.2, July-December, 2009, pp.121-136.
- 19 A. Leopold, (1949) *A Sand County Almanac*, Oxford: Oxford University Press, p. 224.

## LOVE, BIOETHICS AND PATENTS

DARRYL MACER

Bioethics is both a word and a concept. While the term comes out of the 1970's, the concept comes from human heritage thousands of years old (Macer, 1994). It is the concept of love, balancing benefits and risks of choices and decisions. This heritage can be seen in all cultures, religions, and in ancient writings from around the world. We in fact cannot trace the origin of bioethics back to their beginning, as the relationships between human beings within their society, within the biological community, and with nature and God, are formed at an earlier stage than our history would tell us.

Love is something not seen physically unless in actions. However, while love without acts may seem dead, the love is still there before and after the event. Love is one subject written about, sung about, dreamed about, fought about, more than any other, arguably in all cultures. It preoccupies the human mind, and it would be naive of Homo sapiens to think it suddenly appeared overnight in our species. We all may agree it is dominant in our mind, but how do we go from an emotion, to a system to analyze our decisions?

There are a set of principles or ideals which people use as a common ground for bioethics including autonomy of individuals to make choices while respecting the choices of others, and justice. A fundamental way of reasoning that people have, is to balance doing good against doing harm. We could group these ideals under the idea of love. Other terms, such as human rights, animal rights, stewardship and harmony, may also stem from these ideals, but in the end, these terms also come from love.