

Chapter- 4

The Question of Moral Status of Sentient Beings

4.1. Introduction

Throughout the history of human civilization, it has been widely believed that human beings are the only entity that can perform voluntary actions and exercise freedom of will. Therefore, they are the only moral beings.¹ Many traditional western thinkers have given their views in support of this human centered bias. Aristotle, for example, maintains that nature has made all things specifically for the sake of man. All duties, according to him, are ultimately owed to humans and only to humans. Paul W. Taylor has described the human centered standpoint as follows:

We may have responsibilities with regard to the natural ecosystems and biotic communities of our planet, but these responsibilities are in every case based on contingent fact that our treatment of those ecosystems and communities of life can further the realization of human values and/or human rights. We have no obligation to promote or protect the good of nonhuman living things, independently of this contingent fact.²

In the modern period, Rene Descartes and Immanuel Kant have given their arguments in favor of this anthropocentric approach. Therefore, the question of moral status of non-human animals is irrelevant for them. But many contemporary moral philosophers have challenged this anthropocentric approach. They have tried to develop a new approach to include the non-human beings within the domain of morality. According to them, non-human animals are intrinsically valuable like

human beings, therefore, they are worthy of moral considerations, and the question of moral status can be raised towards them as well.

It is a common belief that the biotic and a-biotic components constitute the world of environment. Biotic elements consist of all living organisms, such as plants, animals, humans and other living organisms. On the other hand, all the non-living materials such as soil, water, air etc. and the forces of nature such as light, gravity and molecular energy are included within the a-biotic category. The science of ecology has well recognized the interrelationship between biotic and a-biotic components as well as among the individuals of biotic components. According to the ecological expiations, all natural worldly living forms play a very important role in the process of the constitution of biosphere.³ Ecology also points out that each element of environment has some relative or extrinsic value. According to some philosophers like J. Baird Callicott, the moral status of a being depends on this extrinsic value. In this context, all elements of environment (biotic and a-biotic) are morally considerable. But, how far this view is tenable is a debatable issue. Human and non-human animals are the two important classes of biotic community. In the previous two chapters, the basic ethical issues have been discussed, related to experimentations on both human and non-human animals. In this chapter, an attempt has been made to show how these moral issues, affect our deep-rooted belief that human beings enjoy greater and better moral weight than non-human animals.

In medical sciences, without the involvement of human and non-human beings, experimentation cannot even be thought off. But how far experimentation on human and nonhuman animals is justifiable? How do we justify them separately, if at all such a separation is required to be made? A thorough study of the moral status of human and nonhuman animals will definitely help us to answer such questions. The

fundamental questions that have given a special focus in this chapter are the following- what is the moral status of human and nonhuman animals? Do human beings have greater moral status than animals? What are the criteria of moral status? Why humans are considered morally superior to other animals? In the present scenario of biomedical research, all these questions are serious, so they need an in-depth study.

However, it is to be noted here that though the use of human and non-human animals are justifiable for the development of biomedical sciences, but it cannot be said that, in all cases, the use of human and non-human animals are justifiable from ethical as well as legal perspectives. There are some limits to the use of human and non-human animals in biomedical research. This chapter also focuses on the shortcomings of experimentations involving human and non-human animals. These limits serve as the side constraints within which it is obligatory for a biomedical researcher to work.

4.2. What is moral status?

Moral status is a concept, which signifies the moral weight of beings or entities. Mary Anne Warren says that-

If an entity has moral status, then we may not treat it in just any way we please; we are morally obliged to give weight in our deliberations to its needs, interest, or well-being. Furthermore, we are morally obliged to do this not merely, because protecting it may benefit ourselves or other persons, but because its needs have moral importance in their own right.⁴

It clearly signifies that the moral status of a being is necessarily associated with the inherent worth or intrinsic value of a being. This concept also serves as a means that

specify certain entities towards which we believe ourselves to have moral obligations. These obligations include- respect for right to life, liberty and freedom from the unjustified infliction of harm.⁵ These obligations stipulate the minimum standards of our acceptable behavior towards an entity. Here, the minimum standard represents a ground under which it would be wrong to permit our actions. Thus if an entity has moral status, it would be wrong to treat it in just any way we please. It can be mentioned here that-

A being's moral status can make a difference as to whether its behavior is subject to moral evaluation, how it ought to be treated, whether it has rights, perhaps what kinds of rights it has.⁶

One of the basic features of moral status that should be noteworthy here is the generality. It means the concept of moral status is ascribed to members of a group, rather than merely to specific individuals.⁷ For instance, human beings are morally considerable beings, which mean all human beings have full and equal moral status. It includes both human moral agent as well as moral patients. Kantian deontology and the classical utilitarianism have strongly supported this view. Similarly, if all sentient beings have full and equal moral status then both human and nonhuman animals need to be considered equally. But, the very issue of the equal considerations of both human and nonhuman animals is a matter of debate. Therefore, it needs critical scrutiny to arrive at a reasonable answer. The pertinent questions that can be raised here are- Is it not possible to ascribe equal moral value to non-human animals like human beings? Are all animate beings equally morally considerable being? All these issues are serious, and need to be addressed in the context of moral status.

4.3. Who has moral status?

There is no ready-made answer to the question of who are the entities or beings, which have only moral status. Philosophers have debated on the issue of moral status for decades. Since, the time of Aristotle, superiority of rational moral agency of man has been designated to justify the power of human beings⁸ so that human beings can dominate over the lower class animals. However, in the contemporary scenario, this view becomes irrelevant. Contemporary philosopher Peter Singer has pointed out that the moral community can be extended beyond human beings. For him, all sentient beings that have the capacity to feel pleasure and pain, are eligible for moral considerations. In this view, some non-human animals are considered to have moral status. But, the questions remain-what is the status of other living beings that are yet to confirm their sentience? Do all sentient beings have equal moral status? A detailed analysis of the various criteria of moral status will help us address these pertinent issues.

4.4. Criteria of moral status

There are two major approaches concerning the criteria of moral status: one is *uni-criterial* approach and another is *multi-criterial* approach.⁹ The former is also known as moral monism and the later as moral pluralism. Immanuel Kant, Albert Schweitzer, Peter Singer, Tom Regan, J. Baird Callicott, and Nel Noddings are the prominent supporters of the former approach. According to this approach, any intrinsic or relational properties can be necessary as well as sufficient for having full moral status of a being. But Christopher Stone and Mary Anne Warren have rejected this approach. By criticizing the moral monism, they have proposed a new approach for moral status. This approach is known as moral pluralism. It gives weight both to the

intrinsic properties as well as the relational properties. According to this approach, there is more than one valid criterion of moral status. According to the moral pluralism, uni-criterial theories are inadequate. The properties mentioned by the moral monism are necessary for having any moral status, but none is sufficient for having full moral status. Moral pluralism clearly mentions that practical moral problems are more complex than they appear from the perspectives of moral monism. Callicott has criticized this *multi-criterial* approach. For Callicott, conceptual simplicity is an important virtue in a moral approach, which is absent in moral pluralism. However, in response Warren in her book *Moral Status* clearly mentions that simplicity is not the only virtue that a moral theory needs.¹⁰ In short, a simple theory provides no assurance in the decision of practical moral issues. For example, Utilitarianism offers a theoretically simple criterion of moral rightness or wrongness. But, applying this standard in real-life cases is disreputably a complicated task. Here, an attempt has been made to analyze critically the *uni-criterial* and *multi-criterial* approach of moral status. Moreover, an attempt has been made to determine which approach is more satisfactory to arrive at a reasonable set-up concerning the relevant practical moral issues.

4.4.1. Uni-criterial approach

According to the moral monism or uni-criterial approach, life, sentience, personhood, membership of biological community and relationship of caring are the properties on which moral status of a being depends. Among these, the first three are intrinsic and the last two are extrinsic properties. The very significance of these properties is that all these properties are individually necessary as well as sufficient for having full moral status of a being.

Reverence for life

According to Albert Schweitzer, respect for life is the fundamental moral property.¹¹ Our moral character can develop from the simple elemental truth that is – life is good and as such all life should be seen as good. To this view, there is no dividing line between more and less valuable life. All living beings are equally valuable. Any actions that harm living things are morally wrong. According to Schweitzer, all living organisms have full and equal moral status. For him simply being alive is both sufficient and necessary criterion for full moral status. According to this criterion, inanimate beings have no moral status at all. The fundamental characteristics of this condition as mentioned by Mary Warren in her book *Moral Status* are as follows.¹² First, this condition is easily comprehensible through both thought and experience; Secondly, it is relevant not only to relationships amongst humans, but to the relationship of humanity to the rest of the universe; and, thirdly, this condition is world affirming, in the sense of requiring active service rather than the mere avoidance of wrong doing.

However, the meaning of the word ‘life’ in this explanation is not very clear. Therefore, it needs to be made clear. According to the *Stanford Encyclopedia of Philosophy*, the meaning of ‘life’ can be defined with the certain properties. These properties can be stated as below -

Animate beings share a range of properties and phenomena that are not seen together in inanimate matter, although examples of matter exhibiting one or the other of these can be found. Living entities metabolize, grow, die, reproduce, respond, move, have complex organized functional structures, heritable variability, and have lineages which can evolve over generational time,

producing new and emergent functional structures that provide increased adaptive fitness in changing environments.¹³

This definition clearly mentions some important characteristics, which can serve as the criterion for a being to be alive. If a being possesses more of these characteristics, it would be more confident to say that it is alive. However, the important thing is that these characteristics are not individually sufficient conditions for life. For example, a crystal can grow, and give rise to more crystals of the same minerals. However, science and common opinion agree that it is inanimate.¹⁴ Warren has pointed out that just as there is no single (or multiple) necessary and sufficient condition of life, similarly there are many concepts, which fail to have a single criterion of usage like this. The concept of moral status is one among these concepts. Challenging Schweitzer's life only view, Warren has pointed out that life may be a sufficient condition for some moral status. But it is not the only criterion of moral status. There are other valid criteria of moral status, which entails a stronger moral status than life alone. Paul Taylor has also tried to define life with the help of teleological approach.¹⁵ For him an organism is a teleological center of life. It means its internal as well as external activities are all goal oriented. With the help of this approach, it is possible to explain how living things are different from dead or inanimate things. But Warren has rejected this approach also as sufficient criterion for life. For her, suicidal individuals are still being alive, though their direction is towards the self-destruction rather than survival, reproduction or adaptation to the environment.

It is to be noted here that Schweitzer has awarded the pragmatic impossibility to avoid deliberately harming living things. For him to survive or defend ourselves, it is permissible to kill or harm someone. Schweitzer thus, in his principle, includes some flexibility, which allow us killing of living things for food, since it is not

possible to avoid such actions. However, in such situations, we have to decide ourselves how far we can remain ethical and how far we are able to submit ourselves to the necessity for harming life. Schweitzer, in his theory, rejects any attempt to work out a compromise between the ethical requirement to respect life and the practical requirement sometimes to take life. He does not accept any relative ethics, which implies that while some killing is wrong, it is acceptable as right under certain circumstances. As a theologian, Schweitzer in his theory of moral status evaluated the thought of Jesus and St Paul. Both were focused on the obligation of human beings. However, both neglected our obligation towards the rest of the universe. Schweitzer was also influenced by the doctrine of Buddhism and Jainism, which forbid all acts that harm living beings. But he rejected the 'world denying' element of both religions.

Evaluating the criterion of moral status given by Schweitzer, Warren critiques¹⁶ that though his interpretation is not perfect, it is able to serve as the basis for reflecting upon the strengths and weaknesses of the 'Life only view'. One very important merit of Schweitzer's theory is that it is a thoroughgoing rejection of human centric approach.

Sentience

Sentience is another plausible criterion of moral status. A living being is called sentient, if he or she is capable of experiencing pleasure and pain. But, all experiences are not feelings of pleasure or pain. There are so many examples of impartial feelings, which are neither pleasurable nor painful. For example, our everyday perceptual occurrences are neither pleasurable nor painful. If sentience is the criterion of moral status then both human and non-human beings are eligible for moral considerations. However, Immanuel Kant's view goes against the sentience criterion of moral status.

For Kant, only human beings, who are capable of rational moral agency, are morally considerable.¹⁷ However, he has recognized the humane treatment towards other animals through performing indirect duties towards them. There are two well-known views regarding the sentience criterion of moral status. One is ‘sentience only view’ and another is ‘sentience plus view’.¹⁸ According to the former view, sentience is the necessary and sufficient criterion for full and equal moral status. Peter Singer is a strong defender of ‘sentience only view’. On the other hand, according to the latter view, sentience is a valid criterion of moral status, but it is not the only valid criterion. According to the ‘sentience plus view’, sentience is not necessary condition of moral status, though it is a sufficient condition. This sentience plus view, however, suggests the moral status of some entities, such as ecosystems, biological species etc., which are not sentient beings.

Peter singer is a supporter of utilitarian principle. His utilitarianism is termed preference utilitarianism, which is a modification of classical utilitarianism of Jeremy Bentham, Henry Sedgwick and John Stuart Mill. According to Singer, the principle of equal considerations of interest is the basis of all valid moral claims. For him, all sentient beings have the capacity of interest; therefore, it is our moral obligation to give them equal weight in our moral deliberations.¹⁹ However, for Singer, the equal consideration to the interests of all sentient beings does not mean treating them alike. It means that the moral weight of a being’s pains and pleasures does not depend upon its species. For Singer, only sentient beings have moral status, because they have interest. But the very term ‘interest’ is an ambiguous term. According to R. G. Frey, only human beings have interest.²⁰ For Frey, having interest requires beliefs and desires. In addition, beliefs and desires require the capacity to use language. Only human beings can use language. Non-human animals are lacking in the capacity to

use language, so they lack interest. At the opposite extreme, some environmental ethicists argue that all living beings, because of their teleological system, have interest. However, Singer has clearly pointed out that the capacity to experience pleasure and pain is the prerequisite for having interest at all. Singer Says-

If a being suffers, there can be no moral justification for refusing to take that suffering into consideration.....If a being is not capable of suffering, or of experiencing enjoyment or happiness, there is nothing to be taken into account.²¹

Singer has also pointed out that all human beings are morally equal, but it does not presuppose that they are equal in intelligence, strength, moral virtue, or any other empirical characteristics. Moral equality of human beings is a claim regarding how they are to be treated, not about what they are like. It implies that the moral equality can be applied to other animals also who are less intelligent than human beings are. Otherwise, it would mean the degradation of their interest. However, Singer has mentioned that although sentient beings are equally entitled to moral considerations of their comparable interest, we need not always place equal moral value upon their lives. He says that the life of a person is more valuable than the life of a being that is not person. It is because only persons can conceptualize their futures and consciously desire to go on living. While great apes, dogs, pigs and some other non-human animals that are highly sentient are persons, but mice and similar other animals are not persons though they are sentient.²²

However, the environmentalists have strongly objected to Singer's view on sentience. Many environmentalists have rejected the sentience only view, because it denies the moral status of plants, species, and other non-sentient elements of the biosphere. Mary Anne Warren also rejects the idea of 'sentience only view'. For

Singer, the lives of sentient non-person are worth less than the lives of persons. Here, Warren has raised one pertinent question- how much less worth? According to Warren, without a numerical estimate of the degree of difference, we can have no idea of how much weight is to be given to the lives of sentient beings that are not persons. Preference Utilitarianism simply asserts that all sentient beings are entitled to moral considerations, but that beings (persons) are entitled to significantly more considerations than that of not persons.

Benjamin Martin has developed a bi-level sentience –based on the theory of moral status.²³ For him, there are two levels of moral status. He suggests that the persons have possessed higher-level moral status than the sentient beings that are not persons. In his view, he clearly points out that we are obliged to take the interest of all sentient beings, but not on an equal basis with those of persons. This sentience based bi-level theory of moral status is more consistent with moral common sense than is the sentient only view. However, this bi-level theory has serious shortcomings. According to this theory, all sentient beings can be categorized into two- persons and non-persons. There is no scope to draw a line of scale between self-aware beings and not self-aware or between minimally sentient organisms and wholly non-sentient. A sliding scale of moral status can enable us to draw this line, which is developed by L. W. Sumner.²⁴ For Sumner, sentience is both necessary and sufficient condition of moral status. He also argues that both sentience and moral status come in degrees, such that the strength of a being's moral status is relative to its degrees of sentience.

Personhood

The very concept of personhood is a difficult concept to define. It is an important ethical concept. It is claimed that if something is a person then it has a strong moral status. There are two pertinent views regarding the concept of personhood. One is the maximalist view and the other is the minimalist view.²⁵ According to the maximalist view, personhood consists in rational agency. Immanuel Kant is the foremost supporter of this view. For him, person means rational moral agent, who is capable of moral reasoning. They have the same basic moral right to life and liberty.²⁶ Therefore, they are equally morally considerable being. For Kant, only rational agents can govern their behavior with the help of universal moral principles. Non-human animals are not rational moral agents. Therefore, we may treat them as mere means. We have no obligations towards them, since they are not person at all. Kant holds that being a rational moral agent is a necessary and sufficient condition for full moral status. Mary Anne Warren has declared this view as personhood only view.²⁷ Warren has criticized this view in her book *Moral Status* (2005, p-90). For her, moral agency may be the sufficient conditions for moral status, but it cannot be said that it is necessary condition for full moral status. She also pointed out that there are some sentient beings that are not, never have been, and never will be moral agent, yet we have moral obligations towards these sentient beings. For example, infants, young children, mentally retarded persons and persons who are in comatose are incapable of rational moral agency at present, but we have some obligations towards them.

On the other hand, according to the minimalist view, all beings, possessing the 'subject-of-a life' have the same moral status. Tom Regan defends this view. In his view, Regan has extended the moral community beyond rational moral agency. According to him, some sentient beings (for example, normal mammals over a year of

age) are capable of 'subject-of-a-life' and they have the same moral status like human beings. Regan maintains that these are persons. This view accords strong moral status to many sentient beings. However, the critical point is that it denies the moral status to non-sentient organisms, biological species, and non-living elements of the natural world.

John Locke has defined the concept of person as- "...a thinking intelligent being, that has reason and reflection. And can consider itself as itself, the same thinking thing, in different times and places."²⁸ But this dominion of person is species-neutral; it leaves room for the logical possibility that there can be persons that are not human beings, or human beings that are not persons. According to Locke, what makes a being a person is not its biological humanity, but its intelligence and its capacity for thought, reason, reflection, and self-awareness. A person is essentially a moral agent for Locke. A person is morally or legally responsible for his actions. However, Peter Singer points out that personhood need not include the capacity for moral agency. As defender of Minimalist view, Singer argues that it is reasonable to say that animals of many terrestrial species are also persons.²⁹ Tom Regan also argues that if personhood requires actual moral agency then it leaves many sentient human beings with no moral status. So, Regan has declared that most sentient beings- including some who are not even potentially capable of moral agency- have full moral status; and so do many non-human animals. The moral status that Regan claims for all 'subject-of-a life' is similar to that which Kant claims for all rational beings. Subjects are end in them-selves and thus have basic moral rights. These include right to life, to liberty, and not to be harmed. These rights, as Regan says- 'do not arise as a result of the creative acts of any one individual....or any group'³⁰ Rather, they follow from the postulate that all 'subject-of-a-life' has inherent value. However, Mary Warren has pointed out that

both of them in their view of personhood fail to introduce some complementary reasons. Even if Kant's criterion of personhood include potential as well as actual moral agency, his theory excludes many sentient human beings, to whom we have good reason to accord full moral status. Similarly, Regan's theory includes all human individuals that are, or may be, subject-of-a-life. However, it also includes many non-human animals that we cannot always treat as our moral equals.

The Relevance of Relationship

One very important assumption, about the criteria of moral status discussed above is that the property, which serves as the sole criterion of moral status, must be intrinsic property. Intrinsic properties are those properties, which are logically possible for an entity to have had, even if they were the only things in existence.³¹ In this sense, life, sentience, and the capacity for moral agency are intrinsic properties, whereas being a grandfather, or a citizen of USA. are relational properties. But, according to some philosophers, intrinsic properties are irrelevant for moral consideration. For them, an entity's moral status depends entirely upon its relational properties. J. Baird Callicott and Nell Noddings are the prominent defenders of this view.

Callicott holds that an entity's moral status depends upon its social and ecological relationship, its membership and role within a social or biological community.³² As a proponent of environmental ethics, Callicott argues that all of our moral obligations arise from the fact that we are members of social and biological communities. Callicott was a follower of Aldo Leopold, who argues that human beings naturally belonged not only to social communities, but also to biological communities. However, biological communities include not only living organisms, but also include such things as soil, water, and air. All these are also collectively

known as the land. For Leopold, the land ethics simply enlarges the boundaries of the moral communities to include soils, waters, plants and animals. Callicott argues that a holistic approach was prevalent in the land ethics of Leopold. Leopold's land ethics goes beyond the individualistic approach. This biosocial theory of moral status concerns with the social and biological relationship as criterion of moral status. Nevertheless, it is a theory of moral monism, since it permits only the relational properties as the criterion of moral status. According to Callicott, this theory provides a framework for the negotiation of the very real conflict between human welfare, animal welfare, and ecological integrity. This biosocial theory has important virtues. It permits us to recognize moral obligations to plants, animals, plant and animals species and populations as well as to such inanimate elements of the natural world as rivers, seas, mountains, and marshes. There are obligations towards various entities, born of the reorganization of kinship, and of our membership in the biological communities. However, the most serious problems for biosocial theory is that it fails to provide satisfactory principle for the resolution of conflicts between different prima facie moral obligations- either those arising from within a single community, or those arising from different communities to which one person may belong.

On the other hand, according to Nel Noddings the relationship of caring is the basis of all human moral obligations.³³ For her, we have moral obligations only towards beings for whom we are psychologically capable of caring. In addition, the beings must have the capacity (at least potentially) to be aware of and responsive to our care. According to Noddings, all psychologically normal human beings are capable of caring for other human beings. For her the desire to be in caring relationships is the original and enduring basis of all human morality. However, Noddings's insight is that we cannot be obliged to treat all living organisms, or all

sentient beings, as moral equals because our social relationships to other human beings are different from our relationships to most other organisms. Moral status for Noddings is a function of emotional relationship that she calls caring. In a caring relationship, the 'one-caring' is receptive to the feeling and needs of the 'cared-for'.³⁴ Reason in constant use is determining the best means of meeting the needs of those for whom we care, and setting priorities. However, the motivation to care is emotional and instinctive rather than rational. It is to be noted here that the care ethics is a feminine theory as described by Noddings. However, it does not mean that all women will accept it or all men will reject it. Rather care-based theory is feminine in the deep classical sense- rooted in receptivity, relatedness, and responsiveness. A caring relationship for Noddings, need not be fully symmetrical, and often it is not. For example, infants and young children cannot fully reciprocate the care that they receive. Nevertheless, Noddings holds, some eventual reciprocity is essential to an authentic caring relationship. Caring involves two parties: one caring and the other cared-for. It is completed when it fulfills both. Like Callicott, Noddings uses the metaphor of concentric circles. Nevertheless, in her account circles represent caring relationship, rather than social or biological communities. However, in criticizing the Noddings' account of Caring, Ann Diller has pointed out that her account has misdirected our ethical attention and energy.³⁵

4.4.2. Multi-criterial approach

From the above analysis it becomes clear that there is one and only property which is necessary for having moral status and sufficient for having full and equal moral status. This means if any one of those criteria is found to be present in an entity then that entity can be said to have a moral status of her own. However, Mary Warren has pointed out that this monistic approach is inadequate. For her, none of the criterion,

discussed above in isolation, is sufficient for having full and equal moral status. For Warren, respecting life, avoiding cruelty to sentient beings, not harming subject-of-a-life and treating moral agent equally are all sound moral principles when they are properly incorporated. However, none of this principle in isolation from others yields a plausible account of moral status.

According to the moral pluralism, moral status of a being is based on both the intrinsic and extrinsic properties. Three fundamental intrinsic properties are- life, sentience and moral agency. Corresponding to these three properties Mary Warren has mentioned three principles.³⁶ They are- the respect for life principle, the anti-cruelty principle and the agent's rights principle. Warren has also pointed out the importance of social and ecological relationship that is extrinsic in nature to make our judgment of moral status of a being. She has mentioned four principles corresponding to these extrinsic properties. They are- the human rights principle, the ecological principle, the inter-specific principle, and the transitivity of respect principle. While considering the moral status of being, all these principles need to be considered. For Warren, these principles operate interactively, which means each principle can be well understood in the light of others. Nevertheless, each principle focuses on certain properties, which can be used as criterion of moral status. Warren has argued that the properties corresponding to each principle are necessary but not sufficient for full moral status of a being. That is why she suggests the integration instead of isolation of the properties corresponding to the said principles. The important significance of these principles is that each principle is defensible in commonsense way; since these are implicit elements of commonsense morality.

The respect for life principle

According to this principle, it is morally wrong to harm living beings, without good and morally sound reasons. It means, at least in some cases harms of living beings is permissible and justifiable if there are sound reasons behind it. In this sense, the Schweitzer's ethics of *Reverence of Life* is too idealistic. The *respect for life principle* holds that our obligation to engage in activities that harm living beings would be allowed if and only if such activities are able to provide well-being of humans, or animals, or plants and ecosystems. But, the fact is that this principle fails to explain what counts as a sufficient good reason for harming living things. Because something is being alive, tells us very little about its moral status. So, the strength of the reasons, needed to justify harming any living beings, as Warren has said, depends upon some additional factors specified in other principles. He has mentioned the following factors in this context -

whether it is sentient, or a moral agent, or a member of a social community that includes human moral agents; whether it belongs to a species that has special importance to the ecosystem; and whether it is regarded by some people as sacred, or of special moral value.³⁷

The anti-cruelty principle

According to this principle, it is morally justifiable to harm or kill sentient beings, if there is no available alternative or feasible way to achieve the goals. It implies an obligation not to be cruel to sentient beings unnecessarily. According to this principle, it is virtually impossible to avoid harming sentient beings in absolute sense. But the significant point of this principle is that although this principle applies to all sentient beings, it does not necessarily imply that we treat all sentient beings as our moral

equals. Perhaps the degree of sentience is implicit in this principle. Warren has also pointed out that sentient beings are differed in their degree of sentience.³⁸ The high degree sentient beings have the mental aptitudes, such as memory, anticipation of the future, thought, planning, and intentional action. Most vertebrates appear to be more highly sentient than most invertebrates. So the point to be noted here is that for harming high degree sentient beings require stronger moral justifications than less sentient beings. Thus, Warren has rightly pointed out that, it is morally worse to hurt human beings than non-human animals.³⁹

The agent's rights principles

According to this principle, all moral agents have full and equal moral status. John Rawls and Alan Gewirth are the contemporary defender of this Agent's rights principles. According to Rawls, rational moral agents have equal right to life and liberty.⁴⁰ For him, a rational moral agent without knowledge of their identity or position in society can choose to enjoy his right to life and liberty. Similarly, Gewirth has pointed out that for successful moral agency, the right to life and liberty are the fundamental preconditions. For him, each moral agent is not only necessarily committed to his fundamental preconditions but also to the equal moral rights of the other moral agents. According Warren, these defenses of agents rights are useful and enlightening. In addition, she has mentioned some pragmatic reasons for respecting the rights of moral agents.⁴¹ For Warren, the agent's rights principle can be applied to all moral agents, whatever be their species.⁴² To be a moral agent, one must be capable of representing moral concepts and principles with the help of language. However, Warren has accepted some animals as persons and moral agents.⁴³ Nevertheless, she also accepts our treatment of even highly intelligent animals as moral equals. Warren has rightly pointed out that moral rights are not absolute. For instance, the right to life

does not preclude violent self-defense when one has been wrongly attacked and there is no other way to escape serious harm. According to Warren,

When an aggressive elephant repeatedly threatens the lives of tourists and rangers in a national park, or a lame tiger develops a taste for human flesh, there may be no feasible alternatives to killing the animal. That alternative would be less acceptable in the case of a dangerous human.⁴⁴

Warren has argued that our traditional belief systems may be the results of such behavior towards animals. It is not the immature misapprehension to the mental capacities of animals. However, she has tried to give a legitimate ground in her multi-criterial approach of moral status of this commonsense belief, which has traditionally been accepted.

The human rights principles

According to this principle, saying that moral agents have full and equal moral status does not necessarily imply that only agents have moral status. The basic rights to live and liberties are not restricted to human beings who are capable of moral agency. For instance, young children and mentally disabled persons cannot always be accorded all of the liberties that a mature and mentally able human beings are entitled to have. Nevertheless, their interests carry the same moral weight, as do those of other human beings. According to Warren, with a minimal level of sentience, disabled members of human community may be eligible for full moral status.⁴⁵ It is clear that human beings who are capable of sentience but not of moral agency have the same moral rights as do moral agents.

The ecological principle

This principle holds that plants and animals, which are ecologically important and endangered by human activities, have strong moral status. This principle also permits to recognize moral status toward water, air, plants and other elements of the biosphere that are neither living organisms nor sentient beings.⁴⁶ However, Marry Warren does not accept it as mandatory to accord moral status to entities that are neither sentient nor alive, because such entities cannot be harmed in the ways that living things and sentient beings can. Nevertheless, Warren has accepted some value to the elements of natural world in order to survive and flourish humanity in the distant future.⁴⁷

The interspecific principle

According to this principle, moral status of some animals is determined on the basis of their social relationships to human beings. Callicott and Noddings have given sound arguments for protecting the animal members of our social communities. Warren has also mentioned that-

When human and animals enter into relationships of mutual trust and affection, something akin to a promise is made. Although most animals are not full-fledged moral agents, in their relationships with human beings they often display many of the social virtues that we admire in one another, such as affection, loyalty, courage, patience, kindness, and good humour. Thus, they are sometimes enough *like* moral agents for it to be reasonable to accord them almost the same status.⁴⁸

Thus, Warren has recognized that at least some animals can enjoy the equal moral status like rational moral agents. However, it can be mentioned here that the animals rights advocates like Singer, Regan fail to give same moral status to animals like human moral agents. Tom Regan's live boat case is one of the famous examples in

this context. In this example, it is suggestive to prefer the sacrifice of animals for saving the life of human beings.⁴⁹

The transitivity of respect principle

This principle holds the moral status of some entities, which have little or no moral status on the basis of the principles discussed above. For example, objects or places that are considered sacred by some people might not qualify for moral status on the basis of the principles discussed above. Nevertheless, protecting these things can be obligatory. It is possible to protect such things without supposing that we owe to them. However, respecting people is difficult if one does not respect those things to which they accord strong moral status.⁵⁰ Respect is transitive in this sense. Thus according to this principle, moral agents should respect one another's attributions of moral status. However, this principle does not allow us to accept other people's attributions of moral status that are irrational, disrespectful of life, cruel, incompatible with the moral rights of human or non-human beings, or unfavorable to the health of social or biotic communities.⁵¹

It is to be noted here that the moral obligations may arise for a variety of reasons towards variety of things. However, there is no simple and readymade formula, which can address the variety of obligations towards variety of things. In this sense, all the seven principles, discussed above will definitely help to determine the moral obligations towards the variety of entities. All living organisms have right to life, but it can easily be overridden if there is no other claim of moral status as specified by Warren. In that sense, the act of destroying the living organisms like dangerous bacteria that are harmful to the human beings or to ecosystems may not count as offensive. Thus, simply being alive is not sufficient for having strong moral

status. However, in the case of sentient beings, harm or pain is not easily permissible if there are some important and unavoidable human or ecological needs. Here it is to be noted that the same human and ecological needs are not to be considered as sufficient grounds to override the basic right to life of all sentient beings; since the claim of moral status of sentient beings are varied from one class to another. In the present context of biomedical experimentations, human and non-human beings have been used as research subject. Here, it would be pertinent to discuss the possible moral issues raised by the use of experimentations on sentient beings in the light of the various criteria of moral status as discussed by Warren. It will help to answer the issues, such as how moral issues distress experimentations on sentient beings and how far experimentation on sentient beings is justifiable.

4.5. Moral considerations and experimentation

The demonstrated values of bio-medical experimentations (discussed in 2nd and 3rd chapters) on sentient beings do not outweigh the values of lives and livings of sentient beings. The values that are under threat in any experimentation thus need to be articulated clearly. The preceding discussions on both human and animal beings show how acutely we are posed in the solving the issue. The most sensitive issues that we are concerned about in this regard have been highlighted and debated in the second and the third chapters. There is a belief that human beings enjoy greater and better moral status than non-human animals, and because of this belief the depth and intricacies of these moral issues are different. This belief was expressed in the medieval period in a hierarchical order. In this order, God is the perfect being, and it has the greatest inherent worth, next the angels and archangels, then humans, followed by animals and plants and lastly comes the matter.⁵² Warren has criticized

this as the myth of human superiority. However, it is a matter of critical scrutiny- how far this belief is legitimate.

In order to understand the value of this commonsense belief we need to talk about both the issues of sanctity of life and reverence for life. The sanctity of life holds that any killing or harm is clearly wrong without any conditions. The reverence for life principle, on the other hand, stands opposed to the sanctity claim because the question of sanctity of life arise only in the case of human beings. According to the latter, there is no dividing line between more or less valuable lives. All sentient beings as living beings are equally valuable and any actions that deprive the life of sentient beings are morally wrong. The sanctity of life principle thus never allows killing of either humans or animals in the name of biomedical experimentations. The Rule Utilitarianism has declared the wrongness of any killing-

the rule against killing ('thou shalt not kill' or 'it is wrong to kill') is a valid moral rule, and its validity does not mysteriously vanish when killings are done in secrecy or when the killers reap a harvest of intrinsic value for themselves, goods that more than compensate for the loss on the victim's part.⁵³

From the deontological point of view, it has been considered that if a being has right to live then other beings have an obligation to respect that right. According to this approach, living beings as right to live holders should be absolutely prohibited to be used in biomedical experimentations, since such involvement might lead to loss of their lives. Thus, the involvement of sentient beings in biomedical experimentations would be a very complex issue if it were considered only from the deontological point of view.

Another pertinent issue that has been raised in the case of experimentation of non-human animals is *right to live*. Throughout the biomedical history, the *right to live* of animals has been neglected. Here, attempt has been made to consider the issue of *right to live* of animals in the light of the reverence for life principle. Why animals do not have equal right to live like human beings? After all, they are also living beings like humans. According to the *reverence for life* principle, every living being has the right to live. However, it has been an issue of debate whether animals have the right to live. As a serious matter, it has been discussed in the third chapter. While experimenting on non-human animals in biomedical sciences, it has often been presupposed that they have no right to live like human beings. Here, our deep-rooted anthropocentric belief, that only human beings as rational moral agents are eligible to enjoy the right to life, plays an obstacle to recognize the right to live of non-human animals. The very principle *reverence for life goes* against this anthropocentric attitude. Any living beings, which may not be rational moral agent or sentient beings, possess the right to live according to this principle. This principle also holds that all living beings are morally considerable beings. As Albert Schweitzer has pointed out that simply being alive is both necessary as well as sufficient for having moral status.⁵⁴ This principle thus implies the extension of moral concern to all living things and entails the recognition of an obligation not to harm even the lowliest organism. From this point of view, it can strongly be said that non-human animals have the right to live like human beings and they are equally morally considerable as human beings. It also implies that inflicting harm to animals in the name of biomedical experimentations is as wrong as inflicting human beings is. It has already been mentioned earlier that experimentation contains some element of risk in it. Even in a simple blood test, there is some element of unintentional infliction of harm. If

reverence for life principle were taken as the criterion of moral status in the absolute sense like Buddhism and Jainism, then experimentations on either human or animals would be impossible from moral point of view. Consequently, the biomedical enhancement would be jeopardized. Therefore, it can rightly be said that the *reverence for life* principle is too idealistic in absolute sense because of its world denying elements. However, Schweitzer has realized that in order to survive ourselves, it is pragmatically impossible to avoid deliberately harming living things. Warren has also analyzed *the reverence for life* principle as a criterion of moral status, but he has recognized the pragmatic implications of this criterion of moral status.

Objectification is another moral issue that has been raised in the case of experimentations on human beings. As a moral issue, it arises in the case of experimentations on human beings when involving subjects are treated as objects. In most of the biomedical experimentations, particularly in non-therapeutic type of research, human beings have been used as means for the advancement of medical sciences in favor of societal or public health interest. No doubt, the purpose is good. However, the purpose or end cannot always justify treating human beings as means by denying their subjectivity and autonomy. Throughout the biomedical history, there are so many examples, where the human beings have been objectified in the name of medical experimentations. The Nuremberg Trial (1947) is one such historic example, where the autonomy and the subjectivity of the involving subject had no place. The involving human subjects of that experimentation were completely objectified in the name of public health interest. However, if the matter were considered from the point of view of deontological approach then perhaps such type of de-humanization in the name of medical experimentation would not take place. Immanuel Kant was the foremost supporter of deontological ethics. For him, human beings, as rational moral

agents, have the full and equal moral status. They are persons, but non-human animals are not persons since they lack rational moral agency. If human beings as persons have the full and equal moral status then it would be morally wrong to treat human beings as objects (at least who are moral agents) by denying them their autonomy and subjectivity. According to Kant-

Man, and in general every rational being, exists as an end in himself, not merely as a means for arbitrary use by this or that will: he must in all his actions, whether they are directed to himself or to other rational beings, always be viewed at the same time as an end.⁵⁵

Thus according to Kant, rational moral agents are end in themselves and their autonomy and dignity would be respected if they are treated as ends only. Therefore, for Kant in order to protect the dignity and autonomy of rational moral agents, they should not be involved in biomedical experimentations. To treat persons merely as means is to disregard their personhood by exploiting them without regards to their own thoughts, interests, and needs. Consequently, it would involve a failure to recognize that every person has a worth and dignity equal to that of every other person. Even the contemporary philosopher John Rawls has also recognized the ideology of Kant. For Rawls, the vital moral consideration does not depend on individual happiness and majority interest; rather it depends on the individual worth, self-respect, and autonomy.⁵⁶

Here, one pertinent question that needs to be raised is—what would be the status of other human beings who are not rational moral agent yet, and perhaps can never be? If only rational moral agency is the pre-requisite condition for having full moral status then abortions, euthanasia and Human embryo Stem cell research would not be morally problematic issue. However, all these are very serious moral issues in

the present scenario of biomedical experimentations. So, the very concept of person and its pre-requisite criterion is not confined to the rational moral agency only. New Kantianism has amended the rational moral agency criterion. John Rawls as a follower of Kantian ideology, has recognized in his theory of justice that both actual and potential moral agency is sufficient for full moral status.⁵⁷ However, it excludes human beings whose disabilities prevent their ever-becoming rational moral agents, or ever returning to moral agency. Perhaps, that is why Rawls ultimately rejects the claim that personhood is a necessary condition for having moral status, though it is a sufficient condition for having moral rights. Tom Regan has also developed a criterion of moral status. For him if a being is capable of 'Subject-of-a-Life' then that being has the equal and full moral status.⁵⁸ By developing this criterion, Regan has extended the moral community beyond rational moral agent. The subjecthood is the sole criterion here. For Regan, we have direct duties not to harm those beings that possess the 'subject-of-a-life'. All subjects-of-a-life, have inherent value, so it is morally wrong to treat them as mere means. Regan also holds that moral agent and moral patient are equally morally considerable beings since they possess subject-of-a-life. It is to be noted here that if Regan's criterion of moral status, that is subject-of-a-life, were considered in strict sense then no experimentation that harms either human or animal subject-of-a-life would be justified. According to Tom Regan, sentient beings possess the 'subject-of-a-life' criterion, and therefore, they are equally morally considerable beings. Thus for Regan, both human and animals have the same moral status. Therefore, the denial of subjectivity of nonhuman animals in biomedical experimentations is as wrong as of human beings.

Inflicting unnecessary harm is another moral issue that has been raised in the case of experimentations on non-human animals (discussed in the third chapter). This

issue can be considered in the light of sentient criterion of moral status. According to the sentient criterion, any being that has the capacity to feel pleasure and pain is eligible for moral considerations. In this sense, both human and non-human beings are considered as sentient beings. If human and non-human animals are sentient beings, why their sentience are not equally treated? According to Peter Singer, who is a strong defender of sentient criterion, equal consideration of all sentient beings does not imply that they should be treated equally. For Singer, only sentient beings have moral status because they have interests. However, they have different interests. In addition, the capacity to experience pleasure and pain is a prerequisite for having any interest at all.⁵⁹ All sentient beings have the capacity to experience pleasure and pain, so their interest is a matter to consider morally. Singer points out that just because human beings are morally equal do not presuppose that they are equal in intelligence, strength, moral virtue and other empirical characteristics. Similarly, because other animals are less intelligent, does not imply that their interest should be disregarded.⁶⁰ Again, Singer has pointed out that although sentient animals are entitled to equal consideration of their comparable interests, it does not imply that they have equal moral value. For him, the comparable value of the interests of human beings is more than that of the nonhuman animals. While experimenting on sentient beings, from Singer's point of view, use of non-human animals is as wrong as the use of human beings, if it is done unnecessarily. It means, if the experimentation is done on either human or animals without having clear and distinct goals that satisfy the needs of society or ecosystems, and then such experimentation is not permissible from the moral point of view, according to Singer. As a supporter of preference utilitarianism, Singer allows some kind of experimentation on either human or animals, if there are no other options to achieve the goals. However, the significances of the goals or

purposes of experimentation are the matter to allow experimentations on sentient beings. The goals must satisfy the common interests, and then only experimentations on sentient beings would be morally permissible. If the goals do not satisfy the common needs' interest, then the whole process of experimentations would be worthless. Consequently, the involving subjects may be harmed or killed unnecessarily. Thus, Singers' position becomes clear that inflicting harm to any sentient being is a morally problematic issue if it is done unnecessarily. However if there is no other available and feasible alternatives, then only experimentation on sentient beings is permissible.

Life, sentience, moral agency are all relevant criteria of moral status and if they are followed individually in the strict sense of the term, then no sentient beings would be allowed to be involved in the biomedical experimentations. The deontological ethics have prohibited the use of any sentient beings in biomedical experimentations in the absolute sense. Utilitarianism's position, however, has allowed using sentient beings in experimentations to some extent. Concerning the use of animals or humans in biomedical research, Singer's view is comprehensive. For him, it would be unjustifiable from the moral point of view to use animals in biomedical research, if the investigators would not be prepared to use a human being in similar case of experimentations.⁶¹ Singer does not think it necessary to ban all painful or lethal research involving sentient beings. He says-“To save many lives by an experiment that would take just one life, and there were no other way those lives could be saved, it might be right to do the experiment.”⁶²

Thus, Singer's position has recognized some pragmatic justifications toward the involvement of sentient beings in biomedical experimentations. It is to be noted here that Moral status is a comparative notion.⁶³ Two beings can both have moral

standings, but one may be of higher moral status. Bentham has pointed out that all beings that are sentient count morally in their own right. It does not logically imply that all the sentient beings have equal moral status. All living organisms have some moral status, but those that are sentient have higher status than those that are non-sentient; and moral agents have a stronger status than could be based upon sentient alone.⁶⁴ Thus, different beings with moral standing may have different moral status. While considering the justification of involvement of sentient beings in experimentations, different moral status of different beings also need to be considered seriously. It is significant to be noted here that harming of sentient beings requires stronger justifications than that of simply living non-sentient beings. Similarly, harming moral agents requires the strongest justifications of all. Mary Warren has clearly mentioned this point in her moral pluralism. Why only non-human animals are permissible to be used in some experimentation, when human beings are not allowed? Though it seems to be a common sense belief or myth that human beings have greater and better moral status than nonhuman animals, yet it has also some legitimate grounds that Warren has discussed in her moral pluralism.

4.6. Experimentation with an ethical perspective

The purpose of biomedical research is to discover, improve or extend information about man, her bodily functions and her relationship to environment. The primary scientific standard of utility in bio-medical research is whether the observed phenomena can be produced in realistic manner.⁶⁵ Findings depending on other species may have general or specific validity for man, but the ultimate establishment of such validity must rest in each instance upon direct observations and experimentations on man. Therefore, at some point in any bio-medical research, the investigation must be performed either with human beings or with non-human

animals or with both, if that research fulfills its primary objectives. No doubt, there are some strong reasons or grounds from scientific point of view to justify the involvement of sentient beings in biomedical experimentations. The significances of sentient beings' involvement in biomedical research have justified that today's biomedical enhancement becomes possible only because of the involvement of human and nonhuman animals in different investigative experimentations. However, the scientific necessities are not the sufficient grounds now-a-days to justify the involvement of sentient beings in biomedical research. The increasing demand of sentient beings involvement in experimentation in the last few decades have turned our attention to the ethical grounds that need to be considered seriously now a days.

Science itself is said to be value neutral, because sciences never discuss the issues related to values. It is primarily concerned with the facts or state of affairs. However, the questions of value are necessarily attached with any biomedical experimentation that needs to be addressed properly to justify the sentient beings involvement. Bernard Towers in his article, *Medical experiments on human beings* has pointed out that the problem of medical sciences are related to the society involving people at all level; it is humanistic of all professions; and to remain humanistic, proper emphasis should be given to the human morals that include scientific morals also.⁶⁶ Bio-medical ethics, as a branch of applied ethics, deals with the questions of morals necessarily attached with any scientific investigations involving sentient beings. Sentient beings are not sensitive automata, as Descartes says. As living beings, they have some intrinsic properties. Due considerations of these intrinsic properties abstain them from unnecessary abuse. The questions of their dignity and value of life arise because of their intrinsic properties. Such types of value questions do not arise in the case inanimate objects. Therefore, while experimenting

with sentient beings the value questions need to be addressed before they are enrolled in experimentations. Now-a-days, there are some legal provisions also to protect the welfare of sentient beings, though it works only in papers in most of the countries. However, the strong ethical justifications can ensure the protection of dignity and sanctity of the involving subjects. That is why there is an urgent need to develop an effective ethical framework so that it can follow globally in order to protect the dignity and sanctity of the involving subject in any biomedical experimentation. It is to be noted here that though experimentations involve harms to the involving subjects, yet the pragmatic justification for the use of sentient beings in biomedical experimentations is undeniable. Even the moral justifications do not go away completely from the pragmatic justifications. The Utilitarian ethics has strongly established the practical utility of biomedical experimentations on sentient beings. Frankena has rightly pointed out the pragmatic significance of morality as follows- “Morality is made to minister to the good lives of individuals and not to interfere with them any more than is necessary. Morality is made for man, not man for morality.”⁶⁷

The pragmatic implications of morality are nothing but the day-to-day practices of morality. Morality that goes beyond our day-to-day practice is either too ideal or too impractical. In this sense of our everyday life practice of morality it is not possible avoid causing harm to others. It is impossible for human being to survive without some deliberate harm to the entities on which we are dependent. The view of Buddhism and Jainism are also too impractical in this sense. Mary Warren has rightly said that-

If we were gods, having neither biological needs nor physical vulnerabilities, then we might be able to treat the interests of all sentient beings as equal in moral importance to our own. We could, at least refrain from deliberately

harming such beings, since we would never need to harm them. But because we are only human beings, we cannot accord full moral status to all sentient organisms. It is not human hubris, but human vulnerability and need that compels us sometimes to put the interests of human beings ahead of the interest of other animals.⁶⁸

Warren thus clearly points out that at least some human needs (not greed) can justify the use of sentient beings in biomedical experimentations. she has also pointed out one very significant issue that the moral status of all sentient beings is not equal. It means there are some legitimate grounds towards our common belief that human beings have greater moral status than other nonhuman animals. These grounds need to be clear because it will help us to justify the involvement of human and nonhuman animals in biomedical experimentations. The ethical grounds that justify the use of non-human animals in experimentations are not sufficient to justify the use of human beings in experimentations, if human beings have greater moral status. Therefore, it is pertinent to address here-why human being enjoy greater moral status than other nonhuman animals.

It is to be noted here that though human and nonhuman animals are considered as sentient beings they do not have equal moral status. It is because there is degree of sentience. The sentient beings differ not only in the variety and in richness of experiences (pleasure and pain) but they also differ in the degree of 'subject-of-a-life' possessing mental aptitudes such as memory, anticipation of the future, thought, planning, and intentional action.⁶⁹ These mental aptitudes require high-level sentience and self-awareness. It is reasonable to say that normal adult human beings have possessed these high-level aptitudes and self-awareness. No doubt, behavioral scientists have proved that some higher-level animals also possess these aptitudes and

self-awareness. That is why some animals' rights advocates have tried to establish that at least some animals have equal moral status like human beings. However, one very significant point is to be raised here-what is the status of other human beings who lack the higher-level mental aptitude and self-awareness. According to Warren, Human beings (normal adult human beings) have greater moral status not only for their high-level mental aptitudes and self-awareness but also for their rational moral agency. Only human beings possess the rational moral agency, so they are persons.⁷⁰ Personhood is one very important intrinsic property that makes human beings to have greater moral status than other non-human animals. However, Mary Warren has pointed out that those beings are also equally morally considerable and equal moral status that has the potentiality to develop the rational moral agency. With the help of *the Human Rights principle*, Warren has tried to give the equal moral status to moral patients, who are yet to develop the rational moral agency like normal human beings. However, the issue of equal moral status of all human beings does not stop here, because there are some human beings who apparently do not have the potentiality to develop the rational moral agency at present. It remains now a very serious issue in the area of biomedical research. That is why the passive euthanasia is a morally problematic issue in bio-medical ethics still today, though in some cases it has been justified legally. For instance, the person who is in coma has no capacity to develop either rational moral agency or the high-level mental aptitudes at present. It also cannot be said that he is fully self-aware. He is simply being alive with the assistance of medical equipments. However, biomedical scientists have claimed the possibilities of the persons who are in coma to come back to normal stage. The formal principle of justice also demands the equal moral status of these persons like normal human beings, because they have the possibilities to develop the intrinsic properties for

which normal human beings enjoy greater moral status. This principle holds that it is impermissible to treat those who are not different differently, but permissible to treat the different differently.⁷¹ It clearly points out an indicator that whatever the properties that qualify humans for moral protection, if possessed by animals, would equally qualify the animals' protection. However, Marry Warren has somehow tried to settle this issue with the help of her interpretation of the various criteria of moral status. From her point of view, it can be accepted that human beings (either moral agents or moral patients) have possessed greater moral status than nonhuman animals. Here, the degree of sentience is an important factor that considers the greater moral status to some non-human animals than normal non-human animals. It is pertinent to consider that just as human beings' involvement in bio-medical experimentations needs stronger justifications, similarly some nonhuman animals' involvement also needs stronger justifications.

It has already been mentioned that in absolute point of view, if the matter is considered then it is impossible to allow use of any sentient beings, either human or nonhuman animals, in biomedical experimentations. However, biomedical necessity to use sentient beings is unavoidable for the advancement of medical sciences to provide better health care towards society. That is why, at least on behalf of the public health interest, sentient beings' involvement in biomedical experimentations is undeniable in the present day context, because the sentient beings' substitute models have yet to be developed fully. It may be one reason to justify using any sentient being in biomedical experimentations. However, the question can be raised- when does a need, an aim, an obligation become social? Another very significant reason is that though some substitute models have been developed by scientists (computer Models), but the issues of biomedical sciences are so complex now a days that such

substitutes don't work properly in all cases. Therefore, at least in some cases of biomedical research, it is unavoidable to use sentient beings for better results. It has now the legal requirement also that new drugs must be tested on non-human animals before it has been tested on human beings. Regarding the necessity of animals' use to progress in biomedical research, William Paton has said that-

Without animal experimentation, we would still have the physics of Newton and Einstein, but we would probably not have reached the biology and medicine of Greek physician Galen.⁷²

However, the necessity of the use of animals in biomedical research is very much linked with the goals of research. So while justifying the use of animals, one need to consider, simultaneously, the goals of research as well as the necessity of the use of animals to achieve those goals. Non-human animals are primarily used in basic and applied biology and medical sciences to ensure the scientific progress. It is the moral obligation of the physicians to treat sick people as well as save lives of people and animals. In order to do that the investigators must improve his knowledge of biology, and human and veterinary medicine. Therefore, there is an urgent need to carry out animals' research where there are no available appropriate alternative methods. However, it cannot be claimed that it is enough or sufficient justification to use animals in any biomedical research. Because, in the whole process of experimentation, how the involving subjects have been treated is a matter of ethical concern. The investigators have the obligations to humane care towards the involving subjects. The investigators must be alerted at any stage to safeguard the wellbeing of the involving subjects by avoiding or minimizing harms. Unnecessary harm goes against the welfare of nonhuman animals. Unnecessary harm means- if substitute models are available but still animals are used in experimentations; again, if

experimentation is done without proper plan and well-trained investigators having technically sound knowledge because of which the same experimentation may be done repeatedly. These factors also need to be considered to avoid the unnecessary harm of the involving subjects. To supervise these factors there must be the competent authority. In most of the countries, law has been enacted to administer the overall matters of experimentations. Thus, the justification of the use of animals in any biomedical research is not a simple matter now-a-days. It depends upon the nature of the goals or purpose of the research, the scientific necessity, and the investigators' duty of humane care to protect the welfare of the involving animals. The goals must be achievable otherwise, it would be considered impractical. To implement the *Animal Welfare Act* in different counties and to supervise the overall matters of animals' experimentations, law has a very significant role. Only Law can enforce the research institutions to obey the rules that would protect the welfare of nonhuman animals in any scientific investigations. Therefore, there is a global need to make laws that would protect the rights and welfare of nonhuman animals like human beings. In addition, the implementing agencies must be alert and strict for those who violate these laws. In the United States, the *Federal Animal Welfare Acts* a cornerstone, and institutions conducting research with animals have committees and they administer the experimentations involving animals.⁷³ Thus, the ethical justification for animal experimentations rests on- how far the welfare of animal has been secured and protected from unnecessary abuse in the name of experimentations. At a moral minimum, all non-human animals as sentient beings should be protected from unnecessary use in the name of progress of bio-medical science. Non-human animals are not only living and sentient beings; they are also the important part of the ecosystem. Therefore, it is our moral obligation to protect them from unnecessary use

in order to make our mother nature ecologically balanced. It is hoped that the capacities to feel pleasure and pain, to flourish in certain environments and to show friendliness with human community of some non-human animals would help the investigators in humane treatment of animals in biomedical experimentation. We all have the potentialities to develop such kind of holistic attitudes within us. Necessity of special obligations to some animals that have social relationships with us has often been recognized. If such animals are considered morally equal to us, if such animals' pain gives us feeling of sadness, why not it is possible to grow such attitudes towards other animals also. Marry warren has rightly described this in her inter-specific principles.⁷⁴

Some influential philosophers have argued that there is no morally relevant difference between human life and animals' life. Robert Nozick has argued that-

We need to justify our involvement of animals on a rational philosophical basis that takes account of their interests and suffering, and not merely their utility to human species. Any moral reasons sufficient to forbid certain forms of research on humans ...are also sufficient to forbid research on animals.⁷⁵

This line of argument has clearly showed that there is no sufficient reason to justify the claim that only human beings deserve greater moral protections. Bernard Rollin has also commented on this view that it would be the most powerful tool in the investigation of moral status of animals, if morally relevant differences can be defended.⁷⁶ It would imply logically that the moral concerns extended to humans must also be extended to animals. The view of Marry Warren is significant here, because she has mentioned the hierarchical order of moral status of sentient beings depending upon their degree of sentience. Therefore, for her the reasons that justify the use of nonhuman animals in biomedical research are not sufficient for the use of human

beings (either moral agent or patient) in experimentations. However, Warren has accorded with Nozick that the moral justifications of sentient beings' involvement in biomedical research should be based on minimizing the unnecessary harm or exploitation. This is the fundamental challenge of all biomedical research. Moreover, Warren has tried to settle this problem to some extent with the help of hierarchical idea of moral status of sentient beings.

It is pertinent to be noted that while the justification of human beings' involvement in biomedical research is considered, it needs to be considered from therapeutic and non-therapeutic point of view. In the case of therapeutic type of research, the involving human subjects themselves are patients. Here, the sick persons are treated with new methods and techniques for therapeutic purpose. In order to justify the therapeutic research involving human beings, it is obligatory to address the conflict between purpose and obligations faced by an investigator. The investigators have the scientific duty. They have the duty to conduct any trial and they are only responsible to produce scientifically valid results in the scheduled time. On the other hand, the investigators also have the protective duty. They have the duty to protect the involving human subjects from unnecessary abuse. In clinical research, this conflict is often raised. In addition, it is believed that in the structure of many clinical trials both the obligations cannot be fulfilled in a particular instance. That is why the conflict of obligation raised here is a serious moral issue. Which obligation would be prioritized by the investigations is a matter of dilemma. Arthur Schafer has argued that-

In a clinical trial, the physician inevitably puts himself in the morally ambiguous position of having two distinct and potentially conflicting roles. In his traditional role of healer, the physician's commitment is exclusively to his patient. By contrast, his modern role of scientific investigator, the physician engaged in

medical research or experimentation has a commitment to promote the acquisition of scientific knowledge.⁷⁷

Thus, in clinical research, the physician-investigator has the dual role to play and both the roles are primary from two different perspectives. The conflict that arises here is between the goal of therapy and the goal of experimentation. Serious moral issues arise in clinical research, if the patient's right to personal treatment has to be sacrificed completely in the name of scientific progress. Here, the informed consent has a very significant role to justify, to some extent, the clinical research involving human beings. The physicians must inform the research subjects regarding the available treatments, its possible harms and the comparative effectiveness of available treatments, if possible, before they have to be treated as a research subject. However, the moral legitimacy of clinical research requires more than simple consent. The research subjects are entitled to receive all the available information and they must be competent to understand it before they have given their consent in the true sense of the term. The purpose of the doctrine of informed consent is to make meaningful the research subject's right to autonomy and the concerned authorities must ensure that. Now-a-days informed consent is not only a moral requirement, but also a legal requirement for involving a subject in a biomedical research, either in therapeutic or non-therapeutic experimentations. In the clinical research, the physicians should prefer the involving subjects as a patient rather than a research subject to secure and protect their right to liberty and freedom. It is of course one way to reach at a balanced state between the conflicts of obligations. The individual (patient) interest and need should be given greater weight than the public interest. However, it would be injustice to make the individual patient a 'guinea pig' for the advancement of medical science. It can be mentioned here that the humane treatment of every

individual patient of a clinical trial can morally justify the therapeutic research. Such treatment of involving patient in medical research would make medical profession more and more humanistic.

However, in the case of non-therapeutic type of research the justification of the involvement of human beings depends on some more issues, which are also serious and debatable. These issues need to be addressed properly to ensure that the process of research involving human beings is morally acceptable. The factors that we need to turn our attention while justifying human beings' involvement in biomedical experimentations are –respecting the the autonomy and sanctity of life; unnecessary harm to the involving subjects; purpose of the experimentations, record keeping, results publishing etc. All these issues are serious, and they need in-depth studies that have been done in the second chapter to justify the experimentations involving human beings. However, all these factors need not to be considered in the case of experimentations on nonhuman animals. It clearly implies that human beings' involvement in biomedical experimentations needs stronger justifications. Worldwide, it has become a serious issue whether human beings' involvement in biomedical experimentations is justifiable or not. It is because, experimentation involving human beings is defined, in broad sense, as anything done to the involving subject to learn how it will affect him.⁷⁸ Its ultimate objective is to develop scientific knowledge than therapy. In non-therapeutic research, involving subjects are treated with new techniques and drugs for purely scientific purposes. This type of experimentation is also labeled as “research experimentations.” If medical progress were to depend solely upon the therapeutic research, bio-medical sciences and human health care might still be in the dark ages. In that sense, the ‘research experimentation’ has played a very significant role to attain the present stage of bio-medical advances that are

beneficial towards the human health. Now a day, the impact of human experimentation is not confined only to medicine and other biological sciences, but is also seen on behavioral sciences, sociological, political, economic, and military endeavors.⁷⁹ However, any experimentation involving human beings has the potentiality to enhance or diminish the welfare of humankind. Because of the potentiality that may result in unintentional harms to human beings, experimentation involving human beings is a right concern for international laws. Therefore, the prospect of success to protect the human subject in bio-medical research from abuse would depend upon the adequate implementation and enforcement of international laws. Here, the mutual agreement and cooperation among the sovereign nations is very much necessary. Thus, though arguments for and against the issue have been advanced throughout the biomedical history, it has been accepted in moral community that, at least, some experimentations involving human beings are justifiable from legal and ethical points of view.

4.7. Limits of experimentations

The discussion regarding the justification of the explanation of experimentation on sentient beings would not be complete without giving due consideration to the limitations of experimentations. Experimentation is essentially a refined and modified method of traditional empirical methods.⁸⁰ It is also known as manipulative or controlled observation. However, experimentation is not simply controlled observations. The recognition of what is being controlled and how and what conclusions are being sought are the important part of the experimentation itself. Such a tool may very well produce greater certainty about results than any other older methods. Today's rapid progresses of biomedical sciences have become possible only because of the experimentations that involve sentient beings as research subjects.

Since, the experimentations can give us certainty in knowledge immediately and easily, and greater certainty would involve the repeated experimentations with different techniques and procedures to the same subjects involved. Therefore, in order to discover new drugs and to ensure their effectiveness, repeated experimentation on the sentient beings is a scientific necessity. Replication of the same experiment with the same subject by applying different techniques and procedures serve as a way to attain greater certainty in knowledge and effectiveness of new drugs and new health care techniques in biomedical sciences. Biomedical science has moved towards certainty by following the experimentations in this sense. It becomes clear that the very meaning of experimentations involving sentient beings involves, necessarily, some complex moral issues that can never be rooted out completely. It can only be minimized with the help of adequate ethical and legal framework. Here, it is relevant to discuss the issue of unnecessary harm as a moral issue again to pinpoint the limitations of the experimentations distinctly.

Inflicting harm or killing unnecessarily the sentient beings in the name of advancement of biomedical sciences is a serious issue from both the legal as well as the moral point of view. Philosophers have been consistently attempting to develop the ethical framework in order to stop the unnecessary abuse of human and nonhuman animals in biomedical experimentations. However, some philosophers who are supporters of the consequentialism, have justified the harm or killing the subjects in the name of medical experimentations if there is no other alternative ways. Mary warren has strongly established that it is not morally wrong to kill or subject to pain or suffering, if there is no feasible way of furthering the goals. So for her, if there is appropriate alternative substitutes are available then there is no need to use sentient beings in experimentations. But, what is the way to be sure that there is no other

feasible way of furthering the goals is not clear here? Another important point to be noted here is that repeated experimentations on the subjects involved increase the level of certainty in knowledge. If that is the point, then investigators would not be satisfied or even sure about the result of experimentations with the substitutes models. The scientific community has deeply believed that the biomedical problems are so complex now-a-days, the substitute models cannot give us the accurate results in all cases. So the investigators always prefers the experimentations on sentient beings. It clears the fact that from the ethical point of view there is always the possibilities to harm the sentient beings unnecessarily through repeated experimentations. However, investigators would claim it to be necessary for the greater certainty. The very meaning of experimentations has clearly pointed out that repetition of the experimentation is an essential part of experimentations in biomedical sciences for increasing the level of certainty of its outcomes. Thus regarding the necessity of the use of sentient beings and the unnecessary use of sentient beings in biomedical experimentations, there is an inherent conflict between the investigators and the ethicists.

Mary Warren has pointed out that harms or pain is permissible, if it is sure that it would provide for well-being of human or animal and ecosystems as a whole. But well-being of the human or animal is a prospect of future which is uncertain, whereas harm is the present need. The question can be raised here- is it justice to inflict harm on sentient beings for uncertain goals? Warren has mentioned that-

Only the context can reveal whether an act that harms living organisms is morally objectionable, or whether an act that causes pain or death to a sentient being is cruel.⁸¹

Here, another important limitation of experimentations has uncovered. It is a fact that experimentation is always started with some assumptions or hypothesis that may be actually true or false. Sometimes, the falsity of the hypothesis becomes apparent during the middle stage of experimentations, and sometimes it appears after the whole process has been completed. Thus, there is always a potential scope of unnecessary abuse of sentient beings in any biomedical experimentation.

4.8. Conclusion

The overall discussion about the moral status of sentient beings makes it clear that moral status of sentient beings is not dependent on one single intrinsic property, as Schweitzer, Singer, Regan, Kant, Callicott and Noddings have described in their analysis. There are many degrees of moral status depending upon the various criteria. In the light of the varying degrees of strength, the moral status of all sentient beings is not to be considered as equal. Human beings who are the rational moral agents have the full and equal moral status. However, the infants and other sentient human beings who are not moral agents have the same moral status like rational human moral agent, on the ground that they are also the members of human social communities. Thus, while justifying the human beings' involvement in biomedical experimentations, both moral agents and moral patients needs to be considered equally. There are some non-human animals which are considered to have possessed the same mental capacities and self-awareness. However, still they are not to be considered as having equal moral status like human moral agents, because they are not the members of our social communities. It clears the fact that simply intrinsic properties are not sufficient to have full moral status. Both intrinsic and extrinsic principles are equally significant for having full moral status.

In any biomedical experimentation involving sentient beings, harm, pain, or death is unavoidable. Therefore, to justify the involvement of sentient beings in experimentations, some kind of individual sacrifice is inalienable for the purpose of common good. The ethicists have also recognized this fact. They have argued that experimentations in biomedical sciences would have not been possible if the harm or pain were considered to be morally wrong in absolute sense. As a result, the common people would be deprived of the better health care and medical sciences would be endangered. However, ethicists never allow the unnecessary harm or pain to the involving subject in the name of biomedical research. The humane treatment of all sentient beings, both human and nonhuman animals, involved in biomedical experimentation would protect them from unnecessary use. The degrees of moral status of sentient beings have also clearly pointed out that human beings involved in experimentations need stronger justifications than nonhuman animals. For instance, respecting the autonomy through informed consent is a legal as well as a moral requirement in order to justify the human beings involvement in experimentations. However, the question of informed consent does not arise in the case of nonhuman animals, though some of them have autonomy (preference autonomy) that ethicist claim. It is to be noted here that though ethicists have tried to minimize the unnecessary abuse of sentient beings in the name of biomedical research, the results of which may benefit the society, but it is not possible to root it out completely. The very nature of experimentations as tool of scientific investigations has clearly proved it through its characteristics. Again, ethicists have claimed that if there are some underlying sound reasons, then only involvement of sentient beings are justifiable. In the case of human moral agent, the reason must be the strongest. However, what

counts as sufficiently good and sound reasons to justify the human beings involvements in biomedical experimentations is still a debatable matter.

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