ONTOLOGICAL PERSONALISM AND THE ETHICS OF STEM CELL RESEARCH

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Matric No.: 131110

Being a Thesis in the Department of Philosophy Submitted to the Faculty of Arts in Partial Fulfilment for the Award of the Degree of Doctor of Philosophy of the University of Ibadan.

June, 2015

CERTIFICATION

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DEDICATION

This is dedicated to God for sustaining and preserving me thus far; also to my wife Celine, and my children, Oghenetega and Amaka for their love and patience; and finally to my parents, Sir and Lady Pius O. Edema.

ACKNOWLEDGEMENTS

I am eternally thankful to God, the Ancient of days for granting the grace, courage and strength to complete this task. May your name be praised. My special appreciation goes to my supervisor, Prof. Adebola Ekanola for the thousand duties he took upon himself to go through this work. I am grateful for your profound insight and ever ready assistance. May God bless you and your entire household with peace. (Amen). In a special way, l say a big thank you to the following people for their unflinching support and guidance throughout the period of this work: Prof. 'Dipo Irele, Prof. Isaac Ukpokolo, Prof. O.Oyeshile, Prof. C.O. Agulanna, Dr. C. A. Udefi, Dr F. Offor, Dr. Bolatito Lanre-Abbas,, Dr. A. L. Afolayan, Dr. A. L. Adegbindin, Dr. B. Ipadeola, Mr. D. Lawal and Mr. Layode; all of the Department of Philosophy, University of Ibadan. May God reward you all. I will never forget Profs. (Msgr) F. Adeigbo, O. Oladipo and K.A. Owolabi; all of blessed memory. I am grateful to these Professors for the knowledge they impacted in me and for their encouragements; may God continually grant them eternal peace and forgiveness of sins. (Amen). I also appreciate the contributions of Prof. Clement Adebamowo to this thesis at the initial stage.

I express my warmest appreciation to my beautiful and understanding wife; you are the fairest of women to me. If there is marriage in the "ideal world," l will choose you over and over again! To my children, Tega and Amaka, may God protect you and enrich you with wisdom, peace and bright a future. To my parents, Sir Pius and Lady Edema, l say a big thank you for bringing me up and believing in me even when life experiences were rough at a point. May you witness more goodness in Jesus name (Amen). I appreciate my brothers and sisters: Lucky, Tobore, Victoria, Ejiro, Gloria, Tony and Paul; l pray that God will bless the works of your hands and elevate you beyond your expectations.

My gratitude goes to the Management, Staff, past and present students of Don Bosco Institute of Philosophy, Ibadan, and Ss Peter and Paul Catholic Major Seminary, Ibadan, for their constant prayers, support, intellectual discourses and encouragement. May God's peace be with you all. I say thank you also to the Management and Staff of Lead City University for providing an enabling environment for me to complete this research. I likewise acknowledge the support and encouragement of my senior colleagues and colleagues: Profs. A. Ogunsanwo, J. Owoeye, C. Nwoke, A. Olukotun, V. Oshin, Drs. B. Oyedeji, E. Iwara, A. Amodu, A. Aluko (now with U.I), O. Olutayo (now with U.I), R. Badru, Oseni, S. Omotoso and Mr Dayo Kawonise. Special thanks goes to Miss Tope Akinpelu, Glory Ukwenga and Mr. Akinbowale for your supportive roles; God bless you.

My appreciation goes to the Catholic Bishop of Abeokuta Diocese; Most Revd. Peter Odetoyinbo; you were there for me, when others forsook me. May God enrich your ministry with joy and peace. Amen. Also to Fr Lawrence Nwachukwu, l say thank you for those times you stood by me. At this juncture, l give my profound appreciation to my good friends for the mutual complementarity that we share; Frs. A. Ogunyale, S. Babalola, F. Akinyode, Tony Omolade and C. Abobo. May God bless your vocation with joy and peace. To my very good friend and colleague, Dr. M. Abam; thanks for those moments we shared together from the days of studying for our Master Degree; also to John Thomas Olubunmi May God keep

strengthening our friendship. I say a big thank you to Mr Geoffrey Emmanuel, Edward Nyelong, Edmund Obilo, Chima Amadi and Vincent Mbachu. Thanks for friendship and encouragement.

To members of my extended family, l say thank you for your prayers. Above all, l thank all who in one way or the other, have contributed to the success of this thesis; God bless you all and may you enjoy peace all the days of your life. Amen.

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ABSTRACT

Embryonic stem cell research (ESCR), which involves the use of human embryo for research purposes, has generated serious debate over the status of the human embryo in recent times. Earlier studies by the pro-choice and pro-life theorists focused mostly on the functional and moral status of the embryo, but both failed to adequately conceptualise the ontological status of the embryo which gives substance to its personhood and moral status. This study, therefore, critiqued earlier positions on the personhood of the embryo and proposed Kant and Wojtyla's personalistic ethics which states that personhood intrinsically subsists in the human embryo. This is with a view to establishing that the embryo is a person that should not be destroyed for the sake of research.

The study adopted as framework Kant's Categorical Imperative, which rejects the instrumentalisation of the human person, and Wojtyla's Personalistic Norm, which states that the embryo is an individualised substance with a distinct unity of essence. Selected works of Kant, particularly *Fundamental Principles of Metaphysics of Morals* (FPMM) and *Groundwork of Metaphysics of Morals* (GMM), and works of Wojtyla, especially *Love and Responsibility* (LR), *Destined for Liberty* (DL) and *Person and Community* (PC), were used. These works deal extensively with ethics and the ontology of persons. The analytic method helped in clarifying such concepts as stem cell, human embryo, personhood, and ontology. Critical method was employed to examine the arguments for and against the personhood of the embryo, while the reconstructive method combined Kant and Wojtyla's ethical theories to establish the personhood of the embryo.

Works by pro-choice and pro-life theorists offered a reductionist-functionalist account of the human embryo, thereby presenting a false anthropology of the status of the embryo. But, works by Kant showed that, ontologically, all human persons have moral value and as such should be treated as ends in themselves and never as means only. Furthermore, the Kantian principles of respect for humanity and universality showed that there is a moral duty to preserve human life at all stages (FPMM and GMM). These principles support Wojtyla's ontological personalism which affirms the personality of the embryo even at the incipient stage of development (LR, PC). This is because the embryo is a unique, individual person with its own distinct essence and this renders it sacred and inviolable at every moment of existence (LR, PC and DL). There is no scientifically non-arbitrary point, and morally significant difference between the embryonic and the adult stage of humans, as the human embryo contains exactly the same amount of genetic information as a full adult. These further supports Wojtyla's ontological personalism, that the embryo is not different from the adult person in kind. Hence, embryonic stem cell research is a destruction of the human life at its incipient stage.

As it is not ethical to use adult persons for research in ways that would be detrimental to their lives, so also, stem cell research is unethical because it is injurious to the being of the human embryo.

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Keywords: Human embryo, Ontological personalism, Personhood, Ethics of stem cell research.

Word count: 495

Introduction

The study of stem cells, which is considered the "Holy Grail of Medicine", that is something that is greatly desired or sought after has a massive impact on almost all aspects of medicine. Stem cells are unspecialized blank cells that can replicate in their natural state and can also generate specialized cell types of the body, such as heart or liver cells. They are found in humans from the moment of conception till death. Their unique capacities can open up radically new avenues for studying human disease, developing treatments for currently incurable diseases and for testing new drugs. These probable roles for stem cells consist not principally in merely halting diseases, but, they could also be used to replace damaged tissues and organs.[1] These characteristics make them valuable for research and therapy.

There are different types of stem cells, namely, embryonic stem cells, adult stem cells, embryonic germ cells, hematopoietic stem cells, cord-blood stem cells, and neural crest stem cells. For our immediate discussion, we shall focus on only two of these. First is adult stem cells, which are basically found in adult persons. They are undifferentiated cell discovered among differentiated cells in a tissue or organ that can renew itself and can differentiate to yield some or all the major specialized cell types of the tissue or organ. Their functions in a living organism include to maintain and repair the tissue in which they are found. Second is embryonic stem cells that are derived from human embryos. Human embryonic stem cells are taken from the inner cell mass of a blastocyst, which is a very early embryo.[2] The blastocyst is a pre-implantation embryo that develops five days after the fertilization of an egg by a sperm. It contains all the genetic and intra-cellular materials necessary for the development of a complete human being. The blastocyst is a very small hollow sphere of cells[3]. These cells are valuable scientifically because of their ability to replicate themselves indefinitely without undergoing senescence; ageing and death. In other words, they are 'immortal.' They have the capacity for unlimited propagation. Embryonic stem cells are pluripotent, and they could differentiate into many cell types in tissues including blood cells, cardiac and skeletal muscle[4] to mention but few.

Presently, of the two types of stem cells, scientists are more interested in embryonic stem cells because they are more flexible, and have greater potential to produce every cell type in the human body. They are also relatively easier to collect, purify and maintain in the laboratory than adult stem cells[5].

The scientific community has discovered that human embryonic stem cells would be appropriate for therapy and regenerative medicine. This is as a result of their ability to become any of the cell types in the human body. They can also be derived from a very early stage in human development. Put simply, they can be used in many ways. Adult stem cells on the other hand, generally have a more limited capacity to differentiate into various cell types of their tissue of origin.[6] In other words; adult stem cells are not considered as versatile as embryonic stem cells for therapy and regenerative medicine. Hence, given the massive potentiality of the embryonic stem cell, scientists worldwide are researching into it, even though most promises of the embryonic stem cell are still far from being realized and it is not even certain whether or not they ever would be. On the other hand, thousands of lives have been saved with the use of adult stem cells, most often in the form of "bone marrow transplants" for leukemia and other health conditions such as Parkinson's disease, spinal cord injury, and heart damage.[7]

Apart from scientists, ethicists, theologians, philosophers, and legal practitioners, other professional and scholars are also interested in stem cell research. They are, among other things, concerned with the ethical implications of the research. Some of them find embryonic stem cell research to be morally objectionable for the reason that when scientists remove the inner cell mass, the blastocyst losses the potential to become a fully developed human being. Hence, the embryo is denied the opportunity to develop into a full human being in the name of research or scientific experimentation. For critics of embryonic stem cell research, human life begins from conception and the human embryo possesses full human status from the moment of their 'creation.' Others do not view embryonic stem cell research as morally objectionable because the embryo is not seen as having a moral status. They assert that human embryos are mere cells that lack the characteristics on the basis of which we accord moral worth to the human person. Therefore, they are useful instruments for research in order to alleviate suffering.

Statement of the Research Problem

The fundamental problem of this research is to determine whether or not the human embryo should be used for research at all in a way capable of destroying the embryo and preventing it from developing into an adult person. In addressing this problem, philosophers and other researchers generally confront a number of vital and related questions, such as: Is the human embryo an actual moral agent that could be so respected and, thus, not be used for scientific

research? Is human embryonic stem cell research morally justifiable? Do the scientific benefits of the human embryonic stem cell research outweigh its ethical concerns? Is it ethically necessary to advance a normative framework to serve as a moderating factor to scientific research on the human embryonic stem cell research?

The problem of the moral status of the embryo has attracted the attention of philosophers and other researchers over the years, particularly the pro-choice and pro-life scholars. The major dispute, between the opposing groups in the debate on embryonic stem cell research, is essentially about whether there is something about the human embryo that in anyway remotely suggests that it can be of the same moral and ontological status with a fully developed human person. In other words, could there be any parameter(s) for comparing the psychological and physiological components of the embryo with an adult person?

The pro-choice thinkers led by Peter Singer, Bonnie Steinbock, Michael Gazzaniga, Michael Tooley, Ronald Lindsay and others argue that the embryo cannot be regarded as having the moral status of a fully developed human being, therefore, it could be used for research that would benefit people and alleviate suffering. For instance, Michael Tooley is said to be unequivocal in his view that the concept of a person is a purely moral concept, free of all descriptive content. For him, "an organism possesses a serious right to life only if it possesses the concept of a self as a continuing subject of experiences and other mental states and believes that it is itself such a continuing entity."[8] In his later work, he defended a similar position but in a revised form. He listed five requirements that determine who a person is. They include: the capacity to envisage a future for oneself, the capacity to have a concept of a self, being a self, self-consciousness and the capacity for self-consciousness. Though he insisted that all persons have a serious right to life, but this right is limited by his restrictions on the class of persons. Ronald Lindsay objected to the view that the human embryo is equivalent to a human a person because the opponents of stem cell research failed to provide a clear theory on its moral status. In other words, they failed to identify which capacities or properties, intrinsic or relational, qualify an entity for moral respect. Is it rationality, the capacity for moral agency, sentience, social relationships, or some combination of these that constitutes a necessary or sufficient condition for moral status?

However, pro-life theorists contend that since it is a scientific fact that life begins at conception, then it is morally unacceptable to deny that the embryo is a moral agent and a person. Pro-life theorists argue that the human embryo is ontologically a person from the

moment of conception. They base their arguments on the biological status or development of the embryo. Biologically, the embryo is a uniform organic structure, which is unequivocally human *ab initio*, and also teleologically structured towards adulthood under proper conditions. It is further characterized by three basic principles: by the principle of coordination, that is, all organic activities of the embryo are highly coordinated, leading to the same goal; by the principle of continuity, that is, there is no meaningful break in the developmental process of the embryo and lastly; by the principle of graduality, that is, all phases of the embryo's development is already contained in the gene pool.[9]

Following from the above, an unavoidable conclusion is that the end-point of the process of development of the embryo is a human person. That is, it is reasonable to think that since there is a deep ontological difference between the starting point, no existence of any human being, except the man and woman and the conclusive point, the birth of the child, there must be "in between an event" meaningful discontinuity that is clearly distinguishable and that can justify the coming into existence of the new human being. For instance, death is that event, meaningful discontinuity, that clearly marks out the moment in which a person stops existing biologically to give way to a corpse. The considerations made based on the scientific evidence lead to the claim that the only moment of clear discontinuity at the beginning is the moment of conception.[10] Therefore, we may conclude that the ontological status of an embryo is that of a person or human being from the moment of conception.

In establishing his position, Dennis Sullivan argues that the criterion adopted by the functionalists (those who limit personhood to some basic human features), is faulty. He contends that if we are to follow their line of thought, it would mean that when human adults lack awareness, when asleep or under anaesthesia, their personhood becomes questionable.[11] Sullivan asserts that all human beings are human persons. His position is based on the premise that a human being is a substance. Substance here means a distinct unity of essence that exists ontologically prior to any of its parts. This traditional concept dates back to Aristotle and St Thomas Aquinas. On this view, the intrinsic quality of personhood begins at conception and is present throughout life. Such individuals are not potential persons or 'becoming' persons; rather they are persons by their very nature. There is no such thing as a potential person or a human non-person.[12]

He further expanded the above using the illustration of a classic automobile, in justifying his argument on the personhood of the embryo when he said:

> ...consider a nicely restored 1957 Chrysler. Many of the original parts have rusted away and have been replaced, so that this vintage car is a collection of old and new. Although many will refer to it as the same car as when it was new, intuition tells us that this is not the case. In fact remove the wheels, the motor (engine), the seats, and the body, and the result is no longer a 1957 Chrysler; it is not even a car. To go still further, imagine adding other parts to the original chassis, such that the result is a 1972 Volkswagen Beetle. There is no continuity of essence between the two vehicles; each is nothing more than a collection of parts.[13]

The basis for his submissions remains that there is no continuity of essence between the two vehicles, while there is continuity in human nature as explained above. This is because the human person's essence and substance is not and should not be defined by his/her component parts. Peter Kreeft says that following the analysis of supporters of stem cell research, especially human embryonic stem cell research, one would find a common premise hidden in their arguments.[14] This is a premise of functionalism; that is defining a person by his or her functioning or behaviour. He premised his reasons on the fact that a behavioural definition is proper and practical for scientific purposes of prediction and experimentation, but it is not adequate for ordinary reason and common sense, much less for good philosophy or morality, which should be based on common sense. He argued further that when we say some human beings are not persons, it means only achievers, only successful functioners, only sufficient intelligent performers, qualify as persons and have right to life. Who determines what 'sufficient' is? He says the line can be drawn at will - the will of the stronger. By extension, nature, reason and justice are then replaced by artifice, prejudice, and power. For example, when it is in the self-interest of certain people to kill certain other people, whether embryos/foetuses, or the dying, or enemies of the state, or Jews, or heretics, etc., the killers simply define their victims as non-persons by pointing out that they do not meet certain criteria.

In spite of these attempts at establishing a basis for the personhood of the embryo as a moral agent, the question as to its basis still persists. This is because neither of the two schools of thought (pro-choice and pro-life) agreed on what constitutes the basis for the personhood of the embryo as a moral agent. Therefore the moral question of whether or not to use the human embryo for scientific research and what constitutes the moral status of the embryo persist and constitute the central question of this research work.

Statement of the Thesis

The thesis of this study is that the human embryonic stem cell research is morally unacceptable on the ontological ground that the human embryo is a person; though, at the incipient stage. Using the ethical framework of ontological personalism, which is derived from the composite of Immanuel Kant and Karol Wojtyla's moral philosophies, the work argues that human embryo is a person. Thus, it should be duly accorded the moral worth normally given to adult human persons. The ontological personalism better understood in the axiom, "agree sequito esse- action follows from being", implies that existence – being – precedes functionality in so far as it is that which exists that functions. In other words, a human person does not come into existence when human function arises, but rather, a human person is an entity who has the natural inherent capacity to give rise to human action and functions, whether or not those functions are ever attained. Following from this, since the human embryo has this inherent capacity from the moment it comes into existence, he is a person as long as he exists. To this extent the central position of the present research is that human embryos are persons and should not be used in embryonic stem cell research.

This work recognises that biological sciences have been able to prove beyond reasonable doubt that the human embryo is the beginning of a new human life and also that the human embryo permanently maintains its own identity, individuality and unicity, being uninterruptedly the same identical individual during the whole process of development. Therefore, from the fusion of the gametes, the embryo is a real human being, not a potential individual. In addition, it is a fact that the human embryo contains exactly the same amount of genetic information as a full adult. This means that the human embryo is not different from an adult person in kind; the difference is only in degree in terms of age, size, weight and gender.[15]

Following from the above scientific conclusion on the human embryology, it is appropriate to state that personhood can be attributed to the embryo. It is worthy of mention that Kant did not mention specifically anything on the human embryo in his entire work that we know of; however, there are certain moral principles in Kant's ethical theory suggesting that personhood can be ascribed to the embryo even at the incipient stage of life.

The Kantian ethical principles could be said to disagree with the idea of embryonic stem cell research because it is morally wrong to exploit and destroy developing human life for any reason. Besides, using human embryos for research purposes violates the Kantian principle of

our positive duty to preserve human life. In addition, it is appropriate to ask that if we were embryos, using the Kantian principle of universalization, can we consistently support the use of embryos for scientific experimentation and thereby stand the risk of death in the process of being used for embryonic stem cell research. The reasonable answer will be in the negative. If we put ourselves in the place of the embryo, it is not likely that someone would accept to be exploited and killed for scientific purposes. Hence, from the foregoing, it does not seem that anyone can consistently will that embryonic stem cell research becomes a universal practice. Besides the maxim "always preserve human life" would make research on embryos morally unacceptable without exception.

Following from the above, stem cell research violates the second formulation of the Kantian categorical imperative which says, "act so that you treat *humanity*, as much in your own person as in the person of every other, always at the same time as an end and never as the means." It violates the personhood of the embryo and it is for this reason that it should be rejected. Here it could be inferred that Kant considered "human dignity" not only as the value of the rights of each individual, but as the value of "humanity", which as universal value belongs to all the humankind, including the embryo. Besides, the Kantian principle of 'an end in himself', doesn't apply to each individual separately, but to the humanity in each person. The reason is that since science has established that the embryo is a distinct individual from conception, it logically follows that it is part of the humanity Kant was referring to -when he said we should treat humanity with respect.[16] In one of his works; *The Stem Cell Slide: Be Alert to the Beginnings of Evil*, Michael Novak uses the Kantian formula of humanity as a theoretical ground for rejecting the use of human embryos for stem cell research. He affirmed that, one must not use a human being as a means for even the noblest of ends. To use stem cells obtained by killing human beings in their embryonic stage is using them as a means.[17] It is not enough to say that the wicked deed has been done - that the embryos have already been killed. The purpose of that killing was to obtain the stem cells. In fact, one must not or may not implicate oneself in that process, not even for the noblest and most beautiful ends. The physician philosopher and theologian Fuat Oduncu[18] argues that the human embryo, as it were, is conceived as a human being from the moment of its conception. Therefore, for Oduncu, human beings are persons and as such are ends in themselves. The mere membership of humanity creates and preserves the fundamental value of human dignity until death.

Andrew Sullivan[19] also argues in support of the humanity of the embryos. In *The New Republic* of July 30th, 2001, Sullivan, observed that scientists would say a human is defined by its DNA - the genetic coding that makes our species different from others. Stem cell research proponents say we are defined by our DNA and our stage of development. They argued that the embryo-blastocyst is so unformed that it cannot be equated with the fetus, let alone with an adult. But it remains a fact – indeed one of the marvels of creation – that an embryo contains exactly the same amount of genetic information as any human person. He added that in some senses, a blastocyst is the purest form of human being - genderless, indistinguishable to the naked eye. It is as unique as any other human being who has ever lived or ever will. This, for Sullivan, justifies the Kantian inclusiveness of the embryo as part of humanity. On the issue of the humanity of the embryo, Nobuo Kurata[20] also asserts that no one doubts that human life in the biological sense exists from the moment of fertilisation, which implies that humanity starts from fertilization. Secondly, human dignity is not simply the dignity of each individual, which is protected by respecting the rights of an individual person. Human dignity is based on the value indicated by the more abstract word, "humanity".

It is inferred from Kant that the value of human dignity is one of humanity, which is inherent in each person, and it is the value of a normative fact that someone is human. Thus, because humanity equals being human, human dignity means the universal value for the mankind as a class. The meaning of the word 'human' is not solely biological. For instance, if human in the concept of human dignity is limited to homo sapiens in the biological sense, to respect the value of human dignity implies the biological individual belonging to homo sapiens as a species should be respected. However, if dignity is regarded as the value of humanity, its meaning goes beyond the biological sense.[21]

From the above, we could conclude that, the human embryo is also an entity with the potentiality to become a child, that is, a member of our moral community or mankind as a class. Implicitly or explicitly, we have responsibility to protect this weakest member because it is our duty to do so.

Karol Wojtyla's basis for ascribing personhood to the embryo is derived from the biological fact and a deep philosophical reflection that the human embryo is not pure potentiality but a living and individualized substance. The human embryo is undoubtedly a being in whom, as in all living substances, the principle of development and change is within the substance

itself. It is really this internal principle that determines the embryo's development, and not any external factor such as, the mother. Given these, the expression that the embryo is potentially human is equivocal and misleading. Rather, the embryo is potentially a child, or adult, or potentially an old man, but it is not potentially a human being.[22] It is already human.

For instance, when Wojtyla speaks of the embryo ontologically as a person and as an individualized substance, he means that an embryo is a substance with a distinct unity of essence that exists ontologically prior to any of its parts, such as rationality and self-consciousness. When Wojtyla speaks of substance, he was referring to that which has being in itself, which belongs to itself and not another.[23] For instance, remove an arm or a leg from John Doe and he remains a person; in fact, the same person. You can amputate all of John's extremities and even remove many organs; as long as he remains alive, his substance will never change. You can even "add new parts," by transplanting organs from other persons; yet John Doe will never become James Smith; his substance is not defined by his component parts. He will always remain the same person. Succinctly, an individual as substance has continuity from one moment to the next. The individual is the same person as he was one week ago, one year ago, or ten years ago in spite of any physical transformation. This makes Wojtyla's argument clear that the unborn children are indeed persons and do not become persons at some stage of development. In other words, personhood subsists in the embryo even if it is not conscious. Therefore, the understanding that human person must have at least minimal exercisable cognitive capacities, and that those entities having such capacities are the bearers of rights is wrong.[24]

Based on these, Wojtyla explicitly affirms that an embryo cannot be denied personality in its most objective ontological sense; although, it is true that it is yet to acquire step by step, many of the traits which will make it psychologically, epistemologically and ethically a distinct personality. While arguing for the personhood of the embryo, nonetheless, Wojtyla begins by noting a certain difficulty when he says, "even if the presence of a spiritual soul cannot be ascertained by empirical data, the results themselves of scientific research on the human embryo provide a valuable indication for discerning by the use of reason a personal presence at the moment of its first appearance of a human life: how could a human individual not be a person? [25]

Following from the above, Wojtyla clearly abhors stem cell research involving the embryo. He sees such act as immoral and as assault on human life. For instance he said:

> Human life is sacred and inviolable at every moment of existence, including the initial phase which precedes birth. Human embryos obtained in vitro (or otherwise) are human beings and are subjects with right: their dignity and right to life must be respected from the first time of their existence. It is immoral to produce human embryos destined to be exploited as disposable biological material...There is no use pleading here that not all human beings are persons because 'person' means someone with consciousness or the capacity for communication or the like which the unborn and the very old lack...The mentality which carries the concept of subjectivity to an extreme and even distorts it, and recognises as a subject of rights only the person who enjoys full or at least incipient autonomy and who emerges from a state of total dependence on others. But how can we reconcile this approach with the exaltation of man as a being who is not to be used. [26]

Wojtyla's condemnation of human embryonic stem cell research and other related research is based on his philosophy of personalism, which employs a variant of Immanuel Kant's second formulation of the categorical imperative, that "whenever a person is the object of your activity, remember that you may not treat that person as only the means to an end, as an instrument, but must allow for the fact that he or she, too, has, or at least should have. distinct personal ends."[27] Scott Sullivan explains clearly that persons may not be treated as instruments. Instruments have their ends chosen for them. This does them no harm if they are not capable of choosing them anyway. A person, however, is an end-chooser; the role of a blind tool or a mere means to an end determined by someone else is contrary to the nature of a person. Furthermore, if one hires a plumber, one could treat that plumber as a mere means to an end; that is, by not paying him a fair wage. However, a just exchange will fulfil the personalistic norm; because justice is giving one his or her due, respecting the natural goods that are involved in a given action.[28]

On the other hand, to cause a natural deprivation, a privation; to directly stifle or attack the natural goods of the person in order to get something out of it is to 'instrumentalize' the person in some way. For instance, embryonic stem cell research instrumentalises persons by not respecting the natural good of freedom in order to acquire cheap labour. The quarrel of Wojtyla with scientists projecting embryonic stem cell research is that he thinks they are distorting the real image of the human being. He asks, how could a human individual not be a person?

Again, by using the human embryo as an instrument of research, Wojtyla asserted that such an act contradicts the personalistic norm that views a human being as a being for others in interpersonal communion. Wojtyla's notion of interpersonal relationship is clear from his analysis of the 'chain of relationship' where he argues that there is no such thing as a potential human person. What we have is an actual human person that exists in different stages of human development. The chain of relationship of Wojtyla is a reminder that all of us are dependent on one thing or the other. For instance as the embryo/fetus is dependent on the mother for many things, so also the mother depends on society for many things. As the freedom of life which the 'chain of dependence' calls for must be respected at all costs. Therefore, Alasdair MacIntyre supported Wojtyla's view in one of his works, *Dependent Rational Animals*, he observed that as much as humans strive for independence, the human person necessarily relies on others. In the first place, he depends radically on God as the source of his being. Besides, from the moment of conception, he depends on other persons for survival and development, and this interdependence is a hallmark of human existence. On this note, we submit that the embryo should be accorded the moral status as any other fully developed human person.[29]

Within the African cosmology, there seems to be a support for the personhood of the embryo. According to Ebunoluwa Oduwole, there is a sense in which the embryo could be described as a person and as human. The embryo possesses the *ara, emi* and *ori* which are necessary to be able to achieve the normative character as one goes on interacting with the society. She says, *ori,* the bearer of human destiny suggests that there is life and individuality before birth that need to be actualised hence; the embryo has a right to live to actualize this destiny. The Yoruba idea or notion of the person from another perspective supports the potentiality argument. They often say *eyin ni di akuko* (it is the egg that become the hen). They believe strongly that there are many developmental stages in life. For instance, there is the early, middle and late. Life has to begin somewhere. Life begins at the moment of conception and it is at this moment that a human being is biologically under construction from early to middle to late and then birth[30]. Besides, the Yoruba, from all available indications, will want to say that life begins at conception and the embryo is a human being. If we examine the idea of *ori,* the embryo is an individual that has a right to life from the moment of creation. Rather for the Yoruba to say the embryo/fetus is not a person because it cannot perform certain functions, the Yoruba will consider that the embryo will grow or develop to have ability to perform such higher functions.[31]

Etienne Kabore submitted that the status and the identity of the human embryo begins from conception to birth and there is no other existence for the being in formation than life-*Breath-Spirit-Genie*. Breath accompanies vital movement and Spirit and Genie are symbols of incarnation. All characterize life *in utero* and the first moments of earthly life. It, therefore, can be inferred that a human person is thus metaphysically conceived as more than just a material or physical object.[32] For Ekennia Justin, among the Igbo's, the concept *chi* is essentially metaphysical. It is a unique life force, which each person possesses. In fact, no two persons have the same *chi*. It is conceived as the Igbo principle of individualisation, which makes each person unique and irreplaceable. *Chi* is present at birth and exist in the embryo; meaning that at the very moment of conception, the embryo is a human person. Other aspects of the person such as the psychological, sociological and cultural functions are not given at the very beginning of one's life, but attained after one is well along in society.[33]

Objectives of the Study

The research aims at the following:

1. Expound the nature of stem cell research as an emerging biomedical technology;
2. Show that embryonic stem cell research is an immoral avenue towards creating therapy for alleviating human 'suffering';
3. Conceptualise an adequate and proper ethical framework to moderate the activities of scientists in stem cell research and propose a synthesis of Kant's deontological theory and Wojtyla's personalistic ethics as a possible ethical framework for stem cell research;
4. Show that pro-choice arguments for embryonic stem cell research are weak and unsustainable, while pro-life's arguments against embryonic stem cell research are essentially correct;

Methodology of Study

This work adopts the methods of conceptual analysis, critical thinking, reconstruction and comparative analysis to achieve its aims. The method of conceptual analysis was employed to clarify the precise meaning of concepts such as stem cell, human embryo, adult stem cell, personhood, moral status, ontology and personalistic ethics. This enabled us achieve coherence and logicality. The method of comparative analysis helps us to appreciate and understand conceptual issues relating to the personhood and moral status of the embryo from

the perspective of the pro-choice and pro-life theorists. Critical thinking helps us to examine the strength and weaknesses inherent in the various arguments presented by pro-choice and pro-life philosophers on the moral status of the human embryo. It enables us to show the ethical inadequacies in biomedical research technology. Above all, the reconstructive method combined Kant and Wojtyla's ethical theories to establish the personhood of the embryo.

Justification of Study

The most significant justification of this study is premised on the fact that at present, scientific advancement in biomedical research attempts to redefine the nature of the personhood of the embryo without proper and adequate anthropological understanding of human nature. It appears that the world is becoming "unsafe" with series of scientific and technological advancements in the name of freedom and scientific progress. These advancements include: embryonic stem cell research, preimplantation genetic diagnosis, enhancements of human physical or mental capabilities, the practice of regenerative medicine, the uses of nanotechnology, and re-engineering the human species. Some of these scientific progresses may be good in themselves; however, it remains a fact that some of them may distort the true nature of man. It is also appears that the goals of some of these biomedical progress may not benefit humanity as it were. What the world is experiencing is that biomedical progress or advancement as the case maybe has expanded beyond its medical confines to challenge humanity's claims to a unique dignity and to the moral entitlements we deserve. Human persons are unique and irreplaceable entity endowed with moral self-worth.

This work is therefore justified because it attempts to systematically synthesise the philosophies of Kant and Wojtyla in addressing the problem of the moral status of the embryo. Their moral philosophies which we termed ontological personalism, reminds us that the human embryo is not an object of experimentation, but rather an entity that deserves respect and dignity. Ontological personalism therefore would serve as an ethical parameter when research on human subject is brought to the fore.

Contribution to Knowledge

This work propagates and also deepens the view that though stem cell research, particularly embryonic stem cell research, may be scientifically interesting, it does not follow that it is morally right. It also advances that the synthesis of personalistic ethics of Kant and Wojtyla

offers an adequate ethical framework to guide the conduct of research, especially in relation to humans.

While this research contributes to the volume of extant literature on the nature of stem cell from the ethical perspective, but deviates from them in the sense that even though Immanuel Kant and Karol Wojtyla have been voices clamouring for the sanctity of human life, this will be the first time their views are synthesised and brought to bear on the contemporary academic debate on human embryonic stem cell research.

The outcome of this study will also be of immense scholarly interest to researchers and students of philosophy in general and bioethics in particular, as well as other experts in the applied philosophy and biomedical field.

Chapters Analysis

This study is divided into six chapters:

Chapter One
Nature of Stem Cell Research

This chapter examines the nature of stem cell research. It also examined the classification of stem cells, origin of stem cells, the similarities and differences between embryonic stem cell and adult stem cell and discussed the historical antecedent and objectives of stem cell research. All these analyses point to the fact that stem cell research is an important and major area of biomedical research. The chapter concluded and highlighted that there are a number moral challenges the research in stem cell has generated especially as it concerns the use of the human embryo in experimentation and therapy for individuals suffering from deadly or terminal disease.

Chapter Two
Ethical Issues in Stem Cell Research

This chapter examined some of the major ethical issues stem cell research has generated, specifically the human embryonic stem cell research are examined. Given these issues, arguments in favour of and against stem cell research were analysed. Most of the arguments presented by pro-choice and pro-life scholars revolve around the moral status of the human embryo.

Chapter Three
Stem Cell Research and the Question of Personhood

This chapter examines the question of the personhood of the human embryo from the perspectives of the pro-choice and pro-life schools. It also examines the question from some African perspectives. The pro-choice school in their submission stated that the human embryo do not have the psychological, physiological, emotional and intellectual properties that we tend to associate with personhood. In other words, embryos, particularly the early pre-implantation blastocysts involved in stem cell research, do not, for instance, have consciousness, individuality or the ability to reason. It is on this basis that prominent pro-choice thinkers like Katrien Devolder, Peter Singer, Helga Kushe, Ronald Lindsay and Elizabeth Ascombe submitted that the human embryo does not have the same moral status as persons.

In response to pro-choice submissions, the pro-life school, resorting to science and philosophy, argues that the human embryo is intrinsically a person. For the pro-life school, the most important issue about personhood is not the present possession of the capacities of a rational being, but having a nature that is ordered or directed towards the actualization of these capacities. Some African perspectives, which seem to be similar to the position of the pro-life school, are examined.

Chapter Four
Kant's Duty Ethics and Wojtyla's Personalistic Ethics

In Chapter Four, we exposed the moral thoughts of two great thinkers: Immanuel Kant and Karol Wojtyla. The chapter affirms that Wojtyla's personalism is not primarily a theory of the person or a theoretical science of the person. Its meaning is largely practical and ethical. Kant's morality is described as a duty based moral philosophy. The supreme principle of his moral system is the categorical imperative, which in various formulations requires the universality of moral judgment, respect for humanity in oneself and others. This chapter argues that while Kant emphasises moral duty towards respect for the other, Wojtyla's personalistic ethics though offering similar advantages to other ethical theories, warrants more protection to the human person.

Chapter Five

Implications of Kant's and Wojtyla's Ethical Theories On Stem Cell Research

This chapter focuses on the implications of Kant's and Wojtyla's ethical theories on stem cell research, especially the human embryonic stem cell research. It argues that human embryos are covered by the Kantian categorical imperative and that embryos possess what ethicists call rights of personhood. It follows from this that using embryos for research purposes violates the Kantian principle of our positive duty to preserve human life. Secondly, if we were embryos, using the Kantian principle of universalization, can we consistently support the use of embryos for scientific experimentation and thereby stand the risk of death in the process of being used for embryonic stem cell research?

In addition the chapter discussed Wojtyla's condemnation of human embryonic stem cell research and other related research based on his philosophy of personalism. This employs a variant of Immanuel Kant's second formulation of the categorical imperative, that "whenever a person is the object of your activity, remember that you may not treat that person as only the means to an end, as an instrument, but must allow for the fact that he or she, too, has, or at least should have distinct personal ends".

Chapter Six

Evolving an Ethical Framework for Stem Cell Research

The thesis of this chapter is that based on an analysis of Kant's and Wojtyla's ethical positions, an adequate ethical foundation can conveniently be provided to discourage embryonic stem cell research on the ground that it does not respect dignity of the embryo and the sanctity of its human life. Here, we advocated for an ontological personalistic ethical foundation for stem cell research that is derived from the synthesis of the moral philosophies of Immanuel Kant and Karol Wojtyla. The substance of this ontological personalism emphasises the uniqueness of human persons even in the ontological sense; that the human person is a substance with a distinct unity of essence that exists ontologically prior to any of its parts. Ontological personalism affirms that human life is not merely biological, rationalistic, individualistic, but meta-empirical, that is, not just a fruit of physical conception but a sacred gift and a most precious good. It dictates that personhood is not acquired or achieved along the line of life but is intrinsically part and parcel of the human being by the

mere fact of being human which starts from the moment of conception. This chapter contends that ontological personalism enables biomedical researchers have a better understanding of the nature of the human embryo and why it should not be used for scientific experimentation. Finally, this chapter advocates adult stem research as a preferred alternative to embryonic stem cell research.

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Chapter One

Nature of Stem Cell and Stem Cell Research

1.1 **Introduction**

In the history of humankind, stem cells are considered one of the greatest untapped resources presently available for therapy and prevention of diseases. At the same time, the use of stem cells is problematic, because it has generated a lot of ethical questions on the nature of its research, especially research on the human embryos. This chapter seeks to examine, analyse and expose the nature of stem cell and stem cell research. In doing this, we shall examine the idea of stem cell, classifications of stem cells, origin of stem cells and the similarities and differences of human embryonic stem cell and adult stem cells. We shall also examine the nature of stem cell research, its historical antecedent and the objectives of stem cell research.

1.2 **The Idea of Stem Cell**

The concepts 'stem' and 'cell', put together are both intriguing and multidimensional. This is because they tend to be used across all human discourses and academic disciplines, making them to be two one of the most diversely defined concepts. The *Oxford Advanced Learner's Dictionary,* for instance, contains the following entries of stem: a. The main long thin part of a plant above the ground from which the leaves or flowers grow; a smaller part that grows from this and support flowers or leaves; b. The long thin part of a wine glass between the bowl and the base.[1] The *Microsoft Encarta Dictionaries* define stem as follows: a. Main axis of plant; b. Secondary plant branch; c. Narrow 69connecting part; d. Genealogical line; the major line descent in a family.[2]

On the meaning of cell, the *Oxford Advanced Learner's Dictionary* contains the following entries: a. A room for one or more prisoners in a prison or police station; b. A small room without furniture in which a Monk or Nun lives; c. The smallest unit of living matter that can exist on its own, i.e., all plants and animals are made up of cells; d. Each of the small sections that together form a larger structure.[3] On the other hand, *Microsoft Encarta Dictionaries* contain similar entries except for this: Basic unit of living thing; the smallest independently functioning unit in the structure of an organism, usually consisting of one or more nuclei surrounded by cytoplasm and enclosed by a membrane. Cells also contains organelles such as mitiochondria, lysosomes and ribosomes.[4]

The above descriptions bring out the diversity inherent in the concepts of stem and cell. A common element that can be deduced from all the entries listed above is that a stem is something or an entity with the sole aim of 'supporting something'; 'a part of something' or a thing that 'connects one entity to another'. In all the entries of 'cell', we observe that a cell is always a small entity or the smallest unit of an entity with the ability to grow into a larger entity'. From the perspective of biology, the different kinds of cells in the human body are a product of stem cell, in the sense that an infant or an adult person develops from and is a product of a stem cell.

Stem cells have the ability to survive for very long periods in culture and to give rise to specialized cells.[5] They are best described in the context of normal human development. It is said that human development begins when a sperm fertilizes an egg and creates a zygote that has the potential to form or develop into an entire organism. This fertilized egg is totipotent, meaning that its potentiality is total. In the first hours after fertilization, these cells divide into identical totipotent cells. This means that any one of these cells has the potential to develop into a fetus.[6]

In addition, David J. Eve et. al, affirms that "stem cells are considered template cells found throughout the human body, with the capacity to grow and become cells with specialized functions".[7] Stem cells possess the capacity to generate "offspring" cells that can be either stem cells, that is self-renewing or specialized cells that is differentiated (this is when undifferentiated embryonic cell acquires the features of a specialized cell such as those of a heart, liver, etc). An undifferentiated cell is that which has not generated structures or manufactured proteins associated with a specialized cell that play a specific role in becoming a specific differentiated cell such as: blood, bone, brain, skin, or other specialized cells.[8] The above implies that stem cells have the potentiality and ability to act as repair systems for replacement of damaged cells, whether in the brain, bone, skin, or other tissues of the body. Stem cells serve as a sort of internal repair system, capable of dividing over very long periods or generations of new cells to replenish other cells as long as the person or animal is still alive. When a stem cell divides, each new cell theoretically has the potential either to remain a stem cell or become another type of cell with a more specialized function.[9] Noel Coghlan clarified the meaning of stem cell when he said, "stem cells are simply those cells which share the capacity to divide and renew themselves."[10] He added that they are the source or origin of the more differentiated cells that make up a biologically functioning human being.

Katrien Devolder is also of the opinion that stem cells are unspecialized (blank) cells that can self-renew in their natural state; they "open up radically new avenues for studying human diseases, for developing treatments for currently incurable diseases and conditions and for drug testing."[11] This means that stem cells have the potential to be used to restore the sick to healthy life. She added that "the probable role for stem cells consists not principally in merely halting disease, rather stem cells could be used to repair damaged tissues and organs."[12] For instance, stem cells could be transformed into cardiac cells and transplanted into a patient suffering heart disease, thereby repairing the damaged organ.[13] Maureen Condic also defines stem cell as, "a general name for any cell that has the ability to divide, generating two progeny or 'daughter cells'; one of which is destined to become something new and one which replaces the original stem cell." [14] In this sense, the term "stem" identifies those cells as the source or origin of other more specialized cells. There are many stem cell populations in the body at different stages of development. For instance, Maureen claims that, all of the cells of the brain arise from a neural stem cell population in which each cell produces one brain cell and another copy of itself every time it divides.[15] She however noted that the earliest stem cell, that is the immediate descendants of the fertilized egg are termed embryonic stem cells. In addition, Michael Prieur et al,, submitted that, "during early embryonic development, stem cells are abundant and have the potential to develop into multiple different tissues and organs."[16] Furthermore, the earliest cells which give rise to the body of the embryo are located in the inner cell mass of the blastocyst and possess the capacity to give rise to any cell type of the body. These cells demonstrate totipotency and are referred to as embryonic stem cells.[17]

Peter Bryant and Philip Schwartz, noted that some authors have added other criteria to the definition of stem cell. These include: ability to produce cells differentiating in different ways (multipotency); the ability of a single cell to proliferate into a population of similar cells (clone-forming ability); and the potential to keep dividing over very long generations, (unlimited proliferative capacity) the latter property distinguishing them from most other non-cancerous cell types, which can undergo only a limited number of divisions.[18] The National Academy of Sciences reported that every cell in the human body is traceable to a fertilized egg that came into being from the union of an egg and sperm. Thus, the body is made up of over two hundred different types of cells, not just one. These cell types originate from a pool of stem cells in the early embryo.

While Stephen Holland seems to agree with the above analysis, stated that stem cells will offer us opportunities to improve our general understanding of human development. Further still, another potential futuristic dimension of this research is that the use of stem cells can develop therapies theoretically to increase life-span.[19]

1.3 **Classification of Stem Cells**

It is important to mention that stem cells can be classified into four groups according to their differentiation or potency capabilities. These are described below.

1.3.0 ***Totipotent Stem Cells***: These are found in the earliest stages of human development. After the fertilization of an egg by the male sperm, the resulting entity, that is the zygote, undergoes cell division to form the two-cell stage. Subsequent cell division events result in the increase in cell numbers over a period of days until the morula is formed, consisting of eight cells.[20] Totipotent stem cells have unlimited capacity to develop. The embryo's totipotent cells for instance can differentiate into extraembryonic tissues, membranes, the embryo itself as well as all the post embryonic organs and tissues.[21] This shows the ability of the totipotent cells to produce all types of cells in the human body as well as the placenta.

1.3.1 ***Pluripotent Stem Cells***: Pluripotent stem cells also give rise to any cell in the human body. In the case of pluripotent stem cells, the morula gives rise to the blastocyst (50-130 cells by day 5 after fertilization), which consists of two distinct cell types: the inner cell mass (ICM) and the trophectoderm cells, which form the outer layer of the blastocyst.[22] This latter, also gives rise to the placenta and other tissues to support fetal development in the uterus. It is also noted that the cells of the inner cell mass and its derivative, the epiblast, give rise to all embryonic cells including primordial germ cells (the precursors of eggs and sperm).[23] Pluripotent cells can give rise to any type of cell in the human body but with one exception: the cell needed to develop the placenta. From the name 'pluri', which means plural, it follows that pluripotent can produce a multitude of cells apart from the placenta forming ones. They are found in the post implantation period of the embryo or foetus and in the developed organism.[24]

1.3.2 ***Multipotent Stem Cells:*** From it Latin origin, the word *multi* refers to many, several, or multitude. These stem cells can give rise to multiple different cell types in the human body. The progeny of multipotent stem cells are thus of multiple differentiated cell types, at times of a particular tissue of the human body or physiological system.[25] Multipotent stem cells

divide finitely and function to increase the number of cells derived from a single stem cell division. For instance, they have been extensively studied in the hematopoietic (blood-forming) system, where the cells become increasingly restricted with each cell division and subsequently become a fully differentiated cell type. Most of the stem cells found in humans after birth are multipotent. Besides, they give rise to a limited number of different cell types, typically the cell type from the organ or tissue, or the area in the body they originate from. For example, the skin stem cells give rise to all the blood cells and neural stem cells give rise to neurons, microglia and astrocytes.[26]

1.3.3 ***Unipotent Stem Cells***: This type of stem cells divides and gives rise to a single differentiated cell type of the organism. A clear instance is the spermatogenic stem cell. This is the only cell that gives rise to sperm in the human body.[27]

1.4 **Origin of Stem Cells**

1.4.0 ***Embryonic Stem Cells***

As their name suggests, embryonic stem cells are derived from embryos. Peter Bryant et al. describe it this way:

> …following fertilization of the egg by a sperm, several cell divisions take place without any growth in total volume, so the new cells called blastomeres get progressively smaller. They also rearrange to form a hollow sphere of cells (blastocyst) surrounding a fluid-filled cavity called the blastocoele…while the inner cell mass (ICM) contains the embryonic stem cells (ESCs) that give rise to the tissues of the fetus.[28]

The above in a nut-shell summarises the development of the early embryo and embryonic stem cells. Usually, embryonic stem cells for scientific purposes are derived from the embryos that develop from eggs that have been fertilized in vitro, in vitro fertilization clinic, and then donated for research purposes with informed consent of the donors. These are not derived from eggs fertilized in a woman's body. The embryos from which human embryonic stem cells are derived are typically four or five days old.[29]

David Eve et.al., stated that "by the eighth-week stage, the embryo is characterized by cell growth and multiplication."[30] After the eight week, the embryo begins to possess recognizable structures and is classified as a fetus. Thus, four embryonic stem cells continue to proliferate and are said to be pluripotent, meaning that they can differentiate into (almost) any type of all that makes up the body. Some scientists believe that the embryonic stem cell is

the most useful for potential medical treatments. Devolder corroborated the above that the embryonic stem cell is the most versatile of all stem cells. They were first isolated in mice in 1981 and in humans in 1998. Presently, human embryonic stem cells for scientific purposes are obtained from the inner cell mass/epiblast of the blastocyst. Through the process, the embryo is 'dismantled' and impeded in its further development to a human. This action has been condemned by many as unnecessary killing or destruction of the embryo.[31]

Devolder reported that in the laboratory, human embryonic stem cells (HESC) are capable of growing indefinitely in the unspecialized state while retaining the ability to give rise to a wide range of body cells. However, because of the limitations on the type of experiments that can be done with human embryonic stem cells, it can only be possible in a mouse to demonstrate rigorously that embryonic stem cells can give rise to every tissue in the body. It has also been observed that injecting undifferentiated human embryonic stem cells into immunodeficient mice results in growth of teratomas (non-malignant tumors), which contain all types of all three germ layers, demonstrating their pluripotent nature.[32] Studies have also demonstrated the differentiation potential of cells in vitro. For instance, human embryonic stem cells have been shown to give rise to neural progenitors, to insulin producing cells and cardiomyocites and endothelial cells. Also, recent findings state that it is also possible to generate in vitro germ cells from human embryonic stem cells in a petri dish. If it can be demonstrated that these gamete-forming cells can become mature and are capable of functioning in fertilization and subsequent embryonic development, it would go a long way to have enormous potential for infertility treatment, as well as for the shortage of eggs in therapeutic cloning.[33] Summarily, embryonic stem cells possess the most unusual characteristic that they have the longest known duration of self replication in addition to giving rise to other normal specialized cells. This is why the Budingers affirm that, "no other human cells, even other types of stem cell, have this natural capability in vitro."[34] This justifies scientists' interest in researching it and why it has been generating controversies from different sectors of society.

It is vital to state that growing cells in the laboratory is known as cell culture. Growing the human embryonic stem cells involves isolating and transferring the inner cell mass into a specially prepared plastic laboratory culture dish that contains a nutrient broth known as culture medium. The cells divide and spread over the surface of the dish. The inner surface of the culture dish is typically coated with mouse embryonic skin cells that have been treated so they will not divide. This coating layer of the cells is called a feeder layer. However,

researchers have also begun to devise ways to grow embryonic stem cells without mouse feeder cells. This is considered a significant scientific advancement because of the risk that viruses or other macromolecules in the mouse cells may be transmitted to the human cells. In addition, after six months or more, the original thirty cells of the inner cell mass yield millions of embryonic cells. Embryonic stem cells that have proliferated in cell culture for six months or more without differentiating (the process whereby an undifferentiated embryonic cell acquires the features of a specialized cell such as a heart, liver, or muscle cell), are pluripotent, and appear genetically normal are referred to as an embryonic stem cell line.[35]

During the process of generating embryonic stem cell lines, scientists carry out tests on the cells to observe whether they exhibit the fundamental properties that make them embryonic stem cells. This process is called characterization. It is noted that laboratories and some scientists that grow human embryonic stem cell lines use some of the following kinds of tests: Growing and subculturing the stem cells for many months. This ensures that the cells are capable of long-term growth and self-renewal. Scientists inspect the cultures through a microscope first to see that the cells look healthy and remain undifferentiated. Secondly, to determine whether the cells can be re-grown, or subcultured, after freezing, thawing, and re-planting. Thirdly, to examine the chromosomes under microscope. This is to assess whether the chromosomes are damaged or if the number of chromosomes has changed. It does not detect the genetic mutation in the cells. And lastly, to test whether the human embryonic stem cells are pluripotent by, allowing the cells to differentiate spontaneously in cell culture; manipulating the cells so they will differentiate to form cells characteristic of the three germ layers; or injecting the cells into a mouse with a suppressed immune system to test for formation of a benign tumour called a teratomas.[36] These are procedures researchers usually undertake before the human embryonic stem cells can be used for therapy. Research on it is still on.

1.4.1 ***Adult Stem Cells***

According classical embryologists, as mammals developed, their cells became progressively more determined for a certain tissue fate and the tissues progressively lose the potential for repair or regeneration. That is, as mammals develop, their tissue cells lose the potential for repair or regeneration, because of so many years of exposition to all manner of toxins, in and outside the body. However, recent findings show that some mammalian tissues contain some cells that can proliferate, mobilize and differentiate in response to disease. They can be

isolated and grown in culture, and during their propagation they retain the ability to differentiate into one or a few tissue types appropriate to their original site. These properties about these cells have earned them the name adult stem cells (ASC), although they are sometimes called more conservatively progenitor cells. They are referred to as adult stem cells to distinguish them from embryonic stem cells.[37]

Adult stem cells are described as cells hidden deep within organs, surrounded by millions of ordinary cells, and they may help replenish some of the body's cells that are needed. They have been discovered in several organs that need a constant supply of cells, such as blood, skin, and lining of the gut. They have also been found in surprising places like the brain, which is now being considered to replenish some cells. Adult stem cells, unlike the embryonic, are somewhat specialized. For example, blood stem cells normally only give rise to many types of blood cells and nerve stem cells can only make the various types of brain cells.[38] Recent discoveries prove that some adult stem cells might be more flexible than previously thought, and may be made to produce a wider variety of cell types. For instance, some experiments have proven that blood stem cells isolated from adult mice may also be able to produce liver, muscle, and skin cells, but these results are not yet proven and have not been demonstrated with human cells.[39] This implies that, scientists need to carry out more comprehensive research to prove this.

The Budingers affirms that, "there are data that suggest adult stem cells may not be confined to their own tissues but may move throughout the body to form other organ specific cells with far more plasticity than previously thought."[40] In the 1960s, it was discovered that cells from a transplanted organ can migrate and differentiate into cells of other organs in the recipient, and that cells from the recipient migrate into the transplanted organ. This kind of phenomenon has been discovered in liver and heart transplant patients. The Budingers however recognise that the issue of adult stem cell plasticity is still controversial. For example, past literature explained through experimentation that adult stem cells are multipotent; yet the scientific interpretations have been challenged by experiments that indicate that the plasticity of adult stem cells is far less than many believed.[41]

Devolder supported the above when she affirmed that:

> Adult stem cell plasticity has been called into question because; of the low frequency at which apparent cell transdifferentiation occurs; because most studies cannot prove that the plasticity in the result of a single stem cell differentiates into more than one

> functionally characterized lineage. They are slow and labour-intensive to grow in the laboratory and above all, it is not clear to which extent they have the potential for self renewal. If they have restricted potential for self - renewal, this will have negative implications for therapeutic applications.[42]

These are some of the issues scientists need to clarify before we begin to place so much hope on adult stem cells. It is said that the number of adult stem cells decrease with age, and some say it may be problematic to use adult stem cells, for instance, from a person over fifty year of age, because these cells would have accumulated damages of aging, including genetic mutations, which could lead to cancer or other age-related diseases. Research has also shown that intestinal stem cells retain an original DNA template strand for their whole existence. If this is true in all stem cells, it simply means that the stem cells might not accumulate damage due to ageing.

Adult stem cells have one very vital advantage over stem cells from most other sources: they can be harvested from the patient, ruling out the possibility of immune rejection after transplantation. Immune rejection simply means when the recipient's body rejects a transplanted tissue or organ simply because it is recognised as foreign, and consequently attempts to destroy it. Another advantage stems from their limited ability to proliferate, which would reduce the risk of malignancy in therapeutic use. Besides, rather than isolating/culturing/replacing adult stem cells, it has been suggested that adult stem cells present in the body could be triggered to migrate to and regenerate the damaged body part. This would give us the capacity to re-grow our own tissues and organs, just like the zebra fish can regrow it entire limbs and organs.[43]

1.4.2 ***Hematopoietic Stem Cells***

This kind of stem cell has its origin from the blood. From it all blood cells, red and white, as well as platelets take their origin. It accounts for both the quality and volume of blood in our bodies. In conjunction with other blood assisting cells, it renews and maintains the blood system in existence and function. Hematopoietic cells give rise to all types of blood: red blood cells, b-lymphocytes, thymphocytes, natural killer cells, neutrophils, basophils, eosinophils, monocytes, and platelets.

Hematopoietic stem cells are adult stem cells formed in the bone marrow, from where they can be harvested. They are also found in umbilical cord blood at the time of birth, and in the peripheral blood, where they circulate after being released from the marrow. It is believed

among some scientists that, since they move about freely in circulating blood, they could be recruited to many tissues, perhaps more easily than other stem cells.[44]

1.4.3 *Amniotic Fluid and Umbilical Cord Blood Stem Cells*

Scientific studies have also revealed that, "the amniotic fluid that surrounds and protects a developing fetus in its mother's uterus, as well as the placenta, contains stem cells". In an amniocentesis procedure, the amniotic fluid is collected through the insertion of a long thin needle into a pregnant woman's womb to check for abnormalities, such as Down's syndrome. This procedure is generally considered safe for both the mother and embryo. The collected amniotic fluid is normally discarded after testing is complete; but it has been discovered to contain stem cells. With this discovery, scientists are encouraged to research further. The issue here is that amniotic fluid is believed to contain a mixture of embryonic and adult stem cells. Research and experimentation on it is limited to date. However, some biomedical scientists are of the opinion that they are (amniotic stem cells), able to differentiate into a variety of cell types, but it is not known whether they are as pluripotent as other types of stem cells.[43]

Umbilical cord blood stem cells (UCB) are a rich source of hematopoietic stem cells. It is grouped sometimes as adult stem cells. Others refer to them as fetal stem cells. Presently, they have been categorized as 'neonatal stem cells.' The harvesting of stem cells from UCB has been going on for some years, in order to obtain hematopoietic stem cells as an alternative for bone marrow transplantation. They are collected after delivery of the baby.[45] Cord blood is usually considered a discarded product once the baby is born. It contains low levels of stem as well as a number of hematopoietic cells, including lymphocytes and monocytes. There is a considerable amount of research on umbilical cord blood for the treatment of stroke, myocardial infarction, and a variety of blood related disorders, with some degree of success.[46] The benefits of such blood have already been demonstrated in the treatment of hematopoietic disorders, with over six thousand transplants being performed worldwide since it was first used to treat a five year old child afflicted with Fanconi anemia (mutation).[47] There is also good experimental evidence that it can help with other disorders as well. But it is unclear how these benefits are obtained. Recent studies show that in many cases, it is not the stem cell per se that provides the benefit, but rather the growth factors these cells release.

Devolder thus mentioned that UCB stem cells are easy to obtain and have been shown to be more versatile than other adult stem cells.[48] Kogler and colleagues for instance, identified human adult stem cells from the umbilical cord blood with intrinsic pluripotent differentiation potential. One of the disadvantages is that the number of UCB stem cells in one umbilical cord is too small to treat an adult. Also it takes a longer period of time for cord blood cells to engraft. This lengthier period means that the patient is at a higher risk of infection until the transplanted cells engraft. Patients cannot get additional donations from the donor if the cells do not engraft or if the patients relapse.[49] Despite these disadvantages, research is still being carried out to overcome these problems.

1.4.4 *Fetal Stem Cells*

Fetal stem cells are obtained following abortion or miscarriage. They are believed to be as pluripotent as their embryonic counterparts, though they occur at a later stage than the embryonic stem cell. A number of biotechnological companies are experimenting with these cells as treatments for a myriad of diseases. Stem cells derived from human fetal tissue have shown long-term promise in treating strokes in rats.[50] Scientists are also making efforts on the possibility of using fetal stem cells to treat the following: neurodegenerative disorders, stroke, Parkinson disease and Alzheimer's disease.

1.4.5 *Skin and Hair Stem Cells*

Scientifically, the human skin consists of two distinct layers, each with different populations of stem cells. They occur in the basal layer of the epidermis and at the base of hair follicles. The epidermal stem cells give rise to keratinocytes, which migrate to the surface of the skin and form a protective layer. The follicular stem cells can give rise to both the hair follicle and to the epidermis. The lower 90 percent of skin, the dermis, provides most of the structural support and contains fibrous components (collagen and elastin) as well as ground substance, blood vessels and nerves.[51]

According to the National Academy of Sciences, for many years, scientists have been harvesting the regenerative capabilities of human skin to treat victims of severe burns using skin transplants. This is possible because of the existence of stem cells located under the top layer of the human skin. In the past, doctors treated severe burns by transplanting sections of skin from undamaged areas of the body onto the burned areas. It was discovered recently that scientists can grow vast sheets of new skin by culturing the stem cells from small pieces of

healthy skin. This practice is a type of tissue engineering and has become routine for treating burn victims over the past twenty years.[52] The identification of stem cells in both the dermis and epidermis (hair follicles and deep layers of the skin) marks a major advance in the effort to produce complete artificial skin, which would find enormous applications in the treatment of burn injuries.

Insoo Hyun[53] in his work titled: *Stem Cells from Skin Cells: The Ethical Question*s, stated that Shinya Yamanaka and James Thomson published separate reports that they have genetically modified human skin cells to behave like embryonic stem cells. Just like embryonic stem cells, these induced pluripotent stem cells (iPS) were capable of forming all three gem layers both in vitro and in immunodeficient mice, demonstrating their remarkable pluripotent character. The truth is that no one knows yet exactly where the limits of this reprogramming technique lie. It is surrounded by ethical issues we shall discuss in our subsequent chapters.

1.4.6 ***Stem Cells from Other Tissues***

Besides the types and examples of stem cells cited above, it is reported that several other organ systems have been investigated as possible sources of stem cells. These include intestinal mucosa, liver, lung, heart and skeletal muscle. The fundamental challenge bothering some scientists and others is how we determine whether the stem cells are authentic components of the organ system where they are found. Is it not possible that such cells might have migrated from another source such as the bone marrow? These questions and others are under active investigation.[54]

1.5 **Similarities and Differences Between Human Embryonic Stem Cells and Adult Stem Cells**

Studies have revealed that human embryonic stem cells and adult stem cells which this study focuses on specifically each have advantages and disadvantages regarding potential use for cell-based regenerative therapies. One fundamental difference between adult and embryonic stem cells is their different abilities in the number and type of differentiated cell types they can become. For instance, embryonic stem cells can become all cell types of the body because they are pluripotent. Adult stem cells are believed to be limited to differentiating into one or more cell types of their tissue of origin. Again, embryonic stem cells can be grown relatively easily in culture. On the other hand, adult stem cells are rare in mature tissues, so

isolating these cells from an adult tissue and multiply them in culture are challenging. This is an important distinction, as large numbers of cells are needed for stem cell replacement. Scientists are of the opinion that tissues derived from embryonic and adult stem cells may differ in the likelihood of being rejected after transplantation.

Sequel to the above, adult stem cells, and tissues derived from them, are currently believed to be less likely to initiate rejection after transplantation than transplants from other individual.. The reason is that a patient's own cells could be expanded in culture, coaxed into assuming a specific cell type (differentiation), and then reintroduced into the patient. Put simply, the use of adult stem cells and tissues derived from the patient's own adult stem cells would mean that the cells are less likely to be rejected by patient's immune system.[55] Michael O.Thomas, observed that embryonic stem cell from one donor and injected into another patient could cause transplant rejection.[56] It is worthy of mention that all stem cells have three general properties: they are capable of dividing and renewing themselves for long periods; they are unspecialized; and they can give rise to specialized cell types. Scientists are currently trying to understand two fundamental properties of stem cells that relate to their long term self renewal: why can embryonic stem cells proliferate for a year or more in the laboratory without differentiating, but most adult stem cells cannot; and what are the factors in living organisms that normally regulate stem cell proliferation and self renewal? It is noted that proliferation occurs when cells replicate themselves many times over and over. When stem cells give rise to specialized cells under laboratory conditions, the process is called differentiation. Scientists are beginning to understand the signals that trigger stem cell differentiation.[57]

1.6 **Historical Development of Stem Cell Research**

Historically, the use of stem cells is traced back to William Sedgwick, who used it to describe the regenerative properties of plants in 1886.[58] After about a decade, E.B. Wilson was said to have applied the term to cells in the roundworm *Ascaris* that retained their genetic material and appeared to regenerate. About the same time, William Roux, experimenting on frogs, and Hans Briesch, using sea urchins, carried out a set of experiments to resolve a set of fundamental questions that include: Are cells programmed in the early stages of embryogenesis or do they retain flexibility in later stages? If differentiated very early in life, can cells be reprogrammed with external stimuli to regain their flexible properties? The answer to these questions was becoming clearer when around 1912, at Woods Hole, Jacques

Loeb was reported to have successfully achieved artificial parthenogenesis. This is a process whereby unfertilized eggs undergo chromosome duplication and rapid mitosis to establish the developing embryo. He experimented on the eggs of sea urchins. The result showed that oocyte, on its own, can maintain enough plasticity to give rise to all the cells of the developing embryo. This singular achievement was heralded in newspaper headlines as "The Creation of Life."

This breakthrough gave scientists courage to research further on stem cells. In the 1950s and 1960s, Leroy Stevens, a cancer specialist, reported that some cells might be pluripotent (giving rise to most of the cells of the adult organism) and that surrounding cells might provide the necessary environmental signal needed to stimulate differentiation. In the 1970s, Beatrice Mintz and Karl Illmensee discovered that when embryonic cells transplanted into a developing mouse embryo at the blastocyst stage, they give rise to normal mosaic mice. At the same time, Robert Edwards, a biologist at Cambridge was also experimenting with transgenic mice. Both, however, demonstrated that embryonic cells were capable of differentiating into a variety of cell types representing the three major cell lineages of the adult organism; mesoderm, endoderm, and ectoderm, regardless of transplant location-testes, blastocyst, or adult tissue.

In 1981, developmental biologists successfully established embryonic cell lines that could propagate *in vitro*. They also demonstrated that mouse embryonic stem cells can spontaneously differentiate into a variety of cell types when injected into the adult mouse.[59] By the year 1998, Professor James Thomson, experimenting with spare embryos from infertility laboratories in collaboration with Geron Corporation and some scientist at the John Hopkins University led by John Gearhart, using aborted fetal tissues, announced separate successful experiments in isolating and culturing embryonic human stem cells.[60] This procedure is a replica of the experiment, that brought the famous ewe Dolly into existence in 1997. Ever since, research on stem cells has taken a lot of different dimensions, generating debates among, scientists, philosophers, theologians, and policy makers all over the globe.

1.7 **Nature of Stem Cell Research**

According to Audrey Chapman, Mark Frankel and Michele Garfinkel, human stem cell research holds enormous potential for contributing to our understanding of fundamental human biology[61]. While it is not possible to predict the outcome of basic research, human stem cell research promises the real possibility of treatments and cures for many diseases for which adequate therapies do not exist. They stated further that the benefits to individual and society gained by the introduction of new drugs or medical technologies are difficult to estimate. For instance, the introduction of antibiotics and vaccines have dramatically increased human life span and improved the health of people all over the world. Despite these and other advances in the prevention and treatment of human diseases, devastating illnesses such as heart disease, diabetes, cancer and disease of the nervous system such as Alzheimer's disease present serious challenges to the health and well-being of people all over the world. Based on this, these scholars submitted that, the science leading to the development of techniques for culturing human stem cell could lead to unprecedented treatment and even cure of various diseases.

Andrew Moore, made useful and similar contributions to the above when he stated:

> Stem cell research is at the beginning of a development that will likely address many important diseases for society, particularly in the ageing population. Stem cell research does not only offer hope of reconstructive therapies: it also offer a better understanding of their biology and their marker that distinguish them from "normal" cells and will likely contribute to better prognosis and firmly targeted drug treatment of cancers.[62]

The above again explains the power and promises behind stem cell research and therapy. Somewhere else, Moore asserted further that stem cell research is both an evolution and a revolution in modern biomedicine.[63] This is so because it represents a revolutionary way of exploiting human genome data. It can be regarded as a milestone on a progression of signal findings and development: from small molecule antimicrobials (e.g. penicillin), antibodies, and monoclonal antibodies, to modern genetics, genomics and cell therapy. This is made possible because of the multitude of discoveries in cell biology that precede it. Because of these possibilities ascribed to stem cells, many have come to the conclusion that stem cell research is quite different from anything so far attempted in biomedicine on a global scale. In addition, stem cell research would also give insights into intrinsic tissue repair mechanisms,

disease processes and normal tissue function. It could provide the basis for better pharmaceuticals testing methods and ways of studying diseases, particularly rare ones.[64]

From another, but similar perspective, Ann Donnelly et. al., asserted that stem cell research has great potential in the treatment of as-of-yet incurable disease, including Huntington disease and Parkinson disease, amyotropic lateral sclerosis.[65] Such chronic conditions as congestive cardiac failure, diabetes, and osteoarthritis "may" also respond well to stem cell therapy. They added that with the knowledge that stem cells can be induced to differentiate into specialized cells and that they can influence the tissues around them; the potential of stem cells as a therapeutic option is great. Again, recent advances and research in human stem cells, have demonstrated that adult somatic cells called induced pluripotent stem cells, can be reprogrammed into becoming stem-like in their nature and behaviour. Research is currently focused on calibration of the process of cell reprogramming, ensuring the quality of induced pluripotent stem cells, and modification of the stem cell niche. Katrien Devolder, said human stem cell research is the study of human stem cells *in vitro and in vivo*.[66] Stem cells are regarded by many as the holy grail of medicine. Devolder quoting Harold Varmus, the former director of the National Institutes of Health (NIH) in the US, said with regard to stem cell research that "there is almost no realm in medicine that might not be touched by this innovation."[67] Devolder stated further that stem cell research is not an exaggeration for sole reason that it has unique capacities like self renewal and differentiation potential and these qualities makes them not only indispensable as building blocks for human development, but also invaluable tools in regenerative medicine. In addition stem cell research holds the promise of overcoming the problem of the shortage of suitable donor organs and tissues transplantation.

1.8 **Objectives of Stem Cell Research**

Basically, the objective of stem cell research is discovery of the immensity of powers and consequent utility contained in the knowledge of cells of the body. This would bring about some new developments in medicine.[68] The National Institute of Health (NIH) reports that because stem cells have the potential for several areas of health and medical research, scientists are therefore hell bent on researching it. Besides, it is believed that an in-depth study of stem cells will help understand how they transform into the dazzling array of specialized cells that make us what we are. The study would enable doctors understand more how to handle medical cases hitherto unknown. It would make medical care and development

more productive and more efficient. Included is the fact that study on stem cells may or will empower medical experts to correct errors so far perpetrated in the medical field.

Another objective of stem cell research is to improve bioengineering of materials necessary to deliver and support stem cells on their therapeutic journey. It is believed by some medical scientists that the combination of stem cells therapy with gene therapy will also expand the therapeutic repertoire as the effectiveness of the stem cell produced may be enhanced via genetic modification. Put simply, combining stem cells, biomaterials, and gene therapy may augment the therapeutic outcome, but will result in complex regulatory challenges. Again, comprehending the mechanism whereby stem cells heal tissue by regulating and interacting with host cells may lead to the development of novel therapeutic paradigms that may not require the stem cell per se as the therapeutic agent.[69]

It is believed that someday stem cell research will enable scientists to develop therapies for a variety of diseases previously thought to be incurable. This is because many major diseases are caused by the loss of a single type of cell or tissue. For instance, type 1 diabetes also known as juvenile-onset is caused by the loss of the insulin-producing cells of the pancreas, and its treatment is limited to merely alleviating the symptoms. Thus, finding a cure for such diseases would be much easier if scientists could simply re-grow the missing or damaged cells and implant them into patient. Before now, scientists have been using *hematopoietic-A* type of adult stem cells to treat patients with diseases such as leukemia, sickle cell anemia, bone marrow damage and some metabolic disorders and immunodeficiencies where the body has lost its ability to replenish its own set of healthy blood cell.

However, recent results have suggested that they may also be able to produce other cell types not found in blood, but then it is not proven yet. Likewise, studies have shown that the only way to use hematopoietic stem cells for therapies was through bone marrow transplants: a procedure that is and invasive. Besides, if the donor and recipient are genetically different, the recipient immune system may reject the transplant, causing dangerous “war” in the patient’s body.[70] The truth of the matter is that scientists have developed ways of separating and preserving hematopoietic stem cell from blood contained in the umbilical cord and placenta at birth. It is believed that if used for therapies, it would be less likely to cause an “internal war” within the recipient’s body. Another point is that presently, donated organs and tissues are often used or needed to replace human parts that are diseased or destroyed. Yet more and more people are on the waiting list for body transplants. Stem cells may offer a

unique possibility of a renewable source of replacement cells and tissues to treat numerous waiting and oncoming cases. Thus, The National Institute of Health reported that virtually every part and branch of medicine would be affected with this new technology. It concludes that:

> The research on stem cell has the potential to revolutionize the practice of medicine and improve the quality and length of life. Given the enormous promise of stem cell therapies for so many devastating diseases, NIH believes that it is important to simultaneously pursue all lines of research and search for the very best sources of the cells.[71]

It is worthy of mention that these projections and conjectures are still at the theoretical stages and biomedical scientists are researching for positive results.

1.9 **Conclusion**

In this chapter, we have endeavoured to examine the nature of stem cell and of stem cell research. Our findings clearly show that stem cell and stem cell research is an important and major area of biomedical research. This chapter also observes that stem cell research is both an evolution and revolution in modern day biomedicine. The reasons are not far-fetched: firstly, stem cell research will likely address many important diseases for society, particularly in the ageing population, secondly, stem cell research offers hope of reconstructive and regenerative therapies. Again, stem cell research holds enormous potential for contributing to our understanding of fundamental human biology. Stem cell research is believed to possess great promise for over all human health, even though these promises are far from being realized. This chapter concludes that these promises of stem cell research are realisable because, of the ability of stem cells to divide and remain themselves for long periods; they are unspecialized, self-replicating and they can give rise to specialized cell types.

In the next chapter, we shall examine the ethical issues stem cell research has generated.

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Chapter Two

Ethical Issues in Stem Cell Research

2.0 **Introduction**

This chapter examines and focuses on some of the key ethical issues human embryonic stem cell research have generated. It also examines the background to the present ethical concerns about stem cell research. These moral issues are principally related to the moral status of the human embryo, and the sources or methods of deriving these cells. In clear terms, we shall examine the following ethical issues relating to the moral status of the human embryo, the discarded created distinction, therapeutic cloning and fetal tissue transplantation. These key ethical issues are at the heart of the debate on human embryonic stem cell research. At the heart of these issues is the ethical tension between promoting respect for human dignity and promoting research for medical therapies. The question that crosses the mind is what exactly is an ethical or moral issue? Philosophers have various submissions on what makes an issue ethical or moral. But we shall in this work attempt to provide a general or common factor that binds thinkers together on what makes an issue moral or ethical. Moral issues normally arise only when there are possibilities of either harm or benefit to the other and moral issues may also arise in cases where only an agent's well-being is involved.[1] The implication of this is that an issue is a moral issue if it concerns man in relation to the "Other", or concerns the well-being of the self in relation to the "Other" in society or if it concerns the well-being of the "Other" in relation to the self. It is within this parameter that the issues that comes after is viewed; that is ethical issues in stem cell research.

2.1 **Background to the Present Ethical Concern About Stem Cell Research**

It was Gabriel Marcel that said, "the problem in question is that of understanding what happens to human dignity in the process of technicalization to which man today is delivered."[2] This statement was made in 1963 when biotechnology was a set of optimistic promissory notes, and bioethics was yet to be born. The conception people had about biotechnology then was dim and people seemingly never perceived that technology could grow to overshadow its makers. The factor responsible for this was the secured confidence people inherited from the renaissance humanists that human beings were the only creatures endowed with reason and freedom to use it to determine their own destiny. It seems however that the freedom we thought placed us firmly between the angels and the apes and endowed

us with an inherent dignity is destroying us. That is why Brent Waters rightly said that scientific research and development is meant to preserve rather than threaten human freedom. This is because freedom is the foundation of ethics and the human essence of human existence. In their freedom, humans possess an inherent dignity, which scientific research can often and unwittingly erode. Ethics begins with anthropology, and this implies that an inadequate or false anthropology underlying research results in a corrupt understanding of freedom endangers human dignity. The late modern understanding of freedom for instance is grounded only in evolution devoid of transcendental categories. This kind of definition, reduces human nature to much less a free agent. By extension, when the person and the 'problematic' idea of freewill is explained in evolutionary terms, science in general, and biology in particular, rather than ethics dictates human conduct.[3] The implications of this is that, when science is superimposed on ethics, technical and ethical perceptions of human freedom are distorted. Eventually, technological imperative envelops and occludes any genuine moral vision, resulting in such mischief as a dualistic anthropology, utilitarian calculation, autonomous action, and the medicalization of society. Simply, excessive scientific experimentation and technology without some ethical guidelines, may lead to distorted views of human nature.

Pellegrino, held a similar view with Waters that the issue of human dignity today has become problematic and its future questionable. This is because biotechnology has expanded beyond anything ever imagined such that its powers threaten to overshadow humanity itself. Biotechnology and bioethics have expanded beyond its medical confines to challenge humanity's claims to a unique dignity and to the moral entitlements such a status entails. Biotechnology and biomedical research are reshaping what it is to be human and what human being is.[4] Dailey and Leonard said recent advancements in biomedical science and biotechnology, can bring about good or evil, health or death, to palliative care or destructive harm. For this reason moral considerations are not only valuable but necessary, for what is at stake in any bioethical discussion is ultimately the future of a human person and by extension, the society of all human persons.[5] Gonzalez Rodriguez citing Pope Pius XII stated:

> ...There was a popular idea that science would contribute to winning the battle for peace and against disease and poverty. Public and private funding began to flow to hospitals and laboratories. On the front line of medical science, antibiotics were curing infections that had

> previously been fatal, and psychoactive drugs seemed to promise a life free from anxiety or depression. Progress was already being made in the field of organ transplants. The optimism of scientists was widespread and the public seemed to have a blind trust in the progress of medicine. In this atmosphere, many doctors were tempted to give science their unquestioning support. In some clinical situations, it became almost normal to involve a patient, without warning him or asking his/her permission, in high risk operations or totally experimental treatment. The doctors responsible for these initiatives claimed that their conduct, abusive and at times degrading, was justified by the results they hoped to achieve: the cure and prevention of disease, the increase in knowledge, the social prestige of science and the prestige of the researchers themselves.[6]

Similarly, Jennifer McCormick et al, stated that while progress in the biomedical sciences may have significant societal impact through potent benefits, there is also a potential risk. Furthermore, scientists are increasingly being asked to consider the broader impact of their research, motivated by a higher societal demand for the accountability of and justification for scientific research. Members of the scientific community are being encouraged to take a more proactive role in addressing the ethical and societal implications of their research.[7] For instance, Joseph Ratzinger. affirmed that various procedures for instance now make it possible to intervene not only in order to assist, but also to dominate the processes of procreation. These techniques can enable man to "take in hand his own destiny," but they also expose him to the temptation to go beyond the limits of a reasonable dominion over nature. Though they may bring progress to the service of man, at the same time, they involve risks.[8] Science and technology are valuable resources for man when placed at his/her service and when they promote his integral development for the benefit of all. Archie Gonsalves asserted that it is true that contemporary western medicine has achieved great progress; however, he thinks that the problem with Western science is that it seems to lack an integral approach. The reason is that human individual which is mainly their research subject, is not just an agglomeration of organs. He is neither a machine nor a fabricated product. Gonsalves citing Emily Martin asserts:

> Many elements of modern medical science have been held to contribute to a fragmentation of the unity of the person. When science treats the person as a machine and assumes the body can be fixed by mechanical manipulations, it ignores, and it encourages us to ignore, other aspects of ourselves, such as our emotions and our relations with other people.[9]

Ana Smith Iltis[10] also drew our attention to some of the ethical issues associated with the historical exploitation in biomedical research. For instance, the Nazi experiments and the Tuskegee syphilis trials. This has left a legacy of concern for the protection of research subjects. Scott Klusendorf cited numerous instances where some scientists and non scientists alike have distorted the reality of human nature to justify and promote research that dehumanizes the person. For instance:

> In 1906, at the Bronx Zoological Gardens (in the Monkey House) the followers of Charles Darwin displayed an African Pygmy named Ota Benga in a cage with an Orangutan. Forty thousand people in one day converged to witness the so-called "missing link" between ape and man. According to an appalling New York Times description, "the pygmy was not much taller than the orang-utan and one had a good opportunity to study their points of resemblance. Their heads are much alike and both grin in the same way when pleased." A black pastor, James H. Gordon, objected to the display. "Our race, we think, is depressed enough without exhibiting one of us with the apes. We think we are worthy of being considered human beings, with souls." [11]

In August 23, 1999, *Time Magazine* reported that many neo-Nazi members of the hate group Aryan Nation believe that non-whites are "mud people on the level of lower animals." Mark Hume stated that in South Africa in 1967, a doctor removed a black woman's beating heart and placed it into a chest of a white man. Why was this done in South Africa? Because apartheid allowed South Africa's medical profession to place a lesser value on the lives of black patients. Hence, taking the heart of a comatose black woman to save the life of a white male was morally acceptable. Dr Warren Hern, author of *Abortion Practice,* the medical teaching text that trains doctors to perform abortions, defines unwanted pregnancy as a disease, a "parasitic illness" for which the treatment of choice is abortion. Dr Hern is defining his victim class exactly the way Hitler did his: "Parasite" was precisely the term Hitler used to dehumanize Jews in his grotesquely anti-Semitic Mein Kampf. In another instance, Hitler called Jews *Bacillus* - a systemic disease to be eradicated. He said, "only when this Jewish bacillus infecting the life of peoples has been removed can one hope to establish a co-operation amongst the nations which shall be built up on a lasting understanding."[12] Carl Sagan, in a crude attack piece featured in *Parade Magazine*, mocked unborn children as animals, comparing them unfavourably with parasites, segmented worms, fish, amphibians, tadpoles, reptiles, and pigs. Dr Sagan's language was as hateful as that of any racist.[13].

Agneta Sutton, highlighted some negative actions of medical research that led to the Nuremberg Code of 1947 and the Helsinki Declaration of 1964. The issue was that after the Second World War, some medical scientists from Germany, Italy and Japan were tried for crimes against humanity. Some of these medical scientists/doctors as the case maybe, were charged with murder, torture and other atrocities in the name of science. The experiments these medical scientists conducted during the war, grossly violated the dignity and rights of persons concerned. For instance:

> ..Nazi eugenics programme involving coercive sterilisations of disabled people led to the killing of 'lives unworthy of living', that is, the killing of disabled adults and children, and eventually to experiments with human guinea pigs and genocide. Over a thousand concentration camp prisoners were infected with malaria and given experimental treatment. Many of them died. Others were infected with, typus, cholera, smallpox in studies undertaken to develop vaccines. Battle wounds were simulated and infected. People were starved of oxygen to see how they would react at high altitudes. People were forced to drink poison and salt water...[14]

In addition, it was reported that some Russian physicians often deliberately infected institutionalized or chronically ill patients with gonorrhoea and syphilis. The same was true of the research subjects in the American Tuskegee study. The abuse came to light when the New York Times reported in July 1972 that the United States Public Health Service had for 40 years conducted a syphilis study using six hundred black men from Tuskegee, Alabama, as guinea pigs. The research subjects were offered free medical treatment for any disease other than syphilis, as well as free burial after autopsy. Four hundred of the men suffered from syphilis, but they were not told about their condition nor offered any treatment. The other two hundred who did not suffer from syphilis, were in the control group, the group with whom the syphilis patients were compared. It was reported that both research subjects and controls were told they had bad blood and required regular check-ups.[15]

Having shown that research in biotechnology and biomedical ethics if not properly handled could spell doom for man and society, the next segment examines some identified ethical issues generated by stem cell research.

2.2 **Moral Status of the Human Embryo**

2.2.1 ***Arguments Against the Moral Status of the Human Embryo***

It is important to state that the debate associated with the moral status of embryos, traditionally has revolved around the question of whether the embryo has the same moral status as children and adult humans do-with a right to life that may not be sacrificed by others for the benefit of others. Put differently, most of the leading arguments about the rightness or wrongness of irreversibly damaging embryos in the process of research are based on some views or other about the moral status of the embryo. This includes how the embryo ought to be regarded or treated from the moral point of view, in virtue of its arguable possession of certain intrinsic moral characteristics.[16] Harvesting stem cells from the human embryo simply implies the destruction of the embryo. From a moral perspective, therefore, much turns on the status which one is prepared to attribute to the newly formed human embryo. As a result, the key questions to be answered include the following but not limited to them: When does a new human life begin? When does the human person become a human person? Is fertilisation an event or a process? Should human embryos be used or produced and used for research purposes? More fundamentally, is mere existence a relevant criterion or should we think of life not in biological but rather in ontological terms that centre on the nature of Being rather than on a particular series of biological developments?[17] Put summarily, the question is whether the destruction of human embryos in stem cell research amounts to killing of human beings. The responses put forward have been many and varied.

Bonnie Steinbock, a professor of bioethics, submitted that whilst the human embryo may attract our respect as a symbol of human life, it cannot be regarded as having moral status. Steinbock premised his reasons on the fact that, essentially, only a being that is aware of its own experience can have an interest in what is (or is not) done to it. Also, that the pre-sentient embryo cannot be subjectively deprived of a life it has not consciously enjoyed. For this reason, Steinbock believes that there can be no moral bar to the use of embryos for research purposes, or indeed, to their creation for such purposes. The argument of Steinbock is that the human embryo is not and should not be regarded as an entity with moral status simply because the embryo lacks self-awareness and consciousness. Based on these, the professor advocated that the embryo can be created for the sole purpose of research.[18]

This position, creation of embryo for research purposes has been rejected by the Council for Bioethics for the reason of hominisation. This implies that since the embryo is still unfolding

or evolving or developing, it deserves respect, but cannot be accorded a moral status. Michael Gazzaniga, a scientist and a member of the President's Council on Bioethics, objected to the fact that the embryo should be accorded moral status and that it has right to life. He said, "It makes no sense to him to see "a miniscule ball of cells" as a human being or person. After all.(this ball) has no brain or capacity to think and feel." Gazzaniga is simply supporting the views of scientists and philosophers who have claimed that only beings possessing some number of "capacities" count as persons and, as such, members of the "moral community." The implication is that since the human embryo does not have the following capacities such as: rationality, self-motivated activity, consciousness, self-awareness and more strongly self-consciousness, it can be used for research for the benefit of the larger society. The reason why only such an organism as described has a right to life and has a moral status, is that only self-conscious subjects can value themselves, and, thus be ends in themselves, and, consequently make claims against us. Deducing from this, it is seen as inherent that the embryos are sub-personal animals with no more and perhaps even less claim on us than many non-human animals.[19]

Ronald Lindsay's position is related to the above. He argues that there is no way the embryo can identify with the capacities and properties, intrinsic or relational that can qualify it for moral respect. He denies the assertion that humanity entitles one to full moral status and that the embryo is full human in light of its genetic composition. He gave the following reasons for denying such assertion; if humanity is a necessary condition for moral status, then this would preclude granting moral status both to nonhuman animals and even to extraterrestrials who exhibit capacities such as rationality or moral agency. If humanity is a sufficient but not necessary condition for moral status, then what is it about humanity that entitles one to moral status? No explanation is offered by those opposed to embryonic stem cell research other than the biological criterion of human genetic composition. Lindsay however submitted that unless a rationale is given that explains why human genetic composition is so critical, then the insistence that genetic humanity is the key to moral status is mere begging the question. On the other hand, Lindsay submitted that the possibility that an embryo might develop into a human person, that it should therefore be accorded moral status and should not be used for research does not obviate the fact it has not yet acquired the capacities and properties of a person. He says, " an embryo is no more a human person than an acorn is an oak tree."[20] The issue is not only that embryos lacking consciousness and self-awareness, but also that they do not have experiences of any kind, even the most rudimentary sort. He continued by affirming

that those who oppose embryonic research often try to minimize the gap between potential and actual possession of the characteristics of a human person by suggesting that the embryo's path of development is inevitable. They assert that the embryo has the same genetic composition as the human person it will become and these genes provide it with the intrinsic capability of developing into that human person. Lindsay, however, thinks that the position of these scholars seems to overlook the important role that extrinsic conditions play in embryonic and fetal development. Those who claim full moral status for the embryo seem to regard gestation within a woman's uterus as an inconsequential and incidental detail. For Lindsay, this is not the case. The embryo must be provided with appropriate conditions for development to occur. The embryo does not have the capability of expressing its "potential" on its own. For these reasons, Lindsay submitted that the early embryo lacks moral status and there is no moral barrier to its use in research, especially research that can produce immense benefits for millions of injured, ill and suffering persons. [21]

Following from the above, Joseph Fletcher proposed a list of indicators of humanhood, which include the following: self-awareness, self-control, a sense of the future, a sense of the past, the capacity to relate to others, concern for others, communication and curiosity. Peter Singer also distinguished two meanings of the human being. The first one states that a human being is a member of the species *Homo sapiens* and the second states that a human being is a being who possesses the qualities of personhood as defined by Fletcher.[22] In the work, *The Value of Life*, John Harris affirmed that a person is "any being capable of valuing its own existence."[23] Engelhardt says that those who have the following four characteristics: self consciousness, rationality, freedom to choose, and who are in possession of a sense of moral concern, are persons in the strict sense. Accordingly, human embryos, who are lacking in these characteristics of personhood, cannot be counted as persons and have no moral status. Michael Kinsley thinks that opponents of stem cell research were wrong to believe that a microscopic clump of cells has the same moral claims as a full formed human being. Kinsley would rather argue that a goldfish resembles a human being more than an embryo does. The reason is that an embryo feels nothing, thinks nothing, cannot suffer, and is not aware of its own existence; yet opponents of embryonic stem cell research would allow real people, who can suffer, to do so in service of the abstract principle that embryos are people too. He asserts:

> If faith takes you there, fine. Reason can't... That we each start out as something less than human, that the human transformation takes place gradually, but that its morally acceptable to draw a line somewhere other than the very beginning [is not] just acceptable, [it's] necessary. If faith tell you otherwise, listen. But do not mistake it for the voice of reason.[24]

One thing is clear here and that is, Kinsley's notion of functionalism states that human embryos do not look like us and are not developed enough to count as adult human beings, as such they should be used for research purposes. This argument does not hold much water. Resemblance at this very early stage is one of the features of identification, not all. Even some adult human beings look somewhat like an Ape. Does this makes them Ape? Even Katrien Devolder asserts that stem cell research and therapy using human embryos, and indeed all other therapeutic or research uses of embryos, might be successfully defended by drawing a distinction between what people say and what they do. That is, there may be an inconsistency between the beliefs and values of people as expressed in their statements on the one hand and by the way they behave on the other. The reason is that many prolife advocates or others who believe that the embryo is in a real sense 'one of us' do not behave consistently with their professed beliefs about what is good. For instance:

> One would expect that those who give full moral status to the embryo, who regard it as person (from conception)like us, would both protect embryos with the same energy and conviction as they would do in their fellow adults and mourn their loss with equal solemnity and concern. This however they would not do....We know that for every live birth up to five embryos die in early miscarriages. Although this fact is widely known and represents massive carnage, pro-life groups have not been active in campaigning for medical research to stem the tide of this terrible slaughter. Equally we know that for the same reasons the menstrual flow of sexually active women will often contain embryos. Funeral rights are not usually routinely performed over sanitary towels although they often contain embryos.[25]

Devolder concluded that these phenomena provide reasons for thinking that even if the views of those who believe the embryo to have the same moral status as normal adult human beings cannot be conclusively shown to be fallacious, at least they can be shown to be inconsistent with the practice of most of those who profess such views.

2.2.2 ***Arguments for Moral Status of the Human Embryo***

From the perspectives of the opponents of embryonic stem cell research, their submission is that from the very moment of conception, the human embryo has the potential to become a child and eventually an adult. It has full moral status and must not be harmed or destroyed in the name of research. Scott Klusendorf,[26] while responding to Michael Kinsley and others, argued that one can fail to function as a person and yet be a person. For instance, people under anaesthesia or in a deep sleep cannot fell pain, are not self-aware, and cannot reason. Neither can those in reversible comas. Yet we do not call into question their humanity because we recognise that although they cannot function as persons, they still have the being of persons, which is the essential thing. He reiterated further that one must not be a person in order to function as one. The reason is that a person is one with the natural, inherent capacity to perform personal acts, even if that capacity is currently unrealized. Put differently, one grows in the ability to perform personal acts only because one already is the kind of thing that grows in the ability to perform personal acts. He added:

> Consider a man entering a room. He can enter it gradually, be in halfway and then enter it fully. During all stages of entering, the man must first exist in total to do the entering. Likewise, in order to enter the class of human beings known as human persons, the man must exist as well. Someone cannot be in the process of becoming a human person, since one must first exist in order to enter any process.[27]

The implication of the above is that the human embryo is already a person as it develops since it must first exist in order to do the developing. Put simply, my thoughts and my feelings cannot exist unless l first exist. I can exist without them; as would be the case if l were sleeping, but they cannot exist without me. In addition, Klusendorf believed that the arguments of Peter Singer and others who submitted that embryos are not self-conscious and not aware of its own existence are deeply flawed and troubling. This is because it is one thing to assert that critical thinking distinguishes us as human persons and quite another to say that your right to live depends on how intelligent you are. So, if Singer and Michael Kinsley are correct that rationality and self-consciousness define the morally significant human person or human being, then why shouldn't greater rationality make you more of a person? Thus, by embracing embryonic stem cell research, the principle that states that the weakest members and most vulnerable members of our community should be protected, is violated.[28]

Further still, thinkers such as Rickard M, Sandel M.J, Knoepffler N and Cregan K have at various times submitted that "since a developmental point at which personhood is acquired cannot be pointed out, individuals are counted as human beings at their embryonic stage as well as their fully developed stage."[29] The reason they gave is that if our lives are worthy of respect simply because we are human, it would be a mistake to think that at some younger earlier stage of development (e.g. when we began our lives as fertilized eggs) we were not worthy of respect. Given this, if we do not accept fertilization as a morally decisive moment from which full protection should be guaranteed, there is no other similarly decisive moment. In addition, they said:

> If one permits to destroy fertilized eggs or pre-implantation stage embryos, then why not foetuses, and if foetuses, then why not newborns, and if newborns, then why not every human being missing certain cognitive capacities. Human embryos differ from other human beings not in what they are, but in their stage of development. A human embryo is a human being in the embryonic stage, just as an infant or an adolescent is a human being in the infant or adolescent stage.[30]

Rickard M, Gomez Lobo A and Chu G,[31] made it clear that there are several reasons why human embryos at the very beginning of their existence should have the same protection as more developed embryos or foetuses. This is because, the moral status the human embryos have; the life that it lives has a value to the one who lives this life. This implies that, we protect a person's life and interests not because those interests are valuable from the point of the universe, but because they are important to the person concerned. As such, the life of the human embryo should be protected because it has value to the embryo itself. In addition, we should be cautious and refrain from destruction of fertilized eggs even if we are not sure about their dignity, simply because being uncertain as to whether or not a particular organism is a human being, it would be more reasonable to refrain from destroying it. For example, a hunter refrains from shooting if he is not sure whether the particular object at which he is aiming is a deer or a man. Besides, judging the moral status of the human embryo from its age is making arbitrary definitions of who a human person is. For instance, even if we consider that the appearance of the primitive streak, a structure in the human embryo developing around 14 days after fertilization) at day 14 after fertilization of the egg is the threshold of when the embryo acquires moral worthiness, we must still acknowledge that patients who have lost part of their cortex from a stroke or Alzheimer's disease are no less human than they were before.[32]

In addition to the above, it is generally believed that one of the traditional reasons for protecting life is that loss of life causes various sorts of harm to the killer, those close to the deceased, society in general, and most importantly the deceased.[33] Based on this, Philip Devine stated that loss of embryonic life is harm, inflicted on the embryo, by destroying it. He said, ”loss of life...is a harm that can be inflicted on any organism; plants and non-human animals. Human organisms of every stage of development including the embryonic can all suffer loss of life.”[34] Edmund Pellegrino, a professor of bioethics at Georgetown University admitted that research involving the destruction of human embryos should be absolutely prohibited. The reason he gave aligns with some reasons we stated above. Edmund Pellegrino rejected the idea that full moral status is conferred by degrees or at some arbitrary point in development. Such arbitrariness is liable to definition more in accord with experimental need than ontological or biological reality. The point he is making is that defining the nature of the human embryo on the bases of experimental and biological reality alone, denies the embryo its ontological reality.[35] The human embryo is more than that.

Kevin O’Rouke O.P,[36] expressed similar a opinion with the ones highlighted above that the human embryo has a moral status. He substantiated his reasons using the Thomists idea of being and act. He said a being in act, exists here and now. Things exists in act as substances or as accidents inhering in substances. For instance, Thomists speak of a substance being in the first or second act. That is, a substance exists (first acts) and performs actions in accord with its nature (second act). A being in potency is not in act here and now, but has the intrinsic capacity to be rendered into act, that is, to become what it is not here and now. There are various modes of being in potency. Passive potency means that an agent may be rendered into act, by another being in act. For example, many people who are pale have the passive potency to become tanned by exposure to the sun. Before exposure to the sun, they were not tanned, but had the passive potency to acquire this quality. Active potency implies that a being in act has the capacity to become something else, or to act in a different manner, by reason of its own proper nature. The agent goes from not acting to acting, or from sitting to standing. Experience teaches that beings acts in accord with their nature. Thus, an active potency may be remote or proximate, depending upon the stage of development of the being with the potency. He gave another example by stating that a rose bush has the potency to bloom and produce flowers; in the winter this potency is remote, in the spring this potency is proximate. Again, a grain of corn has the potency to grow into a large stalk of corn, given the proper environmental conditions; not into an oak tree.[37] In clear terms, the concept of potency

enables us to explain changes in a being when we know that the subject or substance under consideration remains the same, even though the appearances change. The concept of active potentiality has a strong implication on the human embryo. Kevin O'Rouke said that the concept of active potentiality is significant in the discussion of the embryo as a person. For Kevin, certainly, an embryo does not look or act like the entity that we usually refer to as an adult person. But we could see that it does have the active potency to develop into a mature adult, the entity we usually refer to as person. This means that the human embryo is not and should not be considered as a subject of research. Research on the embryo is morally impermissible.

The above arguments and analysis on the moral status of the human embryo centers on the following: that the use of human embryos for deriving embryonic stem cell is intrinsically unethical and unacceptable. To use the embryos for curing certain illness and possibly prolonging some human life is tantamount to instrumentalising human life and seriously weaken the respect accorded to a vulnerable category of persons, namely, human embryos. The other view states that the use of human embryo for research and medical purposes does not violate the dignity and the right of the human embryo. Although some of the scholars and scientists of the second view hold that the human embryo has a unique status because of its individual potential to develop into a person, it does not violate the dignity, protection and respect which goes with the personhood.

Our position in this matter is that the human embryo deserve the moral status we accord to children and adults to a great extent. We observe that some scientists, such as mentioned above though encouraged and supported research using the human embryo, still recognise that the human embryo has a unique status. This means that the human embryo as an entity deserves dignity and respect, irrespective of the fact that some have chosen to carry out research on it. It is worthy of note that the body is an essential component of the human person. As such, a man or a woman begins when his or her body begins. It seems to be the pro-choice position: that is moral status should be accorded to human persons with complete body and rationality. Fundamentally, if one looks for the moment when body begins retrospectively and from exclusively phenomenological point of view, keeping in mind the inviolable law, acquired through science, of the gradual formation of the organism, one would want to affirm that the body began at the moment of the fusion of the gametes, one from the father and one from the mother.[38]

One thing is factual here, and it is that this above scientific observation, which may be elementary, has always been accepted in its essential truth, even when nothing was known about embryology or about the mechanisms of the formation of a new human being. Indeed one can even state that it is indeed on this common phenomenological observation that the person who carries out artificial insemination bases his or her conviction that he/she is giving a "son" to the parents who have asked for it, from the very moment he produces the zygote that will then be transferred, at 4 or 8 cells, into the uterus where the process of bodily development will continue. From these analyses, it can be observed that, during the process of fertilization, as soon as the oocyte and the spermatozoon interact, a new system immediately begins. Further still, the new system is not simply the sum of the two sub-systems, but rather a combined system which begins working as a "new unit", intrinsically determined to reach its specific final form. Secondly, from the point of view of development of the one-cell embryo; from what is observed and known today, it clearly emerges that from the one-cell embryo, one arrives at the formation of the complete organism with successive interconnected steps, which lead to the determination of cell lines and to the differentiation of tissues, accompanied by and/ or followed by morphogenetic activity. The three biological properties that characterize this developmental process includes, coordination, continuity and gradualness.[39]

These explanations above, scientifically lead one to the conclusion, which in the logic of biology, seems impossible to deny. It is that:

> ...at the fusion of the gametes, a "new human cell", equipped with a new information structure, begins operating like an individual unit tending towards the complete expression of its genome, which manifests itself in a totality, which is constantly and autonomously organizes itself until it forms a complete human organism. This new human cell is therefore a new human individual which initiates its own cycle and given the sufficient and necessary internal and external conditions, gradually develops and achieves its immense potential according to an intrinsic ontogenetic law and unifying plan.[40]

The point we have here is that, from today's available biological data, from the moment of fertilization, the embryo is an individual human being, who is beginning this life cycle. Again, from this biological datum, a deep philosophical reflection offers us that the human embryo is not pure potentiality but a living and individualized substance. The reasons are; the human embryo is undoubtedly a being in whom, as in all living substances, the principle of

development and change is within the substance itself. It is really this internal principle that determines the embryo's development, and not that of an external, for instance, the mother. Given these, the expression that the embryo is potentially a man is equivocal and misleading. Put succinctly, the embryo is potentially a child, or adult, or potentially an old man, but it is not potentially a human being. On the other hand:

> ...the zygote is actually already a human being, developing his own internal program. This program is already complete, sufficient, individualized and activates itself obviously only where there are the necessary conditions for development. Therefore, before fertilization, the spermatozoon and the ovule only possess a mere possibility of making up a unified system and entity. The zygote, however, is an individual with his own life, and with his own identity given to him by a single unifying substantial principle.[41]

Simply put, it is only after fertilisation or conception that a person actually begin to exist. When the pro-choice thinkers refers to an entity as a person, this is partly what we think they have in mind:

> When talking generally about a person, one often thinks of a determinate and intelligent being: a singularity individualized in a body, within a historical tradition and, as such, unique and unrepeatable; a subjectivity which in its individuality is at the same time awareness, capable of taking in the universal and therefore values, the meanings of what exists; the person, that is, as self-consciousness, as meaning-oriented freedom, as world insight.[42]

This analysis in a way outlines and gives a complete definition of the person. At this point, we are led to ask ourselves the relationship between the zygote/embryo and the person or man who appears in this fullness. In answering this question, there is need to explain the notion and concept "end". It is argued that the end of a being is the reason why the being exists, begins to exist, structures itself during its development and matures in its completion. The end as it were explains the existence of a determinate being and it reveals its purpose and its meaning. However, this also means that the end is not simply at the end but is at the beginning of a being's development like a direction giver. One might not recognize this end in its fullness, but that is not a reason for excluding it from reality from the beginning. If it were not there from the beginning as a direction giver there would be no chance of completion and that being would not be what it is either before or later. These considerations have to be applied to this being's ontological value and dignity. These are not just a

conclusive event but rather they endow the reality in question from the moment it begins. They mark it from the beginning because they actually belong to its essential destiny.[43]

The analysis above leads to the conclusion that the beginning of individual life is the beginning of a person's or man's personal life. It points to the fact that the human embryo is not a mere cluster of cell or blood, but ought to be recognized as an individual human being, with the quality and dignity that belong to a human person.

Again, many pro-choice thinkers are quick to say that, the human embryo as a single cell organism has no capacity for memories. But scientifically, it has been proven that the adult person who enjoys those features like the capacity to reason and remember, did not develop these capacities in one day. These features developed gradually. Science and scientists have also proved that humans began and develop from the embryo into an adult. Based on these, it would be unfair for supporters of ESRC to assert that, "since l do not remember being a clump of source cells, it is hard to think of that clump of source cells as me."[44] The fact that the clump of cell; embryo and adult human are spatiotemporally contiguous with each other is enough to imply that the human embryo deserve the moral status we accord persons. It further implies that we already existed so many years ago before taking this present form. We do not need to recollect what we looked like in the embryonic or infanthood stage. Therefore, the embryo at that stage does not need memories, consciousness, or rationality to survive at that point in time. The embryo do not need experiences that can be remembered or a mind in remission, with a personal history. Therefore it is not problematic to say we were once embryo and that the embryo should be granted dignity, moral status and respect we give to persons. There is nothing problematic about it.

2.3.1 **Arguments for and Against the Discarded-Created Distinction**

2.3.2 ***Arguments in Favour of Discarded-Created Distinction***

This segment examines the moral issues and controversies surrounding the use and derivation of human embryonic stem cells from spare in vitro fertilisation (IVF) embryos and creating human embryos solely for research. There are two significant arguments in favour of creating human embryos using IVF technologies solely for stem research: The first is that there may be an inadequate supply of embryos remaining after infertility treatment. The second is that important research that could be of great medical benefit cannot be undertaken except with well-defined embryos that are created specifically for research and/or medical purposes. The

central and relevant question here is, what exactly makes it ethical or unethical to create embryos solely for research and using left-over of human embryos from IVF? Put differently Why is the use and derivation of human embryonic stem cells from research embryos ethically different than from spare embryos and why does this to a degree justify the prohibition of the creation of research embryos?

It is important to note that defenders of discarded created distinction (DCD), find the use and derivation of stem cells from spare IVF embryos ethically acceptable. Solter et al, submitted that using spare embryos would allow principles of freedom of research and the principle of progress, which states that restraints on scientific research are inherently offensive and generally unjustifiable and that we have a right to acquire knowledge.[45] The National Bioethics Advisory Commission, stated that the principles of beneficence and non-maleficence state that it is right to benefit people if we can and wrong to harm them. The human embryonic stem cell research could provide knowledge and therapies that would benefit thousands of people. Another reason why the use of spare embryos is morally justified is according to the Commission of European Communities, based on the principle of proportionality. This principle states that research has to serve an important purpose, such as a major health interest. The US National Bioethics Advisory Commission (NBAC) said, "in our view, the potential benefits of the research outweigh the harms of the embryos that are destroyed in the research process."[46] Another principle adopted by those who support the use of spare embryos is the principle of subsidiarity. This principle given by the Health Council of the Netherlands, stated that we have to choose the less contentious means of achieving the intended goal.[47] The defenders of the use of spare embryos apparently consider spare embryos as a necessary and also a sufficient stem cell source to reach the intended research goals. John Harris, pointed out that the most important principle in defence of the use of spare embryos for research is the principle of waste avoidance, which states that, other things being equal, it must be better to make good use of something than allow it to be wasted.[48] Thus for Harris, conducting research on human embryos that were originally created for reproduction but which were then discarded is far easier to justify than research conducted on embryos that were originally created for research. As it concerns human embryonic stem cell research, the argument goes that spare IVF embryos are going to be destroyed anyway because they are no longer needed in a procreation project, and that it is better to use them for greater good, that is, for research and therapies, than allow them to be wasted. After all, it does not alter their final disposition.[49]

Bonnie Steinbock thinks that medical research like stem cell that has the potential to prolong and improve people's lives is at least as valuable as enabling infertile people to become parents. Therefore, the creation and destruction of human embryos in important scientific research is as justified as it is in the treatment of infertility. He thinks neither contravenes the principles of respect for the embryos as a form of human life.[50] The International Bioethics Committee (IBC) of UNESCO asserted in their report that if the human embryo is a person, no embryo research is permitted, and even if it is not a person, it nevertheless demands respect as the source of human life. Personal individuality not personhood can be attributed after the day when division into normal twins is no longer possible - up to 14 days after fertilization. Since any potentiality for personhood requires implantation, non-implantable embryos are deemed ethically suitable for embryo research/therapy, in view of the fact that the only other alternative is their destruction. For IBC, it is morally permissible to create human embryos for research on the condition that such embryos will not be used for pregnancy. Besides, such embryo could be created by cloning, nuclear transfer, in order to produce embryonic stem cells for therapeutic purposes.[51]

Devolder submitted that many people would agree with the principles examined above. Besides, it is better to benefit people than not to benefit people or to cause them harm, and of course the research has to serve important purposes and valuable things should not be wasted. Put simply, it is unethical to object to the use of spare embryos in stem cell research that could bring happiness to a lot of people. It is immoral to harm people and object to something valuable that can improve their welfare positively. Devolder, however, submitted that these principles highlighted above though good, yet do not justify the discarded created distinction. The reason is that the defenders of DCD express why one wants some human embryonic stem cell research to go forward, and why one supports the use and derivation of stem cells from spare embryos, but it does not follow from these principles why one opposes the creation of IVF research embryos. It is perfectly possible to argue against the waste of spare embryos while at the same time considering the creation of research of embryos as ethically unacceptable.[52] The implication of Devolder submission is that it is morally justifiable to create human embryos solely for research. This is what some ethicists and others rejects outrightly. The question that is begging for an answer is "what happens if the spare embryos becomes exhausted?" Does it mean the research will be suspended or will they be forced to start creating embryos for research purposes?

2.3.3 ***Arguments Against the Discarded-Created Distinction (DCD)***

By contrast, some ethicists and scholars have objected to both using spare embryos and creating embryos for research purposes only. This would amount to treating the human embryo as a mere object; a practice that may increasingly lead us to think of the embryos generally as means to our ends rather than as ends in themselves. The basic objection of the advocates of discarded created distinction to the creation of research embryos is that through this act the embryo is not treated with the deserved respect such a form of human life is entitled to, because it is used merely as a means to an end. The underlying idea is that respect for human beings prevents the instrumental use of embryos, an act that, according to some, violates the dignity of the embryo. It is on record that most advocates of DCD genuinely think the embryo deserves special respect. They consider it to be more valuable than any other human cell or tissue (that does not mean other human cell are not valuable). Thus, by accepting the creation of spare embryos and their use for research, they apparently believe that its right to life can be weighed up against other values and interests. Secondly, that creating too many embryos for IVF procedure, where only few are needed and the rest discarded, is not morally justifiable.

David Resnik, in his contribution to the debate on whether the human embryo has dignity, right and moral value and whether the embryo should be created solely for research, examined some approaches to the issue of when human life begins. He said that the biological approach equates humanity with membership in the biological species *Homo sapiens*. He argued, all individuals of our species are human beings, including individuals at the earliest stage of biological development.[53] This implies that as human gametes form a zygote, it becomes a member of our species in virtue of its possession of the genetic information necessary to develop into an adult member of our species. However, he argued that the problem with this approach is that there are some moral differences between embryos, foetuses, infants, children, and adults. For instance, most people would mourn the death of a child or a six month old foetus than the death of an embryo. While the developmental approach asserts that the humanity of an individual develops as the individual develops biologically, psychologically, and socially. This simply means that, as an individual becomes more humanlike, we should treat it with greater respect. Individuals also acquire respect and duties as they develop and mature. For instance, young children have right to life but they do not have the right to vote or marry. Thus, unlike the biological approach, the

developmental approach holds that there are moral differences between different stages of human life.[54]

Resnik sees a problem with the latter approach which is that of how to determine an that individual is developed enough to have a right to life. Since development is a continuous process, and moral value increases with development, then even an embryo has some moral value. If this moral value is enough to entitle an embryo to a right to life, then developmental approach merges with the biological approach; since the right to life would begin at conception. At this point, Resnik concluded that the embryo does have a moral value, but its value does not imply a right to life. The reason is that, an embryo acquires a right to life only after it's implanted in the womb.[55] The implication of Resnik might be that once an embryo is not implanted into the womb it could be used for research and therefore has no right to life. Alternatively he could mean that since an embryo is not implanted, it is just like any other thing that could be discarded? Though Resnik arguments may sound good, many would not agree with him that human embryo acquires a right to life when it is implanted. The issue here is that once an embryo is brought into existence, it should be accorded every dignity including a right to life. An objection to the idea that there is a moral distinction between implanted embryos and un-implanted embryos is that implantation is an arbitrary milestone because an implanted embryo is not physiologically different in type, from an un-implanted one. Resnik answered by asserting that the right to life is the most basic of all rights such that if an entity does not have that right it has no other rights whatsoever. However, he thinks that the right to respectful treatment is more basic even than the right to life. He added:

> The right to life is a right not to be killed. If someone has a right to life, then other people have a moral duty not to kill that person. Let us imagine a situation in which someone faces execution for committing a heinous crime, and suppose that capital punishment, which is legal in many countries is morally acceptable. The criminal facing execution does have a right to life. Indeed some people have obligation to kill him. Even so, the criminal facing execution still has a right to respectful treatment. For example the people carrying out the execution should not torture, or abuse or taunt him in the process of killing him. They should respect his humanity even though he does not have a right to life. The practice of giving a prisoner his last meal, last cigarette, or last rites, reflects the general acceptance of the idea that even convicted murderers still have some dignity.[56]

Thomas and Mirian Budinger are of the view that it is unethical to create or use an already formed embryo for the purpose of performing experimental research.[57] The reason they adduced is that both types of embryos, that is, embryos created and embryos that are already formed have a high potential to achieve personhood if implanted. Robertson J.A. is of the view that the human embryo has to be protected because it has a symbolic value. The Dutch Embryo Act expressed by the Health Council of the Netherlands stated as follows: "since it is human in origin and has potential to develop into a human individual, the embryo has intrinsic value on the basis of which it deserves respect." In line with this, the French National Consultative Ethics Committee defends the position that "the embryo or foetus has the status of a potential human being who must command universal respect."[58] The two advisory bodies together with the views of Budingers and Robertson support that the human embryo has intrinsic value because it is a potential human being, a potential person.

The above debates center on the permissibility of using excess embryos created for infertility implantation for research and creating human embryos specifically for research purposes. We must note the difference between these two options. As it relates to the former, the act of creating embryo(s) is intended to fulfil a purpose, which is not related to any interest which the created organism might have; in the case of the supernumerary embryo, the organism is not initially seen as a means to another end, but as created as an end in itself. In the case of the latter, human embryos are created solely for research purposes, which means the human embryo is used as a means to an end. The implication of this is that even when excess embryos have been exhausted, some scientists are willing to create more embryos for research and therapeutic purposes. Is there any justification for allowing the creation of human embryos in order to derive stem cells, which will be used for therapeutic purposes?

Our position is that human embryo ought not be created and experimented upon. The point is that the human embryo is not just mere cell or clot of blood, but part of our humanity, the beginning of an end, that deserve dignity, respect and protection. Eric Cohen says, "in the desire to rescue the afflicted, we are creating, exploiting, and destroying human embryos, embryos that reason can show to be human beings in the decisive moral sense, human beings like and equal to us."[59] Cohen added that creating and killing human embryos shows our willingness to seek justice for the sick by committing injustice against the weak, to serve equality by denying equality.[60] By this, Cohen is submitting that the human embryo which is the beginning of every human life deserves equal treatment we give the rest of human beings that we call persons for some reasons. Cohen stated further that the declaration famously

called the human equality of rights is a "self-evident truth" – not an article of faith, but a self evident truth. He says, self-evident truth is like an axiom in Euclidian geometry. It neither admits of proof, nor does it require proof. The reason is that, it carries its evidence in itself, to understand it is to affirm it. (For instance, "the whole is greater than the part"). If one understands "whole," "greater," and "part," the truth of the axiom is immediately and indisputably evident.[61]

Applying to the issue of the human embryo, Cohen asserts that like other self-evident truths, the idea that all men are created equal is discernable by mind directly. It is rational in the sense that it requires or can be proved by an argument, but it is not a mere construct or sentiment. Rather, it is an intuitively grasped idea regarding what human beings as human beings are. For Cohen, therefore, to understand what it means to be human requires affirming that all human beings possess certain natural rights. Leon Kass opinion on this issue differs. He says:

> I think l share Cohen's moral sensibilities. We are on the same side of the argument. But in the end, l don't think that the cultural conflict surrounding the human embryo question is best described as a tragic problem within our principle of equality. It is better understood in terms of a tension between humanness and humanity, between a concern for human frailty and an appeal to human dignity.[62]

The point Kass is making is that the problem of human embryo research goes beyond appealing only or mainly to the principle of equality. The problem can be solved by appealing to a sense of human dignity, tied not to our weakness but to our strengths as god-like and generous beings. Kass submitted that he is not sure whether the embryo is his equal, but one thing he is sure of is that the argument from continuity of the human embryo sounds very convincing. Besides if we ran the process backward, all of us came from the embryo (continuity argument). Kass concludes that we should not live in a society that uses the seeds of the next generation for the sake of its own.[63]

Sequel to the above arguments, an international scientific consensus now recognizes that human embryos are biologically human beings beginning at fertilization and acknowledges the physical continuity of human growth and development from the one-cell stage forward. That it is scientifically invalid and inaccurate to refer to human embryo in whatever form as "pre-embryo". This fraudulent term (pre-embryo) has been discarded and others which once

used the term have quietly dropped it from new editions of embryology textbooks. It is also stated that both the Human Embryo Research Panel and the National Bioethics Advisory Commission have also rejected the term, describing the human embryo from its earliest stages as a living organism and a "developing form of human life". Thus the justification that an early human embryo becomes a human being only after 14 days or implantation in the womb is therefore a scientific myth. On a final note, the historic and well-respected 1995 Ramsey Colloquium statement on embryo research acknowledges that:

> The (embryo) is human; it will not articulate itself into some other kind of animal. Any being that is human is a human being. If it is objected that, at five days or fifteen days, the embryo does not look like a human being, it must be pointed out that this precisely what a human being looks like – at five or fifteen days of development.[64]

Therefore, the moral justification that the human embryo should be created and experimented upon ought not to be for the simple reasons stated above.

2.4.1 **Therapeutic Cloning**

2.4.2 ***Arguments in Favour of Therapeutic Cloning***

The term "therapeutic cloning" is used to distinguish reproductive cloning in which the goal is to make a baby that is identical to the parent. Therapeutic cloning involves creating by cloning human embryos and then destroying them to harvest embryonic stem cells for therapeutic purposes. This method and procedure involved is known as somatic nuclear transfer (SCNT). This involves creating a cell that exactly matches a patient. Put simply it means combining the patient's somatic cell nucleus and enucleated egg. For instance, a skin cell is infused into a donated egg that has had its nucleus removed. This egg, which now contains the genetic material of the skin cell, is then stimulated to form a blastocyst from which embryonic stem cells can be derived. The stem cells that are created in this way are therefore clones or copies of the original adult because their nuclear DNA, but not mitochondnal DNA matches that of the adult cell.[65] There was a contention whether the embryo generated or created through SCNT has the potential to develop into a human if implanted. For some scholars, the contention is unnecessary for the simple reason that since this technique has/can produce living animals such as sheep and cows, it follows that it is likely that the cell that results from insertion of an adult nucleus into an enucleated oocyte is a zygote and can become an embryo. It is important to note that scientists hope that the stem

cells derived through SCNT can grow into specialized cells which will then act as means of therapy and maybe cure diseases such as Parkinson's disease, diabetes, stroke, Alzheimer's disease and Spinal cord injuries.[66] This procedure has also raised an extensive range of controversial and moral issues.

Nancy Reagan and Gerald Ford generally support cloning for therapeutic purposes. They believe that there are sound moral reasons for not regarding the embryo in its earliest stages as the moral equivalent of a human person. They base their opinion on the fact that, at the blastocyst stage (the one useful for stem cell research), the cells are still undifferentiated and could still split and develop into two separate twinned embryos, suggesting that the earliest stage embryo is not yet an individual. Furthermore, they noted that the possibility for the development of a human child from a cloned embryo would require its transference to a uterus, as is currently the case with IVF. For this reasons, Ford and Reagan deny that therapeutic cloning is a moral problem.[67] Following closely is Dr Hwuang, a scientist from South Korea. He is said to have cloned human embryos to extract stem cells. Though Hwuang believes that life begins when egg and sperm meet and he is opposed to abortion; but he pointed out that cloned embryos do not have the capacity to develop into children. In fact, he described reproductive human cloning as "impossible". Therefore, he concluded that because cloned embryo do not have the capacity to develop into children even if they were implanted into a uterus, cloned embryos deserve no moral consideration than other groups of cells.[68] The problem here is that Dr Hwuang did not tell us why he says, cloned embryo does not have the capacity to develop into a human person. Could his reason be hinged on the fact that he thinks human cloning is impossible? Yet he did not tell us in clear terms why he thinks human cloning is impossible. Paul Mettugh another scientist who also objects to the destruction of human embryos, expressed an opinion similar to Hwunag's in a medical journal article. Mettugh argued that SCNT, "resembles a tissue culture," and that the products of SCNT should be available for research once regulations are in place to ensure that SCNT is conducted ethically.[69] The issue here is that, if Paul Mettugh is opposed to destruction of human embryos, why would he also support therapeutic cloning where the human embryos are going to be destroyed eventually. This is in contrast to his earlier position.

William Hurlbut made a proposal which he thinks would minimise or eradicate completely moral problems associated with stem cell research. The proposal includes the possibility of using SCNT in combination with other techniques to ensure that the group of cells created cannot give rise to human life but can generate embryonic stem cells. Hurlbut explained that

using the technique of nuclear transfer, it may be possible to produce embryonic stem cells within a limited cellular system that is biologically and morally akin to a complex tissue culture and thereby bypass moral concerns about the creation and disruption of human embryos. However, some scholars have criticised this proposal by saying that to create something that is not an embryo, yet generates embryonic stem cells, as one focused on a semantic issue, not a scientific one.[70] John Robertson in his book, *Children of Choice*, sees the problem of embryo research in terms of right. He argues that the fundamental question is whether procreative liberty gives people the right to use their procreative capacity to produce products or materials to serve non-procreative purposes?[71] Robertson agrees with most forms of non-therapeutic embryo experimentation, arguing that the loss of human embryonic life is profoundly and morally insignificant.

2.4.3 ***Arguments Against Therapeutic Cloning***

The President of Council on Bioethics stated that therapeutic cloning is a moral problem for the following reasons: the subjugation of weak members of society, or genetic manipulation of developing life. The council reports that, " as much as we wish to alleviate suffering now and leave our children in a world where suffering can be more effectively relieved, we also want to leave them in a world...that honors moral limits, that respects all life whether strong or weak, and refuses to secure the good of some human beings by sacrificing the lives of others."[72] Dr Dave Yount presented three arguments why therapeutic cloning is immoral. The first he called "Deals with Reality argument"-Yount said people need to learn to live with disease and be responsible for their own life choices, and stem cells are not the only possible avenue to pursue in order to prevent disease. He said that if Nietzsche is correct that "what does not kill you makes you stronger," then we need to deal with the fact that we will all die, and that some of us will die from diseases for which we do not currently have the cure. He quoted Plato to substantiate his point. He said, "...the really important thing is not to live, but live well." For Dave Yount therefore, using medical technology when it does not involve the destruction of human life is fine, but using any means necessary to stay alive is not always morally acceptable.[73]

The second he called "Therapy-Enhancement Blur" argument. In this context, Yount argued that if we allow cloning for research purposes, in order to enhance our genetic structures, not only to rid ourselves of genetic defects (i.e., negative eugenics or negative genetic engineering) but to create what he calls "better" and "healthy" children (i.e., positive

eugenics or positive genetic engineering), these techniques, would threaten to blur and ultimately eliminate the line between therapy and enhancement. He said we may have good intentions in the world, "but in the process we stand to lose the very means by which to judge the goodness or the wisdom of the particular aims proposed by a positive eugenics."[74] Therefore, therapeutic cloning is morally impermissible. The third he called "Anti-Medical Advancement" argument. Here, he said the pro-cloners argued that cloning is for the benefit of understanding human development and advancing science in general. But Yount citing Brock, provided three reasons for caution about such claims. First, there is always considerable uncertainty about the nature and importance of the new scientific or medical knowledge to which a dramatic new technology like therapeutic and human cloning will lead. Second, we do not know what new knowledge from therapeutic cloning or human cloning research could also be gained by others means that do not have the problematic moral features to which its opponents object. And thirdly, human cloning research that would be compatible with ethical and legal requirements for the use of human subject in research is complex, controversial, and largely unexplored. Creating clones solely for the purposes of research would be to use them solely for the benefit of others without their consent, and so unethical. Yount claims that Brock concluded that it is reasonable to conclude that at this time that human cloning does not seem to promise great benefits or to uniquely meet great human needs, and since therapeutic cloning and reproductive cloning involve morally objectionable practices, they are morally impermissible.[75]

Sharmin Islam et al, submitted that therapeutic cloning is a step towards a slippery slope of human reproductive cloning which is prohibited internationally. Again, the issue of embryonic human cloning, which they considered as a serious ethical matter related with the commercialization of the process.[76] For instance, they cited an example of Advanced Cell Technology Inc., Worcester, where scientists have been conducting therapeutic cloning, paying women donors for eggs to be used in it. For the Sharmin et al, this is like making medicine a commodity. They asked, if cloning is allowed to achieve a perfect match donor cells, then why not permit it for reproductive purposes? But then is it not creating a human in order to destroy it? Yes, it is, they said. They cited Charles Krauthammer, who expressed his fear in this way: "Had we not all agreed that it is unethical, a violation of the elementary notion that we do not make of the human embryo a thing-to be made, unmade and used as a mere instrument for others? Krauthammer added that, today human embryo is created for harvesting. Tomorrow, researchers may find that a five-month-old fetus with a discernible

human appearance suspended in an artificial placenta, may be the source of even more promising body parts. At what point do we draw the line? We owe posterity a moral universe not one trampled and corrupted by arrogant, brilliant science.[77] Mae-Wan Ho and Joe Cummins, gave the following reasons why therapeutic cloning is morally wrong. They said, ES cells carry health risks, and there are major technical difficulties in creating them with nuclear transplant cloning techniques. ES cells of this origin and source can give rise to teratomatous-malignant tumours (cancers) consisting of a disorganized mass of differentiated cells-on be transplanted. Secondly, nuclear transplant cloning is a very inefficient process with massive failure rates, requiring a large number of donor eggs. And lastly, nuclear transplant clones created by transferring human nuclei into cow and pigs carry even greater risks, it is well-known that such interspecific nuclear-cytoplasmic hybrids fail to develop normally. These are scientific facts which points to the direction that therapeutic cloning is highly problematic; a no-go area.[78]

This section of the debate still centers on whether the human embryo should be used for therapeutic purposes or not. It is important to note that the debate on therapeutic cloning and human cloning is shaped by diverse socio-cultural norms, diverse moral and religious traditions. It is on record that there is an international consensus that reproductive cloning should be prohibited and secondly, the newly emerging techniques to create embryonic stem cells require a reconsideration of the current regulations of embryo research that were defined primarily in the context of artificial reproduction.[79]

The above marks the starting point that therapeutic cloning may not be right and should not be encouraged. The question that looms is do the therapeutic benefits anticipated from the research derived from human embryos created by somatic cell nuclear transfer or replacement techniques justify the destructions of human embryos? The answer for us is on the negative. The first reason is that the human embryo is not just another clot of cell, rather the embryo is part of the human species, deserving respect and dignity. This has been justified in various arguments above. Secondly, the issue is that all cloning are reproductive. Here reproductive cloning means allowing the cloned human to live. Therapeutic cloning implies creating an embryo for research and therapy and subsequently prevented from developing into a full human being. Therefore, the argument that clone embryos cannot developed into infant or human being holds no water. The implication of this is that the embryo could never be made human if it were not already human.[80] Leon Kass submitted that:

> What is new is nothing more radical than the divorce of the generation of new human life from human sexuality...the mysterious and intimate processes of generation are to be moved from the darkness of the womb to the bright light of the laboratory...we are considering not merely new beginning individual lives, but also new ways of life and new ways of viewing human life and the nature of man. A man is partly where he comes from and the character of his life and his community will no doubt be influenced by the way he comes.[81]

2.5 **Fetal Stem Cell**

According to Mary Carrington Couts, the recent use of tissue from fetal remains for transplantation and biomedical research has surfaced as a controversy that involves scientists, doctors, patients, moralists and the general public. Fetal tissue is potentially useful in a wide range of treatments for a number of serious diseases affecting millions of people.[82] What is new in the fetal tissue transplantation is that, the materials derived from this tissue would not be transplanted; rather, gonadal tissue (both male and female) would be used as a source for human embryonic germ cells (EG cells) These cell lines would be used in basic research to determine their nature, to understand their relationship to human development and to identify differentiation factors that enable such cells to develop into particular tissue types.[83] Despite the promise, transplantation research using fetal tissue is generating serious moral controversy associated to the abortion debate.

The National Academies Guidelines for Human Embryonic Stem Cell Research affirmed that the ethical issues generated from fetal stem cells or tissue of aborted foetuses are closely related to the ethical acceptability of abortion. Those who believe that elective abortions are morally acceptable are less likely to identify insurmountable ethical barriers to research that involves the derivation and use of embryonic germ cells derived from cadaveric fetal tissue. This group is likely to submit that it is important to restrict such research by requiring that the decision to donate fetal tissue be separate from the decision to terminate pregnancy. The reason is simply to protect pregnant women against coercion and exploitation rather than to protect the fetus. Those who view elective abortions as morally unjustified often, but not always, oppose the research use of tissue derived from aborted foetuses. They usually have no moral difficulty with the use of tissue from spontaneously aborted foetuses or, if they

recognize exceptions to the moral prohibition on abortion, from foetuses in cases that they believe are morally justifiable abortions (e.g., to save the pregnant woman's life).[84]

However, they do not believe that it is possible to derive and use tissue from what they believe are unjustifiably aborted foetuses without inevitable and unacceptable association with those abortions. This association, for them, usually taints the actions of all those involved in using these materials or in financing research protocols that rely on such tissues. Some opponents of elective abortions are of the opinion that it is still possible to support such research provided effective safeguards are in place to separate abortion decisions from the procurement and use of fetal tissues in research. Opponents of the research use of fetal materials derived from elective abortions dispute the claim that it is possible to separate the moral issues surrounding the abortion from those involved in obtaining and using fetal material. It is argued that those who obtain and use fetal material from elective abortions inevitably become associated, in ethically unacceptable ways with abortions that are the sources of the material. They are associated either causally or by symbolic association.[85]

Causal responsibility implies that those who provide cadaveric fetal tissue in research are indirectly, if not directly, responsible for the choice of some women to have abortion. Direct causal responsibility exists, where, in this case, someone's actions directly lead a pregnant woman to have an abortion. For instance, if the researcher offers financial compensation for cadaveric fetal tissue and this compensation leads the pregnant woman to have an abortion she would ordinarily not have procured. While this is possible sometimes, it is not every time. Again, those involved in research uses of embryonic germ cells derived from fetal tissue could be directly responsible for abortions if the perceived potential benefits of the research contributed to an increase in the number of abortions. The opponents of fetal tissue research argue that it is unrealistic to suppose that a woman's decision to abort can be kept separate from considerations of donating fetal tissue as many women facing the abortion decision are likely to have gained knowledge about fetal tissue research through the media or other sources. This alone justifies why some women who are ambivalent about it go into abortion.[86] The implication is that it may further legitimize abortion and result in more permissive societal attitudes and policies concerning elective abortion.

Symbolic association on the other hand, means that some people become inappropriately associated with what they believe are wrongful acts for which they are not causally responsible. James Burtchaell asserts that those involved in research on fetal tissue enter a

symbolic alliance with the practice of abortion in producing or deriving benefits from it. For example, transplant surgeons and transplant recipients may benefit from donated organs from victims of murder or drunken driving, but nevertheless condemn those wrongful acts. At the same time, a researcher who uses cadaveric fetal material in studies to arrive at an important research questions or to study its potential therapeutic effects or the patient who receives the donated tissue need not sanction the act of abortion anymore than the transplant surgeon who uses the organs of a murder victim approves of the homicidal act.[87]

From another angle, some opponents of fetal tissue research maintain that it implicates those involved in a kind of wrongdoing that cannot be attributed to a transplant surgeon in the previous examples. This is because unlike the drunken driving and murder case, abortion is an institutionalized practice in which certain categories of human life (the members of which are considered by some to have the same moral status as human adults) are allowed to be killed. In this sense, some opponents of abortion aver that fetal tissue research is similar to research that benefits from experiments conducted by Nazi doctors during World War II. By extension, those who use data from Nazi experiments are morally complicit with those crimes. In line with the foregoing thinking, William Seidelman added:

> By giving value to Nazi research we are, by implication, supporting Himmler's philosophy that the subjects' lives were 'useless'. This is to argue that, by accepting data derived from their misery we are post mortem, deriving utility from otherwise 'useless' life. Science could thus stand accused of giving greater value to knowledge than to human life.[88]

Concerning fetal tissues derived from an aborted fetus, Robert Hutchinson noted that research using stem cells from aborted tissue–embryos has been largely unsuccessful, even damaging to patients. The scientific journal *Annals of Neurology,* reports that recent experiments in treating Parkinson's disease by using brain cells taken from aborted foetuses have failed. It was observed that after the fetal cells were injected into the brain of patients with Parkinson's disease, fifty six percent of the patients developed unanticipated dyskinesia, a condition involving potentially disabling repetitive movements, like jerking of their heads and swinging or writhing of their arms.[89]

The bone of contention here is whether the fetal remains should be used for research or not. Those who opposed to the use of fetal tissue for purposes of research and transplantation have four major objections and they include; the first is one is that the fetus is not being

respected as a human being/person of intrinsic worth but is being treated as an instrument; secondly, that the use of fetal tissue amounts to complicity in abortion and demand for the use of such tissues will legitimate the abortion industry and thirdly, that the ready access to tissue from aborted fetuses will lessen the effort to find alternative sources of treatment or therapy and fourthly, that recent fetal transplantation has failed especially in treating patients with Parkinson disease and related illness.

Our submission at this point follows from our previous submissions, namely that using the human embryo for research purposes violates the dignity and the respect we should accord the embryo which some scholars consider to be a human being. They simply premised their arguments on the available evidences science and philosophy has rationally provided. Secondly, scientists in support of this research did not convince us enough that using fetal tissue will not encourage abortion. Though deliberate abortion is encouraged in some societies, yet it does not make it morally acceptable or permitted. Different people give reasons why abortion must be encouraged and we stand to say that the only reason why abortion may be allowed is when the life of the mother is threatened. Outside this, we do not think abortion should be permitted to the extent that the aborted fetus is used in stem cell research.

One of the reasons why the human fetus should not be used for research purposes is that science has indisputably demonstrated that the fetus is a human being and it can be argued that personhood is coextensive with humanity. Therefore, it is impossible to talk about the nature of the person, without making reference to the embryo or the fetus in the real sense of the word. Again, no pregnant woman would ever say she is carrying a clot or ball of cells, rather they always lay claims to the fact that they are carrying a baby-which means they are carrying a human being that must be accorded respect and dignity. The holy scriptures reminded us several times that fetal life is recognized as precious to God. The psalmist praises God, “who created my inmost self, and put me together in my mother’s womb.” The Gospel of St Luke (1:42) reports that John the Baptist “leapt in the womb” upon hearing the voice of his saviour’s mother. The question is, is not the humanity of the fetus being denied in the very act of abortion, and then its humanity being exploited for the purposes of research? Some scientists may be quick to say that scriptural truth justifying the humanity of the fetus is not scientific truth. But what they fail to understand is that science alone cannot determine or answer the question of what makes a person a person or on issues that borders on human life. They must not fail to understand that something might have ontological status

without epistemological access. This means that something might exist and be true in itself without being known to exist and truthful. In other words, the truth of the scriptures cannot be sidelined in matters like this. It is important that in searching for answers about the status of the embryo or the fetus, other avenues of human knowledge must be examined.

2.6 **Conclusion**

The set goal of this chapter was to expose, examine and evaluate some key ethical issues in stem cell research, particularly human embryonic stem cell research. In doing this, two basic schools of thought (pro-choice and pro-life) were examined on their views on what constitutes or what should constitute the moral status of the human embryo. We observe that scholars who belong to the former, submitted that research on human embryo should be encouraged, since the human embryo is not an equivalent of the human person. Put simply, it is immoral not to allow research on the human embryo, since the benefits to many outweigh the concern that the embryo would be destroyed. On the other hand, scholars of the latter school of thought submitted that, research on the human embryo constitutes a serious moral issue for the simple fact that, the human embryo is not a mere clot of cells, but rather, is equivalent to the human person. For instance, they made allusions that scientific fact has revealed that life begins when the sperm and the oocyte fuses together. At this point of development, simple logic dictates that a new human life with its own genetic makeup starts. Therefore, they concluded that pro-choice scholars are merely playing on words to confuse people, that there is difference between, a clot of cell, an embryo, a fetus, an infant and an adult person. The fact remains that without that tiny clot of cell referred to as embryo, we cannot talk of an adult person.

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Chapter Three

The Question of Personhood and Stem Cell Research

3.0 **Introduction**

This chapter focuses on the question of personhood and stem cell research. It examines various debates and arguments surrounding the issue of stem cell research especially the human embryonic stem cell research. The problem or controversy over human embryonic stem cell research arises from the fact that obtaining stem cells from the human embryo encourages the destruction of the embryo. Some thinkers from different fields of study maintain that human embryos have full moral status and that destroying them in the name of research is immoral. These thinkers argue that human embryos have the same status as human persons, and as such should not be used for research. Another perspective, however is that human embryos are not persons, and therefore have no moral standing and could be used for research at least to save lives. This chapter examines arguments from both perspectives, and begins with an analysis of the nature of a person.

3.1 **The Nature of the Person**

The understanding of the nature of the human person has increasingly played a foundational role in the history of philosophy and modern science. Historically, the study of human person dates back to the ancient philosophers such as Socrates, Plato, Aristotle, and Hippocrates. Indeed the human person, has become an object of study in many disciplines such as sociology, psychology, theology, biology, anthropology and philosophy. It appears that the more these fields interrogate the nature of man to know about the value of his/her existence, the more such understanding becomes elusive. Little wonder then that Martin Heidegger laments thus:

> No epoch has had as ours has had, notions so numerous and valid of man. No epoch has succeeded as ours has in presenting its knowledge about man in such a fascinating and effective way, or in communicating this knowledge in so rapid and easy a way. Yet, it is also true that no epoch has known less than ours what man is. Never has man assumed so problematic an appearance as he has in our times.[1]

It is against this backdrop that the onerous burden to interrogate the mystery of man falls on the shoulders of philosophers. The question that is often asked is "what is man"? This question appears to be simple and ought to be answered in a straightforward manner that 'persons are human beings like you and me'. However it generates further questions which must be answered.[2] Furthermore, the question of what a human person is, is primordial in the sense that it has always been the question for man. Beginning from man's awareness of concerns beyond the necessary fulfilment of fundamentals needs, the question has been raised and continues to be raised as to the essence, origin and definition of human person.[3] Another way to approach this is to assert that if we are to study and understand man, we need a human model. This sounds like a truism and it ought to be one, even though it is true that it is not, because the subject of man registers an inadequate model for its study. Nevertheless, this question has arisen in many different situations, which have necessitated the various answers expressed in varying models.

While some understand the word 'person' as a derivative of the Greek *prospon*, others trace its root meaning to the Latin *persona* which is its equivalent. *Persona* means "mask, especially as worn by an actor or social role in plays or drama," while *prospon* refers to mask, or more precisely face. Later it took a technical character to describe a unique being especially by the Romans to depict who bears legal rights as different from slaves who had no rights.[4] However, even today the concept of person and its practical applications still arouse a serious and sometimes bitter controversy. In ordinary parlance, it connotes an individual that is worthy of respect and protection. Nevertheless, philosophers do not agree on the conceptual definition and empirical identification of who a person is.

According to Stanley Rudman, in *Concepts of Person and Christian Ethics*, the discourse concerning the person has been about the Trinitarian nature of God and the comparison between human and divine personhood in terms of relationality. He added that the concept of person is socially constructed. It embodies social and religious values about the nature of human personality and individuality in relation to society. They are usually associated with other significant ideas about the nature of the self, such as mind, body or soul; or freedom, responsibility and accountability; personal identity and survival; relation to others including non-human animals and the environment and belief in God. Discourse on personhood has also occupied a place of importance in ethics. It is widely accepted in recent ethical discussions that 'person' is a moral concept and that the criteria for differentiating 'persons' from other living and non-living entities must be moral. However, some scholars are sceptical

about using moral criteria in defining the person because they believe such value is elusive, vague and ambiguous.[5]

Contemporary discourse about the nature of the person is from the perspective of personal identity with the central question being how should the person be defined, should it be defined in terms of material criteria such as body or brain; mental criteria such as self consciousness, rationality or intentionality; moral criteria such as rights or respect; or religious criteria such as soul or relationship with God? Some feminists have argued against what they consider as the unjust assumptions of Enlightenment thought, which has extended and exalted rationality and human rights as criteria and marks of personhood. For them personhood should be defined and understood primarily in terms of embodiment and relationality.[6] This conception of the person as a relational being has been emphasised by thinkers such as Karol Wojtyla, Emmanuel Levinas, Mournier and Martin Buber.

Generally, persons are often thought of as essentially rational human beings, capable of moral actions, and valuable for that reason.[7] Another view sees persons as essentially human beings, normally rational, but including also those who are not yet fully rational, such as infants, and potential human beings such as foetuses, and the senile, who have lost their rational faculties.[8] Rudman posits that it is sometimes believed or assumed that a "human being" is a purely biological category, unlike 'person' which is a social or moral category, and that concepts represent something of value and what we are dealing with is a clash of values. This in the sense that each is pricing something different or representing a different way of understanding or valuing the personhood.[9]

In addition, the issue of personhood has continued to be associated with the 'human being', both in popular thought and philosophy. The need to recognise the logical distinction of a person and a human being has led to increasingly frequent attempts to specify the essential criteria of personhood without reference to accidental properties of being human. This is because most of the time, we tend to neglect the overall context in which discussion about the personhood and human being are set. For instance, neglect of the idea that the human being is not simply a biological category, but may represent a term of value within a religious/theological context, has contributed to the polarisation of the concepts person and human being and the failure to understand a theological ethic, which supports an ethic of personhood without devaluing human being or setting personhood and human being in opposition.[10]

The word 'person' assumed its enduring philosophical definition when Boethius defined it as, "*persona est rationalis naturae individuae substantiae*-person is an individual substance of a rational Nature."[11] Here, three key concepts are prominent; substance, rational and individual. Substance in the Scholastic meaning is that which exists on its own and not inhering in another. Substance is contrasted to accident which is a reality that exists but not independently, but rather inheres in another reality. For instance, colour which inheres in paper. Substance on the other hand, has self-independent existence and is either first or second substance. Furthermore, Pantaleon stated that first substance is an independent concrete reality that exists on its own, for example paper or tree. That means, first substance are the realities that we touch. The second substance on the other hand, is a mental abstraction from first substance, like paperness or treeness. Paperness does not concretely exist; yet it is an existing reality, existing in the human mind and abstracted from real and concrete existing paper. If Boethius meant the first substance, then adding individual to it is superfluous because a first substance is always an individual. But if he meant the second substance, it would be impossible because second substance is never individual but abstract.[12]

The second aspect of Boethius' definition of the person is rationality. Basically, rationality is the ability or power to think, to reason, to reflect, etc. Thus, an individual of a rational nature would then mean a being that is in itself rational. The problem here is that Boethius' definition of person as an individual substance that is of a rational-Nature conspicuously exclude non-rational beings like lower animals and plants. But he fails to limit it as it concerns higher beings; for instance God. It fails to tell us the category of reasoning that is required for there to be personality. This is because divine reason/rationality is not human reason. Again, the third element of his definition which is individuality is also problematic. According to Pantaleon, we now know that legal persons exist who are not individuals in the sense of being singular persons. These legal persons in the form of groups and associations are recognised as persons with rights and responsibilities, exactly like individual persons. Hegel corroborated this when he gave a legal definition of the human person "as the most abstract and external expression of morality."[13]

According to Pantaleon, the entire Western philosophy adopted this rationalistic-individualistic definition with some minor amendments. However, at a closer look, this definition appears heavily one-sided. For Pantaleon, this definition cuts out the human person completely from community from which both the experiential and even the rational individuality of the person are derived. To be a person in the understanding of Pantaleon goes

beyond individuality and rationality. For instance, Western psychology and anthropology have shifted the emphasis from rational individuality to relationality in the explanation and definition of a person. Put simply, the definition of personhood goes beyond abstract individual rationality, to include consciousness, communal commitment to life, to community, and to other beings.[14]

St. Thomas Aquinas' definition of the person is derived from Boethius. He says the person is, "*persona est subsistens distinctum in natura rationali*-that is, the person is a distinct subsistent in a rational nature." This is rather an improvement on Boethius' definition by adding distinct subsistent as against individual substance. The difference here according to Pantaleon is that Aquinas attempted to resolve or correct what he thinks was vague in Boethius by replacing individual in Boethius with distinct and substance in Boethius with subsistent. Thus, subsistent in Aquinas' thought is an actual existing being in itself. It is a separate being or entity with its own act of existence.[15]

By implication, to be a person, is not merely to possess a complete individual intellectual nature, which all admitted was an essential requisite. To be a person in its own right such a nature would have to possess or 'own' its own act of existence (*esse*). The human person is not only an essence, a substantial form or a soul; rather the human person is *actus essend*i- an act of existing, an act of being. It is this act of being that makes the human being to be. Put simply, essence makes a thing what it is, but the act of being makes to be , to exist.[16] For Aquinas therefore, the person could be defined as an, "intellectual nature possessing its own act of existence, so that it can be self-conscious, responsible source of its own actions."[17]

Rene Descartes notion of the person was visibly expressed in his version of dualism, labelled after him as Cartesian dualism. He affirms that a person is one and the same thing as an incorporeal soul, an immaterial logical substance devoid of material bodies and in particular, extension. The soul has neither length, width nor breath, and thus occupies no volume of space; a person is also totally distinct and different in kind from his or her extended space occupying physical body.[18] In his *Meditations* he asserts:

> Thinking is another attribute of the soul; and here l discover what properly belongs to myself. This alone is inseparable from me. I am – I exist: this is certain; but how often? As often as l think; for perhaps it would even happen, if l should wholly cease to think, that l should at the same time altogether cease to be. I now admit nothing that is not necessarily true...[19]

This explains that Descartes conceived the person to be a composite of body and soul. Secondly, he came to the conclusion that thinking is a necessary part of man; as such it is impossible to think out of existence.

Having stated that man is a composition of body and mind, he took a step further by stating that they are two different substances. The body as a substance is divisible because it is material. He substantiated this by saying:

> By 'body', l understand all that is capable of being bounded by some shape, of being enclosed in a place, and of filling up a space in such a way as to exclude any other body from it; of being perceived by touch, sight, hearing taste or smell; of being moved in several ways, not of course by itself but by whatever else impinges upon it. For it was my view that the power of self-motion, and likewise of sensing or of thinking, in no way belonged to the nature of the body.[20]

From the above, Descartes believed that, the mind is a substance on its own, which has no influence of any material nature. It is immaterial in nature. It is through the mind that the comprehension of self is ascertained. The essence of this immaterial substance is thinking. It can subsist on its own without the body. The mind is indivisible, for it must be of an entirely different nature from the body, that is, it must be essentially incorporeal. Descartes added that, "I admit nothing that is not necessarily true. I am therefore precisely nothing but a thinking thing; that is, a mind or intellect, or understanding, or reason..." [21]

Following the above, Descartes attempted to justify the link between body and soul and made the following claim thus:

> I know that all the things that l clearly and distinctly understand can be made by God such as l understand them. For this reason, my ability clearly and distinctly understand one thing is different from the other, since they can be separated from each other, at least by God...I know that l exist, and at the same time l judge that obviously nothing else belongs to my nature or essence except that l am a thinking thing. And although perhaps...l have a body that is very closely joined to me, nevertheless, because on the other hand l have a distinct idea of a body, insofar as it is merely an extended thing and not a thinking thing, it is certain that l am really distinct from my body, and can exist without it.[22]

Besides this, Descartes further gave a radical view that the mind and body are really distinct from each other when he said:

> There is a great difference between the mind and the body, in that the body by its very nature is always divisible. For in truth, when l consider the mind or myself in so far as l am merely a thinking thing – l can distinguish in parts within myself; l regard myself as one complete... The faculties of willing, sensing, understanding, etc., cannot be termed parts of the mind, since it is one and the same that wills, sense and understands. By contrast, l can think of no corporeal or extended thing that l cannot easily divide by thought into parts, and so regard as divisible. This one fact would be enough to teach me that the mind is completely different (*omnino diversa*) from the body, even if l did not already know it well enough from other considerations.[23]

It is obvious from the above that Descartes meant to say that the mind is an immaterial or spiritual substance. It possesses the capacity to doubt, comprehend, infer, deny and even will. It is the real nature and essence of man. Obviously, we may conclude that mind and body are substances of distinct types. While he made a distinction between the mind and the body, he also recognizes that mind and body are inseparably related. Put simply, he submitted that they – mind and body unite together to make an entire human entity. This led to the theory of interactionism, whereby the mind which is the immaterial substance interact with the body which is a material substance. This theory of Descartes created problem he could not resolve in his life time; which has further generated debates on the nature of the human person, especially the mind – body problem.

John Locke's notion of person is vividly expressed in his work, *Essay Concerning Human Understanding*. Here, Locke's idea of the person emanated from his analysis of inorganic and organic bodies and personal identity.[24] He was said to have been the first thinker to address the problem of personal identity which culminated into the modern form.. He began his analysis on personal identity by attempting to define the concept of a person. According to Locke, "the person is a thinking, intelligent being, that has reason and reflection and can consider itself as itself, the same thinking thing in different times and places."[25] As such, intellectual abilities and self-consciousness are elements that defines a person. Locke went further by polarising between the person and a human being. He asserts that "person" and "human being" are distinct categories; not all human beings are persons and perhaps not all persons are human beings. The concept of a human being is at least a biological concept of an

animal of a certain kind, with certain inalienable bodily characteristics. However, Locke is of the opinion that no particular bodily form is crucial to personhood. He premised his arguments on the moral of the incredible story he tells of a certain 'rational parrot,' which surprised a visitor by engaging in intelligent conversation. Indeed for Locke, the 'rational parrot' would qualify as a person, but not a human being. Locke insisted that what makes for the sameness of a person differs from what makes for the sameness of an animal, human beings inclusive. He believed that his analysis helped him understood better, person and identity. For him, personal identity is determined by the scope of self-consciousness - that is, as far as this consciousness can be extended backwards to any past action or thought.[26]

Agneta Sutton made it clear that Locke's distinction of person and human being is adopted by several contemporary philosophers influential in the field of bioethics. But it is a fact that not all human beings are self conscious and aware of their past and of the future from the stand point of Locke, "the permanently comatose being is no longer a person, nor is the infant."[27] The point here is that while Locke identified the human being with the material body, he identified the person with self-conscious mind. We shall return to this discussion in the second part of this chapter.

Joseph Fletcher in his opinion argues that in understanding the nature of the human person, synthetic concepts such as "human", "man", and "person" must be defined. It is then we can get to make normative decisions. He says this is important for the sake of biomedical ethics.[28] To this end, he proposes the following criteria for personhood. The first is minimal intelligence. Here, any individual of the species homo sapiens who falls below the I.Q. 40mark in standard Stanford – Binet test is questionably a person; below the 20mark, not a person. Thus, mere biological life before minimal intelligence is achieved or after it is lost irretrievably, is not a person. Following minimal intelligence, is self – awareness. For Fletcher, self – consciousness is one of the qualities we observe developing in a baby. It is an essential role in personality development and a basic datum of psychology. Those who are suffering from neurological cases of irreversible damage to the brain cortex cannot be said to be persons. From consciousness, he moved to self control. He says that if an individual cannot control him/herself, and others cannot except they apply force; and if such behaviour cannot be reversed by medicine, then such an individual cannot be called a person.

From there, he stated that individuals without sense of time and futurity cannot be called persons. By time, he meant, clock time or time consciousness. By futurity, he meant ability to

understand time yet to come.[29] For instance, only subhuman animals do not look forward in time; they live only on what he calls visceral strivings and appetites. If such is said of a person, then such an individual is not a person. Put differently, men are typically teleological. Fletcher also made reference to interpersonal relationships as one of the criteria for deciding who is a person and who is not. He said the ability to relate with others whether of the sexual-romantic and friendship kind, are of the greatest importance for the fullness of what we idealize as being truly personal.

Another important criteria for distinguishing a person from a non-person is the ability to care for others. Here, Fletcher says caring for the other is a conscious extra-ego orientation such that the absence of such is considered a clinical indication of psychopathology. He made similar remarks concerning human communication. He is of the opinion that "utter alienation or disconnection from other; if it is irreparable, is dehumanization."[30] This criterion comes into question in patients who cannot speak, hear, feel or see others; it may even come about as a result of mental or physical trauma, infection, genetic or congenital disorder or from psychological causes. Above all, he says completely and finally isolated individuals are subpersonal. Apart from communication, he made allusions to the fact that individuals who are not aware of nature or cannot control nature are subpersonal. For instance, invincible ignorance and total helplessness are antitheses of personhood, and to the degree that a man lacks control he is not responsible, and to be irresponsible is to be subpersonal. The implication is that human should not be helplessly subject to the blind workings of physical or physiological nature. Man according to Fletcher must be able to balance rationality and feeling. He says, "as human beings we are not coldly rational or cerebral, nor are we merely creatures of feeling and intuition."[31] Rather we should balance the two in different combinations from one individual to another. To be truly persons, we must balance rationality and feelings.

From the above discourse, we observe that Joseph Fletcher outlined those features that determine what a person is and if one lacks these elements, then such an individual is not a person. These features include: self-awareness, self-control, a sense of the future, a sense of the past, the capacity to relate with others, concern for communication and curiosity.

Peter Singer is a well known Australian philosopher who holds radical views on human life. He is also of the view that not all human beings are persons. Being a human being has of itself no moral significance. He says, "those who believe that membership in the human

species is of great moral significance are guilty of speciesim, a prejudice similar to such immoral prejudices as racism."[32] Thus, Singer holds non-speciesist view of ethics and does not consider human life to be of absolute value, but instead teaches that what has the most value is the life of the person; hence, the definition of the person is paramount and fundamental to his ethics.

Singer agrees with John Locke that there is difference between a human being and a human person. He says, "there could be a person who is not a member of our species. There could also be members of our species who are not persons."[33] Following Locke, he defines 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. As regarding the killing of non-human persons, he avers; some non-human animals are persons as we defined the term. He supported this view in reports which describe the abilities of chimpanzees and gorillas to use sign language. He argued that:

> if human life does have special value, it has it insofar as most human beings are persons. But if some non-human animals are persons, too, there must be the same value in the lives of those animals...Hence we shall reject the doctrine that places the lives of members of our species above the lives of members of other species. Some members of other species are persons; some members of our own species are not. No objective assessment can give greater value to the lives of members of our species who are not persons than to lives of members of other species who are persons. On the contrary, as we have seen, there are strong arguments for placing the lives of persons above the lives of non-persons. So it seems likely that killing, say, a chimpanzee is worse than killing a gravely defective human who is not a person.[34]

This view clearly shows his argument for animal rights and that to model 'person' on 'human being' was 'speciesistic'. Besides, not all human beings are human persons. Singer applies this same ideas and argument to abortion. The central argument against it is described in the following syllogism: it is wrong to kill an innocent human being; a human foetus is an innocent human being. From this it is concluded that it is wrong to kill a human foetus. Singer's attention is on the first premise rather than the second premise. He argues that there is a distinction between being a member of the species homo sapiens and being a person and that injunctions against killing should only apply to the killing of persons. He says, if 'human' is taken as equivalent to 'person', the second premise of the argument, which asserts

that the foetus is a human being, is simply false. This is because one cannot convincely argue that a foetus is either rational or self-conscious. On the other side, if 'human' is taken to mean no more than 'member of the species homo sapiens', then the conservative defence of the life of the foetus is based on a characteristic lacking significance and so the first premise is wrong.[35]

Mary Anne Warren in one her works, *On The Moral and Legal Status of Abortion* holds distinguishes a genetic and moral sense of being human and restricts personhood to the moral sense. For one to be considered a person in the moral sense, such individual must fulfil the following criteria: consciousness and in particular the capacity to feel; reasoning; self-motivated activity; the capacity to communicate messages of an indefinite variety of types and the presence of self-concepts and self-awareness. She added further that consciousness and the capacity to feel pain could constitute personhood and that the foetus at a certain point in its development (somewhere in the second trimester) possesses these features. Simply, Warren is not convince that the human embryo could be granted the status of personhood since the embryo does not satisfy the requirements she proposed.[36]

The views presented above represents the Western conception of a person and the discourse on the nature of the human person has been a peculiar one in the history of Western philosophy. We observed that the views of all the philosophers cited above, agree on one thing and that is that, the human person is a living organism. The medieval philosophers like Boethius and St. Thomas Aquinas analysis of the person as exposed above, did not strictly polarise between a person and a human being. They merely emphasised the fact that a person is an individual substance of a rational nature. For them, to be a human person is not only an essence, a substantial form or a soul; rather the human person is an act of existing, an act of being.

Many modern and contemporary philosophers not only emphasise the definition of a person, but polarise between a person and a human being, contending that an individual can be a person and not regarded as a human being and vice versa. Again, majority of the philosophers examined showed that for an individual to be regarded as a person, such an individual must possess characteristics or be able to carry out such functions as, reasoning (rationality), memory, communication, conscious, intelligence, care for others and self-motivation. This position is adopted by several contemporary philosophers and scientists, especially in the field of bioethics. The implications of this position on the essence of the person is that a

permanently comatose and disabled human being is no longer a person, nor is the foetus or the infant. But not all scholars agree that there is a necessary connection between consciousness and personhood, or between rationality, intelligence and personhood.[37] With this in mind, we would proceed to examine the African perspective on the nature of the person. This would enable us have a balanced and holistic comprehension of the person.

3.2 **Personhood from the African Perspective**

The African perspective of the personhood occupies a place of importance in their cosmology and in African philosophy. For our immediate purpose, we shall examine the idea of personhood among the Igbo and the Yoruba ethnic groups of Nigeria in order to understand its implications for human embryonic stem cell research.

Personhood in the Igbo society occupies a prominent place in their quest to know and understand the cosmos. The Igbo notion of person is basically metaphysical. Etymologically, "human being" means *mmadu* or *madu,* depending on the dialect.[38] It is a combination of two words: *mma* and *du* or *di* meaning beauty or goodness. The *mma* as aforementioned denotes 'good', 'a good', or 'the good'. Then, *'Di'* is from an Igbo verb '*idi*' meaning 'to be'.[39] Thus, *mmadu* and *mma di* actually mean the same thing, which could be 'beauty' or 'goodness'. Chielonoza Eze emphasizes that "there is no doubt that there is beauty in creation and no doubt that creation is good;...thus, *mmadu* as the Igbos hold is the hallmark and ultimate proof of the existence of beauty and goodness."[40] It is also important to point out that *mma* which is derived from another dialect as *madu* means *muo* (spirit). This implies that, spirit is seen in the person too. From this, we could understand that the Igbos also refer to both of them as persons, *ndi mmadu na ndi mmuo* – human persons and spiritual persons.[41] Justin Ekennia, , submitted that the strict biological and scientific analysis is almost absent in their reflections on human being and human person. The human person is essentially an integral being, constituted of physical, spiritual and metaphysical elements.[42]

According to Emmanuel Edeh, the lgbo sees man as composed of body and soul. The body is *ahu*. The *ahu* denotes man's corporeal component which could mean either of two things. lt could refer to the external visible part of man, that is the flesh. This explains the hypothesis that *ahu* has its etymological derivation or identity with *ihu* – face[43]. Secondly, the concept *ahu* could be also used to refer to the entire human person/man. It is seen more clearly in an Igbo interrogation: *ahu gi kwanu*?,- what of your body? The simple understanding of this question is: how are you?; or *ahu adighi m* – transliterally, it means my body is not well.

These are circuitous forms of using *ahu* to refer to the entire person.[44] Above all, *ahu* simply means body, which is perishable.

However, the concept of the soul has no unanimous original vocabulary among the Igbos. Among concepts like *nkpuruobi* (seed of the heart), chi (destiny spirit), and *mmuo* (spirit), Edeh thinks that *mmuo* is the most suitable word that conveys the Igbo concept of the human soul. The soul for them is immortal, it suggest that which is invisible in contradistinction to that which is visible. This means that all activities that are not of the *ahu* are necessarily of the soul; that is, thinking as an act is attributable to the soul.[45]

According to Metuh, *mmadu (man/person)* is endowed with three principles and they include the following: *Obi* – Heart or Breath; *Chi* – Destiny; and *Eke* or *Agu* – Ancestral Guardian. The *obi* is the man's life force, the animating principle which links *mmadu* with other life-forces in the universe. The Chi is said to be an emanation of the creator which is in *mmadu*, and Eke or Agu is the ancestral guardian which links *mmadu* with his family and clan. Put simply, *obi* stands as the animating principle, and the seat of affection and volition. The Chi has dual ambivalence conceptions; the parcel of destiny, and the guardian spirit who chooses the destiny parcel. At death it is one's *Chi* that goes back to its creator. Justin Ekennia submitted that the *chi* is a unique life force, which each person possesses. No two individuals have the same *chi.* It is considered as the Igbo principle of individualisation. Thus, each person is unique and irreplaceable.[46] *Chi* is present at birth. He argues further that the *chi* is present in the human embryo/foetus. The Igbo believe that a child is a gift from God (*nwa sin a chi*), the reason the chi is called 'a personal god'. *Chi* is described as the supreme God as shared by each individual but more especially in his capacity as giver and author of destiny. By this same fact, *chi* is an emanation or participation of the supreme God. According to Ekennia, the Igbo construes the foetus as a human person and it automatically shares the life force of the Supreme Being right from the moment of conception.[47]

The Eke is seen as the ancestral shade incarnate in each newly born baby.[48] According to Uzodinma Nwala, *mmadu* is a composite of *ahu* (body), *mkpuruobi* (soul), and *mmuo* (spirit). He asserts that *mkpuruob*i is located in the heart, which is the life giving force, 'the *ndu mmadu* (the life of man). *Mmuo* is the spiritual part and it has spirit, conscience, emotion, feeling, intelligence as its elements. It has no shape or form – invisible. It is that aspect or principle that departs into different existence in the spiritual cosmos at death of *mmadu* and also has ability of returning to life; reincarnation.[49]

For Madu Ralph, man is of a spiritual nature but it does not limit itself in terms of *mkpuruobi* and *mmuo*. The *obi* and *mkpurubi* are used interchangeably to mean the concept of soul. The obi alone refers to the seat of emotion of love, hate, happiness, joy, fear, courage and the likes. He added that the *mmuo* aspect is the 'alter-ego' because it has the capacity for separate existence. This can be translated to mean spirit or ghost.[50] Innocent Asouzu brings out the unity of these components of *mmadu* by affirming that, *mmadu* is a complex composition of which in the human personality there are interacting units.[51] Ukaegbu submits that in the tripartite nature of man, there subsists no physical or real distinction between *ahu*-body, *uche*-mind, *mmuo*-spirit/soul, except in a logical or rational sense. This precisely defines *mmadu's* uniqueness in itself. These aspects are principles, they are not different entities but one reality-man.

Beyond the above, some lgbo thinkers emphasize the sociological and psychological dimension of personhood in which they claim is not given or present at the very beginning of one's life but attained after one is recognised in society. The question is how is or when is an individual considered a person within society? Ifeanyi Menkiti says, "in Africa, the community had priority over the individual. He distinguished between Western views, which generally hold that a person is a lone individual, and African views, in which a person is defined by reference to his/her community."[52] He supported his submission by quoting John Mbiti popular dictum; "I am because we are, therefore I am". He contends further that in Africa, the immediate environment is absolutely indispensable in the definition of man since the community takes precedence over the reality of individual life histories. By this, the communal ethos has ontological and epistemological precedence. He also defended the communitarian view on biological and social grounds because the individual comes from a common gene pool and belongs to a linguistic community. He said, "just as the navel points men to umbilical linkage with generations preceding them, so also does language and its associated social rules point them to a mental commonwealth with others whose life histories encompass the past, present and future."[53] He stated in clear terms that personhood is defined by community and not qualities such as rationality, will, or memory.

Menkiti also defended the communitarian ethos by asserting that people use the neutral pronoun "*it*" to refer to a child rather than the personal pronouns *him or her* because the child has not yet attained personhood. He cited an example by using funeral ceremonies of a child and that of adult. He said the death of a child attracts brief funeral and that of the adult is usually celebrated elaborately. The reason is that the older adult has achieved personhood and

at death becomes an ancestor who lives among people. It therefore, means that an individual transforms from the 'it' status of early childhood into person-status of later years, marked by a widened maturity of ethical sense. As a follow up to his arguments, Menkiti cited John Rawls, who argued that justice is owed a moral responsibility, "a potentiality that is ordinarily realized in due course", to support his claims that individuals acquire personhood as they carry out their obligations. One could however observe that Rawls emphasised moral potential and not personality, that is an individual who is already a person has the potential of becoming a moral person. Menkiti rejected this position because he thinks personhood is acquired when an individual develops and carries out moral acts.[54]

Among the generality of the Yoruba, the word for person is *eniyan*. According to Segun Gbadegesin, the word *eniyan*, has both normative dimension and ordinary meaning.[55] This is generally acceptable among the Yoruba. Ebunoluwa Oduwole buttressed this when she said:

> This normative aspect of a human being in Yoruba society describes man, his behaviour (Ihuwasi) and relationship with other (Isesi). The Yoruba consider in strong terms human relationship with each other in the society. If one shows good human relations in society he is considered as a good person. Thus they say *o s'enia* - he acts the person or he behaves as a person should. This means that he shows in his life and personal relations with others the high qualities of a person. The opposite description *ki s'enia; nse lo fi awo enia bo ra* (he is not a person; he merely assumes the skin of a person) means that the person is socially unworthy. So in his character, he is not fit to be called a person, even though he goes about in the semblance of one. When the Yoruba says *enia k'enia*, they mean a mere caricature of a person, a reprobate. It is this social aspect of man that is linked with good character and it is that which distinguishes a person from a brute.[56]

Besides the normative aspect of the person in Yoruba ontology, there are prominent elements that substantially describe and define *eniyan*. These include: *ara, okan, emi*, and *ori*. It is worthy of mention that majority if not all thinkers on Yoruba literature, agrees that a human person is made up of three basic elements or parts: *Ara* (body), *emi* (breath) and *ori* (the inner head or personality). Gbadegesin, however, thinks these elements have a of lot confusion surrounding them when we attempt to explain what each means and the relationship that exist among them. The *ara* is the physico-material part of the human being, which includes the external and internal components. These components include: flesh, bone, heart, intestine to mention but few. It is further described in physical terms as heavy/light, strong/weak,

hot/cold.[57] Oduwole citing Bolaji Idowu says, "the *ara* can also be described in a general way or analytically by anatomy. It is a creation of the arch – divinity, *Orisanla*, who was assigned by the Supreme Being to do the moulding of human bodies.[58]

In reference to *ara* as a material frame, Gbadegesin says it does not completely do justice to its conception as the totality of the physical organs. This is because different human beings have differently bodily build, as a result they adapt differently to situations. For instance, a heavily built person will absorb external pressures differently to a lightly built person. Again, the internal organs of the body (ara), are conceived as having their roles in the proper functioning of the person. For example, the intestine plays a significant part in the physical strength of a person. "A weak person is described as having one *ifun* (intestine) or none at all."[59] This is to explain that the intestine play a role in building strength through its part in the metabolic activity of the body.

The *emi* has been translated as spirit, which is invisible, soul or identified as the active element of life. It is believed that it gives life to the whole body, and thus can be described through its causal functions. Its presence in or absence from the human body is known only by the fact that a person is alive or dead. It is believed that though the body is created by *Orisanla*, the arch – divinity, it is *Olodumare*, the Supreme Being alone, who gives the *emi* to man thus giving him life and being. The *emi* is said to be the active principle and the life giving element that makes human beings the creatures of Olodumare.

Gbadegesin added that:

> The presence of emi ensures that the human body, previously lifeless, now becomes a human being – a being that exists. Since emi is part of the divine breath, it will continue as the principle of life for a particular human being at the pleasure of the deity. When it is recalled, the human being ceases to exist. So emi is more of the determinant and guarantor of existence. It is the breathing spirit put in a human body by the deity to turn it into a human being. Having emi thus makes one a child of deity and therefore worthy of protection from harm.[60]

He continued by affirming that the *emi* being the active element of life is thus a component common to all human beings. It does not only activate the body by supplying the means of life and existence, but also guarantees such conscious existence as long as it remains in force. However, two claims have been made about the nature of *emi*: that it is spiritual and it has an

independent existence. This is subjected to philosophical debate. According to Gbadegesin, Yoruba conceive of *emi* as a lifeline of human existence and also as a portion of *Olodumare*'s divine breath. If *Olodumare* is conceived as spiritual, it also implies that the portion of this source of being which is given to the human being must also be spiritual. Again, it is also recognised that it is the possession of *emi* that makes humans children of Olodumare. It is the logic of the source of emi, therefore, that suggests its nature as spiritual.[61]

Another important feature or component of the person in the Yoruba world – view is the *ori*. The *ori* is the individuality element or that which is claimed to be responsible for one's personality. It is the real essence of being, the personality of the person before he/she is born; it rules, controls, and guides the life and activities of the person and also serves as a man's double or guardian angel. Oduwole asserts that the *ori* suggest that man is a person with individuality before birth with spiritual life; thus has a right to live. The implication, she says, is that "life begins before birth, as soon as one acquires *ori* which is one's individuality."[62] For Gbadegesin:

> *Ori* has a dual character. On the one hand, it refers to the physical head and, given the acknowledged significance of the head vis-a-vis the rest of the body, ori is considered even in its physical character. It is the seat of the brain and from what we observed earlier on about this, its importance cannot be over-emphasised. The postulation of a spiritual ori beyond this physical is in recognition of this. In any case, there is the conception of an ori which is recognised as the bearer of the person's destiny as well as the determinant of personality.[63]

The point of emphasis here is that the *ori* is a spiritual dimension of the person. It determines a person's personality or individuality. Similarly, Bolaji Idowu acknowledged the fact that ori is the "inner person". It is the personality-soul and the very essence of personality. He added that in the belief of the Yoruba, ori is considered as that, that rules, controls, and guides the "life" and the activities of the person. Bolaji Idowu agrees and asserts that, it is the *ori* that comes into the world to fulfil a destiny. It is believed that because of its pure origin, no *ori* is essentially bad because ori is inextricably bound up with the person's destiny.[64] Awolalu and Dopamu corroborates Idowu's position that, *ori* is closely related to God himself, the source from which being originated. This implies that it is only the supreme being that can put ori, the essence of being or personality-soul into man.[65]

For Oduwole, there is a sense in which the embryo/fetus could be described as a person. Although the embryo/fetus cannot qualify for the normative aspect of man earlier discussed in this work. But she says we could argue that the embryo qualifies for the structural and religious aspect of man because it possesses the structural and religious elements. The embryo/fetus possesses the *ara*, *emi* and *ori* which are necessary to be able to achieve the normative as one goes on interacting with the society. She says, *ori* (human destiny) suggests that there is life and individuality before birth that need to be actualised hence; the embryo has a right to live to actualize this destiny. The Yoruba idea or notion of the person from another perspective supports the potentiality argument. They often say *eyin ni di akuko* (it is the egg that become the hen). They believe strongly that there are many developmental stages in life. For instance, there is the early, middle and late. Life has to begin somewhere and we do not go from nothing to something. Life begins at the moment of conception and it is at this moment that a human being is biologically under construction from early to middle to late terms and then birth.[66]

Besides, the Yoruba, from all available indications, will want to say that life begins at conception and the embryo/fetus is at least a potential human being. If we consider the idea of *ori*, the embryo/fetus is an individual that has a right to life from the moment of creation. Rather for the Yoruba to say the embryo/fetus is not a person because it cannot perform certain functions, the Yoruba will rather consider that the embryo/fetus will grow/develop to have ability to perform such higher functions. Oduwole puts it this way:

> As earlier observed, the idea of the Yoruba that it is the egg that will later become a hen suggests great potentiality on the part of the embryo. The egg after all cannot become a human being, the orange tree cannot grow to become a human being but a fetus will...We can say within the embryo/fetus has the capacity to blossom into a full person. Like we earlier said, actuality is a gradual process. Killing the embryo/fetus because it is still undergoing this process is analogous to killing a ten year old because he/she is not like an eighty year old who has attained full growth...Potentiality and actuality affect various stages of life.[67]

The point Oduwole is making here is that the Yoruba will not go with some Western thinkers' idea of the person that emphasises functionalism. The reason is that the creation of eniyan (a person) dates back even to pre-conception. Following from this, we can conclude that being a person for the Yoruba does not only start at conception but from the moment

Orisanla (arch divinity) moulded man, *Olodumare* (Supreme Being) breaths in the *emi* and the *ori* is acquired. Thus, conception only marks the physical manifestation of all that has been going on in the spiritual or metaphysical realm. For the Yoruba therefore, any human being with the three components contains an element of spirituality and affinity to the Supreme Being. Therefore the embryo/fetus is entitled to life and should not be destroyed in the name of research. Etienne Kabore submitted that the status and the identity of the human embryo begins from conception to birth and there is no other existence for the being in formation than life-*Breath-Spirit-Genie*.(Breath accompanies vital movement and Spirit and Genie are symbols of incarnation). All characterize life *in utero* and the first moments of earthly life.[68] It therefore can be inferred that a human person is thus metaphysically conceived as more than just a material or physical object. Based on this, human life, beginning from the embryo, is not merely biological but meta-empirical; it is not just a fruit of physical conception but a sacred gift and most precious good.

So far, we have been able to espouse the nature of the human person in African thought pattern. It is observed that African perception of the person reveals that the person is a composite of different entities. Again, it is observed that, even though there are differences with reference to the constituting parts of a person according to the different worldviews, there is an agreement that the person consists basically of a material aspect and spiritual aspect. This presupposes dualism. However, what is unique about the African understanding of the human person is that there is no strict categorical difference between the spiritual and the material. The African conception of the human person therefore embraces and transcends the Western. That is, the African idea of the person transcends the physical. It is a conglomeration of the physical and metaphysical. Therefore, this is diametrically opposed to the Western notion of the person that revolves around materialism, functionalism and physicalism. Again, in the African perception of the person, the individual is sometimes understood as subsumed under the community. This is as a result of the belief of the Africans that it is the community that shapes, determines the social, religious, political and as well as moral status of every human person. Besides, Africans sees personhood as an inherently intrinsic attribute of individuals since each possess a soul which; being a speck of the divine, has the divine nature of God.

Above all, the African concept of life and personhood is built and weaved around the concept of human dignity, because the idea of human dignity from African perspective treats every human being, both existing and yet to be with respect due to them as persons. According to

Joseph Alphonsus Okon, at the instance of the metaphysical foundations of humanness, human being is necessarily a human person.[69] That is, human personhood in this case emerges and subsists in human nature and bearers of this nature are truly persons. This summarises the nature of personhood from the African perspective.

3.3 **The Question of the Personhood of the Human Embryo**

This section of this chapter focuses on the debate over the personhood of the human embryo as it arises within the context of stem cell research and the question of whether or not the human embryo should be used for cell research. While some scholars argue that despite the worthy ends of stem cell research, it remains wrong because it involves the destruction of human embryos: others worry that even if the research is not wrong in itself, it is highly probable that it would lead to a slippery slope of dehumanizing practices, such as embryo farms, cloned babies, the use of foetuses for spare parts, and the commodification of human life. On the moral status of the human embryo, philosophers and thinkers from different fields have different opinions about it. Most of the contemporary pro-choice thinkers in large measure asserts that, viability, sentience, cognition, capacity and autonomy determines whether human embryo can be granted moral status or not. Noel Coghlan raises the important questions:

> ...at which point does the embryo, or more accurately the foetus, acquire viability, the capacity to actually realise its human potentiality, when it becomes aware of itself, when is it capable of feeling discomfort, when does it develop a capacity, however rudimentary, for reason, at what point does the ability to relate to others develop, in short, when does the embryo/foetus develop interests that merit protection by the community at large?[70]

The responses to these questions are many and variant. Bonnie Steinbock argues that while the human embryo may attract our respect as a symbol of human life, it cannot be regarded as having the moral status of a human person. The reason is that only a being that is aware of its own experience can have interest in what is or is not done to it. Thus, the pre-sentient human embryo cannot be deprived of a life it has not consciously enjoyed. Following from this, there be no moral barriers to the use of embryos for research purposes, or indeed, to their creation for such purposes. Michael Gazzaniga echoes the view of Steinbock when he said, “It makes no sense to him to see a miniscule ball of cells as a human being or person. After all, this ball has no brain or capacity to think and feel.” This view of Gazzaniga is more radical than that

of Steinbock. This is because while Steinbock says that the human embryo at least attracts some respect for being a symbol of human life, Gazzaniga argues that it does not attract such respect. But there is something fundamental about their utterances and that is; only beings possessing some number of capacities counts as persons and they include: rationality, self – motivated activity, consciousness and self – awareness.[71]

Michael Tooley is said to be unequivocal in his view that the concept of person is a purely moral concept, free of all descriptive content. For him, "an organism possesses a serious right to life only if it possesses the concept of a self as a continuing subject of experiences and other mental states and believes that it is itself such a continuing entity. Tooley calls this argument self-consciousness requirements."[72] Ronald Lindsay objected to the view that the human embryo is equivalent to human person because the opponents of stem cell research failed to provide a clear theory on its moral status. In other words, they failed to identify which capacities or properties, intrinsic or relational, qualify an entity for moral respect. Is it rationality, the capacity for moral agency, sentience, social relationships, or some combination of these that constitutes a necessary or sufficient condition for moral status? He asserts that:

> ...if humanity is a necessary condition for moral status, then this would preclude granting moral status both to nonhuman animals and even to extraterrestrials who exhibit capacities such as rationality or moral agency...If humanity is a sufficient but not necessary condition for moral status, then what is it about humanity that entitles one to moral status? No explanation is offered by those opposed to embryonic stem cell research other than biological criteria of human genetic composition. Unless a rationale is provided that explains why genetic composition is so critical, then the insistence that genetic humanity is the key to moral status is mere question begging.[73]

The above simply explains that if the human embryo is entitled to full moral status, then genetic composition cannot be the sole determinant of moral status; but if it is not the sole determinant, what other factors are relevant, and how would these factors affect the status of the embryo? Since till date, no convincing argument has been given; and without plausible answers to these questions, the claim that the embryo is equivalent to a human person cannot be adequately supported. Be that as it may, we should now examine in some details the view that the embryo is not a person.

3.4.0 *Arguments Against the Personhood of an Embryo*

Peter Singer is one of the radical philosophers who believe that early human embryo is not a person. He argues that the potential of a human embryo existing in the laboratory is not the same as one who is already implanted in the endometrium of the uterus (the mucous membrane that lines in the womb and increases in thickness in the latter part of the menstrual cycle). He redefines the concept potentiality by examining the potency of the egg and sperm individually as well as jointly. At the centre of Singers' philosophy is his rejection of the doctrines of speciesim and the sanctity of human life which we discussed in the first part of this work. Singer asserts that we should reject the view that a human zygote or early human embryo is a distinct human individual. He premised his arguments on the identity thesis. He argued that in the process of monozygotic twinning where one embryo splits into two human embryos, with the same genetic code, how do we determine which one of the embryos is the original one ? Is it possible to know? How are we to understand an early embryo as a distinct human individual in the light of the possible formation of a chimera? Again he asked, if two different human embryos are formed with separate genetic codes and two of them combine to form only one, how can it be that there was originally one distinct human individual?[74] In conjunction with Singers' view, Elizabeth Ascombe stated that:

> In the case of an amoeba there's no doubt we start with one amoeba and its splits into two amoebas. But in the human case it precisely is the question whether what we start off with is a human. What account could we give of its becoming two humans? Amoebas split; humans do not, or at least not after the first two weeks or so weeks of life. The question is whether it makes sense to consider the embryo a human life while it has the potential to split.[75]

Stephen Holland also affirms that by definition, potential persons are not persons. For example, he said if X is a potential Y, then X isn't a Y, precisely because it is only potentially a Y. The implications of Holland's analysis indicates that the moral significance of potential persons ought not be grounded on their current potentiality, and not on whatever moral status they might enjoy in their future incarnations as persons. Holland says if we look at the issue of potentiality from the point of possibility; that is, if X is a possible Y, and Y has moral status, then X has moral status . It means, since it is possible for a foetus to become a person,

then the foetus has moral status. But this argument cannot hold for the simple reason that, with sufficient scientific dexterity, it is possible for something to become lots of other things. The reason is that if we interpret potentiality as possibility, a thing acquires moral significance by reference to any morally significant thing it could conceivably be turned into.[76] A clear example of the problem is that gametes can possibly become a person, in the sense in which ingredients can become a cake. Based on this, an individual sperm cells and eggs would have moral status.

Singer stated that there are two vital arguments that are relevant when attempting to determine whether the human embryo at fertilisation is a human being or merely a potential human being. Singer observes that there is no coherent notion of potential which allows the argument potentially to be applied to embryos in the laboratory. He asked further; what is the moral or ontological status of human embryos generated in the laboratory by In-Vitro Fertilization (IVF)? Singer says that in the case of an 8-cell human embryo generated by IVF, the embryo is less likely to implant when transferred to the uterus if growth in culture continues much beyond the eight-cell stage. In addition he says that while there have been reports of keeping a human embryo alive in culture for nine days, such an embryo has zero probability of becoming a person. Besides, Singer made allusions to the fact that embryos existing in *utero* and in *vitro* have entirely different potentials: the one existing in *utero* is a potential person while the one existing in vitro cannot possibly survive to become a human person. He therefore concluded that it is impossible to use the potential of the embryo as a ground for giving it special moral status. If that is the case, it also means that we accord the same status to the egg alone or the egg and sperm considered jointly.[77] Still on the argument of the embryo being a potential person, Welin argued that the embryo in itself cannot develop into a child without being transferred to a woman's uterus. That means it needs external aid to enable its development and does not have an active potentiality to develop into a human being without help or assistance. Beside the external aid, Welin still opines that the probability that the embryos used for IVF will develop into full-term successful birth is low. It is also context-dependent in the sense the quality of external human intervention, such as transferral to uterus, and on other factors such as whether the embryo will implant and grow to term or even on the conditions of giving birth. So it means that something that could potentially become a person should not be morally regarded as if it actually were a person.[78]

The essence of Singers' argument is that research involving human embryos could be greatly beneficial in overcoming fertility problems and possibly advancing gene therapy and finding

cures to many terrible diseases with the aid of stem cell research. This again state clearly his self-acknowledged ethical methodology of utilitarianism. Though he recognises that it is not an easy task arguing that the human embryo is not a human being; nonetheless, he is prepared to do so.[79] Though he accepted that the early human embryo is a member of *homo sapiens*, yet he contends that it has no more awareness than a lettuce. This is because the human embryo has no brain and no nervous system; therefore, it does not possess the mental qualities that distinguish it from other members of our species. Just as an acorn is not the same as an old oak tree, so also human embryo is not the same as a human adult.

Richard M. supporting the views of Singer, thinks that if we cannot possibly point to an exact dividing line in human development at which personhood is acquired, it may be argued that whenever the transition occurs in early pre-implantation stage embryos do not have the psychological, physiological, emotional or intellectual properties that we associate with personhood. Thus, Campbell added that, it therefore, follows that if the human embryo does not fulfil the criteria for personhood, it does not have any interests to be protected and thus may be used instrumentally for the benefit of those who are persons. The fact that every person started as an embryo, does not prove that embryos are persons. In the views of Fishbach and Fishbach, the formation of the nervous system serves as the landmark for the definition of life, since this signifies when sensation first exists. They said that up to embryonic day 14, the blastocyst has no central nervous system and therefore, cannot be considered sensate. They further justified their argument by saying that, if we can remove organs from patients who have been declared brain dead but are still alive in some sense in order to save the lives of those who are alive, it follows that we can use two hundred-cell embryos as cell donors at the same moral status as brain dead individuals.[80]

From the perspective of biological make-up, Sharmin Islam et al., contend that the human embryo cannot be a person. They gave the following reasons. In the IVF technique for instance, the embryo is transferred to a uterus when it reaches the 4,6, or 8 cell stage, some 48 to 72 hours after conception. After this, the simple cellular aggregate of the fertilized eggs starts to exhibit a central cavity surrounded by a peripheral cellular layer with some distinguishable inner cells. The blastocyst stage marks the developing capability to interact with maternal cells of the uterine lining which is essential for implantation and for development to occur as well. The implantation is the beginning of pregnancy as a maternal state. At this moment, the embryonic mass has a clearly distinguishable outer cellular layer which contributes to the implantation process. This process continues to the pre-embryo

stage, then to the formation of the embryonic axis, along which the major organs and structures of the body will be differentiated. This continues to when the anatomically human miniature exists, displaying very primitive neuromuscular function but still extremely immature on both structural and functional basis.[81] Following from the different stages of human development in terms of some order of importance, the argument establishing that the embryo is person cannot be justified. Again, available records states that the information used for the development of a human embryo involves or goes beyond the zygote's chromosomal genetic information, namely, the genetic material from maternal mitochondria and maternal RNA, (ribonucleic acid) among other things. Thus, to what extent can one claim that there is present in the embryo from the beginning "the biological internal principle of the person":classically stated, "the immanent form" of the person in virtue of which he or she develops.[82] If we cannot find an answer (if not), it appears that there is no reason to consider at least the very early embryo a person.

Katrien Devolder also argues that the embryo is not a person, therefore we should not accord it moral status. She premised her reasons on the fact that, one would expect that those who give full moral status to the embryo, who regard it as a person like us, would both protect embryos with the same energy and conviction as they would do with their fellow adults. That they would mourn the loss of an embryo with equal solemnity and concern. She added that for every live birth up to five embryos die in early miscarriages, this is a fact she said. The question is why is that pro-life activists have not been active in campaigning for medical research to stem the tide of this terrible slaughter. Again, we know that for the same reasons the menstrual flow of sexually active women will often contain embryos, that been the case, why are funeral rites not usually routinely performed over sanitary towels, if embryos are human persons? She added:

> Indeed anyone engaging in unprotected intercourse runs substantial risk of creating an embryo that must die, and yet few people think that this fact affords them a reason either to refrain from unprotected intercourse (it is more usually the fear of creating an embryo that will not die that motivates them) or to press for medical research to prevent this tragic waste of human life. It is notorious that many would-be protectors of the embryo are prepared to permit abortions in exceptional circumstances, for example, to save life of the mother or in the case of rape...In the case of rape, since the embryo is innocent of the crime and has therefore done nothing to compromise its moral status, the

> permitting of abortion by those who give full status to the embryo is simply incoherent.[83]

The conclusion thus far is that those who profess the embryo as having the same moral status as the adult human person are inconsistent in their views. Put in another words, the human embryo cannot be equated with person. Devolder's submission sounds convincing, yet has no basis. The fact that the human embryo is a person does not mean that funeral rites would be performed on embryos that die in early miscarriage. Secondly, it would be wrong to equate an adult person with a person at an incipient stage so as to perform funeral rites on them. Again, the fact that some embryos die at early stage does not mean they are not persons. Death is a natural phenomenon that every living entity must experience whether as adult, infant or as an embryo. Nobody has power over death. On the issue of miscarriage, it is also a known fact that, most mothers would always feel sad about the loss of their pregnancy. Put simply, the loss of pregnancy as a result of miscarriage for any sane mother is a great loss and a painful moment. On this basis, it is wrong to deny the human embryo the respect it deserves.

3.4.1 ***Arguments for the Personhood of the Human Embryo***

This segment discusses objections to the arguments raised by pro-choice thinkers that the human embryo is not a person. Dennis Sullivan, argues that the criterion adopted by the functionalists, those who limit personhood to some basic human features, is faulty. He said if we are to follow their line of thought, it also means that when human adults lack awareness, when asleep or under anaesthesia, their personhood should be questioned.[84] Wennberg also finds the functionalist views faulty and argues that there is a wall of difference between those beings with a potential capacity for rationality and those with a developed capacity. However, he says the former are not persons, both are entitled to a right to life, with that right growing with greater and greater development of their potentiality. Becker on the other hand compares personhood to a process: "when we can say that the embryo/fetus is a human being rather than a human becoming? Surely only when its metamorphic process is complete. Sullivan, argues from the metaphysical principles of essence and substance to justify the personhood of the embryo. He added that arguments from substance and essence dates back to Aristotle and St Thomas Aquinas. On this view, the intrinsic quality of personhood begins at conception and is present throughout life. Such individuals are not potential persons or 'becoming' persons; rather they are persons by their very nature. There is no such thing as a potential person or a human non-person.[85] He sheds more light on the above when he argued that:

> Since the Enlightenment, society in general has been dominated by a high regard for science and the secular tradition of naturalism. Naturalism is the concept that only observable data has reality...The influence of naturalism has led secular science away from a reverence for life, replacing it with a reductionism that claims the human organism is no more than the sum of its chemical parts. The empirical functionalism idea of personhood is compatible with this view, which makes man simply a collection of parts and function, or a property-thing. Put together enough chemical molecules in the right way, and you have a human being; put another set of parts together, and you have a 1957 Chrysler. Philosophically, it makes no difference.[86]

He further expanded the above using the illustration of a classic automobile, in justifying his argument on the personhood of the embryo when he said:

> ...consider a nicely restored 1957 Chrysler. Many of the original parts have rusted away and have been replaced, so that this vintage car is a collection of old and new. Although many will refer to it as the same car as when it was new, intuition tells us that this is not the case. In fact remove the wheels, the motor (engine), the seats, and the body, and the result is no longer a 1957 Chrysler; it is not even a car. To go still further, imagine adding other parts to the original chassis, such that the result is a 1972 Volkswagen Beetle. There is no continuity of essence between the two vehicles; each is nothing more than a collection of parts. Try to do same kind of thought experiment on a human being, say John Doe and James Smith...yet John Doe will never become James Smith; his substance is not defined by his component parts. He will always remain the same person.[87]

The basis for his submissions remains that, there is no continuity of essence between the two vehicles, while there is continuity in human nature as explained above. This is because the human person essence and substance is not and should not be defined by his/her component parts. In addition, Sullivan avers that the cells of the human body are constantly being replaced as nutrients are taken in and waste products given off; new chemical molecules enter and leave on a daily basis. Again the outer skin is completely replaced every four weeks. Yet it is reasonable to say from these available facts that an individual, as a substance, has continuity from one moment to the next. That is she/he the same person as she/he was one week ago, one year ago, or ten years ago. She has memories that give her continuity with her present state. She relates to her childhood; she can give the date of her birth. Even if she lacks

such memories because of disease and injury, she has a continuing self that is identical to her earlier self.[88]

The point here is that to hold a property-thing view of persons is to deny the commonsense understanding of personal continuity, with a host of attendant problems for law and morality. Thus, Sullivan, citing Mortimer Adler, stated that the denial of human nature is one of the greatest philosophical mistakes of our age, with serious consequences for moral philosophy. Taking the arguments further, Sullivan opines that we can use intuition and continuity arguments to persuasively argue for the personhood of the embryo. For example, Francis Schaeffer asked a rhetorical question: "Would you kill this infant a minute he/she was born, or a minute before that?"[89] Using common sense, there is no prima facie (a first impression, or self evident) reason to assume that a baby changes its essential nature by virtue of geography (namely in the womb or out of it). And there is no prima facie reason not to extend such humanity further back in time. In fact, the continuity argument argues for the personhood of the fetus all the way back to the moment it became a substance, i.e., the moment of conception.

Peter Kreeft says that following the analysis of supporters of stem cell research, especially human embryonic stem cell research, one would find a common premise hidden in their arguments. This is a premise of functionalism; that is defining a person by his or her functioning or behaviour. He premised his reasons on the fact that, a behavioural definition is proper and practical for scientific purposes of prediction and experimentation, but it is not adequate for ordinary reason and common sense, much less for good philosophy or morality, which should be based on common sense.[90] He pointed out:

> Common sense distinguishes between what one is and what one does, between being and functioning, thus between being a person and functioning as a person. One cannot function as a person without being a person, but one can surely be a person without functioning as a person. In deep sleep, in coma, and in early infancy, nearly everyone will admit there are persons, but there are no specifically human functions such as reasoning, choice, or language. Functioning as a person is a sign and an effect of being a person. Functionalism makes the elementary mistake of confusing the sign with the thing signified, the smoke with the fire. As a Zen master would say, "the finger is fine for pointing at the moon, but woe to him who mistake the finger for the moon.[91]

The point here is that functionalism would only reduce the being of modern days to functions, which is practically destructive. He argued further that when we say some human beings are not persons, it means only achievers, only successful functioners, only sufficient intelligent performers, qualify as persons and have right to life. Who determines what 'sufficient' is? He says the line can be drawn at will - the will of the stronger. By extension, nature, reason and justice are then replaced by artifice, prejudice, and power. For example, when it is in the self-interest of certain people to kill certain other people, whether embryos/foetuses, or the dying, or enemies of the state, or Jews, or heretics, etc., the killers simply define their victims as non-persons by pointing out that they do not meet certain criteria. Again, he argued that 'human being' is not a merely biological term. The reason is that the reality it describes is not merely biological reality, though it is partly biological reality. Thus, identifying human beings and persons is not biologism. Implicitly, it is claimed that persons, i.e., human beings, have a human biological body and a human spiritual soul; that human souls inhabit human bodies.

This implies that the reason we should love, respect, and not kill human beings is because they are persons, i.e., souls, made in the image of God. We revere the person, not the functioning; the doer, not the doing. For instance, if robots could do all that persons can do behaviourally, they would still not be persons; but mere machines. They may function as persons, but they do not understand that they do not have freedom, or free will to choose what they do. They obey programming without free choice. They are artefacts, and artefacts are not persons. Persons are natural, not artificial. They develop from within like embryos/foetuses; artefacts are made from without.[92] The connection between the two errors; that reducing persons to functions and reducing human beings to a mere biological category is obvious, the first is the root cause of the second. In other words, once a person is defined in terms of functioning, then zygotes, embryos, foetuses and even normal newborns are no longer fully persons. He described it better when he said:

> There are no potential persons any more than there are potential apes. All persons are actual, as all apes are actual. Actual apes are potential swimmers, and actual persons are potential philosophers. The being is actual, the functioning is potential. The objection confuses a potential with a potentially functioning person.[93]

Scott Klusendorf corroborates the above when he said that one can fail to function as a person and yet still be a person. For example, people under anaesthesia or in a deep sleep cannot feel

pain, are not self aware, and cannot reason. Neither can those in reversible comas. But we do not call into question their humanity because we recognize that although they cannot function as person, they still have the being of persons, which is the essential thing. He revealed that:

> A person is one with the natural, inherent capacity to perform acts, even if that capacity is currently unrealized. In other words, one grows in the ability to perform personal acts only because one already is the kind of thing that grows into the ability to perform personal acts, i.e., a person. Consider a man entering a room. He can enter it gradually, be in halfway, and then enter it fully. During all stages of entering, the man must first exist in total to do entering. Likewise, in order to enter the class of human beings known as human persons, the man must exist as well. Someone cannot be in the process of becoming a human person, since one must first exist in order to enter any process.[94]

This means that the fetus becomes a person as it develops since it must exist in order to do the developing. Put simply, my thoughts and my feelings cannot exist unless l first exist. I can exist without them - as would be the case if l were sleeping – but they cannot exist without me. Further still, from the moment of conception, the unborn has the natural, inherent capacity to function as a person. What he lacks is the current capacity to do so. That he cannot yet speak, reason, or perform personal acts means only that he cannot yet function as a person, not that he lacks the essential being of a person.

Carson Strong citing Gomez – Lobo and Robert George maintain that the developing human organism is a member of the natural kind of human being. This membership spreads to all stages of development because at all stages the organism possesses the essential characteristic of human beings. This they identified as (essential property), "the basic natural capacity for characteristically human mental functions."[95] This capacity, they added is a potentiality to develop into an organism that exhibits mental characteristics such as self – consciousness and rationality. This is different from an "immediately exercisable capacity" for self – consciousness and rationality. The latter is the capacity for mental functions that is actually exercised by humans who are far enough in development to exhibit such functions. They put it like this:

> Of course, human beings in the embryonic, fetal, and early infant stages lack immediately exercisable capacities for mental functions characteristically carried out (though intermittently) by most...human beings at later stage of

> maturity. Still, they possess in radical (root) form these very capacities. Precisely by virtue of the kind of entity they are, they are from the beginning actively developing themselves to the stages at which these capacities will (if all goes well) be immediately exercisable...As humans, they are members of a natural kind – the human species – whose embryonic, fetal, and infant members, if not prevented by some extrinsic cause, develop in due course and by intrinsic self direction the immediately exercisable capacity for characteristically human mental functions. Each new human comes into existence possessing the internal resources to develop immediately exercisable characteristically human mental capacities – and only the adverse effects on them of other cause will prevent their full development. In this sense, even human beings in their embryonic, fetal and infant stages have the basic natural capacity for characteristically human mental functions.[96]

The above analysis of George and Gomez-Lobo dwells on the fact that each of us used to be a pre-embryo because pre-embryo from which we developed has the same essential property we have – a basic natural capacity for characteristically human mental functions. Furthermore, they maintain that all human beings deserve full respect, and because pre-embryos are human beings, they also deserve full respect. They argued that:

> To deny that embryonic human beings deserve full respect, one must suppose that not every whole living human being is deserving of full respect. To do that, one must hold that those human beings who deserve full respect deserve it not in virtue of the kind of entity they are, but, rather in virtue of some acquired characteristic that some human beings (or human beings at some stages) have and others do not, and which some human beings have in greater than others. We submit that this position in untenable.[97]

The above argument brings to light a distinction between active potentiality and passive potentiality, which in turn is based on an interpretation of Aristotle's discussion of potentiality. Active potentiality here is used when development of the potential is caused by factors that are internal to the entity undergoing change; while passive potentiality refers to a potential to undergo change as a result of factors that are entirely outside the entity being changed. Besides, Aristotle is interpreted as holding the view that active potentiality applies in cases where identity of the entity undergoing change is preserved throughout the change. The same argument George and Gomez – Lobo adopted when they said, " a basic natural capacity is an active potentiality, for as they state, the human organism has the internal

resources needed for development."[98] They simply are referring to the fact that the development process is caused by genetic factors within the organism. Thus, the "notion that human development is accurately described by the Aristotelian concept of active potentiality is taken to support their claim that identity is preserved across all stages of human development."[99]

Dianne Irving in one of her works: *Human Embryonic Stem Cell Research: Are official positions based on scientific fraud?* states that the question of what determines the moral status of the embryo; that is, whether or not we can refer to the embryo as a person, can only be answered by the objective, empirical facts demonstrated by the science of human embryology. That is, normal physicians, bioethicists, politicians, philosophers, theologians or sociologists may not be able to answer the question. She made these allusions based on her perception of the facts presented by Dr Harold Varmus to the subcommittee of the U.S Senate on human embryo as scientific fraud.[100] The reasons she thinks those statements made by Varmus are scientifically fraudulent include the following:

(a) The science of human embryology has long demonstrated beyond any doubt whatsoever, that these early human embryonic stages to which Varmus refers are all really developing stages of a whole human being, not just a part of a human being, e.g., not just stem cells, as Varmus states. While it is true that the single-cell human embryonic zygote, and the multi-cell developing human organism up to the blastocyst stage is 'totipotent' (relatively speaking), it is not scientifically true, as reflected in Varmus statement that it is just a stem cell. Scientifically it is more than that. A stem cell is only a part of a whole organism; an organism is the whole thing. For instance in the cloning of the "Dolly", the sheep experiment, the skill cell that was used as the donor cell was just part of the mother sheep, not the whole mother sheep herself. Or, a skin cell on Joe's face is not Joe; it is just part of Joe. Therefore to destroy the skin cell on Joe's face does not destroy Joe. But to take out Joe's guts does destroy Joe (as happens when living human embryos are the source of stem cells for the kind of research to in this present discussion). On this bases, it is wrong for Varmus to define these stages as just "totipotent stem cells" and leaving out the critical scientific fact that this is a whole human being or organism. This is a denial and misrepresentation of the truth about objective human embryological scientific facts.[101]

(b) In defining these stages as just 'totipotent stem cells, and leaving out the critical scientific fact that this is a whole human being or organism, Varmus knowingly misrepresents the full

truth about the objective human embryological scientific facts, and by so doing he misleads the U.S. Senate subcommittee on the pivotal point of the debate. Whether their own theoretical argument is that there is no whole human being there yet, or whether it is that there is no human 'person' there yet, both of these positions must be grounded on the correct and complete objective scientific facts of human embryology. For Varmus to selectively pick out bits and pieces of the correct human embryological scientific facts, and to selectively leave out other correct human embryological scientific facts-for whatever reasons-and to present these "selections" as the full official scientific explanation of stem cell to the U.S Senate subcommittee, seems to me to fit into category of scientific fraud.[102]

(3) The developing embryonic human being is not just a "potency" (or a potential human being) to develop into a human being as Varmus affirmed. Scientifically, we know that it is already a living human being. The terms "potency" and "potential" are purely philosophical terms, not scientific terms, and should play absolutely no role whatsoever in determining this issue or in formulating such critical public policies. Even these philosophical terms Varmus uses only selectively, represent only a small portion of the bioethical/philosophical terms used for decades in the entire bioethical/philosophical debates on when a human being or a human person begins.[103]

(4) Another claim by Dr Varmus that early totipotent and pluripotent cells will not become a "mature human organism" unless and until it is implanted is scientifically false and misleading. The reason is that, scientifically, the single-cell embryonic human zygote and all of its early developmental stages is already a human being (which is a human organism), regardless of whether or not it is implanted. Scientifically, we know that every human being begins his or her physical existence at fertilization. Implantation, or lack thereof, simply refers to whether or not an already existing whole human being will continue to live or not. No change of what it is takes place, only whether or not the whole human being that is already there continues to live and grow. It is really quite simple: if the early human being implant, then it can live and grow to maturity; if it doesn't implant, the early human being will die young.[104]

(5) Again, Dr. Varmus's use of the terms, "an entire mature human organism, e.g., a human being,"[105], is not only scientifically misleading - it is scientifically bizarre. A "mature human organism" is not only one of many stages of development of a whole human being – hardly the only stage. Scientifically, the embryonic organism and the mature organism are one and

the same organism. The embryonic organism is just younger and at a less developed stage of growth. This definition of a human being by Dr. Varmus would actually have our chief scientific officer define a human being as just mature organism! That is scientifically absurd, although interestingly it would provide a scientific basis for extremely controversial bioethical and philosophical definitions of person such as those advanced by most bioethicists, e.g., Peter Singer, R.M. Hare, Jonathan Glover and others. This is scientific obfuscation.[106]

The point Dianne Irving is making here is that the whole edifice of human embryonic stem cell research is built on a fraudulent foundation, which by extension distorts reality. These claims from Dr Varmus and others who supports stem cell research involving the human embryos are scientifically false. These falsehoods are used to scientifically and ethically justify various kinds of unethical human embryo research; for instance, human embryonic stem cell research, human cloning, human/animal chimera research, DNA – recombinant human gene somatic and germ line therapy, human fertility and human infertility research, and biological and chemical warfare screening research. The underlying factor here is that these researches according to Irving are ethically wrong.

Joseph Howard rejected the views of Peter Singer on the claim that an early zygote or embryo is not a distinct human individual as demonstrated by monozygotic twinning, as false. This is because for instance, when the bacterium Escherichia coli (E.Coli) divides by binary fission, one E. Coli cell splits into two daughter cells neither of which is the original; none of us doubts, however , that there was one unique E.coli cell. The same process and procedure occurs every day in somatic cells in our bodies. Again, for instance, when a white blood cell (lymphocyte) undergoes mitosis, two identical cells result from cellular division and neither of them is the original one; none of us would doubt that there was an original unique individual human lymphocyte. It simply gave rise to two identical lymphocytes by cellular division.[107] Based on this, Howard says, Singer is arguing against accepting that an early human embryo is a distinct human individual using precepts that are based upon exceptions to a rule- monozygotic twinning. Thus, the attempt to establish or refute the human individuality of human embryos should be based upon the normal, expected observations or rules of human embryology and not their exceptions. According to Nwamadi Reginald, modern geneticists have taught us that the embryo becomes unique and distinct individual at the time of conception when the zygote is formed. Nwamadi cited Dr Jerome Lejeune, a

specialist in genetics, who emphatically stated that individualisation begins at conception. This is what Jerome Lejeune submitted that:

> ...the term differentiate means to distinguish by a specific difference. If the cells of the zygote are undifferentiated, the cells lack any distinction; and no scientists, no matter how skilled he is, can distinguish the cells of one zygote from those of another zygote nor would the scientists distinguish between any of the four cells within the zygote.[108]

Joseph Howard argues that it is well established that the early embryo does include blastomeres(a cell of an embryo blastula formed by a division of a fertilised egg cell) that are totipotent. This does not however mean that each blastomere is a single individual by itself. But it is correct that a totipotent cell, by definition, is able in to form a complete individual. The implication is that the totipotent blastomere could possibly be equivalent to a human zygote. He added further:

> Even if this turns out to be true, it does not preclude that originally there was one distinct individual human embryo. It is known that in many plants there are totipotent cells. If one of these cells is removed and placed in culture, it can give rise to another plant. Do we doubt there was one individual plant that gave rise to the second one? [109]

Howard pursues the argument further when he asserts that, St Thomas defines potency as that which is necessarily related to act; in other words, there is never a case of potency without act. Thus, the human embryo is therefore, in act in regard to what it is now; it is in potency in regard to what it may subsequently become. As such, potency recognizes that the human embryo that is alive in the laboratory – whether at the four – cell stage or the blastocyst stage (consisting of hundreds of cells) is already in act and hence is a human being that is alive. It is already a human being in regard to the fact that it is alive and is an admixture of both potency and act. While it is true that very many human embryos generated by IVF will not result in a live term – birth; yet as long as the human embryo remains alive in vitro or in utero, we have present a living being at the earliest stages of biological development.[110] These arguments and analysis are responses to Singer's argument that, an eight – cell embryo generated by IVF in the laboratory is a potential if it is transferred to the uterus for implantation where it has a chance of possibly becoming a person. That also a human embryo

generated by IVF at nine days, however, has zero probability as a blastocyst of becoming a person.

Ward Kischer position on the status of the human embryo is similar to that of Irving(see above). He thinks that some people who speak on this issue, either have no clear understanding of the science of the human embryo or choose to distort reality as it were. He traced the history of the science of the embryo to Hippocrates (460-322 B.C) and Aristotle (384-322 B.C), who at different times wrote treatises on the development of the chick embryo. In fact, he said that Aristotle is generally regarded as the founder of embryology. As time went by, the invention of hand lenses and the microscope facilitated studies of the chick embryo by Marcello Malpighi (1628-1694). But this also gave birth to one of the most profound errors in describing human development, that of the homunculus. Homunculus was a miniature human believed to have been seen within the head of a human spermatozoon and which presumed to enlarge deposited in the female. This was the basis of the preformation theory and was believed by many well into the 18th century. Research on the development of human embryo up to the modern times continued with new discoveries by Wilhelm Roux, Hans Spemann and Pierre Charon. In fact, Wilhelm Roux is considered the father of human embryology.[111]

The main issue, however, for Kischer is that with the constancy of the time of gestation which is approximately 38 weeks, it is reasonable to declare that life of the new individual human being begins with fertilization. Besides, virtually every human embryologist and every major textbook of human embryology states that fertilization marks the beginning of the life of the new individual human being. The reason is that:

> From the moment when the sperm makes contact with the oocyte, under conditions we have come to understand and describe as normal, all subsequent development to birth of a living newborn is *fait accompli*. That is to say, after that initial contact of spermatozoon and oocyte there is no subsequent moment or stage which is held in arbitration or abeyance by the mother, or the embryo or fetus...Human development is a continuum in which so – called stages overlap and blend one into another. Indeed, all of life is contained within a time continuum. Thus, the beginning of a new life is exacted by the beginning of fertilization, the reproductive event which is the essence of life.[112]

The argument Kischer is pursuing is that the debate about the status was of human embryo and the beginning of human life was corrupted by some scientists. He posits that:

> None of the panels commissioned by Presidents Clinton or Bush on research on human embryo have ever included a human embryologist. Recently, two different scientists, each of whom indirectly claimed to be a human embryologists, but who are not, testified before the President's council on Bioethics. The fact is that no human embryologist has ever been invited to testify before any Presidential Council or Commission.[113]

The implication is that the truth about the human embryo has not been told because wrong people have been involved in testifying whether truly the human embryo is a human being we can accord respect and dignity just as we do to a fully developed human being. He, therefore, suggests that only certified human embryologists are fit to say what the embryo is. Implicitly, one would observe that Ward Kischer was saying that every adult human being is the same individual, who at one time started life as an embryo. That is, before one can be a person, he must have been an individual and we cannot talk of individual without the *conceptus.* Carl Sagan stated that the *Journal of Medical Ethics* reports on research from the University of Edinburgh where ten week developing baby girls will be killed in utero (in, or while still inside, a woman's uterus), so that the eggs from their ovaries can be stripped from their bodies and implanted into women unable to conceive. These are the same baby girls we are told are only tissue blobs, but now we discover that by ten weeks gestation, they are so full formed that they produce eggs capable of fertilization outside the womb. We are forcing motherhood on baby girls whose personhood we are denying. We are saying these unborn entities are not people, but we are forcing them to become mothers.[114] It is observed that science used to discriminate on the basis of skin colour and gender, but now, with embryonic stem cell research, we discriminate on the basis of size, level of development, location, and degree of dependency.[115] Biomedical research for Scott Klusendorf, may have failed in this regard. The reason is that they justify their research by distorting the reality and nature of the person.

3.4.2 ***Religious Perspectives on the Debate on the Personhood of the Human Embryo***

This segment exposes varying religious points and arguments on embryonic stem cell research. It focuses on whether or not the human embryo is a person and if , it is it cannot be used for research because it destroys human life. On the other hand, if the embryo is not a person, then it should be used in research to save human life.

There is no unified Christian perspective on the status of the human embryo across Catholicism and the various Orthodox and Protestant churches. However, fundamentalist Christians; whether Protestant or Catholic, tend to be more opposed to embryonic stem cell research.[116] Basically, Roman Catholics tend to believe that the embryo should be treated as human life from the moment of conception or fertilization and thus should be protected. The document *Donum Vitae* states:

> Thus the fruit of human generation, from the first moment of its existence, that is to say from the moment the zygote has formed, demands the unconditional respect that is morally due to the human being in his bodily and spiritual totality. The human being is to be respected and treated as a person from the moment of conception; and therefore from that same moment his rights as a person be recognized, among which in the first place is the inviolable right of every innocent human being.[117]

The Catholic church states this as the primary reason why it is morally wrong to create or use embryos for stem cell research. It is important to state that the church premised her opinion on science and the scriptures. For instance the Catholic Church states that:

> ... from the time that the ovum is fertilized, a new life is begun which is neither that of the father nor of the mother; it is rather the life of a new being with his own growth. It would never be made human if it were not human already. To this perpetual evidence; modern genetics science brings valuable confirmation. It has demonstrated that, from the first instant, the program is fixed as to what this living being will be: a man, this individual man with his characteristic aspects already well determined. Right from fertilization is begun the adventure of a human life, and each of its great capacities requires time...to find its place and to be in a position to act...[118]

In addition, the Catholic Church asserts that applied biology and medicine work together for the integral good of human life when they come to the aid of a person stricken by illness and infirmity, and when they respect his or her dignity as a creature of God. As such, no biologist or doctor can reasonably claim, by virtue of his/her scientific competence, to be able to decide on people's origin and destiny. Thus, from the moment of conception, the life of every human being is to be respected in an absolute way because man is the only creature on earth that God has "wished for himself" and the spiritual soul of each man is "immediately created by God; his whole being bears the image of the Creator. The human life is sacred because it involves the creative action of God and it remains forever in a special relationship with the

creator who is its sole end. God alone is the Lord of life from its beginning until its end. No one can in any circumstance, claim for himself the right to destroy directly an innocent human being.[119] Put simply, the Catholic church condemns human embryonic stem cell research, while for now they have less restrictive opinion on the use of adult stem cell, placental blood, or miscarried foetuses.

Closely related to the Catholic church's position is that of the Eastern Orthodox Church. They hold the view that human life and personhood begin with the zygote, whether created in vitro, because it can ultimately lead to a human life.[120] But the Eastern Orthodox Church differs from in the sense that, they support therapeutic applications using existing stem cells lines. The protestants generally have no standard position regarding the status of embryos. This is because they are divided into many different sects with no single voice coming forth. For fundamentalists sects, embryos are the weakest people among humankind and therefore should not be sacrificed to benefit others. But for the moderate, the use of the blastocysts for research purposes is permissible, since at this early stage of development the embryos do not possess the same moral status as that of a developed fetus or a full – born person.[121] Mainstream Protestants tend to support embryonic stem cell research because of its potential therapeutic benefit but believe that embryos should not be created for the sole reason of stem cell research, regardless of the status of the embryo. They rather encourage the view that perhaps scientists should search for alternative sources of stem cell.

Under Judaism, the law supporting or encouraging embryonic stem cell research is traceable to the Jewish ethical-legal tradition and the Jewish law, or *halakah*, interpreted by the rabbis. The fundamental principle of Jewish law is that life is precious and that any action that will protect life is permissible. On the status of the embryo, the conservative Judaism teaches that human life begins forty days after conception. It is believed that that fetus is alive before this time but is not a person. Hence, its life need no protection; even after the fortieth day, the fetus does not have full rights until birth. But for the Orthodox Judaism, forty days after the conception, the fetus has moral rights and cannot be aborted unless it is done to protect the mother's health. In addition, in vitro created embryos may be used as sources of stem cells because they have no moral status under the Jewish law.[122] The meaning of these views is that, both conservative and Orthodox Judaism support embryonic stem cell research. The main issue for the Jewish tradition is to save life.

The Islamic legal system is composed of the Quran, Sharia and *ijtihad*. The Quran is the divine revelation and prime authority in Islamic law.[123] However, individuals of Islamic faith obtain guidance on how to live from the Shariah, a body of legal literature that interprets the teachings of the Quran and the ways of Prophet Mohammad. Since there is no supreme authority for this faith, religious leaders have expressed a variety of opinions on stem cell research in *fatwas*. Most of these statements are based on the interpretation of passages in the holy book; which are meant to be flexible and to incorporate current days beliefs and understandings about the world. The bottom line is that Shariah distinguishes between actual life and potential life, offering actual life more protection than potential life. This implies that the early embryo is not regarded as a person and can be used for stem cell research; whether it was produced for research or reproductive purposes. This extends to fetal cells collected from aborted foetuses before the second trimester could also be used in research.[124] Michael Thomas O. Stated that majority of Muslims in the United States of America support embryonic stem cell research, while Muslims have strongly condemned cloning.[125]

Buddhism stance on the research on human embryo is based on the intention. If the research is being done for clinical application, they support it because it has potential to save lives. However, Buddhist philosophy emphasises *ahimsa* or non-harm, and therefore simultaneously prohibits the death and injury to living organisms This latter stance may negatively influence the Buddhist view on cloning or embryonic stem cell research for the sake of expanding basic scientific knowledge; but there is a diversity of opinion within this religious group.[126]

In this segment, we stated that the Catholic faith and some Protestant religions, conceive the zygote as a human person that should not be destroyed in the course of research. Muslims, Jews and the majority of Protestants on the other hand, argue that the zygote is neither a human nor an ensouled person and therefore can be used in embryonic stem cell without moral and aesthetics problems. While Buddhism and Hinduism generally take the zygote to be a person. As such, they concern themselves more with the ramifications to spiritual life than those to physical life. Here embryonic stem cell research is acceptable so long as it satisfies *ahimsa*- non- harm.[127] It worthy of mention that we could observe the influences of science on some of the presented views on embryonic stem cell research. This is found among adherents of the same religion having a divergent opinions on embryonic stem cell research. Even among the Catholics, research has shown that some of them support this research despite the Catholic Church's doctrine against such research. This is peculiar to

other religious bodies mentioned earlier. No doubt, religious and theological implications are helping to form policies on how research in this area is conducted.[128]

3.6 **Conclusion**

The focus of this chapter was to expose some of the various arguments surrounding the personhood of the embryo. It began by establishing the nature of the human person with emphasis on selected thinkers. We also attempted an analysis and exposition of the arguments for and against the view that human embryo is a person. References were also made to some religious views on personhood and stem cell research. However, the thrust of this discourse centred on what makes a person, a person. A person may thus be defined as one with the natural, inherent capacity to perform acts, even if that capacity is currently unrealized. This suggests that the human embryo is a person. An alternative perspective of a person holds that it is a being with the immediate capacity for rationality, consciousness, sense of futurity, intelligence, etc. Since the embryo does not possess these immediate features, then it is not a person. The question remains who is a person? From the analysis in this chapter, it is difficult to draw the meeting point on what constitute personhood. In other words, there is no unifying definition or the definition of personhood. Therefore, how do we reconcile the differences? Stanley Rudman seems to capture it better when he said, "in fact, both person and human being may represent something of value and what we are dealing with is a clash of values, in that each is pricing something different or representing a different way of catching the value of personhood."[129]

Be that as it may, our submission in this chapter is that personhood of the human embryo begins at conception. From the point of view of biological science, it has been demonstrated that the human embryo has the genetic and epigenetic resources for internally directed maturation as distinct, complete, self-integrating human individual. Given this, an embryo whether brought into being by sexual union or cloning is already a human being. Put simply, by all criteria of modern molecular biology as revealed by leading embryologists such as Professors Hymie Gordon, Jerome Lejune and Micheline Matthews-Roth, life is present from the moment of conception. For these scientists, it is scientifically correct to say that an individual human life begins at conception. From conception, human life is present throughout the entire sequence to adulthood.

Besides, from a deep philosophical stand point, it is observed that the human embryo is not pre-potentiality but a living and individualized substance. This is because the human embryo

is undoubtedly a being in whom, as in all living substances, the principle of development and change is within the substance itself. For instance, this internal and external principle(nature and nurture) determines the embryo's development. Thus, when we say that the embryo is potentially a man, it is equivocal and misleading. Rather it is more proper to say that the human embryo is potentially a child, an adult, or an old man, but it is not potentially a human being. It is already one. From the African perspective, it is difficult not to refer to the human embryo as a human being. This is because Africans place a high value and premium on the life of the human person, including the embryo.

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Chapter Four

Kant's Duty Ethics and Karol Wojtyla's Personalistic Norm

4.0 **Introduction**

This chapter focuses on the ethical theories of Immanuel Kant and Karol Wojtyla. It is divided into two sections. Section one analyses Immanuel Kant duty ethics with emphasis on the need for pure ethics, the good will, the nature of duty, the four formulations of the categorical imperative, which are: universal law, respect for persons, the autonomy of the will, and the kingdom of ends. We will also examine Kant's idea of the categorical imperative and freedom and lastly discuss some critical comments and appraisal of Kantian ethics. The second section focuses on Karol Wojtyla's personalistic norms. We shall examine the background to his personalistic norm which includes; the problem of experience in ethics, reality and knowledge, the problem of a theory of morality, guilt, moral value and duty, the person as the subject and object of action, the analysis of the verb "to use", and critique of utilitarianism. We shall attempt to highlight some critical comments and appraisal of Wojtylan ethics. It must be noted that the discussion in this chapter follows from the position that we first have to know what the theories of Kant and Wojtyla are all about before attempting to use them to interrogate stem cell research from an ethical perspective.

4.1 **Immanuel Kant's Moral Philosophy**

A central focus of Kant's moral philosophy is to explain and justify the nature of morality. He begins by assuming that morality, is universally binding on all rational minds, comparable in this respect to science. According to him:

> Not only are moral laws with their principles essentially distinguished from every other kind of practical knowledge in which there is anything empirical, but all moral philosophy rests wholly on its pure part. When applied to man, it does not borrow the least thing from knowledge of man himself, but give laws a priori to him as a rational being.[1]

From the above, it is inferred that moral principles are binding on all rational beings without recourse to experience. If it is true that two and two make four, then it is binding on all rational creatures to accept this proposition. If this is a truth, it is true for everyone, not merely

true for those who care to believe it. If it is true, it is true necessarily and always. It is true in and outside of itself, without any reference to why it is true, without any reference to consequences that follow from its being true or from its being believed. It is to use a favourite phrase of Kant's truth categorically without any strings or qualifications.[2] It is not true because God commands it, nor because it is according to nature, nor because it pays in the long run to believe it: it is true because it is true. In this universality, necessity, objectivity which we detect readily enough in the proposition that two and two make four, Kant finds the differential mark of rational knowledge. He simply named it "a priori." He writes: "we cannot verify the statement that men ought to tell the truth by examining whether they in fact do so or not. The statement is true a priori. For necessity and universality are marks of a priori."[3] It is this notion of a priori that Kant carries into the field of morality. Put differently, Kant asserts that the basis of obligation must not be sought in human nature, but a priori, simply in the concepts of pure reason. Thus, to explain the Categorical Imperative, Kant isolated the a priori element of morality. He is not saying that human nature and the circumstances of our lives are unimportant; but these empirical factors cannot explain the inescapable nature of morality.[4]

4.1.1 ***The Good Will***

Kant wanted to show in clear terms that there is a difference between moral sentiments, the desire or wish to do good and the will to do good. At the beginning of the *groundwork*, Kant attempted to explain the relationship between reason, will and action, and places emphasis on the practice of the good will in our moral action. He was convinced that the good will was the most fundamental aspect of moral life. This is the reason Kant's ethical theory is founded upon the idea of a good will, and argues that whatever is extraneous to the good will fall outside the domain of morality. According to Kant, "It is impossible to conceive anything at all in the world, which can be taken as good without qualification, except a good will."[5] He says that the basis of popular morality is the will; it is what determines an action. Morally right actions must be done for the morally right motive and this is what Kant means by good will. A person with good will is someone who brings to bear his power and self control for the good. He says qualities, talents and virtues that we have may bring bad effect and become mischievieous if we do not use good will.

The good will is already good intrinsically, even in its application except to the very circumstances of human endeavours, it cannot but remain good. There is no way a good will can be corrupted. It will be a contradiction to conceive of the corruption of a good will. A bad

will can easily change whatever else is good, as Kant maintains, but it cannot change a will which is resolved and intent on achieving goodness. He says, "a good will appears to constitute the indispensable condition even of being worthy of happiness"[6]. This kind of happiness is not what is approved personally but from the ultimate good which is good in itself. Man by nature is full of desires, and most times, he would use whatever is there as means to arrive at his ends and this is not to act morally because the reason of our action is not to do what is good only for us or what can help us to satisfy our desires but what is good in itself. By nature man has adapted many things to the end and that is why he will like to do always what may help him to reach the end. However, his true destination is to produce the good will guided by reason. This does not explain that the good will is the only good, on the contrary there are plenty of things which are good in many respect. These however are not good in all circumstances and they may all be thoroughly bad when they are used by bad will. Kant says there are conditioned good; good under certain conditions, and not good absolutely or in themselves. If we want to make a link between good will and reason we can say that a being by nature has intelligence and will, but the real purpose of nature is his preservation his welfare or his happiness. Thus, this contributes to the factors making man more confused with a lot of desires. Through the development of science and technology, Kant says, men adopts whatever there is as means to reach the end only to discover that they have in fact only brought more trouble and burden to themselves than what they have gained in the way of happiness.[7]

From this, Kant states that reason alone may not be sufficient in directing and guiding the will safely as regards its objects and the satisfaction of all our needs which in part it even multiplies. The best thing to do according to him is to allow reason the will; which its true function must be to produce a will which is good, not as a means to some further end. Such a will need not on this account be the sole and complete good, but it must be the highest good and the condition of all the rest, even of all our demands for happiness. This for Kant would enable us reconcile the fact that cultivation of reason is required first and foremost, which is unconditioned as against happiness which is always conditioned.[8] Reason he says, serves as the highest practical function of establishing the good will.

4.1.2 ***Duty***

Having explained the function of reason as that which is not intended to produce happiness but to produce the good will, Kant turned his attention to the idea of duty in an attempt to

explain what he meant by the term 'good'. To explain the meaning of the term 'good' when applied to the will, Kant turns his attention to the concept of duty which is for him the salient feature of the moral consciousness. He says:

> We will therefore take up the concept of duty, which includes that of a good will, although implying certain subjective restrictions and hindrances. These, however, far from concealing it, or rendering it unrecognizable, rather bring it out by contrast and make it shine forth so much brighter.[9]

Duty, for Kant, means the necessity of acting out of reverence for the law. For an action to be moral, it must be done out of respect for the moral law. To act for the sake of duty is to act, not because one hopes to gain anything from the action or because one just feels like doing it, but purely out of reverence for the moral law. Duty here is an act of will, from a free and autonomous will, one which is not coerced by extraneous forces but self – legislated, self commanded. Actions done in accordance with duty are different from those that are motivated by duty. The action done for the sake of duty which is caused by good will cannot be done out of desire or inclination. Kant stated that "an action which is good should not only conform to a moral law, but should be done for the sake of moral law."[10] If an action conforms to the moral law, but is not done for the sake of moral law, then its conformity is merely contingent to subjective conditions, and is not logically necessary. As a rational being, therefore, l can have an inclination for an object as the effect of my proposed action, but l cannot have respect for it. What l have respect for is what is good for everyone which means what is universally good. For Kant, therefore, acting out of respect of the law is what does not subserve my inclination, but overpowers it and Kant calls it "the law of itself."[11] On this basis, good will is not merely a means of producing a good moral conduct, but is an end in itself. Good will can motivate a person to obey his or her sense of moral duty as a rational being.

Based on the above, Kant states that he omits all actions which are already recognized as inconsistent with duty, although they may be useful for one purpose or the other; for with these the question whether they are done from duty does not arise at all, since they even conflict with it. Besides, Kant also stated that there are actions which really conform to duty, but to which men have no inclination performing them because they are impelled by some other inclination. By this we can decipher whether an action or the action which agrees with duty is done from duty, or from a selfish view point. Again, he says, it is much harder to make a distinction when an action aligns with duty and when the subject has a direct inclination to

it.[12] He gave an example that it is always a matter of duty that a dealer should not overcharge an inexperienced purchaser; and wherever there is much commerce, the prudent tradesman does not overcharge, but keeps a fixed price for everyone. Here, the behaviour of the tradesman is certainly in accordance with duty; but it does not necessarily follow that he behaves in this way for the sake of duty, that is, because it his duty so to behave. He may refrain from overcharging his customers simply from motives of prudence; for example, on the ground that honesty is the best policy. Thus the class of actions performed in accordance with duty is much wider than the class of actions performed for the sake of duty.[13]

According to Kant, only actions which are performed for the sake of duty have moral worth. By way of example, Kant argues that it is a duty to maintain one's life and this is the desire of everybody and we all have the direct inclination to do so. But Kant says if we preserve our life simply because we have the inclination to do so, our action does not possess moral worth. To possess such worth my action must be performed because it is my duty to preserve my life; that is, out of a sense of moral obligation. Kant does not explicitly say that it is morally wrong to preserve my life because l desire to do so. For my action would be at least in accordance with duty and not incompatible with it, as suicide would be. But it has no moral value. From a perspective, it is not a moral action; and from another it can hardly be called an immoral action in the sense in which suicide is immoral.[14] By the use of an illustration, Kant differentiates merely praiseworthy behaviour from moral action. Altruistic actions that result from feelings of sociability deserve praise and encouragement, but they cannot be classified as possessing any genuine moral value. Furthermore, Kant insisted that to be benevolent when we can is a duty; and besides this, there are many minds so sympathetic constituted that, without any other motive of vanity or self interest, they find pleasure in spreading joy around them, and they can take delight in the satisfaction of others so far as it is their own work. That is, the sympathetic person decides to help because helping is something he/she enjoys doing. Kant maintains that such action, however proper, however amiable it may be, has no true moral worth. But he said this kind of action is on a level with other inclinations; such as the inclination to honour, which if it is properly directed in accordance with duty, deserves praise end encouragement, but not esteem. This kind of maxim for Kant lacks moral import, namely that such actions be done from duty, not from inclination.

Kant's ethical proposition here is that an act must be done from duty in order to have inner moral worth. Again, Kant reiterated that an act done from duty derives its moral value not from the results it produces but from the principle by which it is determined. Duty is the

necessity of acting from respect for the law. He thinks that performing an action because you regard the action or its end as one that is required of you is equivalent to being moved by the thought of the maxim of the action as a kind of law. Thus, the dutiful person takes the maxim of helping others to express a requirement, just as a law does. In Kant's understanding, the maxim of helping others has the form of a law. When we think that a certain maxim expresses a requirement, or has the form of a law, that thought itself is an incentive to perform the action.[15] This is what Kant calls 'respect for the law.' For Kant, actions done from duty get their moral worth from the fact that the person who does them acts from a respect for the law. A good person is moved by the thought that his or her maxim has the form of law. The principle of good will, therefore, is to do only those actions whose maxims can be conceived as having the form of law. The summary at this point is that Kant has been telling us that the good will, the only good without qualification, is manifested in acting for the sake of duty. That duty means acting out of reverence for law; and that law is essentially universal. Kant at this point asked, "but what kind of law can this be thought of which, even without regard to the results expected from it, has to determine the will if this is to be called good absolutely and without qualification."[16] He gave an answer stating that, "since l have deprived the will of every impulse (inducements) which could arise for it from following any particular law, there remains nothing but the universal conformity of actions to law in general, which should serve the will as a principle."[17] That is to say, l ought never to act except in such a way that l can also will that my maxim should become a universal law. This is the foundation for his idea of the categorical imperatives.

4.1.3 ***Categorical Imperative***

In understanding the Kantian categorical imperative, it is necessary to explain what he meant by maxim and principle. A maxim is a subjective principle of volition. That is, it is a principle on which an agent acts as a matter of fact and which determines his decisions. It can be of diverse kinds; and they may or may not accord with the objective principle or principles of the moral law. While a principle in Kantian terminology, is a fundamental objective moral law, grounded in the pure practical reason. It is a principle on which all men would act if they were purely rational agent.[18]

The idea behind Kant's categorical imperative is to show how our maxims can be brought under the form of law so as to become universalised. That is whether we could will that a given maxim should become a universal law. For instance, Kant asked, "may I when in

distress make a promise with the intention not to keep it?". The question: is it prudent or right to make a false promise? If he does act in this way, his maxim will be that he is entitled to make a promise with no intention of fulfilling it; that is, he is entitled to lie, if only by this means can he extricate himself from a distressful situation. So for Kant, the issue is, "whether a lying promise is consistent with duty, is to ask myself, should l be content that my maxim(to extricate myself from difficulty by a false promise) should hold good as a universal law, for myself or others."[19] He continued by asking that, should l be able to say to myself, every one may make a deceitful promise when he finds himself in difficulty from which he cannot otherwise extricate himself?. Thus, for Kant, while l can will the lie, l can by no means will that lying should be a universal law. This is because with such a law there would be no promises at all, since it would be in vain to allege my intention in regard to my future actions to those who would not believe this allegation or if they hastily believe me with a deep thought would definitely pay me back in my own coin. In other words, people should do to others as they want done to them. Thus, Kant says if such maxim is supposedly made a universal law, it would necessarily destroy itself . That is, if a maxim cannot be incorporated as a principle into a possible scheme of universal law, it must be rejected. Rejecting it for Kant is not about the disadvantage accruing from it to myself or even to others, but because it cannot enter as a principle into a possible universal legislation. He explained further that this is so because of the necessity of acting from a pure respect for the practical law is what constitutes duty to which every other motive must belong; besides it is the condition of a will being good in itself, and the worth of such a will is above everything.

The principle of duty that we ought never to act otherwise than so that l can also will that my maxim should become a universal law is a way of formulating what Kant calls the categorical imperative. In defining an imperative, Kant makes a distinction between command and imperative. He states that the conception of an objective principle, in so far as it is obligatory for a will, is called a command (of reason), and the formula of the command is called an imperative. He continued by asserting that "all imperatives are expressed by the word ought (or shall), and thereby indicate the relation of an objective law of reason to a will, which from its subjective constitution is not necessarily determined by it (an obligation)."[20] By objective principle as being necessitating for a will, Kant does not mean, of course, that human will cannot help obeying the law. The point is rather that the will does not necessarily follow the dictate of reason, with the consequence that the law appears to the agent as something

external which exercises constraint or pressure on the will. In this sense the law is said to be necessitating for the will.[21]

An imperative is the linguistic form in which a command is expressed, while commands are related to laws as duty is to the goodwill: in each case, the former adds to the latter the idea of an opposition to inclination. This implies that all rational beings act according to the conception of laws. Kant observed that "imperatives command either hypothetically or categorically. The former represent the practical necessity of a possible action as means to something else that is willed (or at least which one might possibly will)."[22] Hypothetical imperative tells us that if you will something, you ought also to will something else. For instance, if you will to be a pastor, then you ought to study the Bible. That is an imperative of skill, telling you how to achieve some particular end.[23] There are two things to observe: First, the actions commanded are conceived as being good with a view to attaining a certain end. They are not commanded as actions which ought to be performed for their own sake, but only as a means. On the other hand, categorical imperative for Kant, "would be that which represented an action as necessary of itself without reference to another end, that is, as objectively necessary."[24] That is, categorical imperative as an unconditional directive, prescribes actions to be done because of the moral worth of the maxim and not for the sake of some consequences that may result from it.

Kant further observed that, hypothetical imperatives can be divided into two other types: "problematic" types, which tells you what you must do in order to attain some particular end you might have; "action is good for some purpose, possible or actual." And the "assertoric" type which tell you what you need to do in order to attain an end you do have. The point Kant is making is that the problematic hypothetical imperatives are not fit as principles of morality, since they clearly depend upon merely contingent ends. On the other end, *assertoric* hypothetical imperatives are also unfit to be moral principles, since the only end that everyone obviously does have is that of happiness, and that has already been excluded as a possible foundation for morality. Thus the only possible imperative for a fundamental principle of morality is a categorical imperative.[25] Besides this, Kant immediately gives us another formulation of the imperative, namely to: *act as if the maxim of your action were to become through your will a universal law of nature*. Kant's analysis is an attempt to tell us that the practical or moral law is strictly universal. The concrete principles of conduct must partake in this universality if they are to qualify for being called moral. Kant provides four different formulations of the categorical imperative. These are highlighted below:

Universal Law

This formulation is represented thus: "act as if the maxim of your action were to become through your will a universal law of nature."[26] This formulation for Kant means that everybody at all times in all places are morally forbidden to act on maxims that they can't consistently will to be universal laws. According to Kant, an action is morally acceptable if and only if the maxim the individual is following is morally acceptable. If we are following a maxim that is not morally acceptable, the action is considered morally wrong. Kant avers that people are morally forbidden to act on maxims that they cannot consistently will to be universal laws. That is, to determine whether we can consistently will a maxim to be a universal law, we must transform the maxim from a personal policy expressed in terms of "I" into a universal policy that applies to everyone.

Respect for Persons

Respect for persons is the second formulation of the categorical imperative. According to Kant, "beings whose existence depend not on our will but on nature, are nevertheless if they are irrational beings, only a relative value as means and are therefore called things; rational beings on the contrary are called persons because their nature points them out as ends in themselves, that is, as something which must not be used merely as means, and so far restricts freedom and action."[27] It is on this basis that man necessarily conceives his own existence as being; so far then this is a subjective principle of human action. However other rational beings also think the same about their existence. In this way, man is his action, in his relation with the others; must consider them as himself, as ends not as means. Accordingly, the practical imperative will be as follows: "so act as to treat humanity, whether in your own person or in that of another, in every case as an end, never as means only."[28] He again added:

> Man regarded as a person... is exalted above any price; for as a person...he is not to be valued merely as a means to the ends of others..., but as an end in himself, that is, he possesses a dignity (an absolute inner worth) by which he exacts respect for himself from all other rational beings in the world. He can measure himself with any other being of his kind and value himself on a footing of equality with them.[29]

This implies that we should never simply use other people to further our goals. The reason is that a rational being does not have merely conditional worth, that is, is not just worthwhile as a means to some end. Rather they are worthwhile for their own sake. It is important to note that the words 'at the same time' and 'merely' are of importance. This is because we cannot help making use of the other human beings as means. For instance, when l go to the hairdresser's, l use him as a means to an end other than himself. However, the law stipulates that, even in such cases, l must never use a rational being as a mere means; that is, as though he had no value in himself except as a means to my subjective end. Kant also meant that we respect the fact that persons are beings with free-will, which further implies that we do not deprive them of choice.

Kant applies this formulation of the categorical imperative to the same case which he used to illustrate the application of the imperative as originally formulated. The person who commits suicide destroys himself to escape from painful circumstances, uses himself, a person, as a mere means to a relative end, namely the maintenance of a tolerable conditions up to the end of life. The man who makes a promise to obtain a benefit when he has no intention of fulfilling it or when he knows very well that he will not be in a position to keep it, uses the man to whom he makes the promise as a mere means to a relative end.[30] Kant thinks that this version of the imperative follows from the first, because the will must be determined by an end. This end as it were must be valid for all rational beings which must not be based on any desire. Kant, however, observes that the "violation of the principle of humanity is more obvious if we take an example of attacks on the freedom and property of others."[31] We could see that the end of any subject being which is an end in himself ought as far as possible to be my ends also; this conception of the ends has to fulfil its full effect with me. Then most of our principles of morality have failed because by duty man has to act according to the universal law which is not his own desire, because with the response to the universal law, man is incapable of abandoning his desires. But the moral principle of duty is that we have to decide freely according to our freedom of the will, not according to fear or any external force or desires. This is what Kant refer to as the 'autonomy of the will'. This is the third formulation of the categorical imperative.

The Autonomy of the Will

Kant derives the third practical principle of the will from the preceding formulations of the categorical imperative when he said:

> The ground of all practical lawgiving lies (in accordance with the first principle) objectively in the rule and the form of universality which makes it fit to be law (indeed a law of nature); subjectively, however, it lies in the end; but the subject of all ends is every rational being as an end in itself (in accordance with the second principle); from this there follows now the third practical of the will, as supreme condition of its harmony with universal principle, the idea of the will of every rational being as a will giving universal law.[32]

The autonomy of the will here means, "the action which is determined by the subject's own free choice."[33] In contrast, Kant states that autonomy of the will is different from heteronomy of the will. Heteronomy here means "action which is determined by some outside influence impelling the subject to act in certain way. For instance, some people would like to help the poor because they want to be seen as rich people and not out of compassion; or a lady accept to marry a man not because she loves him but because the man is rich.

The formulation of the autonomy of the will given by Kant goes thus: so act that your will can regard itself at the same time as making universal law through its maxims. In the *Critique of Practical Reason,* he posits thus: "act so that the maxim of your will can always at the same time hold good as a principle of universal legislation."[34] Thus, for Kant, the autonomy of the will is the sole principle of all laws and of all duties. But the heteronomy of the will is more subjective and opposed to the principles theory and to the morality of the will. The categorical imperative persists in the agent who is able to act autonomously of the will. He added that this autonomy of the will is the sole principle of all duties which conform to them. Then in Kant's conception, "the heteronomy of the elective will cannot; only be the basis of any obligation but is on the contrary, opposed to the principle thereof and to the morality of the will."[35]

The central idea here, according to Kant, is that for your will to be determined simply by inclination toward some object is for your will as it were to allow itself to be pushed around by those inclinations, or to be heteronomous, rather than to be freely self-determined, or autonomous, and that the only way for your will to be free or autonomous is for it to be governed by a law that it gives itself rather than allow itself to act on whatever mere inclination happens to be alluring at the moment . Again, because your will is determined heteronomously rather than autonomously, it becomes important that the only rule that can truly free you along with everyone else from heteronomy and make one truly realize one's potential for autonomy is the rule that no one should act on any maxim determined by mere

inclination, but rather that all should act only on a set of rational principles consistent with the freedom of each, that is, a system of maxims that each could freely will. It is noticeable that the freedom of anyone can be realized – preserved and promoted- only if all act on a common system of universalizable maxims, but Kant's opinion is that if that is not the case, then someone will always be pushed around by some mere inclination, whether his own or someone else's.[36]

It is indeed necessary to add that this formulation of the categorical imperative is similar to the first, but the difference is that it presents the person as a law – maker, or as an autonomous being. Again, this third formulation follows from the second and the first. The reason is that treating every human being as an end in itself requires that all maxims on which you act could be freely willed by all human beings, and that only if all act on such a set of maxims will the freedom of all be preserved and promoted in the way commensurate with the value of each person as an end in itself.[37] This idea that rational beings are ends in themselves, and in conjunction with the fact that the rational will or practical reason is morally legislating, brings us to the last formulation of the categorical imperative he called 'kingdom of ends'.

The Kingdom of Ends

By the kingdom of ends, Kant meant, "the union of different rational beings by common law."[38] The reason he called it kingdom of ends is that these laws have in view the relation of these beings to one another as ends and means. According to Kant, when all rational beings come under the law, each must treat himself and all others never merely as means, but in every case as ends in themselves. On this basis, the relation to one another here is seen as means and ends. This is the ideal of human life. He belongs to this kingdom of ends as sovereign when while giving laws, he is not subject to the will of any other. In realizing fully this kingdom as an ideal, man has the duty to act autonomously.[39] Put simply, a kingdom of ends is an ideal. It is a community of persons each one of whom acts autonomously without infringing on the autonomy of the others. Each is a person to himself and everyone else. Some commentators had remarked that this last formulation form the basis for Kant's political theory.

4.2 ***Critical Analysis of Kant's Moral Philosophy***

Having outlined, above, Kant's moral philosophy, it is imperative to note that it has been appraised by many. Among them is Richard Norman, who said that the whole of Kant's moral

philosophy seems to depend very heavily on an appeal to what he regards as the ordinary moral consciousness. Secondly, Norman accuses Kant that the argument of the second section of the *Fundamental Principles of the Metaphysics of Morals* appears to presuppose the conception of morality set out in the first part of the text. Norman says he is not sure whether Kant thinks that he, in the second section, provided independent arguments for the validity of that conception of morality. Norman, however, claims that Kant failed to do so. In other words, Norman is saying that Kant's arguments for his conception of morality in the first section of the *Fundamentals Principles of the Metaphysics of Morals* are not different from the second section. Norman claims that what he attempted to do was to supply hints as to how we might work out an independent justification; a further clarification and elaboration of the ethical theory which has been derived from the ordinary moral consciousness.[40]

The third part or section also did not outline the required independent justification. Kant rather sketches the metaphysics which is needed to explain the possibility of morality. Norman recounted part of the third section thus:

> In a world where everything that happens is causally necessitated, human beings can nevertheless possess the free will which morality presupposes because, as selves, they belong to the realm of noumenal (or things in themselves), as well as to the world of phenomena (or appearances).[41]

With this, Norman asserts that Kant only attempted to demonstrate that morality is possible, but not that it is necessary – that is, he has not told us why we ought to understand morality in this way, and why we ought to act in accordance with such morality. In fact Kant gives no answer to this question, other than the claim that his account of morality is that of the ordinary moral consciousness. Besides, Kant has been accused of dogmatism. For instance, Kant wanted to remove dogmatism from ethics but what obtain from his ethics is nothing but another kind of dogmatism. For example, when it comes to it normative application to society, profession or business, whether willingly or unwillingly, autonomy becomes dogmatic and often inclines towards positivism. Kant has also been accused that his ethical theory is descriptive or a 'science of customs' formulated after realising that theoretical knowledge alone is not sufficient, and that it be must backed by practical application in specific human circumstances. In this sense, Kant might have inadvertently tended towards the very empiricism he wanted to refute.[42]

Gerald Jones, et al[43] also observed a major difficulty in Kant's moral theory. That is, it seems that not every universal maxim is a moral one. It could be trivial or amoral and from this, it appears that not every maxim that passes his test of universalisability is a duty. Their problem with Kant is that he did not tell precisely how we are to distinguish moral duties from absurd imperatives; for surely there is nothing to stop from universalising the maxim 'never step on the cracks in the pavement'. It is certainly not inconsistent to will that everyone do so. Again, it is not clear how Kant could distinguish moral obligations from social etiquette. For instance, "l could easily will that everyone eats with a knife and fork and be outraged at the thought that some adults are using their hands or just spoons". Another important objection raised by Jones et al., is that Kant's approach provides no concrete advice as to how to behave. While providing a framework, it provides no substantive help in making moral decisions when we are faced with moral dilemmas. This is clearly visible when Kant comes to apply the categorical imperative to everyday life. While it is true that the categorical imperative goes some way in this direction, but what happens if we encounter conflicts between different duties, it appears there is no way for us to choose.[44]

Another issue raised against Kant's moral theory was that his eulogising of duty has not met with universal approval. For instance, there is a problem of the clash of duties: to one's family, one's employer, one's country, even to God. In response to duty's call, men have felt compelled to sacrifice one for the other – family for job, job for country and so on. In fact, people have argued that his submission on the idea of duty reflects his life style. This is how Ray Billington puts it:

> Perhaps his – to some people – simplistic approach on the matter reflects his own life style: his life and work were one; not for him the conflicting claims of home and study, of time spent with books, and involvement in political or social reform. His life followed a fixed routine; on the one day when he missed his afternoon walk many of his neighbours fled to the local church in the (mistaken, as it turned out) belief that the end of the world was nigh. The call of duty presented no problem to him.[45]

Another problem with Kant's idea of duty is that it tends to lead to an acceptance of, and obedience to, authority, which normally means those set in authority over us. This was probably less of a problem in Kant's day than in our more autonomous (at least for the West) Twentieth Century society. For instance, patriotism, respect for upholders of the law, and indeed deference to people in high places generally are, for better or for worse, less frequent

than they were before 'the age of the common man'. The contemporary society emphasises personal fulfilment than it was emphasised two hundred years ago. Hence, that command to do one's duty does not have the same imposing ring to it as to our forefathers. With courses on personal assertiveness springing up everywhere, it is no wonder that the notion of duty seems to have been shelved or abandoned. This may be only a temporary phenomenon, as future generations may assess us as a generation without ideals; if people get tired of living in a society where few can be relied on, perhaps there will be a hankering after the Kantian approach to living, where people's word is more likely to be their bond. Billington added that the main weakness of Kant's theory , besides any that may have been already discussed above, is that its emphasis lies primarily in telling us what we ought not, rather than we ought to do. Billington quoted Maclntyre that:

> Morality (as presented by the categorical imperative) set limits to the ways in which and the means by which we conduct our lives; it does not give them direction. It tells us that we should not cheat at cards, crib in exams, or kick a man when he's down; it is considerably less helpful in telling us what is desirable, what ends we should have in mind, what kind of behaviour we should wish to see universalised.[46]

Thus for MacIntyre, it is difficult to adopt Kant's own life-style to guide us on this matter. Besides, this celibacy aspect of his life, would bring about the extinction of the human race. This would deny the central truth of Kant's teaching that because each of us is an autonomous, rational human being, we must apply the categorical imperative to our own lives, not simply try to imitate the way another person has done this.

Jens Timmermann, observes that Kant's intentions in his theory of morality as presented in his *Groundwork of Metaphysics of Morals* has been misunderstood. This is because, Kant himself said that his intention in the *Groundwork* was not to provide a new moral principle or principle of morality, but only a new formula. In fact Kant rejects the idea of a novel principle as preposterous. He affirms:

> For who would want to introduce a new principle of all morality and, as it were, first invent it? Just as if before him the world had been ignorant or in thoroughgoing error about what duty is. Whoever knows what a *formula* means to a mathematician, which determines quite precisely what is to be done to execute a task and does not let him miss it, will not take a formula that does this with respect to all

> duty in general as something that is insignificant and can be dispensed.[47]

The above reason clearly explains why Kant insisted on a new formula. Another reason is that moral truth, though universally accessible, is liable to be obscured by all-too-human tendency to side with natural desire than reason. As such Kant believe that an explicit statement of the formula of morality would perhaps help to preserve its purity, not necessarily a novel or new principles of morality. Kant observed that between an ordinary man and a Kantian philosopher; when it comes to relying on the same rational principle when they judge, for example, fraud to be morally wrong, the latter (Kantian philosopher), has a much clearer perspective and conception of it. That is why he thought that the categorical imperative, particularly in the shape of its initial 'basic' formulation, can serve as a criterion or decision procedure in practical matters.[48] Thus, Timmermann thinks that if we understand Kant from this perspective, one would have less problem understanding his ideas.

Following this, Norman Bowie asserted that Kant's moral philosophy provides a foundation for a universal morality. By universal morality, he meant the categorical imperative provides a convincing argument against a full blown ethical relativism (the doctrine that what a culture believes to be right or wrong really is right or wrong for that culture). Bowie said this when he was arguing against the fact that "within international capitalist economic relations, the maxims of certain actions if universalised, would be self-defeating. Thus, as capitalism spreads throughout the world, a certain minimum morality, what Bowie calls "morality of the market place", will be universally adopted."[49]

Julia Driver, argues that it is necessary and vital not to misinterpret Kantian idea of duty and inclination. In her view, Kant does not mean that it is better to go on duty against our inclination *per se*, rather, he is saying that what is important to moral worth is whether or not the sense of duty is what is motivating our action. Inclination can also be inclusive, but need not be. Kant believed that our inclinations are basically the desires that we have, pushing us in a certain direction. As such, these desires are too fickle a basis to provide firm moral motivation. In addition, the content of our desires changes, but the commands of reason do not. Reason, he says, provides moral motivation, since morality is by nature unconditional and not dependent on our desires, or on typical desires. In response to some critics who think that the Kantian ethics is too old and unemotional, Driver responded that it is not true. She premised her reason on the fact the Kant was only attempting to give emotion a subordinate

role, not eliminate it altogether. He felt that morality could not be based upon emotion; otherwise it would lose it authority over our actions. The reason is that emotions, unlike reason, are fickle and transitory. They resist the pull of reason.[50] Driver reasons that Kantian ethics has been enormously influential for the simple fact that he was able to articulate a vision of morality that captures many of our deeply held views of the status and content of morality.

Barbara Herman, raised some important issues on Kantian ethics which calls for consideration. She thinks that most critics of Kantian ethics, perhaps did not understand that Kant's task in his work was to show that philosophical ethics is not to correct ordinary knowledge, but to understand how it is possible. She says Kant was to a great extent correct to have began his work on ethics by placing emphasis on value; that is saying 'ethics is good, all action is for some end taken to be good and the primary object of ethical enquiry is the unconditioned good. Above all, she supported her position by referring to the first paragraph of the *Nicomachean Ethics* of Aristotle as saying that the subject matter of ethics is the good. Barbara is simply saying that if we understand Kant from these perspectives, then one would discover that slotting Kantian ethics as deontological both mistakes its philosophical ambition and saddles it with unnecessary moral presuppositions.[51]

Be that as it may, one could observe that the central theme of Kantian ethics is weaved around the categorical imperative. One point that stands out seems to be the fact that an action is morally justifiable if it is carried out without any reward attached or any means of getting something beneficial for the actor. This we feel is most commendable. The problem with this though, is that is it possible for one to carry out such action without any benefit for himself? The answer is no. Most people tend to carry out actions because they stand to gain something from such an action. It may not be material gains. This gain may come in the form of satisfaction one derives from assisting someone else. Human condition is such that any time assistance is being rendered to someone, it is accompanied by inner sense of duty or satisfaction. Kant, we think greatly missed the mark when he said it is possible to carry out actions without attachments to anything one may desire from it forgetting the sense of accomplishment that accompany service rendered to fellow men. If there is no feeling of satisfaction that derives from helping others, it would have been difficult if not impossible to act no matter the urgency of the duty.

Besides, Kant's recognition of the dignity of the human person is one of the most admirable parts of his philosophy. His emphasis on respect for the other has reshaped humanity's attitude towards one another. This explains why many scholars have adopted this part of his work to justify the need to uphold human dignity. In addition, Kant's postulations are worthwhile because they consistently reminds us that the human person deserves to be treated as an end in itself. It therefore follows that Kant's philosophy is a valuable tool for our society. Kant's ethics has been able to show that respect for the person is a core of ethical systems. Again, when Kant emphasises rationality in moral matters, he was simply telling us the importance of truth; that is, we could arrive at truth and get results, make a good moral decision and judgment. Kant at this point enables us to see reason as the vehicle of morality and justice.

On the final note, the central problem with the Kantian ethics is that it is inflexible in nature, because you have to perform duty for duty sake. It goes further that, a good ethical theory should be flexible to give room to certain unexpected situations in which the rule should be slightly bent to accommodate exigencies. However, Kant's ethics also make us to value moral commitment to one's duty. Moral commitment is the greatest strength of Kantian ethics. Beyond these, the Kantian arguments for respect for persons is an aspect of his work that cannot be ignored. Kant submission that, don't treat people merely as means but always as ends in themselves shows that persons are priceless and dignified entity. Its shows that persons in all ramifications have a "special" moral status that is unique and irreplaceable. The Kantian notion of respect for persons brought new dimensions to personalism and this new dimension has been a source of inspiration for thinkers after him. Kant's respect for persons when applied to practical issues even in the contemporary times, remains relevant. The Kantian respect for persons is believed to have helped contemporary thinkers place anthropology in its rightful place and this is central to this thesis.

4.3 **The Moral Philosophy of Karol Wojtyla**

The essence of Karol Wojtyla's moral philosophy was the promotion of human dignity as a philosopher and a theologian. Wojtyla was basically influenced by Marx Scheler and found in him a powerful motivation for his own reflections about the human person. Besides, what particularly impressed him was how Scheler, against prevailing formalism of Kantian ethics, re-established the fact and the reality of moral value, or of moral goods, as objective givens of personal, lived experience. Kant initially argued that there are no such goods or values given

to us in experience.[56] The only goods or values we experience are the pleasures of subjective happiness and are too low or too self-interested to be the basis for morality. In other words, morality must be founded on the categorical imperative which stresses duty, or obedience to a free standing 'ought' or norm, and not any concrete cognizable value. Scheler, however, rejected the claims of Kant and argued for phenomenological reflection on one's experience. This proves the presence of genuine moral values, of goods that are not the goods of self-interested pleasure. For Wojtyla, this phenomenological analysis of morality coming from Scheler, is a decisive one for the philosophy of consciousness in overcoming subjectivism and formalism in ethics.[57] Even though these thinkers influenced Wojtyla's personalistic norm (which is the basis of his ethical theory), he however did not totally agree with them in some of their postulations. We shall emphasise this later as this work progresses. Again Wojtyla's idea of phenomenology is a sustained effort to bring back into philosophy everyday things, concrete wholes, the basic experiences of life as they come to us. It wishes to recapture these quotidian realities from empiricists, on the one hand, who analyze them into sense data, impressions, chemical compositions, neural reactions, etc, and from idealists, on the other hand, who break them up into ideal types, categories, and forms.[58]

Wojtyla's attraction to Scheler was the latter's insistence upon objectivity in ethics and his endeavour to create a system of objective values. While he was a professor of ethics at the University of Krakow, Poland, Wojtyla was consistently confronted by scientism and empiricism in virtually every sphere of intellectual endeavour in Poland. The positivism represented by the Polish school of logic reduced to the empirical all that was human. He observed clearly that an epistemology which limits all intelligible reality to matters of fact and measurable data inexorably leads to scepticism and ethical relativism.[59] He found in Scheler, an alternative to scepticism and relativism that is, an ethics of rigid absolutism and objectivism.[60] Wojtyla insists in his thesis on Scheler that to interpret adequately moral data, especially as it concerns Christian revelation, a philosophical ethics must be able to determine acts as good or evil in themselves. Although Scheler's system includes some objective tendencies, its objectivity breaks down, Wojtyla contends, because its phenomenological principles, good and evil only "appear" as phenomena of intentional feelings. Wojtyla stated that Scheler's emotional intuitionism considers values in isolation of the context of human action; this is wrong and unacceptable. According to Wojtyla, this is because it is wrong to determine acts as good or evil in themselves. Thus, for moral values to be real and objective, they must be based on principles that are meta-phenomenological, or metaphysical. He added

that Scheler's phenomenological and emotionalistic principles are not tenable for a scientific interpretation or analysis of ethics, but they can still be accidentally useful. This is because it thus facilitates the analysis of ethical facts on the plane of phenomena and experience. Thus, while he rejected the phenomenology of Scheler, he turned to St Thomas Aquinas because he believed Aquinas's theological ethics, because of its metaphysical categories, adequately interpret moral teaching philosophically.[61]

He however pointed out two areas where Thomism in particular invites further development and they are: Thomistic ethics is teleological, explicating moral reality in the light of its ultimate purpose. Thus, the task of ethics today is not so much to point out ultimate aim of moral behaviour as to identify the ultimate basis of moral norms. In this regard, he accused Kant as being responsible for altering our conception and formulation of the central problem of ethics. We may accept the point of departure of Kant, but not necessarily accepting his conclusions. According to John L. Smith, Wojtyla discovered that phenomenology was able to provide a link to reality, a way to ground ethical norms in reality, and not in interior ideas. But he accused Kant of saying that ethical norms are unknowable because they lie beyond immediate human experience. Thus, while Wojtyla accepted Kant's notion of the categorical imperative, he rejected his conclusion that ethical norms are unknowable.[62] Second, Thomism's metaphysical concept of the human person in a certain sense reduces person to nature. If we define a person as an "individual substance of a rational nature," it follows that personhood is understood in terms of the faculties (potentiae) of human nature. Thus, Wojtyla sees Thomistic anthropology as open to enrichment with the concept of the human person offered by the philosophy of consciousness and phenomenology.[63] In clear terms, Aquinas' moral philosophy was teleological and naturalistic. However, Wojtyla contends that his own is normative and personalistic. He established this moral theory because he felt, Aquinas' teleology and Scheler's emotivism are not adequate to confront the moral challenges facing humanity. In contrast to the ethical relativism arising from empiricism, Wojtyla established a moral theory or ethics that is normative and personalistic. For Wojtyla, ethics must be firmly rooted upon experience.[64]

4.3.1 ***The Problem of Experience in Ethics***

Wojtyla describes ethics today as existing in a "critical" situation of divergence. What he meant is that when questioned on the nature of their science, ethicians do not give a single, unambiguous answer. At the basis of this disagreement lies the dissolution of the original

unity of science into a multiplicity of special science, each with its own criteria for a science. There are two main streams of thought regarding the criteria of science, namely; empiricism and rationalistic apriorism.[65] The first, empiricism, limits the basis for science not only to the realm of experience but to the purely sensible. The second, rationalistic apriorism, takes first theorems as its point of departure and the source of its certitude; these first theorems are said to lie not in experience but unconditionally in the understanding, directly and immediately apparent.[66] Thus, for Wojtyla, this divergence in epistemology explains the divergence in contemporary ethics. The question is, should ethics be an empirical-inductive science or one that is aprioristic-deductive? He says, empiricists examine and describe moral phenomena in individual, psychic, or social life. The result is a psychology or sociology of morals, but not ethics. On the other hand, the apriorists collect norms and using the deductive method, organize them into a logic of norms. But they too fail to raise the essential question about the ultimate basis of norms. The issue then is that neither positivist descriptions nor a logic of norms can answer the questions, what is morally good, what is morally evil, and why? This is exactly the fundamental and ambitious task which ethics has traditionally set for itself. It is a task which is still one of the chief needs of our day. The basic questions of moral good and evil require norms and not mere descriptions for an answer. For Wojtyla, it appears ethics have retired from its perennial and great task to the sidelines if the idea of experience is removed from ethics.

He alluded further that ethics cannot be reduced to a psychology or sociology of morals, since each of these sciences deals with morality by accident. Besides, a moral fact is more than a psychophysical or social fact. Morality has a specificity which alone can provide the point of departure for a genuine science of morals. He says ethics is the science of morals per excellence, because it demonstrates an empirical character, in that it proceeds from facts which, as a totality, constitute a fully singular reality.[67] The point of departure for ethics is the experience of morality. Wojtyla disagrees with those who maintain that no differentiation is possible between moral phenomena and the rest of human life and activity. He maintains that there is an experience of morality which provides an experiential starting point for ethics, provided one abandons the “blind alley” of radical empiricism. The task of ethics is to explore moral experience and thereby determine ultimate reasons for the facts to be found there. The real method of ethics is therefore reductive and not deductive.[68] Wojtyla raised a question as to how to define experience as it relates to ethics. He says for the radical empiricist, the very concept of an experience of morality is meaningless. Moral good and evil have no ontological

status. The terms “good” and “evil” simply express the speaker’s emotions. He reminded us that A.J Ayer, C.L Stevenson and H. Reichenbach are exponents of this “emotivism”, described by T. Geiger as “axiological nihilism”. For Wojtyla, experience includes more than the sphere of purely sensible impressions. The term ‘phenomenon’ points to something that “appears,” something that our intellectual faculties perceive intuitively. He regards such intuition as the “essence” of experience.[69] He stated that if this is granted, “it is difficult to deny that morality ‘appears’ to us in a certain way, and that, thanks to this possibility, various moral facts can be experienced. In short, we have intuitive access to moral facts.

4.3.2 ***Reality and Knowledge***

Wojtyla here draws our attention to two elements or aspects of experience. The first, a “feeling of reality,” with the accent on reality, is the feeling that something really exists objectively, independent from the observer. The second, a “feeling of knowledge,” is a feeling of a peculiar relationship, a contact or union between the observer and that which exists objectively in its own right. Though these two are distinct, yet they are organically united.[70]. For instance on the one hand we speak of “the feeling of reality in and through knowledge” and , on the other hand, of “the feeling of knowledge on the basis of reality. In this kind of contact and relationship, the feeling of knowledge is ultimately revealed as a striving toward that which really and objectively exists, as a striving for its object, for truth. He did not exactly tell us what he means by “truth”. He, however, claims that this perception of knowledge and reality radically overcomes the sensualist meaning of experience. He says, there can be no ‘purely sensual’ experience, because we are not purely sensual creatures . Again, he stated that in the perception of knowledge, there exists as an essential, constitutive moment the peculiar need to strive for truth. If reality were identical with knowledge, *esse* with *percipi*; as idealists maintain, then the need to strive for truth in knowledge would be unintelligible. Knowledge does not constitute reality but must go outside itself to be fulfilled. One aspect of that reality is morality. Thus, the fact of experience reveals that morality is a particular reality, a particular *esse.*[71]

4.3.3 ***The Experience of Morality and Moral Feeling***

At this point, Wojtyla made a distinction between moral feeling and the experience of morality. Moral experience arises out of the practice of morality, whereby we witness ourselves as the authentic cause of moral good and evil. He insists that morality cannot be

separated from causality. He added that derived from experience and rendering it more precise is the experience of morality, a secondary but deeper experience. Morality is both practiced and experienced; it is an externally visible fact with a basically inner character. This subjectivity is experienced in ourselves through introspection and in others through intersubjective perception and participation. He stated that because we can intuit morality, ethics deals not only with the teaching of moral facts but with morality itself, as it is rooted in experience.[72] Again, Wojtyla made it clear that because persons are both the subject and object of moral experiences, the experience of morality is always contained in the experience of personhood and to a certain extent, is even this experience itself. We experience ourselves as persons through morality, and we experience morality through ourselves as persons. Morality and humanity are inseparable, as can be demonstrated by the fact that ethnologists do not investigate whether or not a morality existed among a primitive people but what specifically that morality was. For Wojtyla, the experience of being a person is a necessary implication of the experience of morality.

Wojtyla, at this point, made it clear that the idea of moral feeling or moral sense as it is called by some scholars has been oversimplified. David Hume, for instance, reduced morality to innate sense which permits us to distinguish virtue from vice according to the pleasure that accompanies virtue and the pain that accompanies vice. The utilitarian's elevated the moral sense to a basic principle of ethics by arguing that morality was concerned with the maximization of pleasure and the minimisation of pain. Wojtyla contends that utilitarianism was guilty of gross oversimplication. Though we cannot deny that human acts, especially with respect to their moral evaluation, are accompanied by deep emotional experience, by joy and satisfaction in good and by depression and despair in evil, reducing feelings to the category of sensible pleasure and pain is an impoverished view of a much more complex emotional structure.[73]

4.3.4 ***The Problem of a Theory of Morality***

Having clarified the nature of experience of morality, he went ahead to state that the theory of morality constitutes a foundation of ethics by objectifying the dynamism of morality, extracting from its subjective context what is always proper to the experience of morality. Among the contents and principles of that experience is moral value which he further divided into moral good and evil as having its basis and source in norms. For him, moral norms do not derive from moral values, rather values from norms. He says a norm is not only the basis of

moral value, it is the source for the split of the sphere we call moral value into moral good and evil. From where else, Wojtyla asks, would the distinction between moral good and evil come? He answered that, we differentiate between veracity and falsehood on the basis of the norm that commands veracity and prohibits falsehood. By this, a norm is a deeper and much more basic element of morality than value.[74]

4.3.5 *Guilt, Moral Value and Duty*

To further illustrate his theory of morality, Wojtyla used the examples of guilt, moral value and duty. The experience of guilt in its essential contents is the experience of moral evil. What he meant was that, it is evil contained in a conscious, free act, of which a person is the cause.[75] There is no guilt without conscious causality. That is, in the experience of guilt there is always included the causality of a personal Yes. If the objectification of moral value must conform to experience, one cannot separate this value from act, or, more precisely, from conscious causality of the person. This is the basis for defining moral value according to Wojtyla. He claims that moral value does not appear on the margin of a human act or as a by-product of the act. Rather, experience testifies to the fact that moral value is realised in the act, within the dynamic structure that the act possesses as an acting person. The implication of this is that moral value settles in the person, as it were, taking root in him/her and becoming his own quality. This is perfectly demonstrated in the experience of guilt. He argued that as the agent of a morally evil act, a man becomes morally evil himself. Evil goes, as it were, from the act to the person. He was also convinced that the experience of guilt points clearly to the dependence of value upon the principles of conscience and norms. Conscience in the final analysis is nothing else than experience of the principle of moral good and evil.

Value, on the other hand, belongs to the category of quality: by virtue of their moral value, both human acts and the agents who perform them demonstrate their proper quality as good or evil, virtuous or sinful. Moral value includes the concept of moral evil as well as moral good. Wojtyla observed that some moral philosophers prefer to distinguish between values and disvalues or negative values. He finds such distinction unreal and not corresponding to the experience of morality.[76] He explained further that moral evil consists not only, nor even above all, of a contradiction of the good, but rather of a conflict with moral principles of conscience and norms. Thus, both the agent and the act must be related to norms. Neglecting this is to fall into the error of separating one's psychic and psychophysical functions from the whole human person. Such psychologism gives rise to idealistic subjectivism and positivism

in moral interpretation. This means that when a person is seen simply as a consciousness, there is no other possibility than subjectiving moral good and evil. In arguing that moral value is that through which 'man as man' becomes good of evil, Wojtyla is simply equating moral value with humanity. A person's humanity is the one and only key to understanding these values and the only possible foundation for explaining them. He rightly observed that it not possible to interpret moral values or morality without humanity, nor humanity as such without morality. Morality for Wojtyla constitutes the necessary key to understanding 'humanity'. Moral goodness contributes toward the full realization of both the act and the agent. An acting person is fulfilled through moral good and left unfulfilled through moral evil.[77]

Duty for Wojtyla is an integral element of morality. Duty is more decisive for morality than value. For Wojtyla, "l want or do not want to be good" constitutes the very essence of morality. If l want to be good, it is necessary that l behave in a particular way. This implies that duty is connected to the self-realization of one's being as a person. In addition, he asserts that at the basis of the experience of duty, one can perceive the potentiality of freedom, since being deprived of freedom would be incapable of experiencing duty. Furthermore, the experience of "l must" as against "l want" reveals our spirituality as persons. It takes us across the starting point between the relative and the absolute. This absolute here is not in the ontological sense, since that would be ontologism. The absolute he is speaking about is that which corresponds to moral duty (Kant's categorical imperative) arising from the opposition between good and evil, whereby they mutually exclude each other.[78] Wojtyla rightly criticised Scheler for excluding duty or value from the ethical life of the human person. He says both duty and value perform important roles in the ethical life, and what is really needed is a new, synthetic description of the relation between them.[79] Wojtyla concluded this section by reminding us that the reality of morality, especially duty, indicates that at the basis of morality one finds man as a person. Personhood is in correlation to morality and cannot be supplanted by any other more general concept. For Wojtyla, no society or nation, no government or social class can take the place of the person as the subject and center of morality. Through this aspect man stands as a person above the world as it were. Social morality cannot replace the centrality of personhood but can only enrich it. The proper measure of the greatness of every human being is contained in morality. Besides this, Wojtyla sees his theory of morality as pointing to the contingency of human existence.[80] Above all, the major thesis of this aspect of Wojtyla's ethics is that, ethics must be grounded in experience.

4.3.6 **Personalistic Norm: The Person as the Subject and Object of Action**

The second part of Wojtyla's ethical thought begins with certain claims about the person that are central for establishing and formulating the personalistic norm. Karol Wojtyla began his analysis by discussing the person as the subject and object of action. He said it is right to begin by enquiring briefly who is it that acts-who is the subject-and who is acted upon-and who is the object of action.[81] He said the world we live in is composed of many objects, and an 'object' strictly speaking is something related to a 'subject'. An object is an entity and a subject is also an entity. However, it would indeed be proper to speak of subjects before objects. For if we begin with a subject especially when that subject is a human being, it is easy to treat everything which is outside the subject, i.e., the whole world of objects. Wojtyla stated clearly at this point that every subject also exists as an object. Thus, man is a subject and an object simultaneously. As a subject, a man is 'somebody' and this sets him apart from every other entity in the visible world which as an object is always 'something'. Implicit in this distinction is the great gulf, which separates the world of persons from the world of things. A thing is an entity which is devoid not only of intelligence, but also of life; a thing is an inanimate object. On the other hand, man cannot be wholly contained within the concept 'thing.' There is something more to a human being, a particular richness and perfection in the manner of being.[82]

The most obvious reason for this is that a human being has the ability to reason-he is a rational being. This cannot be said of any other entity in the visible world, for in none of them do we find any trace of conceptual thinking. Human nature differs from that of animals. It includes the power of self-determination, based on reflection, manifested in the fact that a man acts from choice. This power is called free will. A person is his own master because he possesses free will. Wojtyla employs the term *alteri incomunicabilis* in defining personality. It means, not capable of transmission, not transferable. The incommunicable, the inalienable in a person is intrinsic to that person's inner self power of self-determination and free will. For instance, no one can substitute his act of will for another's. This is the moment when the impassable gulf between him and the other which is drawn by free will, becomes most obvious. One may not want what other wants him to want and in this precisely one is *incommunicabilis*. One is, and must be independent in his action. All human relationships are posited on this fact. A man is not only the subject, but can also be the object of an action. At every step, acts occur which have as their object, other human beings.[83]

From the above, we know that the subject and object of the action alike are persons. It is now necessary to consider in our next discussion the principles to which a human being's action must conform, when their object is another human person.

4.3.7 **Analysis of the Verb "To Use"**

Here, Wojtyla states "to use," means to employ some object of action as a means to an end; the end is always that with a view to which we are acting, and the end also implies the existence of means[84]. Thus, the means is subordinated to the end. It seems, then, beyond doubt that the relationship between human beings and other things is and must be of this kind. Man, according to Wojtyla, makes use of the whole created universe, and takes advantage of all its resources for an end, which he sets himself. Such an attitude on the part of man towards inanimate nature whose riches are so important to economic life, or towards living nature, whose energies and riches man appropriates, does not in principle arouse any doubt. Intelligent human beings are only required not to destroy or squander these natural resources, but to use them with restraint, so as not to impede the development of man himself, and so as to ensure the coexistence of human societies in justice and harmony. Even our treatment of animals should be taken with utmost care, because they are creatures with feelings and they should never be subjected to suffering or physical torture avoidably . Wojtyla says these are simple principles, easily understood by any normal man. However, a problem arises when we seek to apply them to relations with other human beings, other persons. He asked if it is permissible to regard a person as a means to an end and use a person in that capacity?[85]. He added that the problem which this question raises is a far-reaching one, with implications for a number of aspects of human life and human relationships. For instance, does not an employer use a worker, i.e. a human person, for ends which he himself has chosen? Do not parents, who alone know the ends for which they are rearing their children, regard them in a sense as a means to ends of their own, since the children themselves do not understand those ends, nor do they consciously aim at them? Yet both the worker and the soldier are adults and fully developed people, while a child, even an unborn child, cannot be denied personality in its most objective ontological sense. Although it is true that it has yet to acquire, step by step, many of the traits which will make it psychologically and ethically a distinct personality.[86]

For Thomas Mappes, such human interactions, presumably based on voluntary participation of the respective parties, are compatible with the idea of respect for persons . The categorical

imperative of Immanuel Kant states that, you should act so that you treat humanity, whether in your own person, or in that of another, always as end, and never as a means.[87] This Kantian principle does not rule out A using B as a means, but it frowns upon A only when he uses B only as a means. For Wojtyla, a person is a thinking subject, and capable of taking decisions. These are the most notable attributes we find in the inner self of a person that makes him capable of determining his or her aims. Anyone who treats a person as the mere means to an ends does violence to the very essence of the other, to what constitutes his natural rights.[88] This principle has a universal validity. Nobody can use a person as a mere means, no human being, nor God, because by giving man an intelligent and free nature, he has given him the will to decide for himself the ends of his activity. Mappes suggested that the morally significant sense of "using another person" is best understood by reference to the notion of voluntary informed consent.[89] He concluded by saying that using another person can arise either via coercion or via deception. Wojtyla, however, has in mind not the substantial, but the personal subjugation of human beings. He omitted the word 'merely' from the phrase 'mere' means to an end' from Kant's categorical imperatives.

He said we should not treat a person as only the mean to an end, but must allow for the fact that he or she or at least should have distinct personal ends. The person should never be a means only, but always and exclusively an end.[90] It is important to note that Wojtyla is careful not to call the person an end in himself as Kant does. This is no doubt because Kant understands man as having no moral ends given to him by nature or in experience. A man's ends only become moral insofar as he himself makes them moral by not pursuing them beyond what is allowed by the Kantian Categorical Imperative, or by the principle that one does not demand for oneself in the pursuit of one's own ends any freedom that one is not willing to allow others in the pursuit of their ends. Otherwise those others would not get to act as their own end.[91] Wojtyla rejected this view on the basis that action does, prior to and independent of choice, have ends that are moral ends and focus on objective values that are moral values. These ends are internal to the subjectivity and freedom of the person.

3.8 **Critique of Utilitarianism**

Wojtyla at this point turned his attention to utilitarianism to justify his arguments on the personalistic norm. He says the idea behind the concept of utilitarianism, has in a way reduced the person to an instrument to be used and discarded. He defined utilitarianism as a concept derived from the Latin verb *uti* (to use, to take advantage of), and the adjective *utilis*

(useful).[92] Utilitarianism places emphasis on the usefulness of any and every human activity. The useful is whatever gives pleasure and excludes its opposite, for pleasure is the essential ingredient of human happiness. He said to be happy, according to the premises of utilitarianism, is to live pleasurably. Pleasure he says exists in different forms and degrees of intensity. The utilitarians considers pleasure important in itself. To the utilitarian, a man is a subject endowed with the ability to think and to feel. His sensibility makes him/her desirous of pleasure and bids shun its opposite. The ability to think, to reason, is given to man to enable to direct his activities to attainment of a maximum of pleasure with a minimum of discomfort.[93] Utilitarians regard the principle of the maximization of pleasure accompanied by the minimization of pleasure accompanied by the minimization of pain as the primary rule of human morality, with the rider that it must be observed not only by individuals, egoistically, but also collectively, by society. Thus, in its definitive formulation, the principle of utility preaches the maximum of pleasure for the greatest possible number of people-obviously with a minimum of discomfort for the same number.[94]

Wojtyla observes that the above analysis and principle of the utilitarians appears and seems both right and attractive, but a more searching analysis, however, inevitably reveals the weaknesses and the superficiality of this way of thinking and of this for the regulation of human actions. He asserts that the real mistake is the recognition of pleasure in itself as the sole or at any rate the greatest good, to which everything else in the activity of an individual or a society should be subordinated. However pleasure in itself is not the sole good, nor is it the proper aim of a man's activity. For him, pleasure is essentially incidental, contingent, something which may occur in the course of action. Wojtyla stated, naturally, to organize your actions with pleasure itself as the exclusive or primary aim is in contradiction with the proper structure of human action. For instance, "l may not want or do that which is accompanied by pleasure and l may not want or not want, do or not do, this or that because of the pleasure or pain entailed."[95] Pleasure as opposed to pain cannot be the only factor affecting my decision to act or not to act. Pleasure and pain are always connected with a concrete action, so that it is not possible to anticipate them precisely, let alone to plan for them or, as the utilitarians would have us do, even compute them in advance. Pleasure for Wojtyla is, somewhat elusive. There are other confusions in utilitarianism, either as a principle or in practice. However, Wojtyla concentrated on just one of them, the one that is also examined by Immanuel Kant. Kant's moral imperatives demand that a person should never be the means to an end but always the end in our activities.[96] This reveals one of the

weakest points of utilitarianism. If the main aim of man is pleasure, then everything we do must be looked at as a means towards this one good. Hence, every human person must figure in this role; as a means to an end. If one accepts the utilitarian premise, one must then look at every person other than oneself from the same point of view: as a possible means of obtaining maximum pleasure. For Wojtyla, this form of utilitarianism seems to be a serious threat to persons and human relations. Utilitarian principles with this subjective understanding of the good leads to egoism. The only way to escape from this egoistic nature is to recognize beyond any purely subjective good, that is, beyond pleasure, an objective good, which can also unite persons and thereby acquire the characteristics of a common good.[97]

4.4 **Critical Analysis of Wojtyla's Moral Philosophy**

Few contemporary scholars have commented on Karol Wojtyla's work, and raised some critical questions about his idea of morality. For instance, Ronald Madras asserts one cannot help but admire a philosophical endeavour of a clergy man for being able to combine pastoral duties and academic duties. Besides this, one would observe that Thomas Aquinas, Immanuel Kant, and Marx Scheler made a great impact on his ideas; we could see this impact in his ability to appropriate their thinking critically and creatively. Wojtyla was able to produce a theory of morality that is marked by traits of intellectual vigor and originality.[98] It's been said that some part of what influenced his thoughts could be traced to the historical and cultural situation he found himself. This situation led to his opposition of empiricism and refusal to accept impartial descriptions of human behaviour as the sum total of ethics. For instance, in the aftermath of World War II and the Nazi occupation of Poland, he could hardly consent to the "axiological nihilism" that results from identifying morality with the emotions. He argues that if human knowledge is limited to the sensibly empirical, to *what is* to the exclusion of *what ought to be*, on what grounds could Hitler, the S.S., and Nazi atrocities be condemned? By what criteria can social custom and convention be criticised or public authorities indicted?[99]. Thus for Wojtyla, a superficial reduction of morality to emotions or custom was out of the question. Wojtyla's identification of the moral good with that which contributes to the fulfilment of the person as a human being serves as endorsement of the personalist direction being taken by leading moralists today.

His analysis clearly points out the role of moral sensibility or feelings in moral experience and decision making; besides including feelings in moral decisions is quite different from

identifying morality with emotions. He rightly observed that we do not make moral choices as disembodied intellects but as feeling as well as thinking human beings To understand the ethics of Wojtyla, one must appreciate the philosophical efforts of the "father of phenomenology," Edmund Husserl. Like Husserl before him, Wojtyla sees empiricism as responsible for much of the crisis in Western culture. The claim that only empirical evidence and the methods of natural science can produce exact, scientific knowledge excludes the possibility of coming to a certitude characterized by necessity and universality. For Wojtyla, it falls to philosophy to supply that certitude by providing pure and absolute knowledge and hence the ultimate foundation for other forms of science. Philosophy must be the science of ultimate causes, the science of beginnings, if it is to be a rigorous science.[100]

From another angle, Ronald Modras criticised Wojtyla's on the basis that he rarely makes use of standard critical apparatus. There are almost no references to the origin of his thought and no illustrations of its full implications for concrete ethical situations. This high degree of abstraction, coupled with several extremely fine distinctions; a reductive method as opposed to one that is deductive; the experience of morality as distinct from moral experience, renders his moral philosophy arduous and obscure. Madras says Wojtyla is never quite clear, for example, as to what he means by ethics as 'science' or by terms like 'truth' or 'norms'. Besides, Wojtyla's attempts to prove that ethics is a science may well pose some questions for moralists who do not share his phenomenological orientation.[101] Modras added that Wojtyla's theory of norms give rise to values and as a consequence are more basic to morality. He understands moral values in such a way as to include evil as well as good. Such use of the terms is puzzling for those of us who are accustomed to viewing values only in a positive sense and contrast them with disvalues, and so regard values as giving rise to norms, not norms to values. He posits further that Wojtyla's seems to be arguing in a vicious circle by asking first where else the distinction between moral and evil could come from if not from norms, and then positing that the distinction between value and disvalue is artificial because moral evil contradicts not moral good so much as moral norms. If they are deemed more basic than moral values, from where do moral norms originate? Are they innate? How specific are they?

In the tradition of Husserl, Wojtyla is sensitive to the dangers of attempting to construct ethics upon psychology and thus ultimately robbing ethics of normativity by reducing it to a psychology of morals.[102] Thus while totally in agreement with this rejection of reductionistic psychologism, one may question whether Wojtyla gave adequate consideration to the insights

psychology affords to moral philosophy. Furthermore, by concentrating exclusively on the experience of morality arising from a moral or immoral act, Wojtyla abstracts from the circumstances which not only accompany a moral or immoral action but enter into its very essence. For example, actions never exist in the abstract. They are posited within a complex of relationships and circumstances which must be included in the process of moral evaluation. Thus, it is not enough to say that morally good actions contribute to making a morally good person, or that morally evil actions make a morally evil person. That simply pushes the question back one more step; for what would then constitute the definition of a morally good or evil person?[103].

From another perspective, Joseph Okemwa, does not support the critics who accused Wojtyla's work or ideas as unclear. According to Okemwa, though Wojtyla's ideas are difficult to follow, but "difficult" is not a synonym for "unclear". His ideas are accessible to any serious reader. Besides, it is important to mention that Wojtyla double as a philosopher and theologian and most of his philosophical ideas are transported into his theological works. Again, we must always understand that Wojtyla was able to bridge metaphysics and phenomenology, that is he supplemented metaphysical reflection and phenomenological description to espoused his ideas. Thus, it i important that we understand his background, before we can fully understand his thoughts.[104]

It is worthy of mention that, Wojtyla discussed phenomenology in terms of its positive and negative results seeking for a method to be applied in morality. While he appreciated that Scheler uses phenomenology as a method to examine morals, he however criticised the fact that Scheler reduces values to a mere ethical experience and underestimates the efficacy of the person. We must understand that Wojtyla clearly stated that experience is useful in part for ethical values which should integrate the empirical sciences. As such there is no opposition between ethics and morality since both ethics and morality focus on rectitude in human behaviour; ethics been grounded in reason, and morality also being focused on reason.[105]. Following from this, it is imperative that Wojtyla meant that a moral philosopher must evaluate ethical values according to the objective order of human goods, and not only from human experience. By so doing, one would have clear perspectives of his analysis of morality as centred on the human person.

Jaroslaw Kupczak, noted that the methodology of Wojtyla is one of the most debated and criticised areas of his philosophy. This is because he attempted to create a synthesis between

phenomenology and metaphysics which made him vulnerable to criticism and misunderstanding from both sides.[106]

One cannot but admire Wojtyla's perception of morality which is a synthesis of metaphysics and phenomenology; a task which only few have been able to achieve. While this is a laudable project, yet there are shortcomings when critically examined. For instance, one would have expected him to examine the notion of morality using a particular method or framework rather than combining metaphysics and phenomenology. The reason is that these two aspects of philosophy though attempts to explain the same reality, yet their contents and methods are different in substantial respects. Even from the definitions and meaning of metaphysics and phenomenology, one could easily understand the bases of the disenchantment with him. For instance, examining the notion of morality using the method and content of metaphysics alone is enough to make his ideas clear and presentable. Secondly, most scholars who have studied him seem to come to the conclusion that his ideas are cumbersome to understand. However, in one of his earlier works titled: *Love and Responsibility*, one could see some elements of simplified writing.

On the other hand, one would observe that Wojtyla's notion of morality was a response to what he saw as the metaphysical crisis of an age that was unable to truly understand the human person. Thus, the reason all his philosophical and even theological writing is weaved around the dignity of the human person. And he was of the view that for one to arrive at and appreciate human dignity, we need to have a foundation in ethics and in lived experience rather than in scientific method. Put succinctly, reconstructing the foundations of moral life was paramount in his philosophy. This again explains why it is difficult to separate his ethics from his anthropology. In fact his philosophy is a great contribution to the field of anthropology and ethics. His philosophy projects the thought of a radical humanist whose interest lies in the question of human dignity, human person and moral values. Wojtyla's philosophy captures the fact that it is difficult and unacceptable to separate the notion of human dignity, human person and moral values. He reminded us that it is because we have attempted to separate the truth inherent in these concepts that the world today is experiencing all sorts of evil with the sole intention of degrading the human person. Wojtyla's personalistic norm has reawakened in contemporary thinkers the need to emphasise the dignity embedded in human nature, rather than sacrifice it on the altar of scientific progress. Wojtyla is not against scientific progress, but such progress should be conducted with a deep sense of ethical

value. Above all, we see in Wojtyla a thinker who was able to synthesise metaphysics and phenomenology and create a new system for anthropology and ethics.

4.5 **Conclusion**

This chapter analysed the moral philosophies of Immanuel Kant and Karol Wojtyla in order to have an adequate understanding of their main claims with specific reference to the idea of human dignity and the sanctity of life. The assumption has been that the thoughts of these philosophers would help us to determine the true moral status of the human embryo from the point of view of human dignity and the sanctity of human life. For instance, their moral philosophies when applied to embryonic stem cell research, would enable us determine whether or not the maxim(s) of human embryonic stem cell research could be universalised, realising that some school of thoughts consider the human embryo as a human being.

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Chapter Five

Implications of Kant's and Wojtyla's Ethical Theories On Stem Cell Research

5.0 **Introduction**

Chapters two and three of this work showed that philosophically and scientifically, the human embryo is ontologically a person though at the incipient stage. This chapter seeks to further corroborate the philosophic and scientific position that the embryo is a person by adopting the ethical thoughts of Kant and Wojtyla which emphasises the moral equality of all persons. This is implied in their views that the person should not be treated as mere instrument that can be discarded at will. Specifically, the critical debate on the moral status of the human embryonic stem cell research has raised so many moral questions between those who support the view that the human embryo should be used for research and those who hold the view that the human embryo should not be used for research. The latter premised their objection on the fact the human embryo is a human individual who deserves our respect and protection, being the weakest of the human species. For this group of thinkers, the embryo should be granted the status we accord "adult persons," since it has never been reported that any adult person ever dropped from the sky. Every adult person began his/her development as an embryo/foetus. Those who oppose the research, outrightly argue that the embryo is not just a human individual, rather that the embryo is a person. They premise their arguments on the fact that the embryo is intrinsically valuable not because it carries what is valuable, but because it has a rational nature, having the natural inherent capacity for reason and free choice. By virtue of this, it possesses dignity and rights. They claim the embryo is a human being, because it has radical natural capacities to exercise mental functions. It will take them some time to actualize those capacities, but embryos are nonetheless identical to the mature beings they will someday become.

Those who support research on human embryos have a different opinion altogether. They give as their reasons that stem cell research is a very promising therapy that would alleviate humanity from suffering and pain. For this reason, stem cell research should be encouraged, especially on human embryonic stem cell. They argue further that research on human embryo which some people are objecting to because of its humanity, is not a person and that the human embryo cannot be considered a human person. They do not fall into the category of personhood. They define the person as a thinking intelligent being that can reason, reflect and can consider itself as itself, the same thinking thing, in different times and places. This is the

opinion of Peter Singer, John Locke, Michael Tooley, Mary Warren, to mention but a few. For this group of thinkers, the human embryo is not a person. The issue of stem cell research was not in existence during Locke's life time, but he was among the scholars who contributed to the definition of person.

However, the ethical issues surrounding stem cell research goes beyond the moral status of the embryo. Other ethical issues involved include issues relating to the creation of embryos for in vitro fertilisation, the fetal stem cells, the concerning consent and donor's approval, respect for stem cell recipients, universal accessibility of stem cell therapies, and the challenge on human nature. Others include ethical issues regarding cancerous and immune rejection, issues regarding human therapeutic cloning, ethical issues regarding commercialization, the problem of funding. All these issues are woven round stem cell research and thinkers have raised questions on how to manage these moral problems. In responding to these challenges, we have employed the ideas of two great thinkers in the history of mankind to serve as a framework in helping to create ethical guidelines for scientific research especially in relation to stem cell research. We see in Kant's and Wojtyla's ethical theories a valuable tool for arriving at some workable principles towards helping us understand that scientific research must always promote the good and dignity of the human person.

Essentially, our aim in this chapter is to examine the implications of Kant's and Wojtyla's ethical theories on stem cell research and show that stem cell research, especially as it concerns the human embryo, poses some moral challenges that should not be ignored because every biomedical research in the strict sense should benefit humanity positively. Secondly scientific research of this nature is expected to protect life rather than destroy it. It is our expectation that biomedical scientists and others would see appreciate and adopt to some extent, ethical parameters embedded in the personalists principles of Kant and Wojtyla.

5.1 **Implications of Kant's Ethical Theories on Stem Cell Research**

Immanuel Kant is generally known for the view that a person must be treated as an end rather than a means. The implication of Kant's submission leads to the belief that individuals have certain inalienable rights and dignity that nature has bestowed on each and everyone. Among such rights are liberty, life and the pursuit of happiness. In practice, this means that a person's life cannot be sacrificed to achieve some greater good. Emmet Barcalow refined this further by explaining that when Kant asserted, "act so that you treat humanity whether in your person

or in that of another, always as an end and never as a means only," he meant that people are supremely valuable and that they should not be treated as we might treat things that are not people, such as radio sets, or goats. Kant seems to presuppose that all people have equal moral worth or value. In Kant's view, it is morally permissible to use mere things purely as means to our ends. For instance, it is permissible to use your radio set as you please, but it not permissible to use a woman for sexual gratification or as an instrument for pleasure, as in the case of rape. This is because people have inherent and equal moral worth. Kant stated that because people are special, give value and have value and worth, we have duties to others and to ourselves.[1]

However, when Kant said, "act so that you treat humanity whether in your person or in that of another, always as an end and never as a means only," did he include the embryo or fetus in the category of humanity? Are human embryos covered by the categorical imperative? Do they have what ethicists call "rights of personhood"? Put simply, are they "persons"? Do we have a duty towards them or should they be treated as tools of scientific research because some person perceive them as smelly, clots of blood and expensive? Do they have any moral worth and value as Kant said? Can we as Kant said, will that using the embryos for research to benefit some become a universal law?

It is worthy of mention that Kant did not mention specifically anything on the human embryo in his work that we know of; however, there are certain moral principles in Kant's ethical theory suggesting that personhood can be ascribed to the embryo even at the incipient stage of life and by extension that Kant's ethical theory about the personhood of the embryo aligns with ontological personalism, the theoretical framework upon which this thesis is hinged.

The Kantian ethical principles could be said to disagree with the idea of embryonic stem cell research because it is morally wrong to exploit and destroy developing human life, for any good; and using human embryos for research purposes violates the Kantian principle of our positive duty to preserve human life. When the categorical imperative is applied to stem cell research, especially human embryonic research, there are immediate difficulties. The point is that its maxim would be hard to universalise. At this point, it is pertinent to ask that if we were embryos, using the Kantian principle of universalization, can we consistently support the use of embryos(which are no longer needed for implantation) for scientific experimentation and thereby stand the risk of death in the process of being used for stem cell research. The most acceptable answer would be in the negative. If we put ourselves in the

place of the embryo, it is not likely that anyone would accept to be exploited and killed for scientific purposes. Hence from the foregoing, it does not seem that anyone can consistently will that embryonic research becomes a universal practice. Besides the maxim, "always preserve human life" would make research on embryos morally wrong without exception. Following from this, considering someone in coma, would one consider him to be a non-person for the simple reason that such a individual is not conscious? To generalize this rule, one would have to say that everyone who is sleeping is also a non-person, because they are not conscious of themselves. However, one cannot generalize this rule for every one based on this example and still have it be true; therefore it is not a moral act.[2] The implication of this is that, pro-choice philosophers cannot consistently defend the view that because the embryo lacks consciousness, therefore 'she' is not a person. Person is not determined by one's functionality, rather personhood should be grounded on the fact that "being" ontologically and substantially precedes functionality. Notably from the ontological perspective, Kantian ethics appears to support the idea that all humans are persons as members of the human race. Put simply, it is factual that if a biological *homo sapiens* by virtue of being homo sapiens is a person, that means that all *homo sapiens* are persons.[3]

For instance, it may be possible to universalise the maxim 'use spare embryos left over from IVF for stem cell research' even though some think that it is immoral. But it would be immoral and difficult to universalise the maxim that we should create embryos for stem cell research. Kant would reject creating embryos strictly for the purpose of utilizing their cells in research. A reason for this would be the possibility that fertility clinics may purposely produce excessive human embryos not needed if certain guidelines are not put forth. Another reason is that, when excessive number of human embryos are produced, it may encourage stem cell research. The implication of this is that research on the human embryo violates the second formula of the Kantian categorical imperative which says, "Act so that you treat *humanity*, as much in your own person as in the person of every other, always at the same time as an end and never as the means". This is because it could be inferred that Kant considered 'human dignity' not only as the value of the rights of each individual, but as the values of '*humanity*', which is a universal value belongs to all humanity.[4] Besides, the Kantian principle of 'an end in himself', doesn't apply to each individual separately, but to the humanity in each person[5]. The objection here is that some people think that the embryo is not a person, therefore the Kantian principle may not be applicable. However, our position in

this matter states that since the human embryo is part of humanity, therefore the Kantian principle is applicable in protecting the embryo from being harm.

When Kant said, we should treat humanity with respect, was the embryo included in the category of humanity? Michael Novak,[6] in one of his works: *The Stem Cell Slide: Be Alert to the Beginnings of Evil* uses the formula of humanity as the theoretical ground for rejecting the use of human embryos for stem cell research. He affirmed that, you must not use a human being as a means for even the noblest of ends. To use stem cells obtained by killing human beings in their embryonic stage is using them as mere means. It is not enough to say that the wicked deed has been done - that the embryos have already been killed. The purpose of that killing was to obtain the stem cells. In fact, one must not or may not implicate oneself in that process, not even for the noblest and most beautiful ends[7]. The former U.S President, George Bush alluded to the formula of humanity as well when he stated that "even the most noble ends do not justify any means... the fact that a living being is going to die does not justify experimenting on it or exploiting it as a natural resource. The physician philosopher and theologian Fuat Oduncu argues that the human embryo, as it were, is conceived as a human being from the moment of its conception and thus contributed the fundamental principle of human dignity that guarantees the right to life of the embryo. According to Kant, human dignity forbids and even condemns instrumentalization and reduction of a human being to a mere means and object. For Oduncu, human beings are persons and as such are ends in themselves.[8] The mere membership of humanity creates and preserves the fundamental value of human dignity until death.

Since the living human embryo is the very first concrete and individual agent in human development, it must be regarded as the carrier of implicit and unconditional values. Jens G. Reich noted that the formula of humanity "excludes categorically any instrumentalization of a human being for means other than its own existence, thus prohibiting procreation of a human embryo solely for scientific or medical progress." Paul Boehlke insisted that Kant's imperative also argues that each human embryo should be treated as an end in itself and never as a means only.[9] In support of the humanity of the embryo is the view of Andrew Sullivan. He observed in *The New Republic* of July 30th, 2001, that scientists would say a human is defined by its DNA - the genetic coding that makes our species different from others.[10] Stem cell research proponents say we are defined by our DNA and our stage of development. They argued that the embryo-blastocyst is so unformed that it cannot be equated with the fetus, let alone with an adult. But it remains a fact – (indeed one of the marvels of creation) - that

embryo contains exactly the same amount of genetic information as you or l do. Put differently, we are not different from it in kind, only in degree: in age, size, weight, gender, to mention but a few. He added that in some senses, a blastocyst is the purest form of human being - genderless, indistinguishable to the naked eye. It is as unique as any other human being who has ever lived or ever will. To destroy it is surely not to destroy or extinguish something other than us. It is to extinguish us. Patrick Lee and Robert George[11], both arrived at the same conclusion that when Kant mentioned treating humanity as end, he includes the weakest of humanity and of course the human embryo. They write that human being - the embryo, given nothing more than hospitable environment, will actually develop itself from the embryonic through the fetal, infant, and adolescent stages of his or her life into adulthood with his or her identity intact. They say the embryo does not develop essentially from embryo into a human being; it develops itself. This seems to lead to the same astonishing conclusions: the adult human is essentially the developed embryo. Elsewhere Lee and George, state that both scientific and philosophical reasoning lead to the view that human embryos are in fact nothing less than individual human beings in the earliest stages of their lives.[12] Science demonstrates that human embryos have epigenetic primordia for internally directed maturation as distinct, complete, self-integrating human individual. Thus, an embryo, whether brought into being by sexual union or cloning is already a human being.

Nobuo Kurata thinks that when Kant says “act so that you treat humanity, as much in your own person as in the person of every other, always at the same time as an end never merely as the means;” that Kant means that the value of dignity is not the value of each person, but of humanity.[13] This implies that the human embryo is considered part of humanity. He premised his arguments on the fact that no one doubts that human life in the biological sense exists from the moment of fertilisation. Human dignity is not simply the dignity of each individual, which is protected by respecting the rights of an individual person. Human dignity is based on the value indicated by the more abstract word humanity. Kurata stated that human dignity is embodied in human rights, but the value of it is not limited to the dignity of each individual person. Kant considered human dignity not only as the value of the rights of each individual, but as the value of humanity, which is a universal value belonging to all mankind. The value of human dignity is one of humanity, which is inherent in each person, and it is the value of a normative fact that someone is human. Thus because humanity equals being human, human dignity means the universal value for the mankind as a class. The meaning of the word ‘human’ is not solely biological. For instance, if human in the concept of human dignity is

limited to homo sapiens in the biological sense, to respect the value of human dignity implies the biological individual belonging to homo sapiens as a species should be respected. However, if dignity is regarded as the value of humanity, its meaning goes beyond the biological sense. In the end, Kurata stated that our various obligations as humans can be reduced to our observance of the principle of human dignity or humanity.[14]

The implication for Kurata is that it is because an embryo becomes an entity that can be called a person in the future, that we attribute a kind of moral value to an embryo. The human embryo is not just a heap of cells; because if implanted into a womb, an embryo grows into a baby. Human embryonic stem cell research destroys a human embryo and to destroy an embryo is to destroy a person. The human embryo is also an entity with the potentiality to become 'our child', that is, a member of our moral community or mankind as a class.[15] Though Kurata observes that among some biomedical scientists, it is difficult to convince them that the embryo is a person or an owner of rights, but he asks the following questions: What exactly makes up the 'humanity' that the owner of dignity has? Is it to have the power of reason? Or is it to have a highly developed intellect? Is it to be self-conscious? Or is it to have the ability of language or some form of communication? Kurata, citing Hans Jonas, "regards our responsibility to an infant as a prototype of responsibility."[16] In other words, Jonas's conception of responsibility is responsibility to someone who depends on us. On this premise, Kurata stated that humanity consists in the ability to take responsibility for others. By implication, only human beings can take responsibility. The moral community of humankind is supported by this responsibility. Since we are capable of taking responsibility as it were, it is vital for us to continue to take responsibility for those who depend on us. The implication of this is that the future of an embryo depends on us, not in the same way our children do, but in a more abstract way. Whichever way, we have responsibility to such a vulnerable being. Implicitly or explicitly, Kurata is saying, Kant's idea of humanity extends to both adult persons, the senile, infant and even the weakest of all, the human embryo. We have the responsibility to protect them because it our duty to do so. For Kant, it is both duty to oneself and to others to practice social virtues.[17] Nelson Jennifer argued that the Kantian humanity introduces the idea of respect for persons for whatever it is that is essential to our humanity, besides this formula gives humans inherent value. The fact remains that each individual is valued, not on what they can do, but on the fact that they are persons. Thus treating them as means to an end does not give them the individual freedom they deserve ; rather treating them as an end in itself looks at what would be best for that person.[18]

For Kant, a person is defined as a being capable of making rational decisions, and being held responsible, morally as well as legally, for its actions. This definition of person places him in the category of thinkers such as John Locke, Descartes, Joseph Fletcher, Peter Singer, Michael Tooley and others. In this sense, and within our experience, all and only normal adult human beings are persons. Thus, the normal adult possess the right not to be killed or perhaps used for research. These are persons in the strict sense. But the more basic principle that should determine to what entities the rights of persons pertains is that we should so act as to respect the value of the humanity or rational nature that makes any being a person in this sense. This might easily lead us to expand the class of beings we regard as persons for the purpose of ascribing some right to them, such as the right not to killed[19]. These other beings are referred to as 'persons in the extended sense. For instance, children who do not yet have the capacity to exercise rational agency, or who have it only to a certain degree; adults who have temporarily lost their rational capacity and embryos/foetuses who are said to possess the active capacity to be adult persons under the normal condition. By implication, we could deduce that Kant is submitting that we would not show proper respect for the rational nature of persons in general if we did not treat temporarily incapacitated or immature rational agents as persons, thinking about them in certain respects just as we think about persons in the strict sense.

It is true that persons in the extended sense may not possess all the same rights as persons in the strict sense. Since we know that children lack the capacity to direct their own lives without the guidance of others, they cannot have the same right to direct their lives as adults do. However, society owes them greater care for their interests than it does for the interests of those who are able to look after these interests themselves. Thus, persons in their sense have the same right not to be killed, as persons in the strict sense. The point is that personhood in the extended sense may in some forms and ways have different status from personhood in the strict sense, yet it is not a lesser status.[20]

5.2 **Implications of Karol Wojtyla's Ethical Theories on Stem Cell Research**

Karol Wojtyla moral principles were partially influenced by Kantian principles. While Kant lived when stem cell research was never conceived, Wojtyla lived within the period when not only stem cell research was conceived, but a period when humanity was and is faced with a lot of existential and moral challenges. This is not to say that there were no moral problems during the time of Kant. There were, but in a different context and degree. For Wojtyla, it

appears that with so much progress in scientific research that involves the human subject, man is heading towards auto-destruction. A clear example is stem cell research and genetic research. Wojtyla said:

> ...I am thinking in particular of attempts at human cloning with a view to obtaining organs for transplants: these techniques, insofar as they involve the manipulation and destruction of human embryos, are not morally acceptable, even when their proposed goal is good in itself. Science itself points to other forms of therapeutic intervention which would not involve cloning or the use of the embryonic cells, but rather would make use of stem cells taken from adults. This is the direction that research must follow if it wishes to respect the dignity of each and every human being, even at the embryonic stage.[21]

There are three vital scientific interventions worthy of note here; the first one is cloning, the second is embryonic stem cell and the third is adult stem cell research. He however condemned the first two and praised the third, which is the adult stem cell research.

Wojtyla observed that an unborn child-embryo/foetus cannot and should not be denied personality in its most objective ontological sense, even though it is true that it has yet to acquire, step by step, many of the traits which will make it psychologically and ethically a distinct personality.[22] When Wojtyla says the human embryo should not be denied personhood in its most objective ontological sense, he meant that the embryo is ontologically a person and also an individualized substance. By substance, he meant an embryo is a distinct unity of essence that exists ontologically prior to any of its part, such as rationality and self-consciousness. Substance here is that which has being in itself, which belongs to itself and not another.[23] For instance, remove an arm or a leg from John Doe and he remains a person; in fact, the same person. You can amputate all of John's extremities and even remove many organs; as long as he remains alive, his substance will never change. You can even "add new parts," by transplanting organs from other persons; yet John Doe will never become James Smith; his substance is not defined by his component parts. He will always remain the same person. Succinctly, an individual as substance has continuity from one moment to the next. The individual is the same person as he was one week ago, one year ago, or ten years ago in spite of any physical transformation. This makes Wojtyla's argument clear that the unborn children are indeed ontological persons and do not become persons at some stage of development. In other words, personhood subsists in the embryo even though it is not conscious. Therefore, the understanding that human person must have at least minimal

exercisable cognitive capacities, and that those entities having such capacities are the bearers of rights is wrong.[24]

Elsewhere, in one of his works; *The Gospel of Life*, Wojtyla affirmed:

> Human life is sacred and inviolable at every moment of existence, including the initial phase which precedes birth. Human embryos obtained in vitro (or otherwise) are human beings and are subjects with right: their dignity and right to life must be respected from the first time of their existence. It is immoral to produce human embryos destined to be exploited as disposable biological material...There is no use pleading here that not all human beings are persons because 'person' means someone with consciousness or the capacity for communication or the like which the unborn and the very old lack...The mentality which carries the concept of subjectivity to an extreme and even distorts it, and recognises as a subject of rights only the person who enjoys full or at least incipient autonomy and who emerges from a state of total dependence on others. But how can we reconcile this approach with the exaltation of man as a being who is not to be used.[25]

Wojtyla condemns research on human embryos because he considers the embryo as belonging to the category of humanity - a human being who deserve a right to life and dignity. Wojtyla refers to any research that destroys the embryos and even threatens human life as the 'culture of death.' The phrase "concept of subjectivity" as used in the above quotation by Wojtyla, is something taken to the extreme and can be called a Cartesian theory of personhood. This is rejecting Aristotle's definition of man as a rational animal because it failed to meet the criteria of clear and distinct ideas, Descartes concluded instead that thinking substance was the correct definition. According to Cartesian theory, a being qualifies as a person when he is capable of exercising cognitive faculties, the most important of which is self-awareness. According to Wojtyla, the ethical inference that some draw from this ontology is that since only persons can be subjects of rights and since foetuses or embryos, infants, and adults whose cerebral cortex is irreparably damaged cannot meet the criteria of personhood, the latter are not subjects of rights, including the right to life. Therefore when embryos are used for research, there is no moral dilemma involved.[26]

Wojtyla's condemnation of human embryonic stem cell research and other related research is based on his philosophy of personalism, which employs a variant of Immanuel Kant's second formulation of the categorical imperative, that "whenever a person is the object of your

activity, remember that you may not treat that person as only the means to an end, as an instrument, but must allow for the fact that he or she, too, has, or at least should have distinct personal ends"[27]. Scott Sullivan explains clearly that, persons may not be treated as instruments; instruments have their ends chosen for them. This does them no harm if they are not capable of choosing them anyway. A person, however, is an end-chooser; the role of a blind tool or a means to an end determined by someone else is contrary to the nature of a person.[28] Furthermore, if one hires a plumber, one could treat that plumber as a mere means to an end; that is, by not paying him a fair wage. However, a just exchange will fulfil the personalistic norm; because justice is giving one their due, respecting the natural goods that are involved in a given action. On the other hand, to cause a natural deprivation, a privation; to directly stifle or attack the natural goods of the person in order to get something out of it is to 'instrumentalize' the person in some way.[29] For instance, embryonic stem cell research instrumentalizes persons by not respecting the natural good of freedom in order to acquire cheap labour. The quarrel of Wojtyla with scientists projecting embryonic stem cell research is that he thinks they are distorting the real image of the human being. He asks, how could a human individual not be a person? Wojtyla quite agrees that rational and other mental functions are fundamental features of human persons or human beings, yet there is strictly no difference. The major difference between human person and individual is that an individual or human being represents a single, countable unit in a homogenous species of being, interchangeable with any other member of the species.

Furthermore, Wojtyla thinks that using the embryo for therapeutic purposes makes an embryo an instrument to be used and dumped. It goes against the principles of personalistic norms. The point is that no experimental datum can be in itself sufficient to bring us to the recognition of a spiritual soul; nevertheless, the conclusions of science regarding the human embryo provide a valuable indication for discerning by the use of reason a personal presence at the moment of the first appearance of a human life. Hence, the question, how could a human individual not be a human person?[30] By using the human embryo as an instrument of research, Wojtyla asserted that such an act contradicts the personalistic norm that views a human being as a being for others in interpersonal communion.[31] Wojtyla's notion of interpersonal relationship is clear from his analysis of the 'chain of relationship' where he argues that there is no such thing as potential human person. What we have is an actual human person that exists in different stages of human development. The chain of relationship of Wojtyla is a reminder that all of us are dependent on one thing or the other. For instance as

the embryo/fetus is dependent on the mother for many things, so also the mother depends on society for many things. As the freedom of life which the 'chain of dependence' calls for must be respected at all costs[32]. Following from this, Alasdair MacIntyre supported Wojtyla's view in one of his works, *Dependent Rational Animals*, he observed that as much as man strives for independence, the human person necessarily relies on others. In the first place he depends radically on God as the source of his being. Besides, from the moment of conception he depends on other persons for his survival and development, and this interdependence is a hallmark of human existence.[33]

Wojtyla's personalistic norms are applicable and cut across all other moral problems associated with stem cell research. For instance, he referred to cloning and by extension therapeutic cloning as a crime against humanity. He opposed cloning for four reasons: first, it is not a necessary solution to any human tragedy; second, it fosters a reductionist view rather than a holistic view of human nature; third, it undermines the structure of the family and human community; and fourth, it creates a pressure to use technology and make it a god.[34] While one or two of the foregoing four points are related to reproductive cloning, the others are directly connected to therapeutic cloning. Either way, Wojtyla's personalistic norms strongly oppose such medical practices.

Wojtyla while praising science for its dedication to preserving human life, however, says that any form of human embryo cloning or commercialization of organ transplants is morally unacceptable. He is of the opinion that human life should be the guiding principle in determining the boundary of scientific experimentation. In addition, he says every medical procedure performed on the human person is subject to limits; not just limits of what is technically possible, but also limits determined by respect for human nature itself. Wojtyla is not against organ donation as it were, if such act is carried out within the parameters of morality or ethics. However, he argues against the practice where therapeutic cloning will encourage commercialization of human parts. He says, " ... a procedure which tends to commercialize human organs or to consider them as items of exchange or trade must be considered morally unacceptable, because to use the body as an "object" is to violate the dignity of the human person."[35] In the same vein, Wojtyla's personalistic norm pointed out the need for informed consent in this kind of research. As earlier mentioned, the problem of informed consent is one of the moral issues associated with stem cell research. In order not to violate the dignity of persons, Wojtyla stated that the human "authenticity" of such a decisive gesture requires that individuals be properly informed about the processes involved, in order

to be in a position to consent or decline in a free and conscientious manner. The reason is that the consent of relatives has its own ethical validity in the absence of a decision on the part of the donor. He says, "naturally, an analogous consent should be given by the recipients of donated organs. The issue here is that consent becomes invalid when ethical procedure is neglected.

Besides, Wojtyla's personalistic norms do not support a kind of donor which involves direct aborted fetus for stem cell research. The reason is that abortion destroys life. Wojtyla also warns against transplanting and implanting cells and organs that may affect the subject receiving such therapy psychologically, or affect the genetic identity of such person. Besides scientists need to ensure that the transplant or implant will be successful and will not expose the recipient to inordinate risk.[36] The reason why care must be taken in implanting cells is that, according to Maureen Condic, scientifically, using embryos for stem cell therapy may not be feasible; because there are profound immunological issues associated with putting cells derived from one human being into the body of another. The compromises and complications associated with organ transplant hold also for embryonic stem cells. Stem cell transplants like other transplants might or might not bring about a cure, but merely add time. Time would only suppress the immune system, not cure the illness. Besides the proposed solutions to the problem of immune rejection are either scientifically dubious, socially unacceptable or both.[37] Some scientists have rightly observed that certain kinds of stem cells could cause cancer because a small number of defective stem cells have been found in tumours, where they may have acted as a seed. Their ability to proliferate continuously makes them a carrier of mutations, which in turn increases the probability that they will grow out of control and become cancerous. By implication, their use in treatments or therapy could be fraught with problems, at least until a clearer understanding emerges regarding the signals that turn them on and off in their growth cycles.[38]

Following from this, Wojtyla would argue that such experiments cannot be justified since there is a likelihood that implanting them, that is cell tissues, may spell doom for the recipients, especially when the scientists involved is not or may not be sure of the outcome of such experiments. Such action reduces the person to a tool or instrument of research and by extension, science would be merely repeating mistakes of the past, where human subjects were used as guinea pigs in research experimentation after the Second World War and beyond. With his personalistic approach, Wojtyla is emphasising that which sees human for who and what they are, as this is linked to what they do or cannot do and what they become.

It is necessary to understand that our identity as persons transcends the material realm; personalism considers a human being to be an embodied self - one whose spirit or "soul" is more than mindful consciousness. In this sense, dignity inheres in every human simply by virtue of being human. Wojtyla agreed with Dailey and Leonard by stating the obvious that as acting persons, we have the ability to act in ways that affect our dignity-whether to fulfil or diminish it; however we cannot lose it, for we cannot change our identity as being human and by extension, our existence as persons.[39] Dailey and Leonard asserts that unless we affirm the inherent dignity and value of human life, bioethical discussions risk being reduced to utilitarian equations.

From the above statement of Dailey and Leonard, that bioethical discussions risk being reduced to utilitarian, Wojtyla thinks differently on the matter. Wojtyla points out a close relation between the predominant scientific picture of the world and a particular form of ethics, namely utilitarianism. Waldstein argued that:

> The development of contemporary civilization is linked to a scientific and technological progress which is often achieved in a one-sided way and thus appears purely positivistic. Positivism, as we know results in agnosticism in theory and utilitarianism in practice and in ethics. In our own day history is in a way repeating itself. Utilitarianism is a civilisation of production and of use, a civilization of things and not of persons, a civilization in which persons are used in the same way as things are used.[40]

Elsewhere Wojtyla assert that:

> Utilitarianism introduces into human relationships a paradoxical pattern: each of the persons is mainly concerned with gratifying his or her own egoism, but at the same time consents to serve someone else's egoism, because this can provide the opportunity for such gratification. This paradoxical pattern...means that the person-and not only 'the other person,' but the first person too-sinks to the level of means, a tool. There is an ineluctable, an overwhelming necessity in this: if l treat someone else as a means and a tool in relation to myself l cannot help regarding myself in the same light.[41]

The implication of the above is that utilitarianism, first in practice and then also as a theory, is a natural consequence of the Baconian –Cartesian program. Persons are seen as parts of the great machine of nature and they are treated like all other parts of the machine, namely as things[42]. Besides, by choosing to pursue his own subjective utilitarian ends, the individual is

denying his own personhood, the objective basis for his dignity and freedom, and the personhood of those he would exploit, whether by consent or not. In short, he is acting unjustly toward himself and his neighbour.[43] To drive home clearly the point Wojtyla is making concerning criticism against utilitarianism, Peter Colosi, a neo-Wojtylan painted a very interesting scenario.

Colosi[44], stated that Peter Singer, a famous atheist and philosopher who has always championed infanticide and embryo experimentation, and who also regards those who are mentally stable and rational as human beings and those who are not as less than human beings, was said to have hired a team of home health care professionals for his mother who at the time was suffering from severe dementia. According to the theories Singer has long espoused, Singer ought to have either let his mother die or have killed her. Colosi added that it was precisely when Singer got into the position of dealing with the suffering of a person whom he loved dearly that he reversed in his actions what he had insisted on for decades in his books. It was said that many critics of Singer demanded an explanation for his behaviour. Ultimately, he accepted that he committed a morally wrong act by caring for his mother. Colosi felt that Singer's response does not express the motive for his actions, it only provides an excuse: moral weakness. If Singer had been stronger he would, it seems, have killed his mother. But there must have been a positive reason or motive for his actions. Colosi suggested that Peter Singer did not kill his mother because he loved her and that his love made him see reasons within her being for which she should not have been killed. Colosi added that he found in Singer's own words the basis of his assertion when he said to Michael Specter who pressed him on the point:

> I think this has made me see how the issues of someone with these kinds of problem are really difficult...Perhaps it is more difficult than l thought before, because it is different when it's your mother.[45]

Thus, the difference when it is your mother is that you love her, and this expands your awareness of the worth of the person exponentially because in love you become aware of precisely the ineffable, unrepeatable preciousness of that person. In the real sense, uttering these words, Singer revealed that he had exactly this awareness in the case of his mother, and that this is the reason he behaved so differently in that case. His value knowledge expanded to large proportions in the case of his mother through his love of her. According to Colosi, Peter Singer acted in a manner that follows from such awareness in the case of his mother, but

could not extend that awareness to other persons whom he does not love. Colosi added that there is a raging debate in contemporary ethics which centers around the conflict between the intuition that killing innocents (embryo/fetus) is wrong and the inability to demonstrably justify that intuition. For instance, many utilitarians are conflicted within themselves because of this paradox. It is observed that J.J.C. Smart, after drawing the conclusion that it is ethically right to kill an innocent person and use embryos for research since they do not belong to the category of persons; when that action results in the avoidance of large scale suffering, asserted, "even in my most utilitarian moods l am not happy about this consequence of utilitarianism"[46]. Colosi concluded that Smart ultimately fails to find a satisfactory solution to his dilemma, because he rejects evidence that is obtained through intuition simply because it is so obtained. Colosi however, said Wojtyla and Scheler have an answer to Smart's dilemma by affirming that:

> Until recent times philosophy was inclined to a prejudice that has its historical origin in antiquity. This prejudice consists in upholding the division between "reason" and "sensibility," which is completely inadequate in terms of the structure of the spiritual. This division demands that we assign everything that is not rational-that is not order, law and the like-to sensibility. Thus our whole emotional life and, for most modern philosophers, our conative life as well, even love and hate must be assigned to "sensibility. " According to this, everything, in the mind which is alogical, e.g., intuition, feeling, striving, loving, hating, is dependent on man's psychological organization.[47]

From the analysis Colosi presented above, it is crystal clear that Singer's behaviour and actions approve of Wojtyla's personalistic norm and Kant's categorical imperative of respecting persons; the foundation on which this thesis is built.

Beyond this, Wojtyla and Kant's philosophy of personalism manifests itself in the natural law. For instance, Wojtyla did not base the obligation to preserve human life solely on the traditional Aristotelian-Thomistic doctrine of the spontaneous inclination to preserve one's own life, but also on the dignity proper to the human person.[48] He added that because all men and women have the same human nature, ethical principles are universal and thus transcend all cultural and historical boundaries. Wojtyla insisted that the universality and absoluteness of natural law precepts are compatible with the uniqueness of the person and individual conscience. He says, "these universal and permanent laws correspond to things known by

practical reason and are applied to particular acts through judgment of conscience."[49] Having understood that the given ethical principle is true, the acting person appropriates it to himself and acts according to it.[50] The implication of this is that Kant and Wojtyla's personalism principles remind biomedical scientists that ethical principles that urges one to human protect life is universal and transcend all cultural and historical boundaries, and these universal laws correspond to things known by practical reason.

5.3 **Conclusion**

This chapter has attempted to examine the implications of Kant's and Wojtyla's ethical theories on stem cell research, with special focus on the human embryonic stem cell research. The ethical theories of Kant and Wojtyla emphasises that the person goes beyond the physical or psychological requirements by which science and liberal world define it. Kant for instance reminded us that we must act so that we treat humanity whether in our person or in that of another, always as an end and never as a means to; from this we inferred that persons in the adult sense and persons in the embryonic stage are part of the membership of humanity Kant said we should not treat as a means to an end. This is because since the living human embryo is the very first concrete and individual agent in human development, it follows therefore that we preserve and protect her and her dignifying nature. Kant considered human dignity not only as the values of the rights of each individual, but as the value of humanity, which is a universal value belonging to all mankind. The value of human dignity is one of humanity, which is inherent in each person and it is the values of a normative fact that someone is human. The implication of the Kantian analysis is that the human embryo deserves a moral status that protect her from being harmed in the name of research that is yet to yield a positive result presently. Going by this, it would be immoral and unacceptable to universalise research on human embryos.

For Wojtyla, stem cell research on the human embryo is condemnable for the fact that the embryo is categorised among members of the human community. For him, the embryo is a human being who deserve a right to life, therefore research that destroy and threatens human life should be described as the culture of death. Wojtyla further submitted that using the embryo in the name of research automatically makes the embryo an instrument to be used and dumped. But for him, the embryo is not just a 'thing', but an entity that is ontologically unique and irreplaceable with distinct personal ends, and as such be regarded as a human being and person.

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Chapter Six

Evolving an Ethical Framework for Stem Cell Research

6.0 **Introduction**

This is the crux of this research work. It aims at discussing an ethical framework or theoretical model that should moderate and guide the activities of scientists in human research, specifically stem cell research. This chapter advocates for a personalistic model; ontological personalism derived from the synthesis of moral philosophies of Immanuel Kant and Karol Wojtyla. The personalist model advocated for has its origin in Kant's moral philosophy which Wojtyla modified to suite present moral challenges as it relates to the problem of this study. The personalistic model emphasises the uniqueness of human persons even in it ontological sense. It also focuses on the imperative of respecting people as ends in themselves.

The chapter is divided into three parts. The first part discusses the synthesis of the ethical theories of Kant and Wojtyla with particular attention on the point of convergence and divergence. Secondly, from the synthesis, we shall infer those elements that are personalistic in nature in both theories; showing why they are justifiable enough to serve as a theoretical framework in biomedical research and promote moral responsibility on the part of scientists in their treatment of the human embryo. We would also examine the possible strengths and weaknesses of the synthesis of both theories. Beyond the personalistic model proposed, the third part of this chapter focuses on adult stem cell as a viable option in stem cell research. The chapter would argue that adult stem cell which has produced numerous therapeutic results devoid of any moral challenges, avoids the moral issues involved in human embryonic stem cell research.

6.1 **Synthesising the Moral Philosophies of Immanuel Kant and Karol Wojtyla**

It is important to understand from the start that there are fundamental similarities in the ethics of Kant and Wojtyla. For instance, some aspects of Wojtyla's moral philosophy was influenced by Immanuel Kant especially as a professor of ethics at Lublin, Poland. This is how Michael Waldstein puts it:

> Note that what Wojtyla came to accept in his study of Scheler were above all some elements of Kantian personalism. Wojtyla's students testify that their teacher's

> most continuous and serious partner in philosophic dialogue, evident throughout his lectures and seminars, was indeed Kant. The dialogue with Kant is documented particularly in Wojtyla's Lublin Lectures[1].

Indeed, Wojtyla developed his philosophical personalism in partial agreement with Kant. For instance, Wojtyla stated that Kant's ethics, which influenced him, was a point of departure for the considerations provided in his postulations, especially his ethical theories and the notion of the person and act. The basis of their theorizations is the human person. Basically, the dignity of the human person is the cornerstone of Kant and Wojtyla's ethics; though we may not completely agree with their method, fundamentally there is a unifying principle in their thoughts. Hence they are regarded as personalist philosophers.

Kant's moral thought started with the supposition that there exists something "whose existence has in itself an absolute worth, something which as an end in itself could be the ground of determinate laws". He concludes that rational beings are such ends. Karol Wojtyla also maintained that a phenomenological analysis of behaviour purifies this insight to reveal the existence of something that deserves nothing than love and respect. The other person is a good towards which only proper and adequate attitude is love. He says that the definition of the person as an individual being of a rational nature, clearly differentiates a person from the world of objective entities. This determines the distinctive character of a person.[2] These thinkers are clearly affirming the goodness of the human person as a rational being. They both maintain that there is an intrinsic worth the human person does not and will not share with any other entity. In other words, they are implicitly or explicitly saying that man as a rational agent possesses an "absolute" worth.

In some respects, Wojtyla thinks that Kant and Scheler mistakenly presented value and duty as two opposite factors of human ethical life. Kant and Scheler, he says, each detached one element from the ethical experience of the human person. Wojtyla states that both value and duty are important elements of human ethical life. Both duty and value perform important ethical roles in the ethical life, and what is really needed is a new, synthetic description of the relation between them.[3] The point to be noted is that both philosophers recognised the importance of duty and value in the ethical life of human beings. What differs is their understanding and approach to the nature of duty and value. For instance, Wojtyla thinks that duty and value should not be separated in ethics; and that duty is an integral element of morality. Besides, duty helps one to be decisive in moral matters and is connected to self-

realization of one's being as a person. For Kant, duty implies necessity of acting out of reverence for the law. For an action to be moral we must look at its righteousness or it must be done out of respect for moral values. Thus, for these philosophers, duty and value are integral moral ingredients. However, how they understood and applied it is what makes the difference. The personalistic norm as Kant postulated is equivalent to the categorical imperative. Kant says, "act as if the maxim of your action were to become through your will a universal law of nature."[4] In the second formulation, of the categorical imperative, Kant says, "act in such a way that you always treat humanity, whether in your own person or in the person of any other, never simply as a means, but always at the same time as an end"[5].

Here, by acting according to the categorical imperative Kant holds, one grasps one's own dignity as an autonomous person who is self-moving in the most radical manner possible, namely, as the universal law giver for all persons. In this autonomy, one must see the moral humanity in oneself as the only thing that has absolute value, the only final end of the entire cosmos. It necessarily follows that one must affirm the dignity of others as well. Thus, one can only be consistent with oneself in affirming one's own dignity as universal lawgiver, if one grants the same dignity to other persons[6]. If we observe carefully, the actual application, Kant's personalistic norm works much like the golden rule in the teaching of Jesus; "do to others as you would have them do to you." (Luke 6:31). "In everything do to others as you would have them do to you: for this is the law and the prophets." (Matt 7:12). This similarity becomes apparent when we examine Wojtyla's argument for the personalistic norm. He posits that, "whenever a person is the object of your activity, remember that you may not treat that person as only the means to an end, as an instrument, but must allow for the fact that he or she too has, at least should have, distinct personal ends."[7] This implies that a person must not be *merely* the means to an end for another person. This is precluded by the very nature of personhood, by what any person is. For a person is a thinking subject, and capable of taking decisions: these, most notably, are the attributes we find in the inner self of a person. This been so, every person is by nature capable of determining his or her aims. Anyone who treats a person as the means to an end does violence to the very essence of the other, to what constitutes its natural right.[8]

When Wojtyla asserts that a person is an "end" and not a "means" he is saying that a person is not determined to be this or that, as a cow is determined to be a cow and a tomato plant is determined to be a tomato plant. On the other hand, a human being is determined to be rational, free, and relational, but this very freedom allows the human person to be self-

determining in the way that is unique and the source of dignity. The human person's greatest achievement is to make moral choices that give him or her a good moral character, that align him or her with what is good and true. A similar idea is noticeable in Kant when he submitted thus:

> Man regarded as a person... is exalted above any price; for as a person...he is not to be valued merely as a means to the ends of others..., but as an end in himself, that is, he possesses a dignity (an absolute inner worth) by which he exacts respect for himself from all other rational beings in the world. He can measure himself with any other being of his kind and value himself on a footing of equality with them.[9]

This implies that we should never simply use other people to further our goals The reason is that a rational being does not have merely conditional worth, that is, not just worthwhile as a means to some end. Rather he is worthwhile for his own sake. It is important to note that the words 'at the same time' and 'merely' are of importance. This is because we cannot help making use of other human beings as means.

The focus of this argument is that the personalistic norm points at the person's ability due to its rational nature to understand the good, to understand aims or ends and pursue them.[10] It is vital to state here that, though Wojtyla adopted a version of Kant's ethics which he refers to as the personalistic norm, yet he arrives at it through a phenomenological analysis different substantially from Kant's rationalist ethics.[11] John Smith said that Wojtyla saw that phenomenology was able to provide a link to reality, a way to ground ethical norms in reality, and not only in interior ideas. For instance, Immanuel Kant taught that ethical norms are unknowable because they lie beyond immediate human experience. Wojtyla taught that experience plays a major role in ethical norms. However, despite their different methodologies and perspectives in looking at morality, they are both attempting to interpret the same reality, namely that the person possesses dignity and respect that must be given adequate attention and recognition in society.[12]

The Kantian element in personalism is treating people as ends in themselves, never merely as means. For Wojtyla this does not exhaust completely his understanding of the personalistic norm. This is because the personalistic norm has to completed by affirming the person as a person through self-giving love or charity. Wojtyla's understanding of the personalistic norm is indeed rather different from Kant's. Being an end differs from having an end and being the

highest good differs from being the beneficiary of the highest good.[13] The gateway to Kant's personalism is the absolutizing of the autonomous dignity of the person as the highest end. The person must be treated as the final end, not as a means. Wojtyla's understanding of the personalistic norm is opposed to Kant on precisely this point. Wojtyla was careful not to call the person an end in himself as Kant did. This is no doubt because Kant understands man as having no moral ends given to him by nature or in experience. A man's ends only become moral insofar as he himself make it moral by not pursuing it beyond what is allowed by Kant's categorical imperative, or by the principle that one not demand for oneself in the pursuit of one's own ends any freedom that one is not willing to allow others in the pursuit of their ends. Otherwise those others would not get to act as their own end. The difference is natural law, nature and experience.[14]

Morality for Wojtyla is when human actions are independent of choice, have ends that are moral ends and focus on objective values that are moral values. These ends are not external to the person nor are they imposed heteronomously from without, whether by others' or one's own passions as Kant claimed would always be the case with material ends or ends given by experience and not made to be such by us. The personalistic ethics of Wojtyla, which is also known as natural law ethics, maintains that humans are born with no moral knowledge but instead learn it through historical and social experience, and that experience reveals with increasing clarity the nature and finalities of the human person. Actions are moral or immoral depending on whether they facilitate or frustrate those finalities.[15]

So far, the basis of their postulations rests on promoting the dignity, moral worth and well being of persons. Their moral theories are person – oriented, that is anthropological in nature. It is worthy of mention that the understanding of the person that Wojtyla shares with Kant is not so much metaphysical as it is anthropological and ethical. While Wojtyla acknowledges that anthropology and ethics require a metaphysics and while he acknowledges the basic truth of an Aristotelian/Thomistic metaphysics, again he does not use such metaphysics as the point of departure for his anthropology and ethics. What he adopts from Kant has no serious conflict with Aquinas' view of the human person, but one suspects he begins with a Kantian principle rather than a Thomistic one for pedagogical as much as philosophical purposes[16]. Wojtyla himself acknowledges that some of his analysis was based on the systems of metaphysics, of anthropology, and of Aristotelian-Thomistic ethics. He also acknowledges his debt to Kant explicitly in his later work, *Crossing the Threshold of Hope*. He asserts:

> The personalistic principle... is an attempt to translate the commandment of charity or love into the language of philosophical ethics... This personalistic norms excludes the possibility of treating the human person as an object of pleasure. This is a principle of Kantian ethics and constitutes his so-called second imperative...[17].

Thus, the bone of contention was to bring out a synthesis between the moral philosophy of Kant and Wojtyla. It is evident that Wojtyla did not deny ever being influenced by some of Kant's postulations which culminated in his personalistic norms as basis for interpersonal relations between men in the society. For Wojtyla, it is imperative that the dignity of the person is uphold and the tool for upholding this dignity is understanding the personalistic norm. What Wojtyla did was to build on what Kant said, by emphasising that whenever a person is the object of your activity, remember that you may not treat that person as only a means to an end, as an instrument, but must allow for the fact that he or she, too, has, or at least should have, distinct personal ends. Wojtyla, as we earlier said, adopted some methodologies of phenomenology and metaphysics to drive home his arguments. Basically, both Kant and Wojtyla are saying that all human beings deserve respect. The personalistic norm emphasises the protection of human beings. In fact Dylan James avers that Kant's personalism for nearly two centuries has largely held sway in the western world and some scholars, including Christian moralists, agree that a secular thinker like Kant has been able to promote the notion of human dignity, even if we sometimes do not necessarily agree with some of his ideas.[18] Kraynak allude to the views of Dylan when he asserts that there are considerable facts available to show that personalistic norm and Christian personalism is a combination of Thomistic metaphysics and Kantian ethics. Some of the facts or evidence are direct explicit references to Kantian ethics. Other evidence is indirect, namely, the use of Kantian moral categories person versus thing and end-in-itself and absolute worth and autonomy and consent in the place of Thomistic moral terms which includes virtue, common good, natural law, character formation and hierarchy of being. Some evidence are found in Wojtyla's moral philosophy.[19]

6.2 **Ontological Personalistic Model as a Theoretical Framework for Stem Cell Research**

According to Elio Sgreccia, personalistic tradition has its roots in man's reason itself and in the heart of his freedom: the human being is a person, because he is the only being, whose life is able to reflect upon himself, to self-determination. The person is the only being that is able to understand and find sense of life and to give sense to his expressions and conscious

language.[20] Carlo Petrini and Sabina Gainotti, are of the opinion that personalism is based upon our common shared human nature. Its primary ethical principle is that all human beings deserve respect. In addition, personalism strongly emphasizes the need to protect the weakest and the sickest persons in society. In personalistic view, the being and dignity of the person are fundamental and inalienable values. Thus, moral actions are measured in respect of the person's being and dignity.[21] From this short description of personalism, one can reliably understand the perspective in which Kant and Wojtyla ethical theories are situated.

The thesis is proposing ontological personalistic model as an ethical paradigm or framework embedded in Kant's and Wojtyla's moral philosophy for stem cell research especially human embryonic stem cell research. This work recognises that the burden and tasks on scientific research is so immense particularly if it has to produce results for the good of humanity; but in doing so, biomedical scientists must also carry out their duties within the parameter of moral values such that the dignity of persons, including the weakest member such as the human embryo of our society, is not trampled upon. Looking at the enormity of the task before scientists, justification must be given for the application of such synthesis as that of Kant and Wojtyla to stem cell research involving the human embryo and others. This work asserts that adherence to ethical principles must begin with the individual scientists involve in stem cell research in form of self-regulation. For instance, just as Kant and Wojtyla emphasise duty in ethics, though with different interpretation, so also scientists adopting the personalism model ought to appreciate that they carry out their duty of protecting lives, especially the duty not to treat human being as a means to an end. The personalism of Kant and Wojtyla emphasise the dignity of persons. Personalism indeed emphasises the necessity in protecting the weakest and the sickest persons in society. Thus in the personalistic model proposed, the being and dignity of the human person which is here continued to hold ontologically from "conception" are fundamental and inalienable values. Therefore, moral actions can thus be measured in respect of the person's being and dignity.[22] Following from this, the Kantian imperative and the Wojtylan principle which states that, "the person should never be treated as a simple means, as an instrument that can be used for the purpose of achieving any other end: on the contrary, the person should be treated as an end, or more specifically, deserving respect has important consequences for stem cell research.

When we apply the ontological personalism as derived from Kant and Wojtyla to scientific research on the human embryo, one would discover that it stresses the importance of respect for freedom and tolerance, which are among its core values. The kind of respect and freedom

their personalism stresses is different from the classical "autonomy principle" of bioethics, for which actions are valuable if they derive from a person's autonomous choice; nor the kind that is been defined by most liberal and libertarian philosophers. But freedom in this sense, is the freedom to use one's power of self-determination in a responsible manner in accord with the objective moral order.[23] Freedom here implies being able to respect life at the ontological level and make decisions that would promote the dignity of human beings. This emphasises one of the principles of personalist philosophy and that is the principle of absolute respect for life or principle of inviolability. We see in the personalism of Kant and Wojtyla, an attempt to provide answers to the most fundamental questions of the origin and end of the human being. It attempts to answer the question of why is there human life. The personalistic approach affirms man's proper and primordial nature, the nature of the human person, which is the person himself. The person in the personalist sense is not person because of what he or she can do in terms of mental or physical capacity but because of the very make up of what is distinctly human life. The emphasis here is not on the persons rationality or what he is capable of doing, rather, the ontological nature of person which begins at conception and distinct to that person. Therefore limiting the human person to the physical and material realities deny the person his/her proper nature[24]. Personalism is seen as coalescing with revealed truths about the human person. The value personalists accord to the person is not the fruit of arbitrary choice; it derives from the ontological status of persons vis-a-vis other beings[25]. The personalism we are adopting insist that any human being is, by the very fact of being human, a person for the very reason that persons possess those faculties that distinguish humans from all other creatures. Therefore distinction between human beings and persons is foreign to the personalism model proposed.

That is why Thomas Williams submitted that, the conclusions of science regarding the human embryo provide a valuable indication for discerning by the use of reason a 'personal' presence at the moment of this first appearance of a human life: how could a human individual not be a human person? Following from this, personalism emphasises that man's uniqueness, bestows on him a moral relevance not found in other beings; not only as moral agents, but also as the object of human action, persons are entitled to a specific sort of treatment.[26] Kant and Wojtyla moral philosophy therefore stresses what persons deserve by the very fact of their personhood, and thus on the difference between acting towards a person and acting towards any other reality. Thus, when the person is the object of one's action, a whole ethical structure enters into play that is absent when the object of one's action is a thing. In addition, at the

heart of personalism stands an affirmation of the dignity of the person, that quality which constitutes the unique excellence of personhood. In fact, Kant specifically submitted that human beings do not have value, but dignity. This is because all values are commensurable. One value can be measured against others. Dignity on the other hand is the name we give to characteristic which leads us to rule out the possibility of involving another being in this sort of trade-off that is, value been measured against others and that they are commensurable.[27]

6.3 **Justification of the Ontological Personalistic Model**

Our justification for the synthesis of both theories is that Kant's deontology and Wojtyla's personalistic norm, both understood as self-regulation and co-regulation respectively, can be closely linked to producing a model for moderating stem cell research. This synthesis will serve as an ethical parameter and value for biomedical scientists and more especially those conducting research on stem cell, especially as it involves the human embryo. Besides the synthesis serves as a better framework than either of them individually. In addition, the synthesis of both theories advocated in this research work for moderating stem cell research are based on the following. First of all, such synthesis makes it possible to find answers to such moral questions as: are all forms of stem cell research, especially human embryonic stem cell morally acceptable? are there no ethical and moral implications and consequences of certain acts in experiments on the human embryo? is the human embryo a person, or human being? is every invention in biomedical technology morally permissible? Or are all goals the biomedical scientists intend to achieve in their research beneficial to humanity or are some of them a mere cosmetic show of intellectual pride?

It is important to assert that no moral theory can singularly answer these questions. Furthermore, as against most other ethical theories which promote relativity of values[28] our synthesised theories which produced ontological personalistic model can be objectively universalised regardless of any form of subjectivity. Besides, contemporary ethical theories seem to involve either refinements of consequentialist ethics or of deontological ethics, or perhaps a combination of them into a hybrid theory that retains the best of each while appealing to the other to plug up the gaps.[29] This corroborates our position that synthesising both theories is justifiable in addressing the problem of the study.

As it were, there is no theory that is completely free of criticism, this thesis presents Kant's deontology in the light of individual morality and Wojtyla's personalistic norm with emphasis on the dignity of human being. Here, we must pay close watch to the fact that

ethical issues cannot be discussed outside the purview of means and ends; this has been extensively discussed in the ethical thoughts of Kant and Wojtyla. However, as much as the ends are important, the means must not be neglected. This explains Asouzu's assertion that:

> The constructivists themselves identify the question about the correct ends as the proper question of ethics. In this way, practical ethical questions enjoy a primacy over theoretical questions in the sense that when people identify what the right ends of their ethical action is, they will all the more easily agree on the correct means to use to arrive at his end.[30]

This above statement clearly states the need for people to agree on the necessity of having correct means of arriving at the ends of their actions. In this sense, this thesis further submits that, biomedical research that has a direct concern on human beings of what form, requires a synthesised ethical theories of Kant and Wojtyla in assisting them meet their moral obligations to themselves and to the public.

There are criticisms from some angle whether Kant and Wojtyla could be categorised as personalists thinkers; and to what extent the blending of their theories produce results? One of the reasons for the objection is because Wojtyla drew some of his philosophical views from Kant. However, a vivid study of Wojtyla will show critics that there are clear distinction between both thinkers. For instance, Wojtyla's personalistic norms is a modified version of the Kantian categorical imperative. This has been clearly expressed above and in our previous chapters. Secondly, Wojtyla gave the Kantian imperative a radical existential approach for a better praxis. From another perspective, critics consider personalism as a theoretical speculation with limited relevance[31]. However, we discovered that the founding basis of personalism as an anthropological concept is shared today by representatives of different cultures. For instance, if we want to promote sound ethical principle in moderating and guiding biomedical research that involves the human person, then we must move from a solitary, individualistic approach to a personalist approach in an integral sense[32]. In this light, personalistic approach is not a mere empty theoretical speculation.

Kant and Wojtyla's moral theories prescribe the stance that biomedical scientists are advised to take to achieve ideal ethical person. But, their prescriptions are purely idealistic to a fault. For instance, Kant ethical principles clearly reflect utter dependence on his metaphysics. Wojtyla's ethical principle is also weaved around Thomistic metaphysics and phenomenology. As such this appears to make their application to ethical principles to

contemporary times seem unrealistic. However, the beauty of it is that, the synthesis of both theories has been fascinating in the midst of the seemingly criticisms and weakness. Besides, personalistic approach or model as the case maybe is highly relevant because many thinkers both in the philosophical discipline and theological discipline have found in it a new way of talking about human nature. This further explains the relevance and importance of the synthesis of both theories. Robert Kraynak corroborated the synthesis of Kant and Wojtyla by asserting that, personalism emphasises a greater awareness of man as a "subject" or possessor of subjective consciousness; a new emphasis on self-determination in action; a greater appreciation of personal identity; the irreplaceable uniqueness of everyone and interiority of spiritual life.[33] Above all, personalism brings a new and heightened awareness of human dignity and human rights. It is in this context the value and dignity of the human embryo is better appreciated. The reason is that if the human person is not understood as expressed by Robert in this context, the we may not value the dignity that ontologically belongs to the embryo and the sanctity of life.

Those who argue that Kant cannot be called a personalist, misses the point. This is because they have not been able to distinguish Kant's metaphysics and epistemology from his ethics and politics. In the strict sense, personalism cannot be perfectly understood without acknowledging the influence of Kant on its central principles. Personalism as it is today is a combination of Thomistic metaphysics and Kant's idealism that is, its moral imperative of respecting people as ends-in-themselves and its political philosophy of freedom and human rights. Wojtyla complemented Kant's ethical command by affirming the person as person through self-giving, love or charity.[34] Presently, nearly every culture and society have adopted the inalienable rights and dignity of the human person; liberal democracy, and aspirations for world peace under the United Nations and African Union as their ethical and political principles. Yet, only a few people such as Wojtyla readily admit that those changes draw heavily from Kantian personalism. Put simply, Kant's deontological theory singles him out as a personalist. It is important to note that Wojtyla's was to develop a synthesis of Thomism and a Kantian version of phenomenology that tips the scales in favour of traditional natural law duties over modern natural rights. Besides Wojtyla appreciates Kant's emphasis on ethical obligation; he arrives at the personalistic norm through a phenomenological analysis differing substantially from Kant's rationalist ethics. Yet, their message echoes charity for the 'Other' and justice for the weak and oppressed.

6.4 **Adult Stem Cell as a Viable Option**

While Wojtyla and Kant's ethical theories reject human embryonic stem cell research because of the moral issues involved, Wojtyla advocated for adult stem cell. He said:

> Science itself points other forms of therapeutic intervention which would not involve cloning or the use of embryonic cells, but rather would make use of stem cells taken from adults. This is the direction that research must follow if it wishes to respect the dignity of each and every human being, even at the embryonic stage.[35]

The implication of the above statement of Wojtyla is very clear. That is, since embryonic stem cell is generating a lot of moral controversies and it is believed that it is a violation of human life, therefore, adult stem cells might be a more acceptable alternative. In the first instance, stem cell research involving adult stem cells, is not morally controversial presently, however no one is sure whether or not it may generate moral issues in the nearest future. William Pay, clarified that thousands of lives have been saved by adult stem cells, especially in the form of "bone marrow transplants" for leukemia and other conditions where the active ingredient in the bone marrow is stem cell. Presently, adult stem cells are being tried to help people with Parkinson's disease, spinal cord injury, juvenile diabetes, lupus, multiple sclerosis, sickle – cell anemia, heart damage, corneal damage, and dozens of other conditions. Pay, though made these assertions based on scientific investigations, however pointed out that the danger is that progress towards cures would be halted or slowed down by campaigns that divert attention and resources toward embryonic stem cell research.[36] In addition, adult stem cells are also referred to as 'non-embryonic' stem cells and are present in adults, children, infants, placentas, umbilical cords, and cadavers. Extracting or obtaining stem cells from these sources does not result in any harm to a human being. Maureen Condic[37], alluded to the fact that tremendous progress has been made in the field of adult stem cell research. She added that adult stem cells can be recovered by tissue biopsy from patients, grown in culture, and induced to differentiate into a wide range of mature cell types. This is contrary to the view that adult stem cells are difficult to find or culture and that they do not have the same developmental as embryonic or foetal stem cells. Condic, continued by saying that the scientific, ethical, and political advantages of using adult stem cells instead of embryonic ones are significant. For instance, deriving cells from an adult patient's own tissues entirely circumvents the problem of immune rejection. Adult stem cells do not form teratomas. Therapeutic use of adult stem cells raises very few ethical issues and completely obviates the

highly polarized and acrimonious political debate associated with the use of human embryos. The issue that cells derived from diseased patients may themselves be abnormal is largely unwarranted. Again, Condic stated that, most human illnesses are caused by injury or by foreign agents such as toxins, bacteria, viruses, that, if left untreated, would affect adult and embryonic stem cells equally. Even in the minority of case where human illness is caused by genetic factors, the vast majority of such illnesses occur relatively late in the patient's life[38].

There are other problems with adult stem cells. The first concern is a practical one: adult stem cells are more difficult than embryonic ones to grow and culture and may not be able to produce the very large numbers of cells required to treat large numbers of patients. But it has been discovered that this is a trivial objection for two reasons. The first one is that, improving the proliferation rate of cells in culture is a technical problem that science is quite likely to solve in the future. In the actual sense, substantial progress has already been made towards increasing the rate of adult stem cell proliferation. Secondly, treating an individual patient using cells derived from his/her own tissue would not require the large numbers of cells needed to treat large populations of patients. Besides, a slower rate of cell proliferation is unlikely to prevent adult stem cells from generating sufficient replacement tissue for treatment of a single patient. Again, another serious concern is that scientist' do not yet know how many mature cell types can be generated from a single adult stem cell population. In response, Dr Anderson noted that, some experiment suggest these [adult] stem cells have the potential to make mid-career switches, given the right environment, but in most cases this is far from conclusive. This limitation is not unique to adult stem cells, but the same problem has been discovered in embryonic stem cells. However, in theory, embryonic stem cells appear to be a more attractive option because they are clearly capable in an embryonic environment of generating all the tissues of the human body. But in practice, however, it is very difficult to get stem cells of any age to do what you want them to in culture.[39]

Condic clearly showed that there are two counterarguments against the assertion that the therapeutic potential of adult stem cells is less than that of embryonic stem cells because adult stem cells are restricted and therefore unable to generate the full range of mature cell types. In the first instance, it is not clear whether adult stem cells are more restricted than their embryonic counterparts. It is necessary to bear in mind that the field of adult stem cell is not nearly as advanced as the field of embryonic stem cell research. In the few years of adult stem cell research, it has demonstrated equal or greater promise than embryonic stem cell research at a comparable stage of investigation. Further research may very well prove that it is just as

easy to teach an old dog new tricks as it is to train a wilful puppy. This would not eliminate the very real problems associated with the teaching *any* dog to do *anything* useful, but it would remove the justification for "age discrimination" in the realm of stem cells[40]. The second counterargument is even more fundamental. That is, even if adult stem cells are unable to generate the full spectrum of cell types found in the body, this very fact is advantageous for the scientists and medical progress. This is because the process of embryonic development is a continuous trade-off between potential and specialization. Embryonic stem cells have the potential to become anything, but are specialized at nothing. Thus for an embryonic cell to specialize, it must make choices that progressively restrict what it can become. The greater the number of steps required to achieve specialization, the greater the scientific challenge it has to reproduce those steps in culture. In fact, current understanding of embryology is nowhere near advanced enough for scientist to know with confidence that we have gotten all the steps correctly. If adult stem cells prove to have restricted rather than unlimited potential, this would indicate that adult stem cells have proceeded, at least part way, towards their final state, thereby reducing the number of steps scientists are required to replicate culture. Besides, the fact that adult stem cell development has been directed by nature rather than by scientists greatly increases our confidence in the normalcy of the cells being generated[41].

The basis for Maureen Condic analysis and arguments is that in the light of the serious problems associated with embryonic stem cells and relatively unfettered promise of adult stem cells, there is no compelling scientific argument for research on human embryos. In his opinion on adult stem cell research, he stated that:

> ...If we could reap the benefits using adult stem cells...,l'd lose no sleep over methods that revealed them. If the therapies depended on trophic factors that we could extract and synthesize, l'd salute them. If the only effective therapies came with cells manufactured in factories where women were treated like battery hens, vats of sperm and ova bubbled and brewed, and human embryos were chopped and diced, l'd fret – as l fret over any product made under inhuman condition.[41]

According to Rich Deem, three group of researchers showed recently that normal skin cells (derived from adult stem cells), can be reprogrammed to an embryonic state in mice. The fact that these induced pluripotent stem cells (iPS) were pluripotent was proved by producing foetuses derived entirely from these transformed skin cells. About five month after the mouse study was published, the feat was repeated by two separate laboratories using human skin

cells. It was discovered that the ability to produce embryonic stem cell like lines from individual patients removes the possibility of tissues rejection and avoids the high costs and moral problems associated with cloned embryos.[42] Deem added that after this discovery which still needs perfection, Dr Shinya Yamanaka, one of the study leaders later commented, "when l saw the embryo, l suddenly realized there such a small difference between it and my daughter...l thought we can't keep destroying embryos for our research. There must be another way. The moral problem of destroying a human embryo encouraged Dr Yamanaka to pursue a more ethical way to generate human stem cell lines. The analysis is very clear and that is, adult stem cell is a highly probable option to human embryonic stem cell that encourages destruction of life and could result in cancer and tumour growth. Again, it important to note that Dr Yamanka's assertions that he realized there was such a small difference between the embryo and his daughter is very controversial especially among the scholars who view the embryo as non-person; we must carefully understand at the long run that the deep meaning of his assertion is that we should rather discourage human embryonic stem cell research and concentrate on the adult stem cell as a viable option.[43]

Beyond the above analysis, Amin Abboud writes that only stem cells that have helped patients so far are adult stem cells. Embryonic stem cell research has not helped a single patient. For Condic, embryonic stem cell has a zero success rate.[44] William Pay aligned his thought with Abboud's view when he submitted that:

> ...Embryonic stem cells have never treated a human patient, and animal trials suggest that they are too genetically unstable and too likely to form lethal tumors to be used for treatment any time soon. Years ago it was said that stem cells from embryos would be the most useful because they are fast growing and versatile, able to make virtually any kind of cell. But those advantages become disadvantages when these cells make tumors, creating a condition worse that the disease. Yet many supporters remain wedded to this approach, having invested a great deal of money and effort and hoping they can still make it work. This kind of exaggerated "promise" has misled researchers and patient groups before – most obviously in the case of fetal tissue from abortions, which in the 1990s was said to promise miracles cures and has produced nothing of the kind. [45]

In this regard, Abboud argues that scientists have found stem cells in adults in virtually every major organ, including the brain and they have been successfully used in treatment, while

embryonic stem cells still offer only theoretical potential good. It has also been discovered that the umbilical – cord blood and placenta blood are both rich in stem cells. For instance, in Dusseldorf, in July 2001, German doctors reported that a patient's own bone marrow adult stem cells were used to regenerate tissue damaged by a heart attack improving his heart flow. Washington Medical Centre treated twenty six patients with rapidly deteriorating multiple sclerosis. Twenty patients stabilised and six improved. Also immune systems of children destroyed by cancer were restored using umbilical cord blood. All these are adult stem cells. Surgeons in Taiwan have restored a vision to a patient with severe eye damage using stem cells from the patient's own eyes[46]. These are few examples out of numerous cures from using adult stem cells. Scientists, precisely in 2001, identified conditions that would allow for the multiplication of adult stem cells in culture by a billion fold in a few weeks. This feat already allay the fears and arguments that adult stem cells may be difficult to culture unlike embryonic stem cells. It is true that stem cells from embryos are more plastic, that is they are easier to change into types of cells; though this claim has some basis, but Abboud suggested that technology is improving so rapidly that it is hard to substantiate. For instance, the US National Institute of Health report has noted, "the field of stem cell biology is advancing at an incredible pace with new discoveries being reported in the scientific literature on a weekly basis." Base on this, the advantage of using embryo stem cells may already have been superseded by researchers. Abboud cited Dennis Steindler, a professor of neuroscience and neurosurgery of the University of Tennessee, said, in some ways, adult stem cells may not have the same potential as embryonic cells, but once we figure out their molecular genetics, we should be able to coax them into becoming almost anything we want them to be.[47]

From the foregoing, it obvious that some scientists and non-scientists alike are beginning to project strongly that since the use of adult stem cells for research do not pose the kind of moral controversies surrounding embryonic stem cell research and since it has been used for therapy with positive results; it is a better alternative to embryonic stem cells. The task before medical scientists is to continuously look for ways of perfecting this viable alternative for the benefit of humanity. This would put an end to research on human embryonic stem cells. This is exactly the point of Kant's and Wojtyla's personalistic principles; that is scientists should promote research with 'humanistic face'. By this, we mean, scientific and technical progress must maintain the greatest respect for the moral values that constitute a safeguard for the dignity of the human person.

6.5 Utilitarian Value of Stem Cell Research

Following from the above analysis on adult stem cell as a viable option for therapeutic purposes, it would not be out of place to conclude this work by clearly re-emphasising the utilitarian value or benefit of stem cell research. Essentially, utilitarianism as an ethical theory is largely conceived as a principle of the greatest happiness for a greater number of people. Jeremy Bentham, is essentially regarded as one of the greatest utilitarians, who submitted that the individual happiness is based upon pleasure and pain: increased pleasure and decreased pain bring happiness; decreased pleasure and increased pain bring unhappiness.[48] In other words, utilitarianism means that what eventually or basically ought to decide the moral worth of action is the consequences to the greatest number of people. It is the consideration of the greatest good or happiness.[49] As a teleological theory, it holds the view that morality of an act consists in its utility to serve as a means to some end. Simply, this theory admonishes that our moral end should ensure the greatest possible balance of good over evil.[50]

The above clarification states that the fundamental tenets of utilitarianism are reducible to the maximization of the good for the interest of the larger members of the society and this is morally justified. If we apply this principle to stem cell research, we would immediately see that stem cell research which is believed to help humanity alleviate suffering and pain from certain diseases is morally justified. Many scientists clamouring for the continuation of this` research have provided some utilitarian reasons for this. For example, there is a wide-spread assumption that if stem cell research is successful, therapies that would be generated from it may help cure diseases and ailments such as: Arthrithis, Parkinson disease, Burnt victims, Cardiovascular diseases, Blindness, Spinal cord injury, Cancer, Birth defects and many more. Beyond these, stem cell technology would further facilitate a wide range of experiments to explore the underpinnings of genetic disease and possible forms of amelioration and cure.[51] Utilitarian argument states that, if this research has such potentialities, such as relieving people from serious pain and suffering, thereby bringing happiness to majority of people, then such research should be promoted in the interest of the majority.

By 2007, it was estimated that over 100million patients in the United States “might” benefit from stem cell-based therapies and majority of these patients are those suffering or affected by cardiovascular diseases.[52] However, it is vital we state clearly that there is a difference between current therapeutic applications, experimental therapeutic applications and potential

therapeutic applications. For instance current therapeutic applications refer to those who have been treated with therapies from stem cell and cure of diseases like blood and immune system disorders and metabolic diseases. Experimental therapeutic applications means that stem cell research and therapy are still at the experimental stage and diseases being considered include, multiple sclerosis. And potential therapeutic applications are for the category of diseases which scientists are hoping that stem cell therapy may help cure in the future. Potentiality here does not mean actuality because research on it is still in progress. The diseases under the potential category include: Parkinson's Disease, Spinal Cord Injury, Retinal Degeneration, Type 1 Diabetes, Brain Tumors, Cardiovascular Disease, Metabolic Diseases and Osteoporosis.[53]

It is worthy of mention that one would have observed that the goal of stem cell research is for the good of man. This is where the theory of utilitarianism becomes relevant and applicable. Thus, it is also necessary to state that much has not been achieved in stem cell research, especially as it relates to the human embryo. Again, stem cell research would open a vista of opportunities for scientists to understand better the complexities of the biological make-up of man. Yet the challenge is that a lot still has to be done for mankind to enjoy the benefits of this research. The reason is that if scientists succeed especially with adult stem cell, humanity will enjoy better quality of life as the utilitarians have argued. Yet the question remains, are we not presently enjoying good and quality life? While we agree that stem cell research and breakthrough would benefit a great number of us, we must also ensure that it would not violate the life of human embryos whom we have duty to protect at all times.

6.5 **Conclusion**

This chapter tried to achieve three major things. The first was to proposed an ethical framework for stem cell research, specifically, human embryonic stem cell research. It achieved this through the synergy and synthesis of the ethical philosophies of Immanuel Kant and Karol Wojtyla. In synthesising the moral thoughts of these philosophers, we discussed their point of convergence and divergence. Through this, we proposed a personalist model from their thoughts. Secondly, we showed clearly the justifications for this proposed ethical framework. We argued that the justification of adopting both theories is better than either of them in isolation of the other. That is, either of the two theories in isolation of the other is not sufficient to address the problem of the study. For instance, this thesis discovered that personalist principles is a synthesis of Thomistic tradition and Kantian deontological theory.

Personalism embraces the Thomistic natural law teaching that humans are rational and social animals longing for God but also accepts Kant's idea that humans are not only rational; they are also acting and willing creatures with human rights. Wojtyla's contribution, on the other hand, was to develop a synthesis of Thomistic metaphysics and Kantian version of ethical idealism to build a robust version of personalism different from previous versions. Again, such synthesis of both theories assisted us in finding possible answers to some questions raised in this research work. Above all, as against other ethical theories which promote relativity of values, our synthesized theories culminated in the personalistic model can be objectively universalized.

This research also attempted to address critics who think the synthesis of both theories may not be relevant after all; that personalistic norm as an ethical principle is simply a theoretical speculation. However, this research submitted that personalism is not a mere theoretical speculation. As a principle, it provides a new way of understanding the human nature. It is a new anthropology that builds upon and expands older traditions which have influenced and shaped the history of philosophy and related disciplines. This chapter concludes that adult stem cell is a viable alternative to human embryonic stem cell research.

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Conclusion

This work is divided into six chapters. In the first chapter, we examined the nature of stem cell and stem cell research. The first part, which is on the nature of stem cell, focused on the conceptual analysis of stem cells, its classification, its origin, similarities and differences between embryonic stem cell and adult stem cell. In the second part of the chapter, we analysed the main objectives of stem cell research with particular attention on why scientists are so interested in stem cell research and also we examined the historical background to stem cell research. This chapter in essence, gave us a clear perspective on the nature of stem cell.

Chapter two focused on the ethical issues raised by research of stem cell. Here we did an analysis of key moral issues that have confronted this research right from the beginning. In doing this, we examined the background to the present moral debate, that is why stem cell research has generated a lot of arguments. We paid a close attention to arguments this research has generated, which basically relates to the moral status of the embryo and the sources of deriving the embryo for research purposes. This chapter concludes that while embryonic stem cell research has consistently generated serious ethical issues, adult stem cell on the hand has not generated as much ethical issues like the embryonic stem cell research. Chapter three focused on stem cell research and the question of personhood. Here, we examined the nature of the person with particular focus on the Western and African idea of the person. We also examined some arguments for and against the personhood of the human embryo. This was examined within the context of the pro-life and the pro-choice philosophers and scientists. We also examined the debate on the personhood of the embryo from religious perspectives. We concluded by pitching our tent with the pro-life philosophers that the human embryo is ontologically and substantially a human person deserving respect and dignity.

In Chapter four, we exposed the ethical theories of Immanuel Kant and Karol Wojtyla. The chapter explained that Wojtyla's personalistic ethics is not primarily a theory of person or a theoretical science of the person. Its meaning is largely practical and ethical. Wojtyla's ethics projected protection of all persons whether adult or at the incipient stage. The basis for this projection is both philosophical and scientific. Kant's deontology on the other hand promotes the supreme principle of the categorical imperative, which in various formulations requires the universality of moral judgement, respect for humanity in oneself and others. Chapter five adopted the ethical principles of Kant and Wojtyla in interrogating the moral acceptability of

embryonic stem cell research. We were able to combine these two theories because Wojtyla ethical principles was derived from the Kantian deontology, though he did not accept all that Kant had to offer. Again, this chapter argued that the human embryo is covered by the Kantian categorical imperative and that embryos posses what ethicists call rights of personhood. Wojtyla on the other hand submitted that whenever a person is the object of one's activity, we should avoid treating that person as only the means to an end, or as an instrument. This is because each person including the embryo has a distinct personal ends. Finally, chapter six, based on the conclusions of Kant and Wojtyla ethical principles, we advocated for ontological personalistic model as an ideal ethical foundation that could checkmate scientific research that concerns human subjects. The core of this model is that it emphasises and reaffirm the ontological uniqueness of human persons. Ontological personalism affirms that human life is not merely biological, rationalistic, individualistic, but meta-empirical. That is, human life is not just a fruit of physical conception but a sacred gift and a most precious good. It dictates that personhood is not acquired or achieved along the line of life but it is intrinsically part and parcel of the human being by the mere fact of being human which started from the moment of conception. This chapter argued that ontological personalism would enable biomedical researchers have a better understanding of the nature of the human embryo and why it should not be used for scientific experimentation at any rate. Finally, this chapter advocated adult stem research as a preferred alternative to embryonic stem cell research.

In the final analysis, this thesis argued that in contemporary human society, scientific progress especially in biomedical research is a very vital phenomenon. Progress in biomedical research though positive, also has its negative side. It is clear from our everyday experiences that the world is becoming very 'unsafe' as new discoveries are made and new 'truths' discovered about research in medical science. We are inheriting a world that is becoming insensitive to the constant discrimination against what some scholars have categorized as non-persons - human embryos, and possibly future non-persons – infants, the physically and mentally disabled, the brain injured, those in comma, and those who have incurable fatal illness. This kind of discrimination is based upon the degree of physical, psychic and social development of the human being. This kind of discrimination reminds us of some of the ethical issues associated with the historical exploitation in biomedical research, for instance, the Nazi experiments, and the Tuskegee syphilis experiments where for about forty years, United States Public Health Service conducted a syphilis study using

six hundred black men from Tuskegee, Alabama as guinea pigs. All these have left a legacy of concern for the protection of research subjects.

In reaction to the foregoing, this research argued that ontological personalistic ethics derived from Kant and Wojtyla's ethical theories is required as a viable ethical framework for scientists in the medical decision-making and practice, or medical profession as a whole. Also, this study has extensively shown that ontological personalistic ethics is grounded on a solid and evolving understanding of the human person. It stresses that biomedical research and its related health care has to be person – centred, even when the person is at the incipient stage of human development. Ontological personalistic ethics is reaffirmed to remind scientists that the place of morality in scientific research is very important, especially when it concerns stem cell research, especially the human embryonic stem cell research. This is indeed important because, "today an embryo is created for harvesting; tomorrow, researchers and scientists may find that a five moth old foetus with a discernible human appearance, suspended in an artificial placenta, may be the source of even more promising body parts. [1] Again ontological personalism re-echoes that the human embryo remains inviolable because he is a person. That is to be a person is not merely psychological but it is an existential fact. Personhood does not depend essentially on one's age or psychological condition, rather personhood exists in the embryo from the outset and has its own rights. This is what gives humans their dignity.[3]

Essentially, we have a moral duty to save humanity and increase mutual respect for those people that have been categorised as non-persons. It is our duty to ensure that biomedical advancement does not reshape what it is to be human and what human being is. Science and technology are only valuable for man when placed at his/her service and when they promote man's integral development for the benefit of all. Ontological personalistic ethics erects that platform that can sustain the moral parameter needed in biomedical research.

This work, however, reasserts that rather than destroy the human embryo in the name of therapy for the good of all, scientists should channel their energy and resources to adult stem cells where they have recorded some level of successes.

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