Literature on Human Cloning: A Theologico-Philosophical Synthetic Review

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Abstract: *Literature reviews are being used more and more as a way to present study results and find areas that need more work. Thus, the literature on human cloning needs to be reviewed critically and comprehensively to present and identify study findings and gaps that will provoke further research. Therefore, the aim of this article is to critically and synthetically review some literature (spanning between 1997 and 2007) on human cloning in the contexts of religion, theology, and philosophy. The bibliographical and critical review methods are employed to achieve the aim of the study. The study shows that the findings and gaps in the literature on human cloning will help theologians, ethicists, philosophers, religious scholars, scientists, and biotechnologists better express and combine ideas, facts, and information to help people make decisions about human cloning technology. It concludes that further critical studies on human cloning are needed since the debate on the ethical, theological, and religious considerations of human cloning is still ongoing.*

Keywords: *Human Cloning; Literature; Theological; Philosophical; Synthetic Review.*

Introduction

The review of literature is becoming more and more significant as a research methodology. Significantly, a literature review is a great technique to summarize study results and identify areas of need. In this sense, the conventional methods of explaining and displaying the literature sometimes fall short of completeness and do not follow a set procedure (Palmatier, Houston, & Hulland, 2018; Snyder, 2019). Therefore, it is challenging to stay current with cutting-edge research and evaluate the body of evidence in human cloning research, which is growing more and more multidisciplinary and fragmented. Doing this might provide a broad perspective on the many and multidisciplinary study fields of cloning. According to Ottuh (2010b), cloning is a scientific procedure that entails the generation of a genetic duplicate of an already existing creature, whether it is an animal, plant, or human. Ottuh (2021) makes a distinction between research, therapeutic, and reproductive cloning and contends that it is immoral and akin to science fiction to reject studies like human cloning that may result in treatments for people.

The earliest talk about genetic engineering and human cloning began in the 1960s in reaction to more options and reproductive control. Leading theologians including Joseph Fletcher and Paul Ramsey, Bernard Haring, Richard McCormick, Karl Rahuer, and Charles Curran set out opposing viewpoints and surprisingly presciently predicted a future of human cloning. With the birth of Louise Brown and the release of David Rorvik's work in 1978, the second round of religious, theological, and philosophical debates about human cloning got underway. According to Ottuh (2010d), *in-vitro* fertilization (IVF)-related ethical concerns were the focus of Christian theologians, but human cloning was the focus of Jewish thinkers like Seymour Siegel and Fred Rosner, and other religious thinkers gave a broad review of the ethics and science of human cloning.

This article is a critical review of the literature on religious, theological, and philosophical views of human cloning. The review covers some literature written on cloning and human cloning between 1997 and 2007. This article argues that by explaining what a review of the literature is, how it can be used, and what criteria should be used to judge its quality, the review of the literature can be used as a tool to make both theoretical and practical improvements in the human cloning debate. The article also wants to find real gaps in research and come up with better questions and hypotheses for future research on human cloning. This study is significant because the findings and gaps in the literature on human cloning will enhance background information, analysis, and suggestions for theologians, ethicists, philosophers, religious scholars, scientists, and biotechnologists who could utilize such findings and gaps to compile research on cloning that will produce potential theoretical and practical advancements of the technology. This could also include guiding future research and influencing future government policies on the subject.

Overview History of Cloning

According to Ottuh (2020a), cloning has been a part of natural history for thousands of years; it has only recently become a technology. For example, when earthworms are split in half, they repair the missing body parts, creating two distinct worms with the same set of genes, much as plants self-pollinate. Yet the capacity of scientists to purposefully produce an animal clone is a relatively new innovation. In order to demonstrate that genetic makeup is not lost during cell division, Hans Dreisch made the very first cloned animals in the late 1800s using sea urchins that have enormous cells and develop autonomously in their mothers in his experiment (Caulfield, 2001). He cut

apart a salamander embryo with two cells and a 16-cell embryo with a single cell using a hair from his young son as a knife, and the big and tiny embryos both matured into salamanders that are the same size as adults. In order to demonstrate that no genetic material was lost as cells matured and differentiated, Spemman (cited in Ottuh, 2010c) suggested an experiment in which the genetic material from one adult cell would be removed and used to create another adult.

In 1951, a group of scientists in Philadelphia were able to clone a frog embryo. They did this by taking out the embryo's nucleus and replacing it with the nucleus of an egg that had been taken apart. Ottuh (2020a) opines that nuclear transfer (NT), which was employed for the first time during the frog embryo cloning operation, is still being used today with a few minor improvements. John Gurdon of Oxford University said in 1962 that it is possible to create identical frogs using the nucleus of terminally differentiated adult frogs, and J. B. S. Haldand coined the word "cloning" in 1963 (Verhey, 1994). James Shapiero and other researchers discovered the gene in 1969 that controls how a certain kind of bacterium digests sugar (Verhey, 1994). Stanley Coleus and Herbert Boyer used recombinant DNA methods developed by Paul Berg to produce the first recombinant organism in 1973 (Ottuh, 2021). Recombinant DNA is a method that gives researchers' access to an organism's DNA for manipulation.

In 1977 and 1979, Karl IIInesses and Peter Hoppe, two German scientists, said that they had successfully cloned three mice from embryos, yet the majority of experts disagree that adult mice could have been cloned (Hefner, 1997). A science fiction author claimed that a wealthy man had organized for him to be

cloned in a 1978 novel. As a result of this account, many scientists began to assert that it was impossible to clone mammals, which decreased financing and public interest and sent cloning back into the science fiction category for a while. Two teams separately working but using essentially the same technique each said in 1986 that they had successfully cloned a mammal yet; adult cloning was never thought to be feasible since neither team thought it was viable to clone from mature animal cells (Flinger, 1997). It was Ian Wilmut's task to create a sheep that would generate a specific chemical compound in its milk at the Roslin Institute in Scotland (Hefner, 1997). He decided to modify adult cells, clone them, and create animals with the modified gene throughout their whole bodies.

In 1987, he started his papers, and in 1990, he started his research. Wilmut's coworkers hypothesized that the failure of so many cloning efforts was due to the cells being in incompatible phases of life, such as dividing, adding to, or correcting the DNA. According to Wilmut's team, starvation might push cells into a state he named the GO (Gap-Zero) cell stage, which is analogous to cellular hibernation (McGee, 2003). On July 5, 1997, a lamb was created from a refrigerated mammary cell from yet another adult sheep thanks to Wilmut's team's discovery that differentiation is irrelevant in cloning (McGee, 2003). Wilmut gave the lamb the name "Dolly" in honour of Dolly Parton, and the press flocked to the first adult-to-lamb clone with much trepidation. Despite 277 unsuccessful efforts to effectively clone Dolly, it still set a new milestone in the field of biotechnology.

Using the Honolulu Technique, developed by a scientific organisation, a mouse clone named

"Cumulina" was produced in October 1997 (McGee, 2003). According to the scientists, Cumulina was cloned using the conventional nuclear transfer procedure from cumulus cells, which are the cells that surround maturing egg cells. In July 1998, the same procedure was carried out three more times, producing more than fifty almost identical mice. Compared to the Roslin Institute's 277:1, the ultimate success was 50:1, or about six times higher. The University of Hawaii researchers Ryuzo Yanagimachi, Toni Perry, and Teratiko Wakayama cloned 50 mice from adult cells in July 1998 (McGee, 2003). In 2000, Britain approved a patent for the cloning of human embryos in the early stages, although Geron Corporation has no desire to produce human beings (Bedford-Strohm, 2002). The team behind Dolly revealed in March 2000 that they had cloned pigs to manufacture proteins and spare organs for transplanting into humans. A rare Asian ox known as a "gaur" that had been cloned and carried within the womb of a cow perished in 2001 (Bedford-Strohm, 2002). Cloneaid claimed to have created "Eve," the first human clone, in 2002 (McGee, 2003). This has spurred contentious discussions on human cloning in the areas of ethics, law, religion, theology, medicine, and philosophy.

Theological Considerations of Human Cloning

Some writers have said that even if someone figures out how to clone people, the theological idea that only God can make people will still be true. The human soul is not something another human being can make or create. God is the one who created humans, not humans. Therefore, humans do not assign people to various roles or responsibilities as God does. In addition, humans are

not created in the image of other humans, but rather in the image of God. These are some of the key theological issues on which scholars of theology have rooted their discussions of cloning and human cloning. Mahoney (1984) examines the prospect of a dialogue between Christianity and medicine with reference to in-vitro fertilization and other types of assisted reproductive challenges. This is one of the books that investigate the link between bioethics and religion. Additional books in this series include Shelps' Theology and Bioethics: Exploring the Foundations and Frontier (1986), which features 20 articles on theology, science, the foundations and frontiers of religious bioethics, as well as theological justifications for medical procedures and bioethical principles. All of these pieces serve as the foundation for the ethical and theological arguments against human cloning and other types of assisted reproduction, particularly when they make the case for human respect and dignity, thus making their arguments persuasive and reasonable.

The suggestions made in various works of literature have supported the previous justifications even more. For instance, this is evident in the instructions on the respect for human life in its origin and on the dignity of human procreation from the congregation of the doctrine of religion, which shows the Vatican's stance on human cloning and other forms of assisted reproduction (Ratzinger & Bovone, 1987). The above treatise explores the beginnings of both human life and reproduction. Here, God is credited as the source of life, and human sexuality is linked to sexual reproduction, not asexual reproduction. The treatise promotes the inestimable value of respecting human life and dignity. According to Ottuh (2010c), the whole piece

makes the argument that any type of human cloning violates the value of human life and dignity. Here is another objection against human cloning. As a result of their unbalanced reasoning, the above works lack objectivity for not considering the positive aspects of human cloning. In order to address these shortcomings, other studies have investigated the benefits and drawbacks of cloning for human life.

Bedford-Strohm (2002), in his essay, discusses the ethical and theological issues in human cloning practices and believes that the act of cloning human embryos violates the dignity of human beings. His work provides a theological critique of the ethics of reproductive cloning and embryonic research. McGee (2003) collaborates with Bedford-Strohm's position and discusses the differences between asexual and sexual reproduction in his article. McGee highlights that asexual reproduction occurs spontaneously in plants and lower animals in a normal context. Moreover, he claims that human cloning undermines ordained human sexuality (Ottuh & Onimhawo, 2006). Additionally, he asserts that reproductive cloning has the potential to split apart families and perhaps produce an entirely new species of humans. Overall, McGee's research focuses only on the societal repercussions of human cloning. However, several other studies have explored cloning from a scientific standpoint as well as from the perspectives of religion, philosophy, and ethics. In Brown's (1995) earlier book, the themes of the image of God and the human being are central. According to Brown, the principles of the image of God offer a person a clear directive to forbid creative genetic predetermination of a human being through chimaeras or cloning on the grounds that this violates the relational

self, human freedom, and respect for life (Ottuh, 2020a). According to him, the sovereignty and image of God are theologically subordinate to human freedom of self-determination.

Cole-Turner (2001) suggests a temporary and voluntary ban on all types of human cloning in his unpublished essay, which should endure long into the next decade in order to permit thorough public discourse on the ethical and theological issues in technology. He further argues that the church's mission is to avoid unnecessary and mistaken applications of cloning through a serious and honest evaluation of the grounds put forward. While Cole-Turner does not believe that there is a theologically or ethically relevant distinction between a cloned and a non-cloned embryo, he does believe that this is a topic that merits its own independent public debate. Cole-Turner further separates the motives for wanting to reproduce by cloning an embryo into selfish, evil, exploitative, and possessive ones. Cole-Turner, however, was unable to think of any loving or non-loving reasons that would diminish the worth of a cloned child's individuality. In the same vein, humanity-related concerns with cloning technology are also covered in Curran's (1970) earlier article. According to Curran, the cloning issue centres on a closed or unchanging conception of human essence and existence. For him, human cloning is feasible since it complements nature effectively. Curran's argument against cloning humans, however, plays more to human pride tendencies of being the "real" human.

Flinger (1997) discusses the divergent views of Catholic clergy, where he asserts on behalf of the National Conference of Catholic Bishops (NCCB) that Catholic doctrine opposes human cloning because it is

an unworthy method of bringing a human life into the world. Research on human embryos for cloning purposes is unethical, according to the NCCB study, since it breaches informed consent and involves risks in non-therapeutic testing. In support of the above views, Duff's (1997) work comes to mind. He contends that human cloning may challenge divine procreation, that there is a possibility of damage to the identity of the clone, that cloning symbolizes an evil type of hubris, and that now the presumptive possession and the exploitation of animal life for human cloning might well contravene the theological claim of dominion. The above is consistent with Ottuh and Idjakpo's (2021a) postulation that says, animal life is as significant as human life. Thus, the ability to create humans means holding authority over sentient persons, that humans are not their actual creators, and more. In line with Duff's position, the Christian Church should create a responsible way for the cloning technology because of all its disadvantageous factors. Having opposed the cloning of human beings in the real world, there should be more studies on the practice provided science moves forward gradually, in the open, and with a willingness to be subject to rules for the sake of the human and societal common good.

Easwaran (1997) writes from a Hindu viewpoint, where he thinks that cloning technology is something one should pray for and accept within Hindu faith. He asks if human cloning can aid humans in their quest to recognize God, who should be entrenched in the depths of their consciousness. He sees cloning research as the solution to this question. Hefner (1997) collaborates with Easwaran's position by thinking that the values of cloning reside in its disclosure of basic truths to

humanity. This is because humans are fully natural creatures and co-creators of the universe, and cloned humans are real people. It could be theologically argued that because life is a gift from God, humans should treat it well (Ottuh, 2020b). However, human experience is inherently evil since humans are free and answerable to God. These traits, such as providing enough time for public debate, responding to the complex systems of values, and taking into account humanly flawed judgements, have never been considered in cloning policies.

Jones (1985) makes the case that Christians cannot support cloning. He believed that innovation and creativity are fundamental to human existence and show how much we resemble God, who is both creative and inventive. On the contrary, Ottuh (2010b) posits that cloning entails the recreation of the past and is therefore a manifestation of reactionary biological conservatism. Objectively, clones are prized for others rather than for themselves since they replicate the features of other people. They are thus not beings made in the image of God but rather in "our" image. Jones worries that human cloning will cause humanity's extinction, moreover, he thinks that society is unable to confront the moral questions that cloning raises. On this, Keown (1975) takes a Buddhist stance. He discusses the implication of cloning on asexual reproduction in his book and contends that the teaching in Buddhist theological literature is congruent with the idea that human cloning serves to highlight the multiplicity of ways that life may be produced. According to Keown, the Buddhist narrative tradition offers accounts of spontaneous genesis in which sages and supernatural creatures have the capacity to materialize in a human

form for themselves at pleasure. Here, both the host and the clone are ontological persons deserving of the highest regard.

Kimbrell (1993) writes in his work on the outright ban on human cloning. The basis for this prohibition or policy, in Kimbrell's opinion, will be an appeal to the "holy image of the human form," which implies ideas about embodiment and the *imago Dei* (image of God) (p. 322). On the other hand, Lewis (1973) discusses the negative effects of human cloning and asserts that less freedom would result from creating human offspring. Hence, if any one generation really attains, via eugenics and scientific education, the capacity to create its descendants however it pleases, then all humans who live after that are patients of that power. In this vein, Richard and McCormick (1981) claim that Fletcher (1979) misrepresents what it means to be a human by linking rational control with good in his studies about asexual reproduction. The criteria for deliberation and reason simply indicate that someone is behaving; they do not indicate that they are behaving in a humane manner. Then Richard and McCormick (1981) present their own viewpoint, that family life and marriage are inimical to reproductive technologies like IVF and cloning. On the question of whether such practices depersonalize and dehumanize the family and its members, Richard and McCormick (1981) find themselves in agreement with Ramsey (1970) and others. Arguably, therefore, human personhood as a whole is not essential embodiment, rather it is external. Moreover, the family's biological and ethical ties are threatened by the laboratory management of human reproduction.

Also, Richard and McCormick (1981) argue that cloning might destroy the holiness, completeness, and uniqueness of people in a way that cannot be fixed. Going by the viewpoints of Richard and McCormick, the whole of humanity is troubled by the advocacy of favouring breeding decisions that are made independently of societal settings and eugenics. Moreover, it is argued that cloned humans would be treated like spare parts and valued according to the specific attributes they were designed to have. This collaborates with O'Donovan's (1984) treatise that discusses the Nicene Creed's prohibition on human cloning. He begins by referring to the Nicene Creed and compares and contrasts the usage of "born" and "made" in theology. Therefore, it could be contended that the development of cloning technology shows that humankind has the incredible technological ability to trade the humanity that God has given him for something else or to use natural humanity itself as a raw material for creating an artificial form of life out of humanity. This suggests that using scientific knowledge deprives humans of their inherent humanity.

Stinson (1972) contests Ramsey's (1970) assertions. In contrast to Ramsey, Stinson believes that during the next century, socially managed cloning of persons judged highly important to society would be possible. The substance of human existence, not its beginning, whether natural or human-made, is what gives life its spiritual value. Moreover, it is argued that clones would have a soul because they would be able to have subjective, moral, aesthetic, and religious experiences. Stinson (1972) thinks there is no doubt about a clone's sincerity of humanity as long as it is reared in a loving, familiar setting. In this vein, Verhey

(1994) sharply contrasts Fletcher's (1979) and Ramsey's (1970) ideologies on the bases of freedom, the dilemma of good and evil, embodied selfhood, human control over nature, and parenthood. Laboratory reproduction, according to Fletcher, is "radically human" since it is intentional, planned, decided upon, and willed. In contrast, cloning was seen by Ramsey as a "borderline" for society and medicine that could only be crossed at the risk of jeopardizing procreation and humanity. Cloning is a self-creation and prideful sin in which a human strives to become the ultimate human, God. The definition of parenthood is attacked by turning procreation into reproduction and detaching the unitive and procreative ends of sexual difference. This collaborates with Ottuh's (2020b) position that the physical cosmos, life, and the many animals and plants on earth can all be traced back to God alone. It also tends to involve imposed or controlled procreation to represent a managed gene pool, non-therapeutic experiments on the unborn, and dictated or managed breeding.

Human Cloning in Religious Context

Several religious groups contend that it is wrong to permit cloning in humans because it kills potential humans. Others contend that even while an embryo has moral value, a person is not the same as a collection of one hundred cells the size of a pin. Given that they see life as a gift from God, the majority of theistic faiths, for example, vehemently oppose reproductive cloning. Cloning, as opposed to regular sexual reproduction, is seen as an offence against divine creation or a violation of the Creator's authority. Post (1997) investigates the responses of religious groups to human cloning. According to him, religious groups fear that nuclear cloning may render males reproductively ineffective. Post argues that

cloning goes against the law or the notion that people have souls. In the same vein, Hefley (1997) argues that humans are assuming control over God's work. These objections include determining a clone's moral rights, changing what it means to be human, and failing to recognize the uniqueness of humans. Post (1997) and Hefley (1997) seem to be arguing that human cloning is risky, anti-creationism, immoral, and anti-human when all these considerations are taken into account. This viewpoint seems to reflect the prevailing sentiment among anti-cloning organisations, particularly among religious institutions like the Catholic Church. Since not all theological reasons for or against human cloning are included, their studies may be said to lack serious objectivity. Also, the different religious organisations' viewpoints are poorly stated, and it is harmful and unwise to generalize about human cloning based on a certain religious perspective. Because of this, most studies conducted afterward engage in a more serious theological and religious debate on cloning that spans almost all major global faiths.

Cole-Turner (1997) discusses the various perspectives of several significant faiths: Islam, Christianity, Judaism, Raelianism, Hinduism, etc. are all included in this investigation. The majority of these faiths seem to adhere to the same stance that human and non-human cloning is immoral and contrary to their belief systems (Ottuh, 2020a). The study of Cole-Turuner, which is a collection of replies from religious organisations, not only recorded them but also assessed them in order to reach a feasible synthesis on the morality or immorality of human cloning. Instead of being entirely objective, Cole-Turuner's work has some aspects of bias. The arguments of the Raelian and Summum religions, as well as those of other scientific faiths that support cloning, for example, were not as well developed as those of others. The theological beliefs of the Raelians and Summums, among others, are also discussed in several other studies. Zoloth and Halland (2001) are two religious panelists whose discussions anchor on the religious angle of human cloning. They discuss

how protestant concepts of the sin of pride and respect for persons apply to human reproductive cloning. They support keeping the prohibition on cloning in place given the existing safety issues surrounding it. In the end, they contend that cloning should be controlled rather than outright prohibited. Based on their interpretation of Jewish scriptures, Zoloth and Halland came to a different conclusion concerning reproductive cloning.

According to Ottuh (2010b), it is believed that having access to cloning technology would make human life too easily turn into a commodity, thus emphasizing the need to create a duplicate of oneself above the vital parental act of producing a stranger to whom you would devote your life. She highlighted many Jewish ideas, including the idea that human involvement is necessary for the world to develop as a "whole" (p. 244). For them, human cloning encourages religious kindness and compassion. However, they failed to understand that the negative effects of the technology would also cause human suffering and impairments. Whilmut (1997), for instance, claims that it took 277 tries to properly clone Dolly. These failures imply loss and death. Therefore, it is significant to find a balance between the positive and negative effects of cloning humans, both on individuals and on society at large, in order to address the shortcomings of cloning human beings.

Rosner (1986) discusses Jewish traditional views on cloning. According to Rosner, there are three questions at stake in Jewish discussions on cloning: (1) Are we invading the territory of the creator? (2) Are we permitted to tamper with our essence in order to create an artificial human? (3) Do we have the right to change what it means to be human? These questions get both subjective and objective responses from Rosner's research. Shannon (1994), in light of the George Washington University experiments, investigates the effects of cloning on genetic identity and the uniqueness of clones. Here, Shannon makes an argument for a distinction between genetic uniqueness, or the genome, which

constitutes a common nature for the human species, and individuality, which begins with cellular division and continues through a person's life experiences. The argument is based on the scholastic theologian John Duns Scots' theory. It could be contended, therefore, that although the technical act of cloning does not violate moral principles, the treatment of humans who are valued for purposes other than their intrinsic worth and dignity would.

On the other hand, Siegel talks about how cloning might be possible in the future (Ebon, 1978). He says that no one can pretend to be God and that God is challenging people to use reason, creativity, and courage to improve the health and well-being of all people. This raises the question of whether some human or societal traditions or cultures will embrace human cloning. On this, Isiramen (2001) discusses African traditional responses to human cloning, where she looks at several common cloning-related difficulties, such as a clone's humanity and spirituality. According to her, African cultures and customs do not embrace asexual reproduction. In this sense, Africans would use both religious and governmental means to fight against the technology both now and in the future. Isiramen's study may be considered a one-way approach since it may be illogical to judge human cloning using a certain culture or tradition. The above provokes more holistic approach debates or studies about human cloning.

Philosophical Perspective on Human Cloning

Concerns about the ethics of human cloning include the procedure's effectiveness and safety, its use in harmful embryonic stem cell research, the effect of reproductive cloning on parent-child relationships, and the use of human life as a research tool that can be sold. Matti (2003) looks at some of the most important things philosophers have said about the debate over human reproductive cloning, as well as some of the most important things philosophers have said in response. Matti says that because different schools of thought

disagree, it is unlikely that philosophers will be able to give the government or the general public a unified opinion on whether or not human reproductive cloning is moral. Not all types of cloning are discussed in Matti's work; for example, therapeutic cloning is not discussed. Despite the intellectual nature of his arguments, there is no particular moral or ethical stance on human cloning in his article. As a result, this calls for future, detailed studies to investigate the social and ethical implications of human cloning.

Haring (1979) expressed particular concerns about the ethics of human cloning. One of such concerns is the issue of interrupting natural human reproduction. He argued that widespread cloning would undermine the ethical stability of marriage and the family; that a clone may have a compromised sense of identity, belongingness, and continuity, which would make it difficult to achieve a moral willingness to accept interpersonal responsibility and commitment; and that widespread cloning would further negate the moral unitive and procreative purposes of sexuality (Ottuh & Onimhawo, 2006). Arguing along this line, Hathout (1997) presents an argument from the Islamic viewpoint in which he contends that since Islam and the Qur'an support scientific inquiry, scientific knowledge is a symbol or indication of God's creation. According to Hathout, cloning supports creation by changing components that God made (*Khaliq*), but it does not alter creation (*Bari*). The claim of Hathout raises a query. Ottuh (2010c) affirms that the implementation of scientific discoveries is the largest puzzle in Islam. Thus, abuse of human dignity should be prevented. As a result, research on potential hazards to humans from an ethical and social perspective should be included in the application.

According to Qui (1997), who talks about how the somatic cell nuclear transfer method was used to successfully clone Dolly the sheep, technological progress has made it possible to clone people. Qui thinks that the approaches could improve human health in terms of how cloning affects science

and medicine. He points out two issues with cloning, particularly cloning animals. This includes potential diseases and unrest that might be hazardous to people. His last observation is that although cloning is ethically acceptable, it is not desirable to clone humans. Qiu's conclusion does not objectively define or outline the morality of cloning. With its exposition of the reasons for and against human cloning, future research projects on cloning need to address the above shortcomings. On the other hand, the conclusion of the discussion held by the Californian Advisory Committee on Human Cloning is emphasized in Mclean (2002). The goal is to bring together specialists in science, religion, ethics, and law to discuss the best course of action for California's laws governing human cloning and cell research. As a preamble, the California legislature mandated a five-year moratorium on the cloning of an entire human being in 1997 and asked that an advisory panel made up of experts from various fields be formed to assess the social, moral, and medical ramifications of human cloning and stem cell research (Kolata, 1997). The committee suggests, among other things, that stem cell research and human reproductive cloning should be prohibited.

Mackinnon (2001) reveals a clear difference between morality and legality; other perspectives seem to be in line with this. Mackinnon shows how this view applies to cloning people and argues that not all unethical actions should be illegal. She is for therapeutic cloning, but she is also for keeping the ban on human reproductive cloning in place. Mackinnon and Carbone, who are in favour of cloning, do not know that making therapeutic cloning or stem cell research legal could lead to the possibility of cloning humans to have children. In their claims, they seem to only talk about the short-term scientific and medical benefits of this technology, ignoring how it will affect people and society in the long run. In this area, future studies should look at cloning social, ethical, religious, and theological effects in addition to its practical benefits. So, Isiramen and Ulukoaga (2002) look at

the moral and spiritual effects of cloning and say that it goes against theism, creationism, humanity, and society as a whole. They see human cloning as lacking in morality and ethical thought. For Ottuh (2010c), human cloning is a scientific endeavour that exemplifies the dreadful deterioration and aberration into which science is being forced. It is emphasized once again that modernization's underlying melancholy, which values science and technology far above human life, is reflected in human cloning.

Even though Isiramen and Ulukoaga's study does not find any benefits to cloning humans, other studies have done so by talking about both the pros and cons of the technology. In this vein, Gardner (2003) explores the motivations for human cloning. Gardner claims that one must give the goal of their endeavour careful consideration. He contends that although a clone would likely physically resemble the original in a striking way, it would not do so in other crucial ways, such as personality. He claims that this pattern will probably lead to unmet expectations that might make relationships more difficult or ultimately becloud them. Another rationale he offers for cloning people is that it would relieve the anguish of infertile couples who are unable to have children because they are unable to generate eggs or sperm. Reproductive cloning involves imposing the genetic make-up of an existing person or future people. Gardner's work is reliable and impartial. In order to reach a more impartial judgement, several other arguments have strengthened the points made by Gardner.

Green (2010) says that the President's Council on Bioethics in Washington, D.C., gives a brief history of how cloning research has changed over time and how people have reacted to the idea of cloning humans. The ethical justifications for and against human cloning, particularly reproductive cloning, are also discussed. The book examines the possible medical advantages, potential moral and societal dilemmas, and concerns about the handling of human embryos. Discussions on potential changes to public policy

are included at the end. Here, it offers a range of possibilities for government action along with justifications for and against each one. Future suggestions will strengthen the alternatives absent in this book and help guide governments' appropriate responses. A 4-year ban on cloning for biomedical research is suggested in the 2002 study by ten members of President Bush's Council on Bioethics (Campbell, 2002). Additionally, they demand a federal review of current and anticipated practices of human embryo research, pre-implantation genetic diagnosis, genetic modification of human embryos and gametes, and related matters, with a view to recommending and shaping ethically sound policies for the entire field. The PCBE's motivations and objectives have been questioned by critics, who contend that it was created to support President Bush's views on the study of stem cells and abortion.

Meltzer (2008), a bioethicist, for instance, accused the council of hiding political and religious ambitions behind the pretence of dignity and referred to them as mostly Christian-affiliated paradigms. Both criticism and admiration were also voiced in reaction to President Obama's choice to dissolve the group. Campbell (2009), on the other hand, anticipated that a new commission made up of like-minded ideological liberals deeply embedded in utilitarianism would be more likely to realize Obama's desire to have his policy initiatives supported by expert consensus than the smart, diverse, and unpredictable group that made up the now-defunct Council. The panel itself, according to Appel (cited in Wade, 2009), had turned into a publicly sponsored right-wing think tank with a few token moderates acting as window dressing. In the same vein, the 1979 World Council of Churches (WCC) working group examined ethics and the biological sciences as they pertained to human cloning. According to the WCC, cloning presents certain moral concerns akin to those associated with positive eugenics. The WCC asserts that there is no social, much less global, agreement on what constitutes better human attributes and that the development of cloning

technology has given a small number of specialists' great influence over the process.

In his book, Anderson (1982) argues that the sanctity of human life is the key concern with cloning. This is because there is a big chance that cloning will cause genetic problems and cause people to die. Even though clones would be made in the image of God and have souls, Anderson says the most important question is whether or not their humanity would be changed. Because people do not value life, cloners and other clones are likely to mistreat clones. Cloning, according to Anderson, is both anti-human and anti-social in all ramifications. In a similar spirit, Breek (1991) argues that although cloning has great potential for agriculture, religions must denounce it as a disgusting kind of manipulation if it is to be used on humans. Eberhard (1973) claims that cloning transforms human nature into a simple material and scientific object and that, as a result, humanity is under assault. Unless people are seen as just material items, having a cloned kid cannot be justified. Yet, people should be aware that Christians do not want to live in or be a part of a world that is based on scientific reductionism (Ottuh & Idjakpo, 2021b). Feinberg and Feinberg (1993) see cloning as both unethical and unworkable. For them, it is impracticable because research techniques run the risk of killing an embryo due to abnormalities or failure to safely transfer it to a host womb. Since a human being is present during conception, it is morally wrong.

Feinberg and Feinberg claim that cloning includes doing an unethical experiment on a person without the person's permission. This is because of the substantial risk of genetic abnormalities and life loss associated with cloning. Although clones would be made in God's likeness and possess souls, Anderson claims that the key issue is whether or not their humanity would be altered. Due to society's disregard for the sanctity of life, clones are likely to suffer abuse from clonists and other clonees. Cloning, according to Anderson, is both anti-human and anti-social in all ramifications. In a

similar spirit, Breek (1991) argues that although cloning has great potential for agriculture, religions must denounce it as a disgusting kind of manipulation if it is to be used on humans. Eberhard (1973) claims that cloning transforms human nature into a simple material and scientific object and that, as a result, humanity is under assault. Unless people are seen as just material items, having a cloned kid cannot be justified. Yet, people should be aware that Christians do not want to live in or be a part of a world that is based on scientific reductionism (Ottuh & Idjakpo, 2021b). Feinberg and Feinberg (1993) see cloning as both unethical and unworkable. For them, it is impracticable because research techniques run the risk of killing an embryo due to abnormalities or failure to safely transfer it to a host womb. Since a human being is present during conception, it is morally wrong. Feinberg and Feinberg claim that cloning includes doing an unethical experiment on a person without the person's permission. In this vein, Fletcher (1979), in comparison to Shannon (1994) and Fletcher (1972), asserts that the true moral challenge is not when and why to participate in cloning but rather humanhood status.

Authors like Feinberg and Feinberg (1993), Shannon (1993), and Fletcher (1979) come to the conclusion that cloning is not unethical if it is used and handled in an ethical or humane way. In this way, Fletcher (1972) sees cloning as one of several ways to reproduce that can be used when needed because it can be used instead of sexual reproduction from one generation to the next. According to Fletcher (1972), what humankind can achieve through cloning plants and animals, they could and occasionally should do for themselves. Fletcher lists the following among the moral or humane applications of cloning technology: (1) to provide clonists with sources of immunologically compatible life-saving organs; (2) to preserve the finest genotypes in their species; (3) to clone a child's sex to prevent a genetic disease and to ensure family survivalism; and (4) to selectively reproduce human beings. As a result, one may conclude that

laboratory reproduction meets the definition of humanity since it is intentional and logical. This also implies that people should have the same reproductive freedom and control over themselves as they have over other living species.

A Synthetic Unity

When Dolly the Sheep was successfully cloned, religious and moral arguments moved into their fourth and most recent phase. For instance, Protestant theologians have given their support for human cloning research and cloning in general, with qualifications. The most carefully examined theological assessment of the ethics and morality of cloning research and its implications for human cloning is found in the evidence given before the United States of America (USA) National Bioethics Advisory Commission (NBAC) in 1997. The report included an extended theological and philosophical discussion of the question of cloning that foreshadows and clarifies much of the current debate; the proof that there are several valid religious and philosophical viewpoints on human cloning, including theological and philosophical viewpoints that have often displayed social plurality; the values that various underlying theological and philosophical considerations about human cloning have shown survivability and staying power and have influenced popular awareness and discussion on the topic; and the religious debate that is no longer restricted to professional theologians because of advancements in scientific research and technological capability and has grown to include other occupations, such as science and other religions and the education of religious believers This indicates that theological and religious positions have advanced to become knowledgeable moral discourse groups on concerns relating to reproductive and genetic technology.

Synthetically, some religious thinkers, especially when it comes to cloning humans to make children, believe that this technique could have some legitimate uses and could be justified in some situations if it were fully realized. However,

they may argue for regulation because of the risk of abuse or even for a ban, maybe for a short time, because of safety concerns. Some religious philosophers say that this technology has no morally acceptable uses and that it always goes against basic moral principles like respecting human dignity (Ottuh & Idjakpo, 2021b).Philosophers like this sometimes say that it should be against the law to clone humans in order to make children. Throughout the last 30 years, religious groups and philosophers have talked about the idea of cloning humans. To address this issue, they rely on old and different traditions of moral contemplation. It is currently and will always be unlawful to clone humans, according to several basic religious principles and conventions. Others, however, contend that further thought is required in light of recent scientific and technical advancements in order to precisely decide how to understand and assess the possibility of human cloning in view of basic religious beliefs and values.

Ottuh (2010a) asserts that the relationship between bioethics and religion is cordial but controversial. For instance, the moral and religious concerns surrounding the act of cloning human embryos are considered to be an insult to human dignity. Another instance is the problem of asexual human reproduction, which is seen as a threat to ordained human sexuality (Ottuh & Onimhawo, 2006). This has motivated several researchers to critically examine, from the viewpoints of science, religion, philosophy, and ethics, the advantages and disadvantages of cloning human life. Most theologians, ethicists, and religious scholars contend that non-therapeutic experimenting on human embryos for cloning purposes is risky, unethical, and immoral. This is because human cloning undermines the idea of natural procreation; nevertheless, the identity of a human clone might be harmed, exploited, and dominated (freedom and rights restriction). From the religious perspectives of most oriental faiths, the acceptance of human cloning technology is something that propels human spirituality, aiding humans to

know the Supreme Creator, God. This is why Hefner (1997) and Easwaran (1997) believe that cloning has significance because it reveals fundamental truths to humankind. On the extreme opposite pole, Christianity does not endorse human cloning because it considers human life a gift from God that should be treated with respect.

Conclusion

This article critically and synthetically reviews some literature on human cloning in religious, theological, and philosophical contexts. In some of the literature, religion holds that God is in charge of generating life and giving humanity genetic variation. For others, cloning human beings is a direct violation of the preservation of divine (created) variety. For some, cloning is helping God, since genetics may now be controlled by science and humans rather than by nature. However, other literature reveals that the fundamental justification for this is the belief that intentionally creating genetically identical humans breaches their integrity and their worth as both unique humans and as a part of the human species. Others go on to say that the practice of reproducing humans through cloning is evil because it amounts to serious violations of morality and human dignity in all faiths, communities, and cultures. Yet, others advocate for universally prohibiting human cloning, especially reproductive cloning. The ethical, theological, and religious debates about human cloning are still ongoing; therefore, further critical studies about it are a *sine qua non*.

References

Anderson, J.K. (1982). *Genetic engineering*. Zondervan Publishing House.

Appleyard, A. (1998). *Brave new worlds: Staying human in the genetic future*. Viking.

Bedford-Strohm, H. (2002). Sacred body? Stem cell research and human cloning? *The Ecumenical Review*, 80, 801-900.

Breeck, J. (1991). Genetic engineering: Setting the limits. In Chirban, J.T. (Ed.), *Health and faith: Medical, psychological and religions dimensions*. University Press of America.

Brown, R.G. (1995). Clones, chimeras, and the image of God: Lessons from Barthian bioethics. In Kilner, J.F. et al (Eds.), *Bioethics and future of medicine: A Christian appraisal* (pp. 238-249). William B. Eerdmans Publishing Company.

Campbell, C.C. (July 2, 2009). Dissolution of bioethics council is a loss for America. *St. Louis Post Dispatch*, 38.

Campbell, C.S. (2002). Cloning human beings: Religions perspectives on human cloning. A Paper Prepared for U.S. National Bioethics Advisory Commission, Oregon State University, D-3.

Caulfield, T. (2001). Cloning and genetic determinism: A call for consistency. *NAT Biotech.,* 19, 403.

Cole-Turner, R. (2001). Dolly Theology. Unpublished manuscript.

Cole-Turner, R. (Ed.). (1997). *Human cloning: Religions perspective*. West Minister John Knox.

Curran, C.E. (1970). Moral theology and genetics. *Crosscurrents*, 20, 64-82.

Duff, N.J. (March 2, 1997). Clone with caution. The Washington Post, C1, 5.

Easwaran, S.E. (1997). Brave new world: Blue mountain. *A Journal for Spiritual Living*, 123.

Eberhard, K.D. (1973). Genetics and human survival. *Linacre Quarterly*, 40(3), 167-181.

Ebon, M. (1978). *The cloning of man: A brave new hope or horror*. Signet Books.

Feinberg, J.S. & Feinberg, P.D. (1993). *Ethics for a brave new world*. Crossway Books.

Fletcher, J. (1972). New beginnings in human life: A theologian's response. In Hamilton, M. (Ed.), *The new genetics and the future of man* (pp. 78-79). Wm. B. Eerdmans Publishing Company.

Fletcher, J. (1979). *Humanhood: Essays in biomedical ethics*. Rome -Theus Books.

Flinger, R.D. (Feb. 25, 1997). Remarks in response to news reports on the cloning of mammals. National Conference of Catholic Bishops.

Gardner, R.G. (Feb. 21, 2003). Therapeutic and reproductive cloning: A scientific perspective. Cardiff Centre for Ethics, Law and Society Publication.

Green, R.M. (2010). The president's council on bioethics— Requiescat in pace. *The Journal of Religious Ethics,* 38(2), 197-218.

Haris, J. (1997). Goodbye dolly? The ethics of human cloning. *Journal of Medical Ethics,* 23, 353.

Hathout, H. (1997). Cloning: Who will set the limits? *The Minaret,* 19(3), 8.

Hefner, P. (June, 1997). Cloning as quintessential human act. *Insights*, 211.

Isiramen, C.O. & Ulokoaga, C.O. (2002). Cloning and human dignity: An ethico-religious overview. *Epha: Ekpoma Journal of Religious Studies*, 4(1 & 2), 32.

Isiramen, C.O. (2001). Human cloning: An African response. *Iroro- Journal of Arts,* 8(1&2), 94

Jones, D.G. (1985). *Brave new people: Ethical issues at the commencement of life*. Win. B. Erdmann Publishing.

Keown, D. (1975). *Buddhism and bioethics*. St. Martin's Press.

Kimbrell, A. (1993). *The human body shop: The engineering and marketing of life*. Harper Collins Publishers.

Kolata, G. (May 18, 1997). Clinton's panel backs moratorium on human clones. *The New York Times,* 507.

Lewis, C.S. (1973). *The abolition of man*. Macmillan Publishing Co.

Mackinnon, B. (Ed.). (2001). *Human cloning: Science ethics and public policy*. MCT Press.

Mahoney, J. (1984). *Bioethics and Belief*. Mary Land Christian Classics.

Matti, M. (2003). Philosophical arguments for and against human reproductive cloning. *Bioethics*, 17, 447-496.

McGee, G. (2003). Cloning, sex, and new kinds of families. *The Journal of Sex Research*, 201, 1109-1120.

McLean, M.R. (2002). Seeing double: The ethics of human cloning. *Hastings Law Journal,* 53(5), 1049.

Meltzer, L.A. (2008). *Human dignity and bioethics: Essays commissioned by the president's council on bioethics* (Book Review by Leslie A. Meltzer). *New England Journal of Medicine*, 359, 660.

O' Donovan, O. (1984). Begotten or made? Clarendon Press.

Ottuh, P.O.O. & Idjakpo, O.G. (2021a). Animal care and ethics in contemporary religious debates. *Jurnal Sosialisasi,* 8(2), 128-141.

Ottuh, P.O.O. & Idjakpo, O.G. (2021b). Imperativeness of ethics in Christianity: Perspectives and praxis. *KIU Journal of Social Sciences*, *7*(1), 129-135.

Ottuh, P.O.O. & Onimhawo, J.A. (2006). Sexuality and globalization: An ethico-religious appraisal. In Stinton, D. (Ed.), *The Arts, Man and Globalization: Trends, Issues and Problems* (pp. 49 – 62). Deocraft Communications.

Ottuh, P.O.O. (2010a). The inhumanity of human cloning: An ethico- theological evaluation. *The Humanities Journal: An International Journal of Research and Development,* 1(1), 1-15.

Ottuh, P.O.O. (2010b). Feminism and human cloning: Towards a defense of women's selfhood. In Ukagba, G.U., Des-Obi, O., & Nwankwor, I.J. (Eds.), *The kpim of feminism: Issues and women in a changing world* (pp. 62-83). Trafford Publishing.

Ottuh, P.O.O. (2010c). Clono-theodicy: A biblico-qur'anic defence of God in the 'cloning' of Adam and Eve. In Chepkwony, A.K. & Hess, P.M.J. (Eds.), *Human views on God: Variety not monotony* (pp. 241-249). Moi University.

Ottuh, P.O.O. (2010d). Arguments about human cloning in perspectives. *Ife Journal of Religions,* 6(1&2), 126-148.

Ottuh, P.O.O. (2020a). Assessing human reproductive cloning and creationism from the perspectives of raelianism and African belief. *Jurnal Office,* 6(1), 81-96.

Ottuh, P.O.O. (2020b). Dialogue concerning life: Abiogenesis, biogenesis or creationism: Religious response. *Dialogue*, 13(2), 67- 78

Ottuh, P.O.O. (2021). A prudential personalist ethical appraisal of human cloning. *Journal of Liberty and International Affairs*, *7*(3), 310-330.

Palmatier, R.W., Houston, M.B. & Hulland, J. (2018). Review articles: Purpose, process, and structure. *Journal of the Academy of Marketing Science*, 46, 1-5.

Post, S.G. (1997). The Judeo-Christian case against human cloning. *America,* 19-22.

Qiu, R. (1997). The moral implications of cloning. *Journal of Dialectics of Nature,* 13(6), 1-6.

Ramsey, P. (1970). *Fabricated man: The ethics of genetic control*. Yale University Press

Ratzinger, J.C. & Bovone, A. (1987). Congregation of the doctrine of the faith: Instruction on respect for human life in its origin and on the dignity of procreation, Vatican City, *The Linacre Quarterly*, 54(2), 3.

Richard, A. & McCormick, J.S. (1981). *How brave a new world: Dilemmas in bioethics*. Doubleday and Company, Inc.

Rosner, F. (1986). Modern medicine and Jewish ethics. Yeshiva University Press.

Shannon, T.A. (1994). Cloning, uniqueness, and individuality. *Louvain Studies,* 19, 253-306.

Shelp, E.E. (Ed.). *Theology and Bioethics: Exploring the Foundations and Frontiers*. D. Reidel.

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research,* 104, 333-339.

Stinson, C. (1972). Theology and the Baron Frankenstein: Cloning and beyond. *The Christian Century*, 89, 60-63.

Verhey, A.D. (1994). Cloning: Revisiting an old debate. *Kennedy Institute of Ethics Journal*, 4(3), 227-234.

Verhey, A.D. (1995). Playing God and invoking a perspective *Journal of Medical Philosophy*, 20, 347-364.

Wade, N. (June 17, 2009). Obama plans to replace Bush's bioethics panel. *The New York Times*, 129.

Wilmut, I. (Feb. 27, 1997). Viable offspring derived from fetal and adult mammalian cells. *Nature Magazine*, 222.

World Council of Churches (1979). *Faith and Science in an Unjust World*. World Council of Churches.

Zoloth, L. & Holland, J. (Eds.) (2001). *The human embryonic stem cell debate: Science, ethics and public policy*. MIT Press.