**Reproductive Clone and Human Dignity Based on Islamic Sources: A Critical Study**

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**Abstract**

**Introduction:**

One of the contemporary remarkable achievements in the field of genetic engineering is clone technology. Human reproductive cloning has created concerns on injustices and infringement to principles and human ethics among the religious thinkers. This article studies the incompatibility of human reproductive cloning and human dignity in Qur'anic teachings.

**Method:**

The present study is based on an analytical, documental, and conceptual method. In this regard, the data gathered through the first-hand sources such as Quranic interpretation books such as Almizan, Nemone, Qur'anic encyclopedia, and databases like Magiran, Noormags, iranmedex, and then analyzed by the authors.

**Findings:**

There are various arguments such as violation of human dignity in asexual reproduction, failure to maintain the uniqueness and individuality, and violating the dignity of embryo. The survey in Islamic literature and Qur'anic view indicates the specification of the human who deserves dignity, as being the successor of Allah on the Earth. Based on biological sciences, the reproductive cloning provides disorders in reproduction of tissues and organs, weakening the human gene pool, and changing self-recognition, violating the mental and physical dignity.

**Conclusion:**

The present study shows that there is incompatibility of human reproductive cloning and human dignity in different approaches according to Islamic teachings. It is necessary for life science researchers to base their essential doctrines on respecting religious values when pursuing their research goals on mankind.

**Keywords:** cloning, dignity, human genes pool, Islamic teaching, Quran, organ

**Introduction**

One of the contemporary remarkable achievements in the field of genetic engineering is human clone technology. Although the use of clone technology in disease treatment causes ease and facilitation, but cloning aimed to produce human child had reactions in religious morality. The focus of moral criticisms in human reproductive clone is human dignity. In the meantime, some introduce reproductive clone necessarily incompatible with human dignity. However, some find it compatible with human dignity (1). The purpose of this paper is to examine the relationship between reproductive clone (productive) and human dignity in Qur'anic doctrines. In this paper, in addition to criticizing and examining the most important views of Islamic thinkers on violation of human dignity by reproductive clone, it is attempted to determine reproductive clone’s incompatibility with human dignity in free theory by another analysis of the concept of the dignity in Islamic thought. Accordingly, after presenting the basic concepts, some important views about the relationship between reproductive clone and human dignity are expressed and then reviewed and evaluated based on Qur'anic findings. Then the authors resort to Qur'anic views on human dignity concept and also empirical findings on physical and psychological effects of the same person in expressing the free theory to find its different aspects and explain human dignity incompatibility and reproductive clone. Such a study is important for researchers who pursue religious values in life science researches. In the present study, it is attempted to explain human dignity’s incompatibility with productive clone based on revealed Qur'anic doctrines.

**Method**

The present study is based on conceptual documental analytical method. In such an inquiry, the researcher analyzes and describes the contents. In content analysis, the desired themes and components are gathered, classified, and analyzed. These components may encompass words, sentences, paragraphs, and complete texts whether in written and/or verbal forms (2). In this research, the words and phrases used in the Holy Quran and narrations (Hadiths) describing human dignity were identified from the viewpoints of experts, specialists, and librarians and then analyzed.

In this regard, the research was done using keywords such as human dignity, clone and Islam, dignity and body, etc., also its equivalents in Arabic, with reference to national and international databases such as iranmedex, Noormags, Magiran, Sid, Google Scholar, Scopus, and also softwares from Islamic resources such as the Library of Ahle Beit and Sama, Jeme o Tafasir, and Jeme o Alahadis. After reviewing the so-called papers and resources, findings were derived based on analysis of research questions.

**The concept of** **clone** **or** **cloning**

Clone means entering one or more genes into a genetic pool of a living being to create attributes that were never previously observed in the genome of that biological species, for example, injecting human insulin protein gene into a gene pool of E. coli bacteria for industrial production of insulin on a large-scale using circular DNAs known as vector. Also by injecting gene to produce a chemical composition known as Lucifer that causes cell glow through breaking down the molecules of adenosine triphosphate (ATP) due to Luciferase enzyme, a range of visible colors from green to red and even blue in living cells can be made.

Cloning would also mean producing a complete living being, not from a normal zygote cell, but by replacing a nucleus of a somatic cell instead of zygote cell nucleus through cytoplasm enzymatic capacities of zygote in opening all genetic information contained in the nucleus. In fact, a cell is forced to translate DNA message completely which causes a complete being to be created from a single cell. This process eventually creates a living being that have not pass a series of evolutionary processes. The cloning eliminates the production of gametes and fertilization of two nucleuses which cause new combination, recombination, and gene combination by themselves. Environmental selective pressures acting on the simulated being are not necessarily the same selective pressures which are applied and will be applied on the coloned cell (3).

Cloning based on given targets has different types. Some authors have divided it into two parts: a) producing a child who genetically is the same as an existing person (productive or reproductive cloning), b) producing cloned embryos for research or treatment through stem cells extraction (4). In this paper, the relationship between reproductive cloning and human dignity is elaborated.

**Findings**

The literature suggests that in Islamic thought human has dignity. For many Muslim thinkers, reproductive cloning undermines the inherent human dignity. In their view, according to Qur'an (Israa, verse 70), human cloning is a great danger against human dignity. Ajil Anashmi, a Sunni scholar says: “we have concluded that it is not permissible for Muslims and non-Muslims to do cloning on human beings” (5). The Council of Islamic Law in Saudi Arabia declared cloning as a taboo from the perspective of Sunni scholars (6).

Research findings indicate that the most important reasons of opposition to reproductive cloning in Islamic thought are: violation of dignity in non-sexual production, dignity violation by embryo destruction, and human dignity incompatibility due to non-preservation of unity that will be reviewed and criticized.

**1. Dignity violation in non-sexual reproduction**

The first interpretation is that the human inherent dignity in his reproduction process which lies in his fertility and birth. Hence, whatever leads to manipulation and change of the natural process of reproduction violates the human dignity. Accordingly, human cloning violates the dignity through replacing the natural sexual production process (7). There would be basic problems if it is believed that human dignity is violated through disrupting the reproduction process: first, considering that human natural reproduction is similar to many animals, so why it is thought that human owns dignity that animals do not. The second problem is that what causes human dignity violation wherever production and reproduction processes are unlike the usual traditions, and this would be problematic when taking the birth of Jesus into account. Furthermore, according to the above interpretation, those who are born by extra-uterine fertilization method (IVF) should have their dignity violated, while the opponents explicitly issued in a variety of cases the extra-uterine insemination as eligible, not violating the human dignity (8).

**2. Violating dignity in instrumentalism**

The second interpretation that can be obtained is the fact that human being is different from other organisms; therefore, he should not be treated like animals, and human cloning violates the dignity. As cloning requires a person to be treated like guinea pigs or mice since the experiments are done on mice and also human, so it is interpreted as a violation of human dignity (9). Gharzavi with the same interpretation about dignity says: “it is not true to consider humans as animals or plants in case of reproduction, doing scientific experiments, or manipulating his genetic elements, while the outcomes are not certain yet (10).

It is totally clear that such an argument cannot be true i.e., we should not do any tests on humans. It is clear that in order to achieve new therapies and know the effect of different drugs, surgical procedures and techniques will be required to achieve an optimal solution. If an experiment is carried out on an animal and the results may be generalized to human beings, then it should be tested on humans. Moreover, how we can reach an acceptable method in carrying out reproductive procedures, without involving the human body. So, doing experiments would not violate human dignity (11). Now, if it is believed that doing experiments on humans has no conflict with human dignity, laws can be enacted that by doing experiments on a human, he faces no harm, and his dignity and safety are protected.

**3. Human dignity and non-preservation of uniqueness**

Another interpretation implies that human dignity preservation is a combination of unique genetic identities that is proposed for all humans. Hence, any manipulation of human genetic composition is a violation of his dignity, and since in cloning a human being, human genes are manipulated, that is why it is called the violation of human dignity and humiliation (5). This approach believes that humans are a set of certain genes; but International Declaration of "human genetic data" is consciously far from this similarity (12). Although each person has a certain genetic structure; however, the identity of a person is not limited to his genetic characteristics, and other factors are involved in his identity such as educational, environmental, personal, emotional, social, spiritual, cultural relationships, and freedom (12). Additionally, if this proper interpretation of dignity is accepted, how we can evaluate its similar cases in identical twins? Identical twins have identical nuclear genomes and annually hundreds of identical twins come into existence and obviously there is no difference between their dignity and other newborn babies, and all possess inherent dignity (13). Infertility treatment using IVF is a new method that increases twin births, and when a twin is born in every four IVF cases, its rate increases by 20 times compared to normal status (14). With this assumption, if we act according to the belief that having the same genome violates human dignity, or accept that all twins are born, including twins born incrementally, using assisted reproductive techniques have no unique identity. So by eliminating the new method to help infertile couples, a new theory for twins who are naturally born should also be presented. Certainly none of the above can be true. It should be said that genetic identity itself is meaningful as a scientific aspect. This means that everyone has a set of genes that are in him, but there can be a similar person considering his reproduction without harm to his twin. However, the word genetic identity cannot be a reason for the violation of human dignity (4).

**4. Dignity violation by embryo destruction**

In this approach, the concept of human dignity is introduced as having two main aspects: A) individual aspect, which means when we speak of humans having rights. Humans are considered as individuals who are present among us, B) Group aspect, when we speak of humanity. In this approach, a human embryo has dignity. Because of his dependency and incorporation to humanity, especially as he is potentially a complete human, make him possess degrees of dignity and respect. Thus destroying the embryo in vitro is against human dignity (15).

Extracting the hierarchy of human creation in Qur'an in its most obvious form is clear through the verses 12-14 of Surah Momenoun. The verse refers to human creation, and at the ending stages of human body development introduces a new stage that is quite different from the previous stages. The new stage inspires spirit in human body that is introduced by the following interpretation: "then we created another status" (16). This interpretation does not contradict the vegetation life from the early formation of the zygote since there are innumerable species of life in the world, and evolution of life cycles that their difference in dignity and respect from human life is not having human spirit. In other words, human is nothing more than a mere matter before the entrance of spirit, by inspiration of which he become a being that differs from his past period in terms of essence, attributes, and properties. However, this new being is the former being who is not in terms of nature and nor in terms of attitudes the same as the former, but only depends on it to assist him in achieving his goals like a machine and a tool that are in the hands of its owner **(16).** Regarding human evolution early stages, also we can find that human dignity can be imagined only after human spirit inspiration that it ic expressed by the interpretation "a worshiped a man". Because in the relevant verses, the divine order on angels to prostrate human after spirit inspiration is issued (16). Therefore, it seems that human inherent dignity is only subjected to human spirit inspiration. This has a logical result: If human inherent dignity is subjected to having human spirit and such a dignity means human’s superiority to others, so the one not having such a spirit has no human dignity and grandeur and is not superior (17).

**Discussion**

The purpose of this study was to examine the incompatibility of the reproductive cloning and human dignity. In this regard, several reasons such as dignity violation in non- sexual reproduction, non-preservation of uniqueness and individuality in clone, dignity violation in instrumentalism, and dignity violation in embryo in explaining the inconsistency of reproductive cloning with dignity violation were studied and criticized. Research findings indicate that in published theories there is no precise and clear expression on cloning incompatibility with human dignity. But the authors argue that studying Islamic literature suggests that reproductive cloning in terms of physical and psychological effects and consequences is incompatible with human dignity. This is the end which the authors try to follow through the following stages. In this regard, firstly, human dignity characteristics and aspects in Qur'anic doctrine are discussed. Secondly, regarding human dignity incompatibility with reproductive cloning, experimental findings and experts' customs on physical and psychological effects of reproductive cloning are presented.

**1. Human dignity in Qur'an**

To understand the relationship between reproductive cloning and human dignity, two questions should be answered. First what is human dignity? Second, how reproductive cloning is compatible with human dignity? In order to provide a clear definition of human dignity, this question should be answered: which special characteristic does in humans distinguish him from other creatures and entitles him to dignity? Studying the religious doctrine, it suggests that dignity is a keyword in Islamic education because in Qur'an and tradition, this word and its derivatives are used repeatedly. In Qur'an, the word dignity is used to describe Allah and other creatures. Therefore, the concept of dignity has a broad scope of issues: A) Divine dignity is supernatural and related to angels and Throne of God, B) Natural dignity which is related to natural creatures. Hence, Allah describes plants with **dignity (18),** Human dignity: in addition to natural dignity, a special kind of dignity in the universe is imagined as high human dignity that comes from a combination of nature and super-nature (19).

By studying Qur'an and other Islamic literatures, it is deducted that humans have two types of dignity. A degree of this dignity is inherent and is common among all humans and encompasses even pagans, infidels, and adulterous. As Qur'an, in verse 70 of Surah Isra, expresses inherent dignity as, “indeed we have honored the children of Adam” (16). In religious understanding, the range of human dignity is not solely inherent and genetic, but human can have another kind of dignity, namely value dignity (acquired). Acquired dignity is the dignity and value that humans can achieve by acquiring good qualities and characteristics through his free will (19)

In Qur'anic perspective, human inherent dignity origin is being the caliphate of Allah. In Qur'an, it is expressed that Allah gave Adam his deserved talent (20). No Qur'anic verse implies deserving monopoly in Adam, but we can say: Deserve is not unique in Adam. From the reign of Adam, since Adam’s merit was proposed because Adam is infallible and does not corrupt and bleed, here Allah saying angels: Adam does not corrupt and bleed; however, we should not presume that all human beings are Allah's real accepted messengers and successors. So, this kind of human has the possibility of having merit and succession from Allah (21).

Although human has inherent dignity in religious doctrine, but such dignity is degradable. This means that some humans with their words, their behavior, and or in some way by committing crime and betrayal against him and others deprive themselves of inherent and genetic dignity because committing crime and betrayal against humans violate the principle of his inherent respect and dignity. And if a person does not consider others’ respect, in fact he does not consider his dignity and deprives himself of it (22).

* 1. **Spiritual dignity aspects and implications**

As noted in Qur'anic doctrine, the origin of human dignity is being Allah’s messenger. In this regard, Allah has given it two mental and physical aspects (23). Considering human originality and true return to the spirit, human identity has two spirit and self aspects. Actually spirit refers to divine aspect of human. Self refers to the creation and world aspect and or material aspect and disability of human identity (24). The spirit has specific capabilities that made angels prostrate to him, so naturally the spirit is dignified (18). One of the most important religious and ethical foundations of human dignity is will and free desire. The Holy Prophet said: Nothing is dearer to Allah than human. He was asked: even the angels? He replied: yes, because angels, like the sun and moon are not will-free; however, human is created free (25). Of other, reasons for the dignity theory based on the revelation are independent thinking and reasoning capability in all human beings; scholars and commentators in the interpretation of verse 70 of Surah Isra emphasize that the meaning of this verse is that Allah made Adam’s children superior and dignified by the power of thinking, reasoning, speech, and distinguishing the right from wrong (26).

In Qur'anic doctrine, self or mood aspect of human identity has dignity. Hence, life or self-preservation and forbidding suicide are emphasized (27). In addition, in Qur'anic view, everyone who makes a human alive has given life to all mankind (28). Self-dignity has several aspects: A) awareness and recognition, i.e. what is of science is identical to self, B) Power, i.e. each of us understand that we have special capabilities, C) Affection, that its lowest level is self-love (29).

* 1. **Physical dignity aspects and implications**

Studying Qur'anic doctrines indicates that human dignity is not only a self-description, but it also includes his physical aspect. Accordingly, Allah has combined it with the body along with spirit evolution to attain nearness to Allah. According to Qur'anic verses, human zygote, during some stages, gets ready to accept the spirit. Qur'an expresses these stages as: “Then the zygote becomes a mass and the mass becomes meat and again the meat becomes bone, and then the bones are covered by meat (and we have a complete body) then we inspire the pure spirit to create another abstract composition, congratulations on (the absolute power) Allah, the Best of Creators” (23). Based on the free-will theory in Islamic philosophy, Islamic thinkers believe that the zygote in its essence movement has a fruit called the spirit. In fact, based on the divine measure, the capability of such a burst in human zygote is predicted. Therefore, self in its original existence requires matter. Since human-self has dignity, human body returns to the origin of the dignified self. In addition, the self in its complete evolution when it lives in the world, it requires matter and body (30). Hence, human body for being a natural substrate for the perfection of the spirit is dignified.

So Allah has made the human body at the best time (31) in order to provide competence for human dignity. One of the commentators of Qur'an about the verse above says: “Allah created human in every terms harmonious and competent, both physically and spiritually and rationally because he has provided him with any talent and prepared him to go through a huge arc upward until he obtains the competence for dignity (32). Accordingly, disease and organ failure is incompatible with human dignity and respect. Healthy human can live with dignity and esteem and trustee of Allah. However, dignity essentially belongs to human spirit not the body, and the body is a tool as a secondary not a match (19)

Although self is the human’s real aspect and body is his secondary aspect, but these two are hardly mixed in this world and apparently are seen as one. Self, due to its belonging and union with the body, is present at all levels (natural, vegetable, and animal) of body; if self has no dependency on physical conditions of the body as adjusting mood and maintaining the connectivity between its components, it can never be affected due to slight changes of the body. While the smallest changes in the body, such as its high or low temperatures, result in weakness and pain (33). So, human dignity is formed through the combination of spirit and body. In general, it can be said that human dignity is the same feature or advantage- Allah’s messenger- that is only in human and makes him deserve the special creation in both spiritual and physical aspects. Now, we should consider the general claim that whether reproductive cloning violates human dignity or not. Here, the violation of human dignity is exactly equivalent to the violation of special features in the creation of body and spirit that makes him deserve being the messenger Allah. If violation results in the Qur'anic interpretation, it is not accepted and it should be revised because it violates human dignity.

**2. Violation of human dignity in human cloning**

**2-1-Disruption in formation of tissues and organs**

Transitive studies have shown that in human cloning will lead to multiple physical disorders. According to data obtained from in vitro fertilization (IVF) with increasing maternal age, the odds of success in creating a healthy baby will decrease dramatically. In these circumstances, if the maternal age be less than 35 years, the chance of success in IVF is only 30%. The rate for women with 35 to 37 years old, 25%, women with 38 to 40 years old, 17% and women over 40 years old is less than 5%. (34) in vitro fertilization (IVF), phenomena like: Gametogenesis and Crossing Over, has not changed. During IVF processing, only fertilization process occurs by the human hands with the help of tools inside of a tube in vitro.

But in the cloning process, egg membrane must disrupt by a micropipette and the original nucleus must remove and replace by a somatic cell nucleus. This process is much more complex than in vitro fertilization of the egg and the chance of cells damage, including cell organelles and nucleus dramatically increases. In addition, the main **obstaction** in the way of normal embryonic development is deletion of genetic recombination through gametogenesis, Crossing Over, and the combination process of male and female pronucleus during fertilization. (35)

In crossing over phenomenon, Non- sister chromatids of homologous chromosomes arms exchange during first division of meiosis. (36) Crossingover Eventually lead to the genes failure or changes in gene expression, including lower or higher than normal in the next generation of living things. For example, increasing in melanin gene expression cause to darker or bronzed skin. However, decreasing in the melanin gene activity can leads lighter and brighter skin color. (37) Also, after fertilization, 12 hours needs to rearranging and remixing genetic data files in both pronucleuses in the oocyte which called recombination. This recombination leads to combination of male and female pronocleuses which provide finding data files in genetic space in order to creating tissues, organs and systems during Gastrulation phase in embryonic period. (38) In the same direction Royan Institute in Iran, had five attempts to achieve the resulting on cloning organism during six years 2007-2012 which were failed. In this process, the resulting embryos in the uterus or within a few weeks after the birth went away. First cloned sheep (dally) was born in fifth of July1996 in the capital city of Scotland (Edinburgh). However, after almost 24 months practically dally had lost power of movement and independent life until his death in 2006 due to extensive joints tissue damaging. (35)

Obviously, impairment in production of tissues and organs inhibit achieving the "best configuration" of the human body, which prevents taking the value of dignity.

**2.2-Manipulating in genetic pool**

Undermine the possibility of modifying the gene pool, cloning has negative reproductive effects and simulate some unwanted results. Some of the greatest genetics scientists in 1960 decade believed that in order to promote biodiversity of human biological data needs white people wipe out the human colored skin such as black (African –American race) and Indians. However, during the development of genetics knowledge and human genetic maps project in 1996, it became appeared that many of the alleles and genes which are useful in the human gene pool scattered among a variety of human races such as Blacks, Indians and yellow skin races. So that selective genes based on color of skin can attenuation many of the characters which effects in survival rate of mankind on the Earth, such as respiratory capacity, the capacitance of muscularis and skeletal growth, the nature of physical strength and resistance capacity against various diseases that reflecting the immunological structure of the human body, may fall in risk.

The lows which dominant in genetic environment of species gene pool do not permit one way selective creation. selection and outstanding of one or some phenotypes in a specie often effects on expression of a set of genes which may cause to lower or higher expression of related genes that changes some of the useful phenotypes. For example: in fruit fly (Drosophila melanogaster) population, selection of less hair body cover by manipulation in gene pool, unfaithfully cause changing in eye color from black red in wild type to orange in manipulated as well as longer reproductive cycle (from 23 days to 45 days; two times longer) in fruit fly. (39) These phenomena followed by less compatibility and adaptive power of manipulated form compared with wild type that such a creature has lower chance to survive in nature in a short time.

Possibility of widespread manipulation in human species (Homo sapience) gene pool cause to the severe weakening of the human genetic structure and remove such specie from the earth due to the selection of qualified individuals to cloning. This is important that mankind have not enough knowledge about their genetic environment secrets and nature are unaware of their genetic secrets of human cloning which eventually the mismatch between weakened human gene pool and the ability to survive environmental changes over several generations make life impossible for mankind.

**2.3. Altered self-awareness**

Human emotions and interactions have various branches. One of them is grief and happiness. When a desire of a person is realized, happiness occurs and when his desire is not realized, another state, grief occurs. In reproductive cloning, since the entire genetic structure of a person is pre-selected based on the desire and will of another person, mental identity of a person is in danger by actual or virtual presence of another of himself because he enters the world by being a copy of another person. Being a copy is a part of his identity that would be the fundamental cause of suffering of the similar one (40).

Pre-planned feeling and determination of genetic fate based on the will and desire of the people affect "self-awareness". The similar person feels that he is not considered as a natural subject or phenomenon by others. Even if he considers himself as a unique individual and having special place, again he would feel that others do not understand or accept that he is somehow non-delivery, unique, and special, and this will have a significant effect on self-awareness and his personal identity formation since his psychological identity is degenerated. Moreover, if the former twin and also his personal and behavioral characteristics are specified for the society, always the society would compare the similar person with him (41) and expect the same characteristics and properties of behavior of the former twin or something more than it. Such an approach for the similar person is like self-humiliation, thus resulting in special psychological pressures on him. It interferes with human dignity realization.

**2.4. The lack of comfort with family weakening**

One of the self aspects is joy or happiness. Human instinctively seeks pleasure and follows his pleasure from various channels. One of human pleasure channels is spouse interest and satisfying sexual instinct. According to Islam, loving wife and sexual relationship is accounted for in the context of creation. In Islamic doctrine, marriage has desirability for men and women. Also, Qur'an considers the philosophy of life with the opposite sex as reaching mental relaxation (42). Certainly, expanding the phenomenon of human cloning aimed at produce clusters of human selected attributes weakens the foundation of the family, and the cultural and educational community becomes the most important part of the social structure in human societies that, with the advancement of technology, face numerous problems such as lack of interest in marriage among the youth, increasing of emotional and legal processes of divorce, lack of interest in having a child, all of which violate peace. Therefore, reproductive cloning due to the lack of comfort or weakening the family foundation causes psychological damages. Obviously, such a process violates acquired dignity.

**Conclusion**

Of the most important reasons of some Islamic thinkers in rejecting reproductive cloning is its incompatibility with human dignity. However, research findings indicate that, in explaining the reproductive cloning incompatibility with human dignity, there is no consensus, as far as one cannot extract an accurate expression of incompatibility of reproductive cloning and human dignity. Human dignity is not violated by non-sexual reproduction because by believing in the birth of Jesus and Adam in Qur'anic view, it would not be problematic. It was also noted that change in the genetic structure through reproductive cloning does not necessarily negate human dignity. In addition, based on Qur'anic doctrines, destroying the embryo has no contradiction with human dignity.

Studying Qur'anic doctrines, it is indicated that reproductive cloning violates human dignity through other aspects rather than the mentioned reasons. From Qur'anic view, a special characteristic that makes human deserve dignity is that he is Allah’s caliphate. Of requirements of such dignity is his creation in two physical and spiritual aspects. Based on the findings of biological sciences, reproductive cloning interferes with human dignity. First, it leads to disorders in body tissues and organs and weakness of the human gene pool. Additionally, by changing the similar person's self-awareness and weakening the foundation of the family, it results in psychological damages. Therefore, it is essential that life-science researchers consider Qur'anic divine doctrines in applying researches on human populations.

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