#### **Jewish View of Human Cloning**

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The concept of human cloning is not only a great technical scientific development, but is an issue wrought with emotion, ethics, major consequences for the future, with possibilities that only a short time ago were written about only in science fiction books. To decipher all the controversies and then try to formulate a Jewish approach is quite difficult, since technology changes almost daily, and also because humanity is only at the very first stages of the idea of cloning. Although no one has yet cloned a human being, the fact that animals have been cloned demonstrates that the day when people will be cloned is not far off.

What exactly is human cloning? In layman, non-scientific jargon, it is simply the artificial process of making a genetic twin of a person. This is accomplished by introducing nuclear material of a human cell into a fertilized or unfertilized egg, in order to create a person with duplicate DNA, an exact replica of that individual. Until now, this process still involves taking the fertilized cell and inserting into a woman's womb who will then give birth nine months later, through the normal birth process. But one day in the future it may be possible to clone human beings without this gestation process and birth at all, and "duplicate" an adult with another adult, not an infant.

Before discussing the Jewish views, there are a number of moral issues involved in cloning humans. There is a general fear that with gene manipulation, a technology that already exists, it will be possible to clone many human beings who have super strength, super IQ's, and create an "army" of soldiers who will pose a danger to any society where evil people control such clones. Because of such fears, the Human Cloning Prohibition Act of 2009 makes the cloning of human beings unlawful in the United States, as it is deemed unethical and immoral. On the other hand, the potential for cloning and gene manipulation also opens wondrous opportunities and possibilities in the not too distant future. Some variations on cloning technology are already used in biotechnology labs and these techniques that will eventually allow, among other things, the creation of cloned herds of sheep and cows that produce medicines in their milk. Researchers also hope that one day, the ability to clone adult human cells will make it possible to "grow" new hearts and livers and nerve cells of each human being. The cloning of foods and animals could end the possibility of famine in the world. Through cloning and gene manipulation, people might be able to insure that their offspring will be devoid of genetic diseases. A child with cancer in need of a bone marrow transplant would be able to always find a donor - himself or herself - as part of the cloning process. Lost limbs by any person might be easily replaced with cloned parts of each human being. These are just a few examples and a few possibilities that may become real within the next fifty years.

Thus, while there is a great potential evil unleashed in such a technology, there is great potential goodness that could save many lives and make every human life qualitatively better. Where would Judaism stand on this game-changing technology? Should it be pursued or not pursued? What are the other potential Jewish issues involved in this new process? For example, what would be the status of the cloned human being vis a vis the original donor? Would the clone be an offspring of the

donor or a sibling (with the same DNA like an identical twin)? Would such a person have human status in every way such as being counted for a minyan or inheritance? Would killing such a clone be considered murder in Judaism?

## MAN'S ROLE TO CREATE IN THE WORLD

While the concept of cloning in the laboratory is a new phenomenon, as with any new technology, Judaism tries to find precedents within Jewish law and tradition, in order to form a normative attitude and approach. Although the science may be new, Judaism's sources and concepts demonstrate a fundamental Jewish approach that gives guidance concerning this or any new scientific breakthrough, as it has for many years in the past, whenever any new invention or technology is introduced. As the Mishna tells us, although it may be challenging, if we search hard enough, anything can be found within Judaism. Surprisingly, quite a lot has already been written recently about the cloning of human beings, and similar issues have been discussed by Rabbis in the past.

The basic, fundamental and philosophical question that Jewish authorities have asked themselves is if cloning another human being falls into the human realm, or should such technology be left only to G-d. When G-d created man in His image,<sup>2</sup> we understand that this trait of each human cannot signify that man resembles G-d physically, since G-d has no physicality. Many have understood the G-dliness in man's ability to create in the world, just as G-d creates in the world. It is that ability, to do something new, that makes man G-dly, unlike any other creature created by G-d. This concept seems to encourage all types of creativity by man, including all scientific breakthroughs such as cloning. Furthermore, G-d gave all human beings the mandate to "capture the world," which, according to Nachmanides, mandates that man should use all his knowledge and all things physical in the world to benefit mankind in any way that man sees fit.<sup>3</sup>

Furthermore, the idea that man creates new creations in the world seems to be a fundamentally Jewish idea. The word "melacha" is used in only three contexts in the Torah. The first is what G-d did in the first six days of the world — Creation itself. The second context is by Shabbat, where G-d tells man to create for six days of the week (a commandment according to some commentaries, not merely a recommendation), but not to create on Shabbat. Finally, the entire building of the Mishkan-Tabernacle repeatedly uses the word "melacha," indicating that this structure is a miniworld created by the Jewish people as a means of coming closer to G-d.<sup>4</sup> The fact that man is supposed to create in the world seems to give him carte blanche to develop any technologies that will advance mankind, including cloning. King David may have been referring to this concept when he wrote that the realm above, the heavens, belong to G-d, while the realm below, the earth, was given by G-d to man.<sup>5</sup>

# **LIMITING MAN'S ROLE TO CREATE**

Early on, mankind already demonstrated that his ability to create in the world had not always been used for the proper purpose and goals. After man developed a new technology to create bricks, which meant that mud could now be hardened in order to be used as building material, man

<sup>&</sup>lt;sup>1</sup> Mishna Avot 5:22

<sup>&</sup>lt;sup>2</sup> Genesis 1:27

<sup>&</sup>lt;sup>3</sup> Genesis 1:28 with commentary of Nachmanides

<sup>&</sup>lt;sup>4</sup> Genesis 2:2-3, Exodus 20:9-10, 31:2-3, 36:1

<sup>&</sup>lt;sup>5</sup> Psalms 116:27

was no longer limited to living near caves and mountain areas that forced him to make houses from rocks. But instead of using this expertise to spread out and build cities, the Torah tells us that the first use of this technology was to build a tower in the sky to try to reach and challenge G-d. For this misuse of technology, man was punished.<sup>6</sup>

Although man was given the ability and general mandate to create in the world, there were limits and specific areas that were placed on his ability to create, according to some opinions. The obligation to observe commandments is certainly mandatory for traditional Jews, irrespective of the reasons behind those commandments. However, this obligation did not stop the commentaries from speculating regarding the philosophical reasons for some of the commandments. One such commandment is the prohibition of mixing seeds from different species and planting them together, the mating different species of animals to create a hybrid, and the mixing of linen and wool in the same garment. While Rashi states that these are commandments without logical reason, Nachmanides disagrees. He believes that G-d is telling man that there are limits to his ability and mandate to create and tamper with G-d's creation. Man may not make hybrids of plants and animals, because that kind of creation is beyond man's scope. Man can create in the world, but not create new species or new creations. Ibn Ezra also states that this prohibition limits man's ability to mix species in his creation. These opinions seems to prohibit man's ability to manipulate genes or even attempt cloning of human beings, as this should remain in G-d's realm, not man's.

Rabbi Samson Raphael Hirsch also indicates that G-d wishes to limit man's ability to create through the prohibition of *shatnez*, mixing wool and linen. He says<sup>9</sup> that wool represents the kingdom of animals (the source of wool) while linen represents the kingdom of plants (the source of linen). Man may not mix them, in order to show symbolically that man may not interfere in the creation of any species and the changing of any creation by G-d. Thus, cloning would be a realm beyond man's mandate to create in the world.

Since, according to the Talmud,<sup>10</sup> there are three equal parts in the creation of each human being – G-d, the father and the mother – it would seem to be immoral to create a human being or clone a person without the specific consent of all three partners, including G-d's. It seems from these commentaries that G-d does not give permission to man to create new human beings in an unnatural manner not prescribed by the Torah. Similarly, because each human being is unique, unlike any other person in existence, with each being worth the value of an entire world,<sup>11</sup> creating a clone which is not unique, but, rather, a mere duplicate to someone else, may be problematic in Judaism. G-d seems to especially say through Isaiah that it is only His (G-d's) purview to create new worlds and new creations, not man's.<sup>12</sup> And the idea of creating life from non-life,<sup>13</sup> which some call resurrection, seems to be G-d's purview alone, and not man's, another reason for precluding him from tampering with creation by attempting to clone human beings.

<sup>&</sup>lt;sup>6</sup> Genesis 11:1-3, 8

<sup>&</sup>lt;sup>7</sup> Leviticus 19:19

<sup>&</sup>lt;sup>8</sup> Commentaries of Nachmanides and Ibn Ezra on Leviticus 19:19

<sup>&</sup>lt;sup>9</sup> Commentary of Hirsch to Leviticus 19:19

<sup>&</sup>lt;sup>10</sup> Kiddushin 30b

<sup>&</sup>lt;sup>11</sup> Sanhedrin 37a

<sup>&</sup>lt;sup>12</sup> Isaiah 65:17, 66:22

<sup>&</sup>lt;sup>13</sup> Isaiah 26:19

#### MAN MUST GO BEYOND AND CREATE EVEN MORE

Until now, we have shown only one side of the argument about man's role in the world. There are an equal number of Rabbis and sources that demonstrate the other position in Judaism: that there are no limits to man's abilities to create and expand his horizons. We will now explore reasons why man should and must develop human cloning.

The Talmud explains<sup>14</sup> that when man was created on Friday, the sixth day of Creation, man wanted to create two new creations, but waited until after Shabbat to do so. Urged on by G-d, man created fire on Saturday night and also took two animals of different species and then created a hybrid animal. This demonstrates man's unique ability to create – fire is certainly a uniquely human creation. Just as G-d created light on the first day of creation, man created fire exactly one week later. But what about man's ability to create a new species? Is not that forbidden according the source cited above regarding *shatnez*, the mixing of two species of plants or animals? Maharal explains<sup>15</sup> that man's mandate is to expand his horizons and create as much as possible, as symbolized by the creation of fire. Part of that mandate is also to create new species with animals. The fact that the Torah later forbade this for Jews does not abrogate the duty of man as a species to continue to expand upon G-d's creation (there are other specific reasons why creating hybrids as forbidden only to Jews, according to Maharal). Thus, the creation of new species which is not only not forbidden but encouraged by Maharal, would seem to indicate that the next step in creating – human cloning – would be encouraged by G-d.

Rabbi Israel Lipschitz, who wrote a 19<sup>th</sup> century Mishna commentary, says categorically that any part of life or any action in the world where no specific prohibition is actually stated, <u>should</u> be practiced and tried, without hesitation. This attitude and philosophy is in direct opposition to some of the opinions above limiting man's role in the world. Since there is no specific prohibition against human cloning, Rabbi Lipschitz would not only permit it, but even encourage it. This attitude seems to be based on a Talmudic passage. The verse in Isaiah says that the only aspect differentiating man from G-d is that man sins and G-d does not. Based on this notion, the Talmud states that if not for the sins of man, human beings would have been able to create worlds. Thus, rather than limit creation to G-d alone, this passage tells us that G-d would have wanted man to create worlds and other creations, but it was his transgressions that prevented him from doing so. The idea, then, of man creating new creations, including people, is something to that is not only in the purview of mankind, but actually encouraged by G-d.

Another Talmudic passage states that in the future Messianic times, G-d will create trees that yield cakes and plants that produce linen garments, without the help of man. Currently, man is needed to take G-d's creations and turn them into usable foods and clothing, but that will change in the future. On this passage, <sup>19</sup> Rabbi Yosef Dov Soloveitchik (1820-1892) explains that until the future Messianic time, man must remain G-d's partner in creation. G-d created the seed, but man must work the ground and help that seed grow. After it yields wheat, then only man's effort through a long process of extracting the kernel, turning the kernels into flour and then baking the flour, will yield bread.

<sup>&</sup>lt;sup>14</sup> Pesachim 54a

<sup>&</sup>lt;sup>15</sup> Maharal, Beer Hagolah 39

<sup>&</sup>lt;sup>16</sup> Tiferet Yisrael commentary to Mishna Yadayim 4:3

<sup>&</sup>lt;sup>17</sup> Isaiah 59:2

<sup>&</sup>lt;sup>18</sup> Sanhedrin 65b with Rashi commentary

<sup>&</sup>lt;sup>19</sup> Shabbat 30b and Beit HaLevi commentary

Therefore, until Messianic times, G-d is telling man that He only begins the process of developing the world, but it up to man to continue what G-d began and take it to the next step, expanding the horizons of the world through man's actions. This is supported by the Midrash that explains<sup>20</sup> that G-d intentionally created all male babies uncircumcised, in order to allow man to complete G-d's creation, as He intended it. G-d intentionally limited Himself in Creation to allow man to expand on what G-d began.

In explaining the forbidden laws of Shabbat, one 19th century commentary explains21 that for six days man is supposed to be creative, expand and embellish the world. It is only on Shabbat that it is forbidden. Rabbi Joseph Soloveitchik (1903-1993), the namesake of the Beit HaLevi quoted above, echoes this sentiment. He explains man is obligated to imitate G-d and create in the world, writing in one article, "We have steadily maintained that involvement in the creative scheme of things is mandatory. Involvement with the rest of mankind in the cosmic confrontation... First, as we have mentioned previously, we, created in the image of G-d, are charged with responsibility for the great confrontation of man and the cosmos."22 In another article. Rabbi Soloveitchik echoes the same idea: "Man reaching for the distant stars is acting in harmony with his nature which was created, willed, and directed by his Maker. It is a manifestation of obedience to rather than rebellion against G-d."23 There are those who have deduced from the words of another twentieth century Rabbi (and distant relative of Rabbi Soloveitchik), Moshe Feinstein, a similar view. When he writes about doctors, <sup>24</sup> he says that it is counterintuitive to allow doctors to heal, as this seems to go against the mandate of G-d as doctor of the world (see the chapter "How Judaism View Doctors and Visiting the Sick" for a discussion of this moral issue). Yet, that is precisely what G-d desires. In the same way, claim some contemporary Rabbis, even though it seems counterintuitive for man to create through cloning and imitate G-d, that this is G-d's desire, nonetheless. Thus, it is clear that according to all these opinions, the cloning of humans, while fraught with difficult Jewish and ethical dilemmas, is within the purview of man.

In addition to the specifics of human cloning, there are overarching themes and sources pushing man to advance human civilization through the scientific breakthroughs of human cloning. One of the first questions that G-d will ask every human being after death is "Did you involve yourself with procreation?" Since it does not say specifically, "Did you procreate?" but, rather, "Did you involve yourself...", some commentaries view this as a general obligation of each person to try to bring as many children into the world as possible. One of the main purposes of human cloning is to increase the human population. In addition, there is a very provocative statement in the mystical book of the Zohar, 26 that states that in the 600th year of the sixth millennium, G-d will open the gates of wisdom, as man makes "preparations" for the seven thousandth year (400 years later), which implies that then will be the time of the Messiah. This year referred to corresponds to 1840 in the Gregorian (secular) calendar, and it says that at that time, enhanced scientific exploration will commence, which is approximately the date that major scientific breakthroughs in all spheres began to occur. Rabbi Moshe Chaim Luzzato comments<sup>27</sup> on this Zohar passage and says that a scientific tidal wave

<sup>&</sup>lt;sup>20</sup> Midrash, Beraishit Rabbah 46:3

<sup>&</sup>lt;sup>21</sup> Ketav Vikabala commentary on Exodus 20:10

<sup>&</sup>lt;sup>22</sup> Rabbi Joseph Soloveitchik, "Confrontation," Tradition, Volume VI:2, p. 20

<sup>&</sup>lt;sup>23</sup> Rabbi Joseph Soloveitchik, "Lonely Man of Faith" Tradition, Volume VI:2, p. 15

<sup>&</sup>lt;sup>24</sup> Igrot Moshe, Orach Chaim 3:90

<sup>&</sup>lt;sup>25</sup> Shabbat 31a

<sup>&</sup>lt;sup>26</sup> Zohar, I:117a

<sup>&</sup>lt;sup>27</sup> Kelach, Pitchei Chochma, Introduction

will commence in the 600<sup>th</sup> year (1840), just as the tidal wave of water commenced in the 600<sup>th</sup> year of Noah's life. Scientific knowledge and inventions will proliferate, and these are encouraged by G-d. This passage also seems to support the notion of human cloning as a positive and desired step for mankind.

Some of the very verses that were quoted above demonstrating the idea of limiting Creation to G-d alone can also be used to encourage creation and inventiveness by man. Since man is supposed to imitate G-d's ways,<sup>28</sup> one of the ways man should imitate G-d is by being a creator like G-d. Thus, when it says that Creation is G-d's purview,<sup>29</sup> rather than view this as limiting creation to G-d's realm, perhaps this implies that man should imitate this aspect of G-d. And when it says that G-d will make the non-living come to life,<sup>30</sup> perhaps it implies that man should attempt to do the same through human cloning.

Therefore, we see two distinct overall approaches in traditional Judaism towards man's obligation to advance his scientific knowledge and inventiveness, specifically in the realm of creating new forms of life. One says that this one area should remain beyond human endeavor, while the other places no limit on man's ability to advance the world and science, even to the point of human cloning.

## PRECEDENTS IN JEWISH TRADITION TO MAN CREATING HUMAN BEINGS

The Talmud records<sup>31</sup> that Rava actually created a human being by using a combination of letters from the Sefer Yetzira-Book of Creation (a mystical book about Jewish letters and creation). He showed the created being to Rabbi Zera. Rabbi Zera spoke to this man, but the man did not answer. Rabbi Zera said that "you are not real, and "you should return to the dust." He then "killed" that being. The Talmud then continues and says that Rabbi Chanina and Rabbi Oshiya used to study the book of Sefer Yetzira every Shabbat eve, and, as a result, created a calf each Shabbat and ate it in honor of the Shabbat. This Talmudic passage shows us that man has been able to create human beings in the past, albeit only by great sages. There was no condemnation for such a practice mentioned anywhere, suggesting that the idea of a human being creating another man is acceptable. This would answer those who object to humans creating a clone from a human cell, which is even less miraculous than the creations mentioned in the Talmud. In fact, in a different place, Rashi comments<sup>32</sup> that because these Rabbis used the Book of Creation as their source and not witchcraft, it was acceptable. Thus, if the creation of a human clone or a human is accomplished with the spirit of G-d and not attributing it to another power, then it seems to be laudable.

Rabbeinu Bechaye discusses what exactly is a human being,<sup>33</sup> and he says that every human being is made up of three parts, one part of plant attributes, one part of animal attributes and one part of uniquely human attributes. A complete human must have thought, speech and action. The man created by Rava lacked some of the uniquely human attributes such as speech, and therefore was not fully human. A clone, on the other hand, lacks nothing, no different from any other human being, and thus, the question is if the clone is considered a full human being or not (discussed below).

<sup>29</sup> Isaiah 65:17, 66:22

31 Sanhedrin 65b with Rashi commentary there

<sup>&</sup>lt;sup>28</sup> Sotah 14a

<sup>&</sup>lt;sup>30</sup> Isaiah 26:19

<sup>&</sup>lt;sup>32</sup> Rashi commentary on Sanhedrin 67b s.v "Iski"

<sup>&</sup>lt;sup>33</sup> Rabbeinu Bechaye, Kad ViKemach, "Reshut" and commentary on Genesis 2:7

Rabbi Jacob Emden, who lived in the 1700's, after the legend and rumors of the Golem of Prague had spread, discusses that creation of Rava, and attributes to this creation in the Talmud many of the attributes later ascribed to the "Golem". The being created by Rav acted like a servant, and its power came from the letters on its forehead. It could not talk, but became more powerful each day. Because of the fear that it might kill, the letters were removed from its forehead and the being "died" and instantly became a pile of dust. Maharsha<sup>35</sup> echoes some of the same sentiments and says that the lack of speech is what made this being not human, as speech is the essence of being human, as explain by Targum Onkelos. A normal human clone, however, would have every faculty that all other human beings possess, including speech.

### ETHICAL AND OTHER LIMITS TO HUMAN CLONING

In addition to the general argument to limit man's abilities when it comes to creating new human beings, there are other specific objections in Jewish thought which might preclude mankind from proceeding in the development of human cloning.

As noted above, Rashi described the legitimate creation of a human being when the manner in which it was created was legitimate. One of the sins mentioned in the Torah is the prohibition of witches and witchcraft, which is so heinous in Judaism that the penalty for its practice is death.<sup>37</sup> Why such a severe punishment for obvious hocus-pocus? The Talmud explains<sup>38</sup> that the concept of a witch, by definition, denies the legitimacy of G-d's power and attributes all actions and successes to a power other than G-d. Thus, according to the Torah, witchcraft is abhorrent to the Jews, in the same way that idol worship is so objectionable in Judaism: it gives ultimate power in the universe to something other than G-d. This is echoed by the explanation of this prohibition in Sefer HaChinuch.<sup>39</sup> Therefore, if man attributes any success to cloning (including science) other than crediting G-d, then this would violate both the spirit and possibly the letter of Jewish law. Thus, as long as the cloning process or any other human creation is within the spirit of G-d's guidance, this might not present a problem. But as soon as this technology is lauded as an alternative to G-d, this would violate Jewish thought.

Another potential problem with this specific technology may be a passage from the Talmud that states<sup>40</sup> that there are three specific "keys" (areas) that G-d wishes to remain in His realm and not be given over to human beings: the "key" of rain, the "key" of childbirth and the "key" of resurrection. If the secrets of childbirth and resurrection (creating man from the "dust" of the earth) are to be reserved only for G-d, then human cloning may violate this prohibition. Cloning man certainly involves the process of birth, and the creation of a person from a cell of DNA may also violate the "key" of resurrection.

Another objection to human cloning may come from the Midrash and Talmudic passages that inform us that G-d intentionally limited Himself in the act of Creation.<sup>41</sup> Perhaps through this act G-d is informing man to imitate His ways in this particular area as well. Even though man <u>can</u> perform

<sup>&</sup>lt;sup>34</sup> Rabbi Jacob Emden, Megilat Sefer, page 4

<sup>&</sup>lt;sup>35</sup> Maharsha commentary on Berachot 10a

<sup>&</sup>lt;sup>36</sup> Genesis 2:7 with Onkelos commentary

<sup>&</sup>lt;sup>37</sup> Exodus 22:17

<sup>&</sup>lt;sup>38</sup> Sanhedrin 67b

<sup>&</sup>lt;sup>39</sup> Sefer HaChinuch, Mitzvah 62

<sup>&</sup>lt;sup>40</sup> Taanit 2a

<sup>&</sup>lt;sup>41</sup> Midrash Beraishit Rabbah 46:3, Chagiga 12a

human cloning (in the future), he should limit his ability to create in this area, imitating G-d, Who limited His ability in the initial Creation. This notion has ramifications in actual Jewish law. There were times, says Maimonides, 42 when the Rabbis and Rabbinic courts enacted laws not because the Torah demanded it, but in order to protect Judaism itself when new situations arose to threaten it. Perhaps the issues that human cloning will raise are so thorny and difficult, that the Rabbis will decide it is preferable not to enter the sphere entirely, rather than open the Pandora's box that human cloning will inevitably bring with it. For example, will the human clone be considered a full human being regarding murder if it is killed? Will a male clone be counted for a Minyan even though it was not "born" like other Jews? Will it have to wait thirteen years after the cloning in order to be counted? Will a clone inherit from a relative? How will its relatives be defined? Who are its parents, legally? It is for these reasons that the great authority, Rabbi Yosef Shalom Elyashiv, was against cloning human beings because it violated the "spirit of the Torah." In fact, one such "sticky" problem is actually discussed in the Mishna, concerning two people who have identical genes but are not related to each other according to Jewish law. This is the situation of identical twin sisters whose mother converted, and the daughters converted with her. Since halachically a convert has no legal relatives, those two sisters are not legally related, even though they have identical genes.<sup>44</sup>

Another potential problem is still a very long way off technologically, but could eventually happen. If the day comes when human cloning does not take the form of a baby who must grow up, but rather the technology is developed to clone an adult human being directly, then no one would ever have to die. As soon as a person became old, he or she would simply clone himself or herself and continue to live forever, with the same genes and (possibly) the same memories. Would a world without death be a good phenomenon? This issue and the challenge of trying to overcome the death process and remain alive has intrigued man for generations. Essentially, cloning is merely the next logical step in delaying death. Medical science has been very successful in extending the average lifespan. (In 1900 it was 45 years, in 2000 it was close to 80 years.) Cloning is the next logical progression. Is that what G-d desires for mankind? Of course, every person might seem to want to live forever. And, yet, in one city where there was no death, the city of Luz, the Talmud tells us that after a long while, people seemed to get bored with life, and they just went out of the city in order to die.<sup>45</sup>

Thus, the issues raised by human cloning are certainly numerous and very complicated. The question is whether the great benefits outweigh the challenges, and whether the secular world and Jewish authorities are up to handling these challenges.

## **REPRODUCTION WITHOUT MARITAL RELATIONS**

Until now, we have assumed that all human cloning involved placing the cloned cell in a woman's womb where it would gestate for nine months like any "normal" fetus before being born, the same way as other human beings come into this world. But what if a human clone could be produced without having to go through pregnancy, either as a baby clone or as an adult? Would that change matter from a Jewish perspective?

<sup>&</sup>lt;sup>42</sup> Maimonides, Hilchot Mamrim 2:3, 5

<sup>&</sup>lt;sup>43</sup> "Cloning and Its Challenges" in the Torah U-Madda Journal, Vol. 9, 2000, page 195 and page 187, footnote #2 (in an oral communications to Dr. Yoel Jakobovitz and Dr. Abraham S. Abraham)

<sup>&</sup>lt;sup>44</sup> Mishna, Yevamot 12:2 with Rashi commentary

<sup>&</sup>lt;sup>45</sup> Sotah 46b

Many Jewish sources (e.g., Scripture, Talmud and Midrash) refer to and define human beings as "those born to a (human) mother." Would a person who is not born from the womb also be considered human? Some might argue that the very first human being in history, Adam, who was called human in all his characteristics, was created by G-d without nine months in the womb and without a mother, but was nevertheless considered a full human being. Some may claim, therefore, that a human clone born in a laboratory would lack the basic definition of humanity because it was not born from a mother's womb. The commandment given to Adam and Eve about having children specifically mentions the union of a man and a woman in order to produce a child. Would lacking that aspect of the process invalidate a child's humanity? Meiri, who lived in the 13th century, already discusses this issue, and claims that asexual reproduction is part of natural life and is not considered witchcraft. Thus, according to him, a human being born in the laboratory would still be considered fully human.

Thus, the question remains according to those who disagree with Meiri: if the human clone created in a laboratory is not human, how would or should this creature be classified? There are numerous Talmudic and post-Talmudic discussions of creatures who performed human tasks but they are not classified as human, while other creatures performing similar tasks are indeed called human. (See the forthcoming chapter on the "The Normative Jewish View of the Golem" for an expansion of this theme.) This is one more area that will entangle the Rabbis (as well as the general populace) with moral discussions when human cloning becomes a reality.

After all is said and done, the fundamental disagreement about the issue of human cloning, even before it becomes a reality, continues among leading Rabbis and observant Jewish doctors. Because of the possible dangers and difficulties this technology may engender, numerous Rabbis and doctors have come out against proceeding further in exploring this technology. Other Rabbis, enamored by the potential benefits that such scientific advances will bring mankind, endorse this new technology. Those who seem to be or have explicitly come out against human cloning include Rabbi Yisrael Meir Lau, (past chief Rabbi of Israel), Dr. Eitan Fiorino, Dr. Abraham S. Abraham, Rabbi Emanuel Jacobovits, zt"I (past Chief Rabbi of Great Britain) and Rabbi Yosef Shalom Elyashiv, zt"I. On the other hand, many other Rabbis and doctors of note would seem to heartily approve of human cloning, including Dr. Pinchas Lipner, Dr. Fred Rosner, Rabbi Michael Broyde, Dr. Abraham Steinberg, Rabbi Dr. Moshe Tendler, zt"I<sup>49</sup> and Rabbi Joseph Soloveitchik, zt"I. As in all Rabbinic arguments, only in the future and when the majority of Rabbis and traditional Jews weigh in, will a consensus develop, and this question can finally be decided one way or the other. The implications in either direction are great indeed.

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<sup>&</sup>lt;sup>46</sup> Job 14:1, 15:14, Yoma 85b, Nidah 13a, Midrash Vayikra Rabbah 35:2

<sup>&</sup>lt;sup>47</sup> Genesis 2:24 with Rashi commentary

<sup>&</sup>lt;sup>48</sup> Beit HaBechira commentary on Sanhedrin 67b

<sup>&</sup>lt;sup>49</sup> Letter to the Editor, by Rabbi Dr. Moses Tendler, New York Times, December 12, 1997

education and has developed numerous curricula including a methodology how to teach Jewish Values using mass media. Recently, he founded the STARS Program (Student Torah Alliance for Russian Speakers), where more than 3000 students in 12 Russian speaking countries learn about their Jewish heritage for five hours weekly. Rabbi Amsel previously served as the Educational Director of Hillel in the Former Soviet Union. He lives in Jerusalem with his wife and has four children and four grandchildren.