IS "MAY I EMPLOY GENE EDITING?" A HALAKHIC QUESTION?

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MAY 2, 2023 CONGREGATION KINS פרשת אמור תשפ"ג



"MAY I EMPLOY GENE EDITING?"

ON A PLANT OR ANIMAL?

(1) RAMBAN, VAYIKRA 19:19

והטעם בכלאים כי השם ברא המינים בעולם בכל בעלי הנפשות בצומחים ובבעלי נפש התנועה, ונתן בהם כח התולדת שיתקיימו המינים ההם לעד כל זמן שירצה הוא יתברך בקיום העולם, וצוה בכחם שיוציאו למיניהם ולא ישתנו לעד לעולם, שנאמר בכולם: למינהו (בראשית א':י"ב). והנה סבת המשכב שנרביע הבהמות זו עם זו היא לקיום המינין, כאשר יבאו האנשים על הנשים לפרייה ורבייה, והמרכיב שני מינין משנה ומכחיש במעשה בראשית, כאילו יחשוב שלא השלים הקב"ה בעולמו כל הצורך, ויחפוץ הוא לעזור בבריאתו של עולם להוסיף בו בריות...

Now the reason for [the prohibitions against] *kilayim* ["mixed kinds," as will be explained further on], is that G-d has created in the world various species among all living things, both plants and moving creatures, and He gave them a power of reproduction enabling them to exist forever as long, as He blessed be He, will desire the existence of the world, and He further endowed them with a power to bring forth [only] after their kind, and that they should never be changed, as it is said with reference to all of them [at the time of Creation], after its kind. This driving force in the normal mating of animals is for the sake of preserving the species, even as human beings engage in sexual activity for the sake of having children. Thus one who combines two different species, thereby changes and defies the work of Creation, as if he is thinking that the Holy One, blessed be He, has not completely perfected the world and he desires to help along in the creation of the world by adding to it new kinds of creatures...

(2) MIDRASH TANCHUMA, TAZRIA 5

מַעֲשָׁה שָׁשָׁאַל טוּרְנוּסְרוּפּוּס הָרָשָׁע אֶת רַבִּי עֲקִיבָא, אֵיזוֹ מַעֲשִׁים נָאִים, שֶׁל הַקָּדוֹשׁ בָּרוּהְ הוּא אוֹ שֶׁל בָּשָׁר נָדָם. אָמר לוֹ: שֶׁל בָּעָּר נָדָם נָאִים. אָמר לוֹ טוּרְנוּסְרוּפּוּס, הָרֵי הַשָּׁמיִם וְהָאָרֶץ יָכֹל אָדָם לַעֲשׁוֹת כַּיוֹצָא בָּהֶם אָמר לוֹ רַבִּי עֲקִיבָא, לא תּאמר לי בְּדָבָר שָׁהוּא לְמַעְלָה מִן הַבְּרִיוֹת שָׁאין שׁוֹלְטִין עָלִיו, אָלָא אֱמר דְּבָרִים שֶׁהֵם מְצוּיִין בִּבְנֵי אָדָם. אָמר לוֹ: לָמָה אַמָם מוּלין. אָמר לוֹ: אָני הָיִתִי יוֹדַעַ שֶׁעַל דְבָר זָה אַתָּה שׁוֹאַלַנִי, וּלְכָהְ הַקְדַמְתִי וְאָמַרְתִי לְבָ, שֶׁמַעֲשׁה בְּנֵי אָדָם נָאִים אָמר לוֹ: לָמָה אַת היוֹין. אָמַר לוֹ: אַני הָיִיתִי יוֹדַעַ שָׁעַל דְּבָר זָה אַתָּה שׁוֹאַלַנִי, וּלְכָהְ הַקְדַמְתִי וְאָמַרְתִי לְבָ, שֶׁמַעֲשׁה בְּנֵי אָדָם נָאִים משָׁל הַקָּדוֹשׁ בָרוּהְ הוּא. הַבִיא לוֹ רַבִּי עֲקִיבָא יוֹדַעַ שָׁעַל דָבָר זֶה אַתָּה שוֹאַלַנִי, וּלְכָהְ הַקְדַמְתִי וּאָמַרְתִי לְהָ, שְׁמַעֲשׁה בְּנִי אָדָם גָאָים משׁל הַקָּדוֹשׁ בָרוּהָ הוּא. הַבִיא לוֹ רַבִּי עַקִיבָא שְׁבָּלים וּגְלַסְקָאוֹת, אָמַר לוֹ: אַלּוּ מַעֲשָׁה הַקָּדוֹשׁ בָּרוּהָא, וְאָלוּ מַקָּדוֹש בָרוּה הוּא. הָלוּי שְׁבָּלִים וּגְלַסְקָאוֹת, אָמָר לוֹ: אַלוּ מָשָּה הַקַדוֹשׁ בָרוּה הוּא זָמוּ בַרוּה הוּא הָשָׁמי היין האָנָר זיוֹבָע שָּבָלים וּגְלַסְקוּאוֹי הָהָה אַמָר לוֹ בָּבָּי עַקּיבָא, וְלָאָה שוֹהָדוּ הָיּהוּה אָמָר לוֹ הַבָּי הָבָריהוּה שָׁאוּ הַוּלָיי הַנָּלָי אָמָר אָמוּ הוּבּר לָמָה אֵינוֹיווּה הָיא בָעוּ הַיּרָה לָמָה אָמוּל האָים הוּא הָלוּיי בָּבָסַנוּ וָאמוּ הוּחוּה שָּעָר הַים הָיא הָה הַיּה שוֹמָר לָמָה אַינוּי ווּדָא מָהוּל מָמָריים הַיָּר אַמּר גוּים הָנוּשוּים הַיעָים אַינוּים אַינו בּרָיק הַיזים הָיים הָאַים הוּהיים הַיּרוּשָּים בּרוּים אָינוּ הוּה הָים הַייןנָם אַימָר לוּי הָרָרָמָר הָיזים בָירָים אָרָר לוּיים בּנָרוּרוּיה הָישָר בָיים אָים אָרין הָיאָרָים אָינ בּיקריביי אָריין בּיין בָרָא הָים בּיים אָרָרָר אָיקָה אָר אָיוּא הָין הָיקָר שָּרָין הַיין הַירָים הַירָין היי בּיקַין הַיאַרָין אָיןין הָין הָיקָה אַין הַיין בָּיין בָיין בָיין בָיין בָיין בָיין בָיין בָיין היין היין בָיין בָיין בָיין בָיין בָיש

It happened that Tyrannus Rufus the wicked asked R. Aqiva, "Which works are the more beautiful? Those of the Holy One, blessed be He, or those of flesh and blood?" He said to him, "Those of flesh and blood are the more beautiful." Tyrannus Rufus the wicked said to him, "Look at the heavens and the earth. Are you able to make anything like them?" R. Aqiva said to him, "Do not talk to me about something which is high above mortals, things over which they have no control, but about things which are usual among people." He said to him, "Why do you circumcise?" He said to him, "I also knew that you were going to say this to me. I therefore anticipated [your question] when I said to you, 'A work of flesh and blood is more beautiful than one of the Holy One, blessed be He.' Bring me wheat spikes and white bread." He said to him, "The former is the work of the Holy One, blessed be He, and the latter is the work of flesh and blood.



Is not the latter more beautiful?" Tyrannus Rufus said to him, "Inasmuch as He finds pleasure in circumcision, why does no one emerge from his mother's belly circumcised?" R. Aqiva said to him, "And why does his umbilical cord come out on him? Does not his mother cut his umbilical cord? So why does he not come out circumcised? Because the Holy One, blessed be He, only gave Israel the commandments in order to purify them.

ON A PERSON FOR MEDICAL PURPOSES?

(3) BAVA KAMMA 85A

תניא דבי ר' ישמעאל אומר (שמות כא, יט) ורפא ירפא מכאן שניתן רשות לרופא לרפאות

It is taught in a *baraita* that the school of Rabbi Yishmael says: When the verse states: "And shall cause him to be thoroughly healed [*verappo yerappe*]" (Exodus 21:19), it is derived from here that permission is granted to a doctor to heal.

(4) TOSFOT IBID

שניתנה רשות לרופא לרפאות - וא"ת והא מרפא לחודיה שמעינן ליה וי"ל דה"א ה"מ מכה בידי אדם אבל חולי הבא בידי שמים כשמרפא נראה כסותר גזירת המלך קמ"ל דשרי:

Question: wouldn't the word *rappo* alone teach this? Answer: I would have thought that this would only apply to one struck by another person, but [regarding] an illness which comes from Heaven, if one were to heal it, it would appear to be contraveneing the decrees of the King. [The extra word] teaches that this [also] is permitted.

ON A FETUS FOR NON-MEDICAL PURPOSES?

(5) BERAKHOT 10A

אָמַר לֵיה: מַאי כּוּלֵי הַאי? אָמַר לֵיה: מִשׁוּם דְּלָא עֲסַקְתָּ בִּפְרָיָה וּרְבִיָּה. אַמַר לֵיה: מִשׁוּם דַחֲזַאי לי בְּרוּחַ הַלְדָשׁ דְּנָפְקִי מִינּאי בְּנִין דְּלָא מְעַלּוּ. אַמר לֵיה: בַּהֲדֵי כַּבְשֵׁי דְרַחֲמָנָא לְמָה לֶדְ? מַאי דְמִפּקְדַתְּ אִיבְּעִי לֶךְ לְמֶעְבַד, וּמָה דְנִיחָא קַמֵּיה קוּדְשָׁא בְּרִידְ הוּא לְעֲבִיד.

Hezekiah said to him: What is all of this? For what transgression am I being punished? Isaiah said to him: Because you did not marry and engage in procreation. Hezekiah apologized and said: I had no children because I envisaged through divine inspiration that the children that emerge from me will not be virtuous. Hezekiah meant that he had seen that his children were destined to be evil. In fact, his son Menashe sinned extensively, and he thought it preferable to have no children at all. Isaiah said to him: Why do you involve yourself with the secrets of the Holy One, Blessed be He? That which you have been commanded, the mitzva of procreation, you are required to perform, and that which is acceptable in the eyes of the Holy One, Blessed be He, let Him perform, as He has so decided.





(6) SUMMARY OF LECTURES BY R' ARYEH KLAPPER, JULY 19, 2019

Abravanel explains the redundancy of Isaiah's initial declaration "you, moribund, will not survive" to mean that "you will die, and your line will cease." G-d's plan for history required the Davidic line to continue, even though segments of the line such as Hezekiah's son Menasheh would be wicked. "Although Menashe was wicked and his sons like him, behold: Josiah came from him, and this is the good fruit which comes eventually from evil branches" (Abravanel, Isaiah 38).

According to this interpretation, what are the kavshei d'-rachmana, and why was Hezekiah enjoined from considering them? Abravanel's analysis suggests that the ban on considering kavshei d'rachmana as a factor in procreation applies only to kings, who need to ensure an heir to the throne.

Rabbi Moshe Alshikh interprets kavshei d'-rachmana in a much more expansive, maximalist fashion. He claims that no one, royal or commoner, should ever dispute G-d's command in any area based on a personal moral calculus (Alshikh, Genesis 26). Rabbi Yaakov Kaminetsky agrees with the expansion to all people, but seems to reject Alshikh's assertion that calculations never limit obligations. He claims that Hezekiah was wrong morally only because he was wrong factually — he didn't know that Menasheh would repent, or that Josiah would descend from him. But in principle, Hezekiah was correct that it would be better to not procreate than to have unmitigatedly evil descendants (Emes L'-Yaakov, B'rachos 10a). Possibly Abravanel agrees.

Rabbi Menachem Meiri held a middle ground. He apparently limits the ban on considering kavshei derachmana to issues of procreation, but agrees that no calculation based on them can affect obligation. His creative contribution is to extend kavshei derachmana from the supernatural to the natural: "A man must not curtail the commandment to procreate because of any sort of suspicion that he or his partner cannot produce proper progeny, whether on the basis of tradition, reason, or experiment, because a man has no business with the secrets of G-d, at all, as it says, 'why are you involved in these kavshei d'-rachmana?"" (Beis Ha-B'chira, B'rachos 10a)...

HOW DOES HALAKHA TACKLE UNPRECEDENTED REALITIES?

(7) TIFERET YISRAEL, YADAYIM 4:3

כז) ללמד. שכל דבר שלא נדע טעם לאסרו, מותר הוא בלי טעם, דלא הזכירה התורה דברים המותרים כולן, רק דברים האסורין:

Every matter for which we don't know a reason to prohibit it is permitted without any reason, for the Torah did not mention all permitted things, only prohibited things.

(8) R' AHARON LICHTENSTEIN, "DOES JUDAISM RECOGNIZE AN ETHIC INDEPENDENT FROM HALAKHA?"



[I]f we mean that everything can be looked up, every moral dilemma resolved by reference to code or canon, the notion is both palpably naïve and patently false. The Hazon Ish, for one, and both his saintliness and his rigorous halakhic commitment are legend, had no such illusions. "Moral duties," he once wrote, "sometimes constitute one corpus with halakhic rulings, and it is Halakhah that defines the proscribed and permitted of ethical thought." Sometimes, but not, evidently, always. There are moments when one must seek independent counsels.

(9) JOHN D. LOIKE AND R' MOSHE TENDLER, "TAMPERING WITH THE GENETIC CODE OF LIFE: COMPARING SECULAR AND HALAKHIC ETHICAL CONCERNS," *HAKIRAH* 18, 2014, PP. 53-54

Non-medical applications of gene editing. The third bioethical concern expressed by secular bioethicists is that gene editing will be used on a fertilized egg or adult for non-medical applications. If gene-editing technologies are used to change hair color from black to blond (one gene encodes this property) with minimal or no health risks, then halakhah would allow a person to use this technology for themselves. However, if minimal or serious health risks are associated with using this procedure, then halakhah would prohibit gene-editing procedures to change their own hair color or enhance athleticism without a valid medical or psychological reason. Similarly, halakhah would also prohibit non-medical applications of gene editing to their fertilized egg or child. However, if a couple has a genetic family history of short stature, then gene editing that could increase the height of a child might be deemed permissible according to Jewish Law, because a child who is abnormally short is at a disadvantage in our society.

How would halakhah address the issue of parents using gene editing on their healthy fertilized egg or embryo to enhance or modify behavioral characteristics?... We therefore propose that Halakha would prohibit, at this point in time, the utilization of gene editing to alter behavioral characteristics because of their unknown, far-reaching consequences on the personality of the individual.

(10) R' EZRA BICK, "OVUM DONATIONS: A RABBINIC CONCEPTUAL MODEL OF MATERNITY," *TRADITION* 28:1, 1993

Essentially, this question is not susceptible to the classical halakhic approach of analogy with an existent halakhic ruling. Not only does a "preponderance of halachic sources not exist in favor of parturition as the maternal determinant, practically speaking, no halachic sources exist for this or any competing candidate for the determinant. A different approach must therefore be attempted...

What does one do when there are no sources for a halakhic answer to a pressing question? Our usual answer is "*hafokh ba, hafokh ba*" – keep looking! There is always a source. But are there not dozens of halakhot and legal principles in the Talmud which have no apparent scriptural source? Are we to assume that there must have been a source, or that the Sages of the Talmud were granted a unique (prophetic?) ability to originate halakha? One would be hard-pressed to find a source for such a position... The Sages have certain conceptions of law and understanding of various concepts which underlay halakhic conclusions... It appears to me that we are justified in trying to determine the Talmudic assumptions, the base conceptions of the Talmudic world-view, from other sources.