

Dr. Rosenfeld is a Professor of Computer Science at the University of Maryland and a former president of the Association of Orthodox Jewish Scientists.

GENERATION, GESTATION, AND JUDAISM

Host motherhood — the transplantation of a fetus to a womb other than that of its biological mother — is a subject that has begun to receive considerable attention during the past few years. As techniques for performing such transplants become available, they may be expected to have significant social and economic impact. An unwilling mother will no longer be faced with a choice between aborting the fetus or carrying it to term, if a willing host mother can be found. Adoption of an unborn child will become possible, and an adopting mother will be able to give birth to her adopted child. On the economic side, interspecies host motherhood can provide a means of temporarily storing valuable animal fetuses, using host mothers of a species which is easier to care for and transport.

This article considers the status of human host motherhood in Jewish law: Is transplantation of a fetus from one mother to another permissible? Which of the mothers is regarded as having given birth — the biological mother, the host mother, neither, or both? Who are the legal parents of the child?*

It should be stressed that the case of host motherhood is not the same as that of artificial insemination. Many authorities hold that artificial insemination by a donor other than the husband is prohibited; but host motherhood does not involve fertilization of a woman by a man other than her husband. In fact, even those who prohibit artificial insemination of a woman by her husband should permit host motherhood, since the child

* Regarding animal host motherhood, another question arises: What if the host mother is of a non-kosher species and the fetus is of a kosher species, or vice versa?

was conceived as a result of normal coitus. If a woman's ovum is fertilized in vitro (by a donor or her husband), and the resulting fetus is then implanted in her own womb, the objections raised against artificial insemination would presumably still apply; but here we are concerned with the case where another couple's child, conceived in the ordinary way, is transplanted into her womb.

PERMISSIBILITY

The question of whether host motherhood is permissible has two aspects: Is the biological mother allowed to give up her child? Is the host mother allowed to accept it?

If we assume that fetus transplantation techniques have been perfected to the point where the fetus survives in the great majority of cases, there would seem to be no reason to prohibit a woman's transferring her child to a host mother; the laws governing abortion should not apply here, since the child will almost certainly survive. Surely if there is danger to either mother or child in allowing the biological mother's pregnancy to go to term, we would permit a safe transplantation operation. The issue here, it should be pointed out, has nothing to do with the question of whether the biological parents are allowed to give up their child for adoption; even if we permit a host mother to carry the child, she may in some cases have to return it after she has given birth to it, while in other cases it may become available for adoption.

The situation is less straightforward as regards whether the host mother is allowed to accept the child. We would certainly not encourage this if she were unmarried; and at first glance, there is a serious objection to it if she is married:

We have learned: A man may not marry a woman who is pregnant by another man, or who is nursing another man's child; and if he

* Cases more closely related to that of artificial insemination would arise if it were possible to transplant sex organs. What is the legal status of a child if its mother has an ovary transplant, or its father has a testicle transplant? Are such transplants permissible?

married her, he must divorce her and may never take her back. So R. Meir; but the sages say: He must divorce her, and when his time comes to remarry [i.e., after the child is weaned], he may remarry [her]. (*Yevamot* 36b) . . . [Why?] Because she may become pregnant from him [after she has given birth to the other man's child], and her milk will dry up, so that he [the child] will die. If so, is it not the same with his own child [i.e., why are we not concerned that she may become pregnant while nursing their own child]? She would feed his own child eggs and milk [so that it would survive even if her milk dried up]. Can she not feed her child [by another man] eggs and milk? Her husband will not give them to her. Can she not demand them of the heirs [of the child's father]? Abbaye said: A woman is embarrassed to come to court, even if her child may die (*Yevamot* 42a-b).

Our Rabbis have taught: If a nursing woman's husband died within 24 months [i.e., before the child is weaned], she may not become betrothed or married until after 24 months. So R. Meir, but R. Yehudah permits it after 18 months . . . Rav and Shemuel both say: She must wait 24 months . . . (*Ketuvot* 60a-b).

Our sages decreed that a man may not marry or betroth a woman who is pregnant by another man, or who is nursing another man's child, until the child is 24 months old . . . whether she is a widow, a divorcee, or has strayed . . . If he transgressed and married a pregnant or nursing woman within this time . . . he must divorce her (*Shulchan Arukh, Even Ha-Ezer* 13:11-12).

If our sages were concerned about a pregnant or nursing woman marrying a man who is not the child's father, should we not certainly prohibit a married woman's becoming a host mother, where the child is neither hers nor her husband's?

On closer examination, however, it appears that the prohibition applies only to marrying a woman who is *already* pregnant or nursing. If a woman has sexual relations with another man after she is married, we may at most require her to separate from her husband for three months, when this will make it possible to determine the fatherhood of her child; but she does not have to leave her husband:

If two men betrothed two women, and at the time that they entered the marriage canopy they were interchanged . . . we separate them

[from their husbands] for three months, since they may be pregnant (*Mishnah Yevamot* 33b).

If a married woman was raped, and had not previously had sexual relations with her husband, she must wait [90 days] (*Shulchan Arukh, Even Ha-Ezer* 13:6).

Only if one comes to marry [a woman who is nursing another man's child] in the first place is it prohibited; but if a married man's wife is raped, and becomes pregnant and gives birth, our sages did not abrogate the husband's rights on account of the child . . . It is nowhere mentioned that if a married woman is raped, he [her husband] should have to wait 24 months . . . If someone rapes another man's wife, once the pregnancy is apparent, she is permitted to her husband even while pregnant, and *a fortiori* while nursing; this is clear and needs no justification . . . We prohibit a woman who is pregnant by another man or nursing another man's child only when he marries her against the prohibition, but not when he had been permitted to marry her . . . The decree was only against marriage, but not when she is already married to him . . . (Authorities quoted in *Otzar Ha-Poskim on Even Ha-Ezer* 13:11, para. 68).

Thus if a married woman has become a host mother, Jewish law would probably require her to abstain from sexual relations with her husband for 90 days, in order to insure that the child is not his [i.e., that she has not miscarried the implanted fetus and become pregnant by her husband]; but he would certainly not have to divorce her or separate from her for 24 months.

The possibility remains, though, that we might prohibit a married woman from becoming a host mother to begin with; the sources quoted above refer to cases where a married woman has already become pregnant with someone else's child, but this does not imply that she is allowed to undertake such a pregnancy in the first place, even if no adultery is involved. However, note that the Talmud's prohibition against marrying a pregnant or nursing woman is based primarily on the fear that the nursing child may be weaned prematurely and die; thus if we were to prohibit a married woman's becoming a host mother, by the same reasoning, we would have to prohibit her becoming a wet nurse, which the Talmud certainly did not forbid:

These are the tasks which a woman must perform for her husband: . . . and she must nurse her child (*Mishnah Ketuvot* 5:6).

Why did they say "her child?" Because she need not nurse another woman's child, as we have learned: A man cannot force his wife to nurse another woman's child, nor can a woman force her husband to allow her to nurse another woman's child (*Yerushalmi ad loc.*).

If she wishes to nurse another woman's child along with her child, her husband can prevent her; he can even prevent it in the case of her child by another man [after 24 months] (*Shulkhan Arukh Even Ha-Ezer* 80:14).

Clearly these sources imply that, if both husband and wife agree, the wife is permitted to act as a wet nurse; we are not concerned about the possibility that since the child is not her own, she may wean it prematurely and it may die:

Some recent authorities have written that in cases where it is permitted to give a child to a wet nurse, it must be given to an unmarried wet nurse, not to a married one; for since in the Talmud the reason given is that she [a woman nursing another man's child] may not marry is that she may become pregnant and her milk may dry up, then if the wet nurse is married this concern applies also to her. This is reasonable; but we have not found that the codifiers say so. On the contrary, in early responsa we find that a child was given to a married wet nurse, and the authorities did not raise this objection, and it therefore appears that one need not be particular about this. For in the Talmud they asked why we do not, for the same reason, prohibit any nursing woman to have sexual relations with her husband, lest she become pregnant and her milk be spoiled, harming the child; and they answered that the case of a father and mother is different, since if the milk is spoiled, they will feed the child milk and eggs, for parents normally have compassion on their children — whereas if she marries another man, he will not have compassion on a child that is not his, and will not give her milk and eggs, and she will have to demand them from her first husband's heirs, but will be embarrassed to make a claim against them, so that meanwhile the child will be in danger . . . But in the case of a wet nurse who has been hired, and is collecting wages for her nursing, and presumably hired herself out to nurse with her husband's consent (since if he does not consent, he can prevent her, as it says in Ch. 80), then since they are collecting wages, both [she and her husband] will be concerned for the welfare of the child, and if the milk is spoiled, she

will not be embarrassed to demand money from those who hired her, and her husband himself will use any available means [to save the child], since he is collecting wages, and they are like a father and mother to the child (*Arukh Ha-Shulkhan, Even Ha-Ezer* 13:24).

If the authorities permitted a married woman to act as a wet nurse, it seems reasonable to conclude that, had the case arisen, they would also have permitted her to act as a host mother. The prohibition against marriage to a woman who is pregnant by another man is based on the fact that she will have to nurse the child; if we allow a married woman to nurse another couple's child, we should certainly allow her to become pregnant with another couple's child. At most, she and her husband would probably be required to abstain from sexual relations for 90 days before and after the implantation of the fetus, in order to insure that she was not already pregnant by her husband or has not miscarried the fetus and then become pregnant by her husband, so that the parentage of the child will not be in doubt.

STATUS OF THE MOTHERS

Whether or not we permit host motherhood, cases of it will surely arise, and it will then become necessary to decide such questions as whether either mother is regarded as having given birth. (The related question of which parents have fulfilled the commandment to procreate presumably depends on the status of the child, which will be discussed in the next section.)

As regards the biological mother, the situation seems straightforward. If the fetus is removed from her* within 40 days after conception, she should not be regarded as having given birth, but after 40 days she should be so regarded:

If a woman miscarries on the 40th day, she need not be concerned about [having given birth to a child]; but on the 41st day, she must [be concerned about] a male child, and a female child, and menstruation. R. Yishmael says: On the 41st day, she must [be concerned about] a male child and menstruation; on the 81st day, about a male

* We assume here that the fetus is removed through the birth canal: if it is removed by Caesarean, the mother is not regarded as having given birth in any case.

child and a female child and menstruation — for a male is completed on the 41st day, and a female on the 81st. But the sages say: Both the formation of a male and of a female take 41 days (*Mishnah Niddah* 30a).

Presumably, the same criterion would apply in connection with the laws of the firstborn, if this is the biological mother's first child.

The case of the host mother is more difficult. True, she has given birth to a fully formed child; but it is not a child which she herself conceived. On the other hand, it is possible that her case is analogous to that of the women whose children were conceived before the Torah was given (i.e., before the inception of Jewish law); and we have learned that these women were in fact regarded as having given birth:

"[If a woman conceives] and gives birth" (Lev. 12:2) excludes a woman who gave birth before the Revelation. Or perhaps I should exclude one who became pregnant before the Revelation and gave birth after the Revelation? It therefore says "or if she gives birth to a female" (*ibid.* 5) — the matter depends only on birth (*Sifra ad loc.*).

Similarly, if a pregnant woman becomes a proselyte, when her child is born she is certainly regarded as having given birth, even though she was not Jewish when she conceived, and in fact, her child must be redeemed as a first-born (*Mishnah Bekhorot* 46a); thus it is possible that a host mother too is regarded as having given birth, even though she has not conceived.

In cases where the fetus is transplanted after the 40th day, however, a serious objection to this conclusion can be raised. Once a child has emerged from the womb, it is regarded as born even if it goes back inside:

Once its head has come out, this constitutes birth. Have we not already learned this — "Once it has put its head out, even if it puts it back in, it is as though born?" And if you say that [the Mishnah just quoted] tells us about animals, while [our Mishnah] tells us about humans . . . have we not already learned the latter too — "If it came out normally, as soon as most of its head has emerged [it is regarded as born]"? (*Bekhorot* 46a; the implication is that in

humans too, once the head has emerged, the child is regarded as born even though it re-enters the womb).

When the child later re-emerges (which might not be until the following day), this is not regarded as a second birth; we consider the birth to have taken place at the first emergence. Perhaps in our case too, once the child has been born to its biological mother, even though it re-enters the womb (of its host mother), only the first birth counts. The situation is different from that of a proselyte mother, where there was no prior birth. On the other hand, if the transplantation is performed within 40 days of conception, then since no birth took place when the child was removed from the biological mother, we can regard the host mother as having given birth.*

STATUS OF THE CHILD

A more fundamental question is that of the child's status. If the transplantation is performed after the 40th day, there seems little doubt that we would regard the biological parents as the child's legal parents, since the child became "completed" while still in the biological mother's body, and she is regarded as having given birth to it; in this case the host mother can be thought of as merely playing the role of an incubator. If it is performed within 40 days, however, is it possible that we might regard the host mother — who has given birth to it — as the legal mother of the child?***

That a fetus less than 40 days old is not legally regarded as a child does seem to make it plausible that, if a transplantation is performed within this period, the connection between the biological parents and the child might thereafter be ignored. The Talmud regards such a fetus as "mere water" (*Yevamot*

*In animals, however, the Talmud is in doubt whether a host mother can ever be regarded as having given birth, at least in connection with the laws of the firstborn (*Chulin* 70a): "If one stuck two wombs together, and it went out of one and into the other, what [is the law]? Does it excuse its own [mother from being subject again to the law of the firstborn], but not one that is not its own, or perhaps it even excuses one that is not its own?"

**Presumably, if this were the case, the child would have no legal father.

69b), and holds that even its sex is not yet determined:

We have learned: For the first three days [after coitus], a man should pray that [the seed] should not rot; between three and forty [days], he should pray that it become a male; between forty days and three months, he should pray that it not become an abortion; between three and six months, he should pray that it not be stillborn; between six and nine [months] he should pray that it come out safely (*Berakhot* 60a).

The case of a pregnant woman who becomes a proselyte can also be regarded, at first glance, as supporting this possibility. For example, we have seen that when she gives birth, her child must be redeemed as a firstborn, even though she was not Jewish when she conceived him. Similarly, an ordinary proselyte is regarded as having no relatives; but a child born to such a woman is regarded as related to his mother (see, e.g., *Yerushalmi Yevamot* 11:2). Perhaps in our case too, even though the host mother was not the child's legal mother at the time of conception, she becomes its legal mother by virtue of giving birth to it?

On closer examination, however, it would appear that we have no real support for such a view. As regards the case of the pregnant proselyte, although her child is legally hers in many respects, it is not regarded as a born Jew, but rather as a proselyte, in spite of the fact that it was *born* to a Jewish mother:

A child can be a proselyte according to Biblical law [not merely rabbinically], when a pregnant woman becomes a proselyte; as it says (*Yevamot* 78a): If a pregnant non-Jewish woman becomes a proselyte, her son does not require immersion [since he was part of his mother's body at the time of her immersion] (*Tosafot Ketuvot*, 11a s.v. *matbillin*; see also *Tosafot Yevamot* 47b, s.v. *matbillin* and *Keren Orah ad loc.*)

Thus even here, in determining the status of the child, we follow the conception, not the birth. Indeed, if a married couple become proselytes at the same time, they must separate for three months, in order to make it certain whether children born to

them afterwards were conceived before or after their conversion (*Yevamot* 42a), even though the children will in any event be *born* after the conversion. In our case too, the fact that the host mother is the one who gives birth to the child does not mean that its legal status is not determined at the time of conception.

True, the Talmud does not regard a fetus less than 40 days old as being a "completed" child; but this need not imply that its identity is not yet established. In fact, the Talmud's view is that the soul enters the fetus immediately upon conception:

Antoninus asked Rabbi [Judah the Prince]: When is the soul put into a man, from the time of "remembrance" [i.e., conception] or from the time of formation? He replied: From the time of formation. He asked him: Can a piece of meat stay three days without salt and not spoil? Rather, from the time of "remembrance." Rabbi said: This thing Antoninus taught me (*Sanhedrin* 91b).

There is no contradiction to this in the Talmud's belief that the sex of a child is not fixed for 40 days; the Halakhah seems to recognize the possibility of an individual's sex legally changing (see *Midrash Tanhuma* on *Gen.* 30:22: "R. Huna said in the name of R. Yose . . . Even up to the moment when she sits on the birth stool, he may pray that she give birth to a male child; for it is not difficult for the Holy One, Blessed be He, to make females into males and males into females.") If a child has a soul from the moment of conception, it is reasonable to conclude that its identity and heredity are also fixed at that time; no matter how early it is removed from its biological mother's body, she is still its legal mother.

We are told that in the days to come "Women will be able to give birth every day, as it says (*Jer.* 31:7) 'Pregnant and parturient, all together'" (*Shabbat* 30b). Let us hope that, as host motherhood brings this vision closer to reality, we are also approaching the time spoken of by the prophet, when "I will bring them from the northland, and gather them from the corners of the earth; blind and lame among them, pregnant and parturient, all together — a great multitude shall return."