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# CONCEIVING WHOLENESS

## *women, motherhood, and ovarian transplantation, 1902 and 2004*

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**ABSTRACT** Scholars have shown that organ transplantation may transform ideas about one's body, with recipients feeling that they are receiving not just a body part but also a part of the donor's identity. This article focuses on a different way in which organ transplantation shapes recipient identity: the idea of becoming whole. We present the case studies of two women separated by a century (one in 1902 and the other in 2004) who sought ovarian transplantation, and examine how ovarian transplantation can engender a sense of wholeness on the individual, the familial, and the cultural levels, due to its ability to enable a recipient to naturally conceive and experience pregnancy.

WHEN ONE THINKS ABOUT organ transplantation, the organs that usually come to mind are the heart, or possibly the kidney, the most commonly transplanted organ (UNOS 2008). Transplantations are generally regarded as necessary to the life of the person receiving the transplant or to physiologically improving that life: the transplant is seen as making the recipient "whole" once more (Lederer 2008). While many have commented on the various ethical issues brought forth by the clinical practice of organ transplantation, here we are con-

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cerned with the idea of becoming whole from organ transplantation. The idea of wholeness that a transplant renders can extend beyond the physiological to the individual, the familial, and the cultural; this can be seen dramatically in the example of two cases of ovarian transplantation separated by a century. In this article, we present the case studies of two women, one in 1902 and the other in 2004, who each contacted a physician with the suggestion of ovarian transplantation. We argue that, across this span of a century, each woman's desire to become a mother through pregnancy influenced her idea of ovarian transplantation. The donor ovary, and with it the potential of restored fertility and the hope of pregnancy and thus motherhood, was a surgical means each conceived to make them whole.

### OVARIAN TRANSPLANTATION IN 1902

In 1901, Dr. Franklin H. Martin, a prominent Chicago gynecological surgeon, received a letter from a young woman inquiring if it was "possible to transplant ovaries into the pelvis of a woman from whom, for cause, the ovaries had been removed for dysmenorrhea" (Martin 1908). The young woman, a 29-year-old school teacher whom we will now call Miss T, for convenience, had had her ovaries removed a year earlier to relieve painful periods (Longo 1979). Now, engaged to be married, she was "extremely anxious" to be able to have children (Martin 1908). In his report about the case, Martin summarized the letter: "upon learning of the fact that the ovaries had been removed, she was very much horrified, as she considered her life blighted and her matrimonial prospects ruined" (p. 1). According to Martin, while "brooding over her strange fate," Miss T came up with the idea that "it might be possible to restore the function of menstruation and her power to conceive by having transplanted into her sterile pelvis the necessary organs taken from another woman in whom sacrifice of healthy structure might be necessary" (Martin 1903). Martin was not the first physician in the United States to transplant ovaries between women, an achievement credited to Dr. Robert Morris, who did so in 1895 (Morris 1895, 1899, 1906). When he began looking into performing the surgery, Martin discovered (or perhaps rediscovered) Morris's work, and, after experimenting on animals, agreed to graft the ovaries of a donor onto Miss T (Martin 1903, 1934). In June 1902, a year after she first wrote, Miss T traveled to Chicago, where Martin explained the difficulty that lay ahead: they needed to find a woman in her "early child-bearing period" for whom "an operation was absolutely necessary" (Martin 1903, p. 2). Martin also "carefully explained" to Miss T "that the operation must be looked upon entirely in the light of an experiment, and that she must be prepared to assume all responsibility with regard to failure in the outcome" (p. 2). Miss T agreed and found a boarding house near the hospital where she waited for a woman of childbearing age in need of an operation, who agreed to have part of her healthy ovaries removed, and who would be willing to donate them to her.

On July 25, 1902, Martin operated on a woman he regarded as a “satisfactory donor”: a 37-year-old (note that at 37 this gynecologist still considered her within acceptable maternal age) mother of three children who “had been suffering for some time from an impacted retroversion” (retroversion is a uterus turned backwards) (Martin 1903, p. 2). This woman “consented to furnish the ovarian tissue if in the necessary operation” Martin “decided that the material would serve my purpose” (Martin 1934, p. 278). On the morning of the operation, Martin “removed one-third of each ovary” from the donor, then “placed the specimens in hot normal salt solution for preservation, after which the broad ligament and the severed portion of the ovary remaining were drawn together by a running suture of cat gut.” After completing the necessary operation on the donor (which he does not provide in his published report), Martin had Miss T anesthetized. Upon opening Miss T, Martin found the remains of her uterine tubes, which he reconstructed as best he could in order to create a “pervious oviduct.” Then, “immediately outside of the horn of the uterus,” he attached one of the portions of the donor ovary, “hugging closely the tube and the uterus.” He repeated this on Miss T’s other side. According to Martin, Miss T made “an ideal recovery” (Martin 1903, pp. 2–5). She wrote to him for several months following her return home, describing her health and tracking what she hoped would be her menstrual cycle, but through April 1903, she did not menstruate, (1908). Given her continued state of amenorrhea, we assume, though Martin does not record, that she never achieved pregnancy.

#### OVARIAN TRANSPLANTATION IN 2004

Like Miss T, women today actively seek out experimental procedures for ways to overcome infertility. An analogous example to Miss T is Stephanie Yarber, who entered menopause for no apparent reason at age 14. Her identical twin sister, Melanie Morgan, maintained her fertility and donated eggs to Yarber. However, after at least two failed IVF cycles in her early 20s, Yarber was broke (Lambert 2009; Silber et al. 2005).<sup>1</sup> Through her research on infertility treatment, she stumbled across Dr. Sherman Silber’s work on testicle transplants and discovered that his practice focused on infertility problems in both men and women. Thinking that a similar gonadal transplant could be possible in women, Yarber called Silber to ask if he thought an ovary transplant was “a crazy idea.” Silber, who had been considering the possibility of an ovarian transplant since the testicle transplant, jumped at the opportunity to try this procedure, telling Yarber “I’ve been waiting for your call for 30 years” (Lambert 2009).

Morgan donated one of her ovaries to her sister, and Silber grafted a piece of ovarian tissue onto Yarber’s ovary; the remaining pieces of ovarian tissue were

<sup>1</sup>Lambert (2009) reports that Yarber underwent three unsuccessful IVF cycles, while Silber et al. (2005) states that it was two.

cryopreserved. Eight days later, Yarber had her first menstrual cycle in 10 years, and one month later she was pregnant; she delivered a healthy baby in June 2005 (Lambert 2009). After the birth of her daughter, Yarber resumed menses and conceived naturally again. However, this pregnancy ended in a miscarriage. Three years after the ovarian tissue transplant, Yarber reentered menopause. Per her request, some of the cryopreserved tissue was transplanted to Yarber's ovary, and she conceived approximately five months later and delivered another girl (Lambert 2009; Silber et al. 2008a). In November 2009, she reported being pregnant once again, though we are not, to date, able to secure any confirmation as to the course of the pregnancy.

Yarber has received significant media coverage as the first successful ovarian tissue transplantation. She has welcomed this coverage because she hopes it will alert other women to the possibility of ovarian tissue transplant as a way of addressing their infertility problems (Sharples 2009). Since Yarber's initial case, Silber has performed ovarian tissue transplantation for six other cases (and one full ovary transplant) in which one identical twin suffers from premature ovarian failure while the other remains fertile. From these seven cases, there have been seven pregnancies, two miscarriages, and five live births (Donnez et al. 2011; Silber 2009; Silber et al. 2008a, 2008b, 2010).

### MOTHERHOOD: THE BRIDGE ACROSS A CENTURY

#### *Wholeness for the Ovarian Recipient*

The similarities between these two women are striking: both came up with the idea of ovarian transplant, both sought out physicians to inquire about its possibility, both were willing to undergo it as an experimental surgery, and both did so in an effort to have transplantation return them to wholeness, which both identified as the possibility of motherhood through pregnancy. Across this divide of a century, Miss T and Yarber are united by their belief that motherhood could render them whole.

Motherhood has long been a principal and a defining role for women (Apple and Golden 1997; Marsh and Ronner 1996). By the time Miss T wrote to Martin, medical intervention was increasingly being sought by women who wanted to become pregnant. The rise in the use of medical intervention to enable pregnancy prompted a change in the way involuntary childlessness was viewed popularly and medically. What had been regarded as "barrenness," a personal misfortune, became "infertility," a medically treatable condition. As historian Margaret Marsh and physician Wanda Ronner noted in their 1996 history of infertility in the United States, in the late 19th century, women unable to conceive increasingly began to turn to medical expertise; by doing so, both clinicians and women accepted infertility as a treatable medical condition.

By the early 20th century, women were willingly undergoing often invasive treatments, including various surgeries, to correct an impairment of their bodies

in order to provide them with a chance for motherhood. The convergence of motherhood as defining femininity with the increasing reliance on physicians to treat involuntarily childless women enabled a perception that infertility was a problem of and with the female body. Thus, women who sought treatment sought the restoration not just of their reproductive functions, but also of their feminine identity.

As in Miss T's time, the equation of femininity with reproductive ability remains culturally resonant today. Indeed, the loss of fertility has potentially great implications for a woman's perceptions of herself as female, for motherhood is a culturally significant role most women see themselves in (Gardino et al. 2010; Harwood 2007). Gayle Letherby (2002) found that women experienced a profound shock to their sense of themselves in learning about their infertility, which resulted in a challenge to their conception of identity as female. Similarly, Arthur Greil (1991) found that women tended to see infertility as devastating, something that spoiled their identities and signified their role failure as woman, wife, and mother. Furthermore, Greil (1997) discusses how both qualitative and quantitative studies show women react more negatively to infertility (have lower self-esteem, blame themselves for their infertility, feel defective, etc.) than men. In a more recent review of the literature on infertility's socio-psychological impact, Greil and his coauthors (2010) found that most studies continue to support these older findings. This intense reaction to infertility explains why women who are infertile but otherwise healthy are more likely to be depressed than fertile healthy women (Carter et al. 2011). In fact, infertile women report levels of psychological distress comparable to women with life-threatening illnesses (Canada and Schover 2010; Rosen et al. 2009; Schover 2005, 2009).

#### *Wholeness for the Ovarian Donor*

Martin did not record if he heard from Miss T after the spring of 1903. We have no record of whether she did indeed marry or if her menses ever resumed, and, if they did, if she ever became pregnant, but we do know these were Miss T's reasons for envisioning and seeking out the surgery. Though ovarian transplant pioneer Morris noted shortly after he began performing the surgery that "some women object to the idea of carrying a piece of ovary from another woman, as the child from such a case would have treble parentage," he stressed that there were "many women" whose ovaries had been removed who "grasp at any opportunity for bearing children" (Morris 1895, p. 159). In 1906, Morris published such a result: the birth of a living child from an ovary recipient. Following Morris's publication of the live birth in 1906, he was "offered extremely large sums of money" to reproduce his results. But he was also inundated with "pitiful letters" from women whose ovaries had been removed requesting the surgery. Morris later recalled that women who wrote him "were willing to take almost any risk in order to have children" (Morris 1935, pp. 217–18). That the women who wanted to become pregnant were willing to take surgical risks

perhaps is not surprising, but that the donors were too suggests the cultural resonance of pregnancy and motherhood. In his autobiography, Morris recalled that women often “suggest the self-sacrifice of offering both ovaries to some other woman, even a stranger, who may need them” (p. 215). It was not just the women seeking the ovarian tissue who saw that it would render them whole—the donors did as well.

This sentiment holds true today for some ovarian tissue donors. All contemporary ovarian tissue donations in the United States have been between sisters, typically identical twins. Assuming a close relationship between sisters, it makes sense that some donors experienced a sense of wholeness following donation. Morgan, for example, donated an ovary to twin sister because, as a mother of three, she deeply understood the importance of motherhood in her own life and saw how its absence was adversely affecting her sister. Morgan included Yarber as much as possible in her children’s lives in order to fill the void her sister felt; Morgan even “refused a Caesarean because I wanted her [Yarber] to see the real thing [a vaginal birth]” (Preston 2004, p. 45). Upon learning she was pregnant with her third child, Morgan “felt terrible. . . . It was meant to be Stephanie’s turn, not mine.” When Yarber discovered the possibility of an ovarian tissue transplant, she did not even have to ask her sister if she would donate an ovary; Morgan immediately told her “Have mine. Find the doctor and see if he’ll do it.”

### CONCLUSION

Transplantation of any organ, be it a heart, kidney, liver, or ovary, has been seen as transforming ideas about a body, with recipients feeling that they are receiving not just a body part but also a part of the donor’s identity (Fox 1996; Sanner 2003; Sharp 1995). Additionally, some have seen organ transplantation as transgressing taboos against violating bodily identity and conventional boundaries between bodies (Campion-Vincent 2002; Morris 1895; Youngner et al. 1996). The donation of ovarian tissue adds another layer to these conceptions of organ donation by adding the potential of reproduction to these ideas about bodily identity. Though today ovarian tissue transplantation may be seen as transgressing boundaries of bodily identity and biological reproduction, the story of Miss T suggests that this is not a historically constant concern (Blyth and Landau 2004; Lederer 2008). That both Miss T and Yarber were willing to undergo experimental surgeries even though they were not in physical need of the transplant in order to live underscores the emotional pain—and social fears—of infertility. The transplanted tissue from another woman’s body rendered them whole, which, for Miss T and Yarber, meant the possibility of motherhood via pregnancy.

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