CHAPTER 4

ELUSIVE BODY BOUNDARIES AND INDIVIDUALITY

"Of course, who controls the interpretation of bodily boundaries in medical hermeneutics is a major feminist issue."\(^{256}\)

1. INTRODUCTION.

In the previous chapters I described a variety of mechanisms which have contributed to the emergence of fetuses and couples as patients and which have in part facilitated the development of IVF and fetal surgery. Arguments were presented to show that medical interventions redefine and relocate the problems addressed in ways that simultaneously transform the patients suffering from these medical problems. Precisely in doing all the medical work necessary to arrive at the particular diagnoses involved in fetal surgery and IVF for infertile men, new problem-definitions as well as new patients have been construed. Prior to artificial fertilization and modern prenatal technology, couples nor fetuses were considered to be patients as such.

Technologies, of course, do not develop in a social-historical vacuum. They arise from and subsequently become part of particular historical contexts of action that, in turn, constitute a set of pre-existing conditions and facts for further developments. One of the pre-given facts in reproductive technologies, the consequentiality of which can hardly be overlooked, is the centrality of gynecology and its traditional object, the female reproductive body. Both in vitro fertilization and prenatal technologies evolved out of intensified exploration of the female reproductive body, yielding new interventional methods for female conditions. Thus a framework was created in which the reproductive couple as well as the fetus gained visibility and were made into newly demarcated objects of treatment. It takes work on the female body to exteriorize ova and produce the 'interface' of gamete interaction so crucial for the construction of the couple as the patient in male infertility. Similarly, it takes work on the female body to generate the images and data that make up the congenitally affected fetus. This focus on work and action (in the form of medical intervention in bodies) rather than
knowledge (of how bodies function) provides better insight in the mutually constitutive relationship between the body and the development of technologies. Far from being the result of the application of existing knowledge, technologies tend to be used on bodies while it is still highly disputable whether the relevant medical knowledge is available. This knowledge, specifically that regarding fertilization processes and fetal development, is clearly what results from these practices.

The medical-technical work of the past two decades has caused significant shifts in perspective and focus. We have ended up with gynaecological practices, some of which have the explicit purpose to help others than this field's traditional patient: women. In vitro fertilization has become, among other things, a method to restore or maintain functions of the male body; fetal surgery is geared toward curing "children". Corresponding to these shifts are the medical disciplines now in cooperation with gynecology in the two technological practices. Both IVF and fetal surgery are interdisciplinary practices involving teams of specialists from multiple fields. Besides gynecological knowledge and skills, andrological ones are involved in IVF for male conditions, while neonatologists and pediatric surgeons are prominently present in fetal surgery. Boundary crossings between disciplines, and the resulting hybrid medical fields of IVF and fetal surgery, form the institutional correlates to the new hybrid patients these practices have generated. Where couples appear, gynecologists need andrological knowledge; where neonatologists and paediatric surgeons cooperate with gynecologists, fetuses become the focus. The dissolution of boundaries between traditionally separated fields of work corresponds to a comparable dissolution of boundaries between their respective objects/patients, that is men and women, and women and children.

But in all these changes mergers and boundary crossings, a huge paradox has become evident. This paradox stems from the fact that despite all these changes one thing has remained stable. While it is true that most learning is achieved by doing and making mistakes, the strange thing here is that while the 'doing' still concerns female bodies, the 'learning' is about helping men and children. Whereas both patients and problem-definitions have been radically transformed, the primary objects of intervention have, by and large, remained the same. It is still ovaria, uteruses, vaginas, tubes, in short, the female reproductive body that undergoes most of the interventions and manipulations involved in both practices. Paradoxically, however, it is precisely women who seem to have become unrepresentable in these new practices. This situation appears all the more puzzling if one considers its counterpart: whereas the other two patient categories, men and children, are, each in a different sense, absent as objects of clinical interventions, they are
represented as individuals. As I showed in the previous chapter, when fetuses and couples are treated, women are not around, but children and men all the more so. While it is still women's bodies on which the various specialists now jointly work, and not those of men or children, the involvement of women's bodies evaporates from both discourses. These bodies are no longer visible as discrete entities, or considered as the body of an individual human person.

2. BODY BOUNDARIES

Why is it so hard to see 'women' and female bodies in practices that focus so much on female body parts? How can we understand that manipulating ovaries and wombs is compatible with talking about 'men' and 'children' as the individuals concerned and not 'women'? How is it possible that the notion of women as individuals is deconstructed in these practices, whereas the individuality of men and children appears to remain in place?

The answer to these questions is already partly contained in the analyses presented in the previous chapters. I will suggest here that it is precisely in "deconstructing" the notion of women as (embodied) individuals that these technologies can be designed as treatments for others, and, ultimately, that the individuality of the men and fetuses involved can be construed as unproblematic and stable in these practices. It is neither coincidence nor a natural necessity that women and women's bodies have disappeared from view in these new medical-technological discourses, but rather a built-in characteristic of these technologies, one that make them 'work' in the first place. As I will argue, it is a requirement or even an accomplishment of these technologies, rather than a necessity following from the nature of bodies or reproduction.

To develop my argument, a detour is needed first. Connected to the notion of an individuated or individual body is the concept of body boundaries. To be visible as an individual body, some sense of a boundary of that body has to be there. To see something as an individual entity, an Einzelkörper, a demarcation is required, marking what does and does not belong to that body. Body boundaries perform this function, defining the inside and the outside, self and non-self. Therefore, part of the answer to the question why women and female bodies go unrepresented in these technological discourses can be obtained by exploring the issue of female body boundaries. In the context under discussion, it is no longer clear what constitutes the female body proper, and thus what constitutes the body a woman may call 'her own'. However one may value the new possibilities for intervention, with the simultaneous creation of 'patients' like fetuses and
couples, female body boundaries become rather fuzzy. The lack of representation of women as individuals may be connected to unclarities in the demarcation of their bodies from 'others'. Therefore, this chapter will set out to explore the role of body boundaries in these practices.

Seen in this light, the modus operandi in IVF and fetal surgery can be described as oriented in large part precisely toward the goal of overcoming body boundaries. Much of the work involved in both practices serves the purpose of rendering opaque bodies transparent. The goal of obtaining access underlies many of the interventions, and possibilities for intervention are created by externalizing processes and phenomena internal to the female body, overcoming the distinction between the inside and the outside of the body. Opening what is closed to intervention, disclosing what is hidden from inspection, getting out what resists easy manipulation - these are the recurring themes.

The prominence of ultrasound technology, both as 'diagnostic' apparatus and guiding instrument in invasive procedures is highly significant here, indicating the centrality of the need to overcome body boundaries and create transparency. It is used in monitoring follicle development, extraction of ova, and confirmation of pregnancies after embryo-transfers in IVF, and in fetal surgery it is a near constant presence providing visual access to the fetus, before, during, and after most procedures. Ultrasound and its ubiquitous use in modern medicine has been analyzed by many authors as a primary example within a range of contemporary visualization technologies - of the way modern medicine transforms opacity of bodies into transparency. In less general terms, it has been described how its first and foremost use has been in obstetrics, a fact from which its cultural significance is derived as a potent, political factor in changing general perceptions of pregnancy. Generation of a new and compelling iconography of the fetus with a broad cultural, political, and psychological impact has been attributed to visualization techniques.

The description of modern (reproductive) medicine as aiming at externalization of inner processes and tending to unveiling what is hidden from view can be found in the discourse of reproductive medicine itself. Such metaphors are even conspicuously present in the following quote from M.R. Harrison, one of fetal surgery's leading figures:

The fetus could not be taken seriously as long as he remained a medical recluse in an opaque womb; and it was not until the last half of this century that the prying eye of the ultrasonogram rendered the once opaque womb transparent, stripping the veil of mystery from the dark inner sanctum, and letting the light of scientific observation fall on the shy and secretive fetus. The sonographic voyeur, spying on the
unwary fetus, finds him or her a surprisingly active little creature, and not at all the passive parasite we had imagined.\textsuperscript{239}

This quote is taken from an article in which the author is explicitly reflecting on the developments in his field. The exuberance of the metaphoric language may therefore be attributed to a deliberate effort on the author's part at 'fancy writing'.\textsuperscript{260} But when we turn our attention toward the more mundane types of scientific writing it becomes clear how the issues of visibility and access are explicitly put forward as underlying countless, very concrete choices and interventions. The following examples show that efforts toward permeating bodily boundaries and optimizing transparency determine choices as concrete as ways to suture surgical wounds and underlie curious measures like insufflating wombs.

The maternal abdomen is then closed. It is important to use a subcuticular maternal skin closure covered with a transparent dressing so that monitoring devices can be placed on the maternal abdomen postoperatively.\textsuperscript{261}

Endoscopic fetal surgery uses a telescopic lens and operating instruments that are passed through small "ports" in the uterus. A bubble of CO\textsubscript{2} is used to displace amniotic fluid and provides excellent visualization in a magnified field.\textsuperscript{262}

For these reasons gas insufflation was used, as initial trials demonstrated excessive light scatter and distorted optics when visualizing through amniotic fluid. The air pocket creates a space in which surgical manipulation can easily be performed by displacing the uterine wall away from the fetus and allows for the effective use of cautery.\textsuperscript{263}

A transparent wound dressing is applied so that skin remains permeable for ultrasound waves; holes ("ports") are made in uterine walls for telescopes and other instruments to pass; amniotic fluid is displaced by gas insufflation because of its "distorting" optic qualities.

In addition to the externalization of internal phenomena through graphic visual representation and the entering of bodies with means to visualize insides, the transparency of the female body is accomplished through other kinds of medical actions as well. Activities and interventions subsumed under categories like monitoring, surveillance, and data gathering have, in a more Foucauldian sense, similar effects. In the unrelenting search for knowledge about the body and its changing conditions, these activities make the body yield information about many aspects of its functioning. In IVF, there is constant monitoring of follicle development; hormone levels are measured to detect imminent ovulation and time ovum aspiration; the state
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