CHAPTER 1

PRELIMINARY MOVEMENTS

*The Body of Theories, Practices and Texts*

1. INTRODUCTION

The first step to be taken in loosening the apparently self-evident links between women's wants and needs and the particular answers offered by contemporary technologies concerns addressing the underlying assumption of their biological inevitability. There is a persistent belief in the status of biomedical knowledge, the supposed basis for current technological practices, accountable in considerable part for this sense of inevitability. If there is no sense of any paradox arising from women's emancipatory efforts and current technological developments, this has to do with a widely held presupposition that the very notion of politics is not applicable when it comes to bio-medicine. Biology, describing the *nature* of bodies, cannot be political; therefore, as long as biological knowledge is considered to be true (and as long as the technologies designed on that basis, as the standard view on these matters assumes, work), it cannot be contested; biological knowledge merely forms a growing set of ahistorical, natural facts, that we can only discover, accept, and use to our advantage. In the context of reproductive technology, this broad and general belief translates into the following one: if women's bodies are the object of intervention in practically all reproductive technologies, and for medical problems that by long have surpassed those concerning their own reproductive health, this has nothing to do with any kind of politics. It merely reflects and follows from the biology of reproduction. There is no way around the fact that it is women who have children, and from this everything else follows. Women can freely choose to take or leave the technologies on offer, but the configuration determining the choices open to them has been shaped by the biology of reproduction itself.

In order to begin critical reflection upon our culture's apparent need for the technologies it has developed, it is this idea of biological inevitability that needs nuancing. If it is the nature of the female body that dictates how and where medical problems surrounding reproduction are to be located and addressed, this is a nature that resulted from a very particular history. The
next section sketches patterns in the history of medicine's and science's dealings with the female body, and the resulting knowledges and practices, and indicates in a provisional manner how these patterns continue to play a role in the present.

Next, and this constitutes the main challenge of this book, it is crucial to demystify the notion that the new reproductive technologies provide the definitive and inescapable singular answer to women's problems and desires. This requires a perspective on technology that differs from the one that is usually implicit in public reflections and evaluations of reproductive technologies. Common to most conceptualizations of the issues arising from these technologies is their framing in terms of effects and consequences, or even of consequences and effects of certain applications of technology. This pattern is probably largely accountable for the fact that of the many feminist concerns about these technologies, only those restricted to debating the risks, the efficiency, and, occasionally, the "psychological impact" of these technologies, succeeded in gaining a wider hearing. The same pattern underlies the emphasis in many public and political debates on these technologies on ethics. A frequently used way to raise public concern about technology is a statement about there being "moral issues involved", as a sort of appendix to the mere technical, medical aspects. How exactly the implied boundary between fact and value is drawn may vary according to one's preferences in what should be up for debate, but the distinction is usually there.

But wherever the line between the technology itself and its consequences or effects, between the methods and their applications may be drawn, using such distinctions presupposes that there is a sphere where technology, science or medicine exists in a pure, neutral form. So, paradoxically, this way of defining public problems concerning medical science and technologies actually constructs them in a way that simultaneously puts them beyond the grasp of moral or political scrutiny to considerable extent, since the definition of the 'moral problems' is postponed until after the establishment of 'the facts'. Hence the feeling of many that such reflections are always more or less running behind the facts and not really capable of influencing technological developments. Medical science and its inventions, so it is experienced, will always be one step ahead, with 'society' always reacting to the latest development, after the fact. This way of conceptualizing technology in effect creates a space where it can develop relatively undisturbed.

This book proceeds from a perspective on technology that is conceptually rooted in a type of technology studies that tries to focus on the "inner workings" of medical science and technology, as opposed to their effects,
consequences and applications. It seeks to locate the moral and the political within what counts as 'technology itself', within what counts as 'scientific fact'; more precisely, it does not accept the distinction between technology and science on the one hand, and the moral, the political or 'external effects' on the other, as a priori given. Try, for instance, to explain or describe what the technology of IVF "in itself" is. There is no way to do this without describing what is done, and thus at least implicitly, such a circumscription contains a practice, some application, purpose or consequence; a norm for what counts as successful or standard application; it necessarily involves describing actions, patients and their body parts, and what happens to them. One cannot identify these technologies apart from what are usually thought to be 'external' aspects. This is especially true for complex technologies like IVF that involve a series of actions, techniques, machines and experts, so that there is no one particular machine or piece of hardware that might be (erroneously) identified with the 'technology itself'. Medical technology always implies a particular way of doing things, a practice. Actions, attitudes, words, texts, values, norms, and social relations are considered as integral to the technology as the instruments, chemical substances, and laboratory procedures. The third section of this chapter elaborates this view on technology and its relation to science, and introduces some of the key concepts used in this study.

This chapter's fourth section introduces the two technological practices that form the subject of this study. Some "figures and facts" of in vitro fertilization, specifically as a treatment for male infertility, and fetal surgery are given, in order to delineate the contours of both practices. The final section develops the central questions of this study and discusses the theoretical views informing the analyses presented in this book. In particular, it argues how analyzing medical-scientific texts can contribute to our understanding of current developments in reproductive technologies as well as the way female bodies are configured in these practices.

2. A COINCIDENCE OF MEDICAL SCIENCE, HISTORY AND BODIES

A strong and widespread conviction persists, that from 'the rise of modern science and medicine', there has been a steady accumulation of empirically grounded, valid knowledge, that could not have been otherwise, since this knowledge steadily uncovered how bodies and reproduction actually work. At the same time, however, anyone with only a marginal interest in the subject will be aware of medical practices and theories concerning women (but not only them) in the past (but not only in the past) that from today's perspective are ranging from the laughable to the deeply shocking and
apalling. But however such past practices and theories may be denounced today, they never seem to be considered of actual consequence for our knowledge and practices today, whether this 'past' concerns the early nineteenth century or a mere decade ago. Thus a strange combination of beliefs predominates views on contemporary reproductive medicine: on the one hand modern medicine and biomedical science are seen as long standing, cumulative traditions, while on the other hand its results and products, its theories, practices and technologies, are held to be untainted by anything so mundane and contingent as history and tradition.

It is not my intention to give here a comprehensive and detailed account of the history of modern science and medicine concerning sex, gender, and reproduction. I do want to draw attention, however, to some aspects of this history in as far as this provides some elementary and necessary background for the issues addressed in this book. As will become clear below, recent historiographical studies suggest that the more problematic historical aspects still thoroughly shape the reproductive biology that today is thought to dictate the configurations in which the female body appears as the object of interventions for an ever growing set of medical problems. To see this, one has to be prepared, if only for a moment, to postpone taking recourse to the ever available and all too often invoked male and female bodily differences and givens as explanations for the current nearly exclusive involvement of women in reproductive technologies.

This section is primarily an argument against biological determinism. In an attempt to move away from biological determinism, two main approaches have become prevalent. One type of criticism of science, developed mainly within women's studies of science and the philosophy of science emphasizes the cultural and social origins of the prejudices and biases that color the content of scientific knowledge. This critique has yielded a lot of convincing evidence against science's claims of neutrality and objectivity, on the levels of its choice and formulation of research questions\(^6\), its methods\(^7\), up to its epistemology and specific ideals of neutrality and objectivity\(^8\). Valuable as this type of criticism has been, it runs into some serious problems. In its conceptualization of 'biases' and 'prejudices' as the main causal factors in scientific knowledge production, it implicitly assumes that the ideals of neutrality and objectivity themselves still hold. Moreover, in attributing what it sees as 'bad science' to massive cultural and social factors, like gender structures and enduring male dominance, it replaces biological determinism merely by another type of monolithic determinism: a social or cultural determinism that reads too much intentionality and monocausality into the history of science. When "male thinking" and psychology are designated the
main causal factors in the generation of biased knowledge, it even is in danger of letting biological determinism seep back in through the back door.

Against such readings of science argues a second approach that emphasizes the contingency of scientific knowledge production. Usually referred to as 'science and technology studies (STS)', this approach combines ethnography, sociology, historiography and philosophy in empirical studies stressing the heterogeneity of factors at work in scientific practices.\(^9\) Rather than seeing scientific development as driven by (bad) ideas and broad, almost ahistorical cultural patterns, this tradition emphasizes institutional, social, and material factors that shape the specific, historical configurations of scientific work. Yet the problem with this approach - besides its rhetoric of 'empirical correctness' on account of the empirical detail it strives for - is that it tends to generate its own blind spots. Despite its claim to empirical comprehensiveness, it cannot avoid being selective as well. A bias toward classic sociological factors, such as institutions and interactions between groups, may have given way to a new trend of stressing 'material' factors and the role of artefacts and objects, but the selectivity necessarily remains. Thus, for example, in its focus on 'contingency', its identification of relevant factors in the construction of certain scientific facts or technologies may diffract in all kinds of directions in a particular episode, this may result in a failure to account for more enduring patterns over time.\(^10\) Both approaches are nevertheless important for their critique of scientific rationalism and biological determinism. The following reconstruction of developments in medical science, as pertaining to the historical background of contemporary knowledges and practices regarding reproductive bodies, makes use of indispensable insights from both traditions. As such it tries to avoid the pitfalls of overemphasizing intentionality and broad cultural determinisms on the one hand, and too much contingency and lack of awareness of more enduring patterns on the other.

Today there are myriads of ways, opportunities and reasons to intervene in women's reproductive bodies. Libraries are stacked with gynaecological atlases and textbooks, and we have an endlessly proliferated nomenclature for potential female pathologies and conditions in this area of medicine. This situation results from a long tradition of medical and scientific practices aimed at the female reproductive body. In comparison to our knowledge of and attention for the male reproductive body, one could argue that women as reproductive bodies suffer from overexposure.

The development and production of knowledge about any phenomenon are not determined by intrinsic properties and characteristics of that phenomenon (since these are the very product, or substance of the resulting
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