Biological Relatives

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FIVE Living IVF

So far in this book we have considered the general questions raised by IVF in a pair of broadly reflective overview chapters (1 and 2) and have followed the exact mechanisms of technologies for making sex in two subsequent chapters on experimental embryology and kinship theory (3 and 4). This chapter extends this sequence of frames by turning to a rereading of the feminist debate over reproductive technologies in the 1980s and the initial empirical studies of “living IVF,” which are explored from three distinct points of view. The first encounter is between IVF and feminism, the second between IVF and women, and the third between IVF and gender. These encounters move us into the realm of the social life of IVF and allow us to analyze IVF not only as a technology of living substance, but a technology that is lived as the remaking of life.1 They also allow us to consider the question concerning technology in relation to the politics of reproduction and gender, or sexual politics. Needless to say, this is such a vast and complicated encounter it is surprising that it is ever viewed as a specific one—that is, as one that largely or even exclusively concerns women, women’s rights, or women’s reproductive rights.2

Like chapter 4, this chapter also revisits the feminist literature of the 1980s, during the period in which IVF began to become much more widespread. My aim is not only to suggest how we might engage with these debates differently with the benefit of hindsight, from the vantage point of being five million miracle babies later and in the midst of the “biotech century.” Following on from the discussion of technologies of substance in chapter 3, and technologies of gender, kinship, and sex in chapter 4, this chapter foregrounds the question of technological ambivalence in the context of living IVF. Undoubtedly one of the major themes of the feminist debate over IVF, technological ambivalence has a parallel meaning in the context of feminism, where both IVF and gender (and sex and kinship) are analyzed as technologies that split
both subjects and political movements. This splitting, however, is not the routine hybrid or plural conceptuality described by Strathern in chapter 4, nor is it the “ambivalence of modernity” described by Zygmunt Bauman or Ulrich Beck. It describes instead the tension graphically illustrated in the large corpus of work on women’s reproductive agency, identity, and choice, especially in relation to various technologies, from abortion and contraception to prenatal screening, in which increased choice becomes a very double-edged bargain (Petchesky 1984). Finally, this chapter seeks to show how ambivalence characterizes the feminist debate in another, not unrelated, recursion of content and form: while often represented as polarized (which in many respects it was), the feminist debate over new reproductive technologies (NRTs) is, from another angle, better described as consistently equivocal across the so-called radical-feminist versus socialist-feminist divide. Importantly, moreover, the most significant shared ground within an otherwise divided debate was its pivotal focus on women’s experience of IVF.

All of these aspects of IVF make it an “ambivalent topic” for feminism, and this chapter explores this ambivalence politically as well as somewhat autobiographically. As Haraway (1991) notes, ambivalence is itself a double-edged sword. While ambivalence is associated with discomfort, powerlessness, indecision, and uncertainty, Haraway also points out the political danger of assuming that “clear-sighted critique grounding a solid political epistemology” is the only alternative to “manipulated false consciousness.” Indeed, she claims, “ambivalence toward the disrupted unities mediated by high-tech culture” may be an important space in which to discover “new kinds of unity” (1991: 30). Holding on to ambivalence may be an important means, she argues, to acknowledge that “what people are experiencing is not transparently clear” (31) and that developing understandings even of our own personal experience requires both evolving frames of reference and collective space in which to reflect. The ambivalent and contradictory feelings engendered by many new technologies, even in their most apparently dehumanizing moments, she argues, can also be resources for new forms of political organization and social change. Citing the irony of her own historical background, “a PhD in Biology for an Irish Catholic girl . . . made possible by Sputnik’s impact on US national science-education policy,” Haraway argues that “there are more grounds for hope by focussing on the contradictory effects of politics . . . than by focussing on present defeats.” She continues:

The permanent partiality of feminist points of view has consequences for our expectations of forms of political organization and participa-
We do not need a totality in order to work well. The feminist dream of a common language, like all dreams for a perfectly true language, of perfectly faithful naming of experience, is a totalizing and imperialist one. In that sense, dialectics too is a dream language, longing to resolve contradiction. Perhaps, ironically, we can learn from our fusions with animals and machines how not to be Man, the embodiment of Western logos. From the point of view of pleasure in these potent and taboo fusions, made inevitable by the social relations of science and technology, there might indeed be a feminist science. (31)

Building on Haraway’s insights, this chapter makes two main arguments about the tensions within feminism concerning reproductive technologies in general, and IVF in particular, as well as the ambivalence of the IVF experience identified within repeated feminist studies of how women experience this technology. The first builds on Charis Thompson’s (2005: 56) observation that the reason why RNTs have provided “the perfect text” for feminist theory is because of the extent to which they condense so many of the social, economic, and political stratifications that affect women’s lives and selves, while also foregrounding the tension between accommodation to the status quo and resistance. Like Thompson, I also suggest that IVF models technologies of gender, kinship, and sex and that it has become a defining concern of contemporary feminist theory because of this isomorphism. This implies, however, that the feminist analysis of IVF is potentially applicable to technology more broadly—and this is the second argument this chapter explores in more depth. Both of these perspectives are intended to emphasize what the feminist analysis of IVF has revealed about the process of navigating complex technological change—particularly when the technology is biological. This, of course, is a much more prominent question today than it was when many of the first feminist accounts of IVF and RNTs were written in the 1980s. The main purpose of this chapter, then, is to illustrate how this body of feminist work has gained increasing relevance as some of its implications have become more pointed in relation to present-day concerns about biology as technology. In contrast to the conclusion drawn by some that the 1980s feminist debates about IVF and RNTs were overly pessimistic, too descriptive, politically failed, divisive, ineffective, or problematically dependent on the category “woman,” I suggest instead that they generated a number of useful insights into the condition of being after IVF that continue to be relevant to the “tool future” of biology more generally. In particular, as I hope to show, these debates generated models of technology as identity and documented the profoundly am-
bivalent relationships with, to, and through technology that have increasingly widespread relevance to understanding how the remaking of life is lived in the age of biological control.

A Formative Debate

Even measured against the extraordinary output of feminist scholars during the 1980s, across virtually every academic discipline, the feminist debate over new reproductive technologies stands out as one of the most prolific to emerge during this formative period of contemporary feminist thought. Like the debate over pornography, to which it is often compared, it was frequently acrimonious and often caught between a politics of accommodation to existing (unequal, sexist, male-dominated) power structures and the attempt to change them. Likewise, the feminist debates on NRTs in the 1980s vacillated between prioritizing a distinctively sexual or gender politics and developing more complex, situation-specific, intersectional political strategies. In part, the debate over NRTs was about feminism itself. But at the same time, these debates also charted very new ground and grappled with many issues we are facing today decades before they came to more widespread prominence (egg donation being but one example). As this chapter suggests, the feminist analysis of IVF was also the first to examine not only how biology becomes a technology, or an identity, but how the transfer of new reproductive and genetic technologies into the human ("into man") could be studied, how the implications of this transfer could be analyzed, and how its politics could be characterized while NRTs became much more widespread. The feminist emphasis on personal experience—on “the personal as political”—was central to its critical stance toward NRTs and IVF—and its careful attention to the affective politics of the ambivalent engagement with technology. Consequently, these debates offer central insights that are, if anything, even more relevant thirty years later to the broad and pressing questions posed by contemporary bioscience and biomedicine. I suggest in this chapter that these insights take on particular significance in the wake of the five millionth miracle baby because the feminist debate over NRTs was primarily concerned with IVF—now a technology that has an applied human history of nearly half a century, and yet still a technology that is poorly understood and undertheorized for exactly the reasons Raymond Williams (1990) diagnoses for technology in general, namely that it may seem as though we already know what its effects have been. As feminists were among the first to demonstrate, the logics of IVF are not as obvious as they may seem.
It is no exaggeration to say that thousands of books and articles have been written by feminists on reproductive technologies—old and new—mostly from the 1980s onward, and including the first empirical studies of the experience of IVF. Artificial insemination, surrogacy, surgery, and hormonal enhancement of fertility, as well as contraception and abortion, can all be counted as forms of technological assistance to reproduction, or what are known as reproductive technologies. But it is the rapid expansion of IVF, and its evolution as a technological platform for genetic as well as reproductive intervention, that gave rise to increasing concern about NRTs from the 1980s onward. Building on the legacy of the women’s health movement, and a burgeoning interest in what has come to be known as science studies, feminist scholars were among the first to begin to seriously engage with the implications of bioscience and the new genetics through the lens of reproductive biomedicine. Whereas the concerns of bioethics originated in a wide range of practices, from organ donation and euthanasia to informed consent and genetic screening, feminists were particularly concerned from the outset with the encounter between NRTs and women’s bodies—a tellingly dominant concern in feminist debates over IVF. Similarly, whereas it was the advent of the new genetics that dominated much social science research on the rise of the biosciences in the 1990s, the earlier period of feminist research with which this chapter is concerned prioritized reproductive biomedicine and NRTs.

Like most feminist debates, the expansive debate over NRTs has been the subject of conflicting interpretations reflecting the ambivalence that is endemic to feminist politics as it is to the experience of being female. In addition to being a divisive topic, producing what Margarete Sandelowski (1990) memorably termed “fault lines in the sisterhood,” the feminist debate over NRTs is also often characterized as neglected. Writing in one of the most influential discussions of the ethics of IVF in 1995, the British theologian Anthony Dyson remarks that it is nothing less than “astonishing that most of the contemporary literature on IVF virtually or wholly ignores the feminist arguments” (1995: 6). He goes on to note that this neglect is particularly lamentable given the quality and depth of this body of scholarship: “In contrast to the highly individualistic arguments employed in much of the literature on the NRTs, the feminist writers have developed a significant body of social ethics instead—a social ethics which must also be reckoned as political to its very core” (6). Dyson devotes an entire chapter of his book to the feminist critique of NRTs and IVF in order to give them “pride of place” in contrast to their conspicuous absence elsewhere: “Surprisingly, very few of the
books and articles about ivf make any reference at all to the feminist challenge," he notes, adding, “As far as my reading goes, feminists are correct in observing that none of the male-centred criticisms of the nrts, be they conservative or radical, has opposed the technologies because of what they do to women” (43).

Inadequately recognized for their scholarly contributions at the time of their original publication, and mainly remembered for their bitter disagreements afterward (if they are referred to at all), the feminist literature on nrts recapitulates the difficulties faced by feminist theory and women’s studies in general as marginalized research areas. The theme of the divisiveness of feminist debates on this topic is ubiquitous, even within much of the retrospective feminist literature, although it is worth pausing to ask why this is the case and how the term is being used. The common, and pejorative, use of this term refers to the creation, sometimes deliberate, of unwanted or unhelpful divisions, as in causing disagreement or sowing discord. But it is hardly surprising that feminist critiques of nrts would be the cause of disagreement. A more productive way to interpret the deeply felt divisions within feminist debate is as a measure of serious and committed critical thought, generating the diversity of perspectives that is not only intrinsic to either intellectual or political struggle, but often considered to be indicative of their quality. To the extent the feminist debate over nrts opened an important space in which to mobilize a less normative set of responses to ivf than those that have emerged, for example, from bioethics (e.g., “reproductive autonomy”; Robertson 1994), it has not so much been a matter of speaking truth to power as of “speaking ambiguity to progress.”

I was actively involved in the early feminist intellectual and political mobilization in response to nrts, and this experience partly shaped my scholarly interest in ivf and my PhD research on this topic between 1986 and 1989—so this chapter also has an autobiographical element. Since I experienced at close hand the conflicts within feminism concerning nrts, in my twenties during the 1980s, I remain reluctant to dismiss their unsettling emotional consequences as either missing the point or as a regrettable side effect of political struggle. Such conflicts, I learned, are the political point: they taught me that the effort to remain ethically and politically responsive to the pressing questions posed by nrts is bound to be a demanding, and sometimes painful, process. We should expect to feel uncomfortable about the issues raised by ivf and nrts, as well as biomedicine and biotechnology more widely, as discomfort is one of the surest signs that an important ethical and political problem is nearby. Confusion and conflict are not diminishing forces: they are
indices of engagement, and crucial sources of political insight and creativity, as well as thought and speech and writing. In the same way that it is short-sighted to read the feminist debate over NRTS merely as inconclusive or unresolved, so too is it misguided to expect to resolve the question of biology as technology, or questions concerning the future of NRTS, genetic engineering, cloning, or stem cell research. One of the reasons for writing this book is my concern that the very process of having become more comfortable with IVF and its related technologies suggests the need to rethink their histories more carefully and more radically. As many ethnographic and medical studies are now asking, it may also be necessary to question whether IVF actually even is as comfortable as it seems. But I return to these questions later. For the time being, the question this chapter explores is what can be learned from the history of feminist debates over NRTS in the 1980s, particularly concerning IVF, and specifically from the divisions this topic generated. As I hope to demonstrate, these perspectives constitute a neglected resource that richly rewards revisiting, and should become more incorporated in contemporary teaching as well as dialogue about the future of biological control.

Early Feminist Primers

Two anthologies published in the early 1980s, Birth Control and Controlling Birth (Holmes et al. 1980) and The Custom-Made Child? (Holmes et al. 1981) were the first feminist volumes to focus attention specifically on reproductive technology following the birth of Louise Brown in 1978. But it was not until the mid-1980s that this literature began rapidly to expand. 1984 saw the publication of Test-Tube Women: What Future for Motherhood?, a feminist anthology aimed at a popular audience edited by three feminist scientists (Rita Arditti, Renate Duelli Klein, and Shelley Minden) and containing thirty-three short contributions from a range of feminist perspectives. In 1985, Boston-based feminist journalist Gena Corea published The Mother Machine: From Artificial Insemination to Artificial Wombs, the first major feminist monograph addressing NRTS, also aimed at a popular audience, and in which NRTS are denounced as tools of patriarchal oppression. In 1986, the first academic book by a feminist social scientist, The Tentative Pregnancy: Prenatal Diagnosis and the Future of Motherhood, was published by New York sociologist Barbara Katz Rothman, presenting the results of her major study of amniocentesis, and promoting the effort to provide a more supportive environment for women using this technology. In these groundbreaking feminist books the major themes that have come to dominate feminist debate over NRTS more or less ever since
are already evident. A brief look at these influential volumes is thus a useful place to begin.

*Test-Tube Women*, perhaps the best-known feminist text on the subject of NRSTs, illustrated in its very composition the tensions between feminists that would define the fault lines of this field. The anthology opens with a forceful editorial introduction in which “the *real* message for women” (Arditti et al. 1984: 5, original emphasis) of reproductive technology is voiced as a call to resistance (“we are all at risk of becoming *Test-Tube Women*,” 6, original emphasis). However, the various chapters contained in its 482 pages are significantly less unified in their assessments—offering a wide and diverse spectrum of feminist perspectives on everything from lesbian motherhood to cloning. In contrast to the unequivocal editorial insistence on the urgency of opposing new forms of biological subordination through male-controlled reproductive technology, *Test-Tube Women*‘s contributors offer a disparate array of personal, political, and theoretical responses to the question of “whether we as feminists should endorse [NRSTs] or [whether they are] just one more way to keep women subordinated to male control” (1). In spite of all the reasons to be cautious about NRSTs expressed by the various chapter authors, there is little by way of consensus about what to do about them, other than to network, share information, monitor developments, and remain skeptical. Moreover, the strategies on offer appear contradictory—ranging from the argument that “new reproductive technologies may be the key to more functional ways of raising children” (Breeze 1984: 397) to the claim that NRSTs exemplify the reification of manmade femininity (Raymond 1984: 433). The anthology is thus a primer in more than one sense: it contains not only the early seeds of feminist analysis of NRSTs, but expresses in its very structure, in the contrast between the certainty of the editorial call to arms and the far less unified responses from its assembled foot soldiers, the profound ambivalence that would continue to characterize feminist debate and activism in this area.

The contrast between Corea’s (1985) and Rothman’s (1986) now-classic studies of NRSTs is equally revealing of the scope of feminist division on this subject (as is the contrast between Rothman’s early and later writings). In her contribution to *Test-Tube Women*, Rothman emphasizes the paradox of NRSTs in terms of how they complicate the meaning of choice—a theme that has come to define almost all of the most important work by feminist social scientists on reproductive technology since. On the one hand, she argues, NRSTs such as prenatal screening undoubtedly enable more, and in some instances much better, reproductive choices for women. They could in this sense genuinely be described as assisting women technologically. However, NRSTs also
transform the experience of both reproduction and reproductive choice for women, and in many ways diminish it, thus potentially leaving women worse off than they would have been without such choices, or assistance, to begin with. Rothman thus argues for a continuing emphasis on the need for information and choice, while at the same time maintaining a critical political stance toward the contexts of such choices—much as her influential colleague Rosalind Petchesky (1984) advocated in the context of abortion, which she described, paraphrasing Marx, as a choice women must fight to protect, even if it is not one that is made on their own terms.

It is, of course, also paradoxical if women come to feel pressured by feminism into choosing not to choose, by avoiding the technology altogether. As Rothman concludes her chapter in Test-Tube Women: “We must not get caught into discussions of which reproductive technologies are ‘politically correct,’ which empower and which enslave women. They all empower and they all enslave, they can be used for or against us” (Rothman 1984: 32–33).

These claims are further elaborated in Rothman’s meticulous, original, and still highly relevant study of women’s experience of amniocentesis (The Tentative Pregnancy, 1986, originally titled The Products of Conception, 1985). Using interview data from consultations with 120 women, half of whom underwent amniocentesis and half of whom refused the procedure, Rothman provides a detailed account of the ways in which prenatal screening and diagnosis dramatically (and often traumatically) transform the experience of pregnancy. Her title refers to one of her major empirical findings, namely that a majority of the women in her study who underwent amniocentesis embodied their emotional and technological ambivalence by suppressing the physical sensation of the first palpable fetal movements (quickening) until after the test results had been revealed (often well into the fifth month of pregnancy). Striking as such empirical findings are in themselves, what makes them particularly compelling in Rothman’s text is her sensitive and restrained handling of the often hesitant voices of the women whose articulate accounts of embodying ambivalent progress form her book’s essential core.

A very different approach to the question of nRTs is provided by Gena Corea (1985), a highly accomplished investigative journalist, whose account of nRTs in The Mother Machine is dominated by the theme of male technological control over women’s bodies. Here, it is the producers rather than the consumers of nRTs whose candor reveals a disturbing portrait of what Corea describes as the sinister background to the emergence of the reproductive service industry. In her often surreal and disturbing interviews with men whose names are as seemingly Dickensian as their motives (e.g., Dr. John Seed),
Corea is keenly sensitive to language—quoting at length the “technodoc’s” descriptions of “bombing” ovaries with fertility drugs to produce “ovulation to order” (1985: 109); “recruiting,” “harvesting,” and “capturing” as many ova as possible from their women patients; sending embryos into outer space (116); and enabling “the biological manufacture of human beings to desired specifications” (133) to create a super-race (314). In tone, as well as content, Corea (whose chapter “Egg Snatchers” is placed back-to-back with Rothman’s in the opening section of Test-Tube Women; Corea 1984) could not be more explicit in her warning that nRTS should be opposed root and branch, and have nothing to offer women. Whereas for Rothman reproductive technology is essentially neutral and can have some benefits for women, depending on how it is used, Corea draws on the work of Canadian sociologist Mary O’Brien (1981) to argue that these technologies are inherently patriarchal, manifesting a primitive male drive to control women’s reproductive capacity. According to Corea, who also draws on Margaret Mead, Adrienne Rich, and Susan Griffin, reproductive technologies are, like gynecology and obstetrics, not only products of a patriarchal society but the materialization of patriarchal male desires. They are thus, inherently and irredeemably, tools of patriarchal oppression that turn women into raw material and reproduction into a market. In Corea’s account, patriarchal technology is endowed with purpose, direction, motivation, and goals. Her analysis emphasizes the seamless coherence of patriarchy in the form of its technologies, which substantialize the aim of patriarchal control by extending its reach. In vitro fertilization is part of a historical process that culminates in the establishment of “The Reproductive Brothel,” “The Capture of Maternity,” and “The Defeat of the Womb,” which are the titles of chapters 14, 15, and 16 of The Mother Machine.

Rothman argues precisely the opposite. In her account, reproductive technology is not inherently patriarchal—indeed it is not inherently anything; it is merely an avenue of possibility, creating new opportunities including the possibility of progressive social change. She writes, “I am not claiming that the technology is itself harmful. I think that the new technology of reproduction offers us an opportunity to work on our definition of parenthood, of motherhood, fatherhood and childhood, to rethink and improve our relations with each other in families. Freed from some of the biological constraints, we could evolve better, more egalitarian ways of relating to ourselves and each other in reproduction. The technology is a promise, beckoning us with new possibilities . . . giving us new control” (Rothman 1986: 3). These contrasting accounts of nRTS thus not only offer opposite solutions, but present radically different versions of “the question concerning technology.” Rothman
and Corea not only advocate opposing tactics, but rely on divergent models of the relationship between biology and technology. Whereas for Corea nRTs embody and manifest a biological male drive to control women, thus comprising in themselves the very substance of patriarchal succession, as well as its means of reproduction, Rothman suggests that technology offers a path to overcome “biological constraints” and to change patriarchal definitions of kinship and family. In one vision is a technology at one with its patrilineage—indeed a technology that intensifies male control of the very substance of patrilineage by gaining a firmer hold on biological reproduction (Corea’s chapter on cloning is subtitled “The Patriarchal Urge to Self-Generate”). In the other is a view of the potential of technology to create alternative kinship structures and new definitions of family—a plastic technology that offers a path to greater flexibility and freedom by releasing the “constraints” imposed by biology. In one version, then, technology extends a biological (male) drive to perpetuate a patriarchal lineage through reproductive control. In the other, technology potentially gives control back to women themselves.

This, of course, is a familiar political dilemma—in terms of not only women’s subordination (can the master’s tools dismantle the master’s house?) but technology (does mechanization improve the lives of workers even though it can oppress them?). Referring back to Rothman’s earlier warning against polarizing the debate (“We must not get caught into discussions of which reproductive technologies are ‘politically correct,’ which empower and which enslave women. They ALL empower and they ALL enslave, they can be used for or against us”), it is also clear that these positions can be read as either oppositional or complementary—or even as dialectically related. The one can be seen as the more cautionary version of the other, or they can be seen as irreconcilably polarized positions—Rothman being pro-nRT and colluding in their routinization, whereas Corea outlines a more oppositional anti-nRT strategy that risks the dangers of becoming caught in a judgmental stance that defines other women’s choices as complicit with patriarchal control. A key element of this contrast, as mentioned above, are the models of technology and biology being employed by each author—including the relationship between these two terms.

The Expansion of Debate
If Rothman’s and Corea’s positions in the mid-1980s provide a clear illustration of opposing feminist analyses of nRTs, in the two most influential early monographs on this topic, the opposite can be claimed of the two most widely
cited feminist publications that quickly succeeded them. Two feminist anthologies that were seen by many to solidify the distinction between radical and socialist feminist responses to NRTS were published in 1987. However, neither volume quite fit these categorizations, and upon closer inspection it is clear they have far more in common, particularly on the question of women’s agency to resist male dominance, but also, somewhat more surprisingly, on the issue of women’s experience of IVF as a form of “ambivalent progress.”

Made to Order: The Myth of Reproductive and Genetic Progress, edited by Patricia Spallone and Deborah Lynn Steinberg (1987) is, like Test-Tube Women, an anthology introduced by a powerful editorial stance that does not exactly match its contents. Similarly, Reproductive Technologies: Gender, Motherhood and Medicine, edited by Michelle Stanworth, although offered as an alternative to “the view that reproductive technologies represent a vehicle for men to wrest control of reproduction from women” (1987: 4) by providing a “fresh appraisal of reproductive technologies,” fails to deliver such a coherent set of contents. Indeed, despite claiming that “the authors in this volume firmly reject . . . the particular feminist reading which sees in these technologies an unmitigated attack on women” (1987: 3), Stanworth’s anthology contains numerous statements that explicitly support and even strengthen the interpretation of NRTS as an attack on women.

Thus, in the very first chapter, for example, the influential feminist sociologist and reproductive activist Ann Oakley, while critical of the “reproductive brothel” model that is central to Corea’s work, nonetheless foregrounds the persistent exploitation of women within male-dominated medicine, and especially gynecology and obstetrics, for the past two centuries. Indeed, as Oakley makes clear in her chapter titled “From Walking Wombs to Test-Tube Babies,” her main argument is not intended to oppose the feminist claim that women are treated as “biological systems manipulable in the interests of patriarchy,” claiming instead, “Just as sex can become a commodity when men and women exploit the idea that women are sexual objects for men, so reproduction becomes a commodity when women become reproductive objects” (Oakley 1987: 51). Far from opposing “the particular feminist reading which sees in these technologies an unmitigated attack on women,” Oakley argues, just like Corea, that although doctors are not necessarily consciously or deliberately motivated to “control the lives of women” through reproductive technology, there is nonetheless “quite a lot of evidence that [this is] the effect” (1987: 50) of their introduction into clinical practice. Indeed, despite Stanworth’s claim to the contrary, Oakley argues that Corea’s “reproductive brothel” accusation (drawn from the work of Andrea Dworkin) accurately
characterizes the rise of NRTs as both a market and an industry based on increasing male control of women’s reproductive capacity. Contrary to her editor’s stated intentions for the volume, and even her own account of her position at the outset of her chapter, Oakley endorses Dworkin’s model of NRTs as a “total mode of control,” which, she argues, “illustrate[s] the contrast between reproduction before the use of modern medical technological management and [the situation] after this system was established [by demonstrating that] centralized control by a powerful medical elite claiming expert technical knowledge is a more effective and total mode of control than a decentralized non-professional non-technical mode” (1987: 51, emphasis added). The problem with arguments such as Corea’s and Dworkin’s about patriarchy and male control of reproduction is thus not that they are too radical, according to Oakley. She precisely does not reject, as her editor Stanworth (1987: 4) would have it, “the view that reproductive technologies represent a vehicle for men to wrest control of reproduction from women.” Indeed, Oakley interprets the introduction of NRTs as achieving precisely this end, arguing that they intensify the objectification of women as “walking wombs” and “mindless mothers” (points she highlights in the title of her chapter). As we shall see, Oakley’s concerns, along with those of many of her cocontributors, have even more than this in common with the feminist camp to which they are allegedly opposed.

Rosalind Petchesky, another contributor to the Stanworth volume, is similarly unwilling to entirely reject the patriarchal paradigm, also despite her own claims to the contrary, beginning her famous essay “Foetal Images: The Power of Visual Culture in the Politics of Reproduction” with a quotation from Hélène Cixous describing the exclusion of maternity from the patriarchal unconscious: “[Ultimately] the world of ‘being’ can function to the exclusion of the mother. No need for mother—provided that there is something of the maternal: and it is the father then who acts as—is—the mother. Either the woman is passive; or she doesn’t exist. What is left is unthinkable, unthought of. She does not enter into the oppositions, she is not coupled with the father (who is coupled with the son)” (Cixous, quoted in Petchesky 1987: 57). This is also the article (first published in Feminist Studies the previous year) in which Petchesky memorably develops the astute political observation that “the current leadership of the anti-abortion movement has made a conscious strategic shift from religious discourses and authorities to medico-technical ones, in its efforts to win over the courts, the legislatures and popular ‘hearts and minds.’ But the vehicle for this shift is not organized medicine directly but mass culture and its diffusion into reproductive technology through the video display
terminal” (1987: 58). Describing the increasingly sophisticated use by the U.S. right-to-life movement of visual images of the unborn fetus to mobilize antiabortion sentiment, Petchesky argues these campaigners were “enlisting medical imagery in the service of mythic patriarchal messages” by producing a “baby man” who is also a spaceman-astronaut — “an autonomous, atomized mini-space hero” (64). These representations—in effect the outcome of a coupling together of ultrasound and fetal imaging (nrts) with television, film, and other media—have become increasingly influential in the effort to separate fetal and maternal bodies, she suggests. “As a result, the pregnant woman is increasingly put in the position of adversary to her own pregnancy/foetus” (65). These patterns, Petchesky argues, in turn “direct the practical applications of new reproductive technologies more towards enlarging clinicians’ control over reproductive processes than towards improving health (women’s or infants’). Despite their benefits for individual women, amniocentesis, in vitro fertilization, electronic foetal monitoring, routine caesarean deliveries, ultrasound and a range of heroic ‘foetal therapies’ (both in utero and ex utero) also have the effect of carving out more space/time for obstetrical ‘management’ of pregnancy” (64). Thus, while Petchesky criticizes “feminist cultural theorists in France, Britain and the United States” who have argued that “visualization and objectification . . . are specifically masculine” for relying on forms of “essentialism,” she nonetheless concedes that the “prevalence of the gaze” is indeed a reflection of “the deep gender bias of science (including medicine) [and] of its very ways of seeing” (68). Similarly, while she is critical of the feminist arguments of Nancy Hartsock, Mary O’Brien, E. Ann Kaplan, and others who “link patriarchal control over reproduction to the masculine quest for immortality” (71), she somewhat confusingly places a quotation by one of the leading feminist cultural theorists in France (Cixous) as the headnote to her chapter (see above). She is explicitly critical of the “reductionism” of “war against the womb” feminists, singling out her cocontributor Ann Oakley’s work, and citing Oakley’s reference to “specific forms of the ancient masculine impulse ‘to confine and limit and curb the creativity and potentially polluting power of female procreation’ (Oakley, 1976, p. 57: cf. Corea, 1985a p. 303 and chapter 16; Rich, 1976, chapter 6; Ehrenreich and English, 1978; and Oakley, 1980)” (Petchesky 1987: 71). But if the lengthy list of citations provided by Petchesky to support this critique of Oakley’s reductionism were not enough evidence of the complexity of feminist positions on nrts, and the difficulty of assigning pro- and anti-nrt sides, Petchesky’s subsequent criticisms of The Mother Machine raise still further questions about
the extent to which the feminist debate over NRTS was itself marked from the outset by the same ambivalence it often described.

It would, of course, be a mistake to place too much importance on the all-too-common practice of lumping various feminist arguments together into typologies and caricaturing their contents under somewhat hackneyed labels, for this is in general how many political and intellectual positions are fought. Too much academic literalism is undoubtedly out of place in interpreting Petchesky’s accusation that “works such as Gena Corea’s *The Mother Machine* and most articles in the anthology *Test-Tube Women*, portray women as perennial victims of an omnivorous male plot to take over their reproductive capacities. The specific forms taken by male strategies of reproductive control, while admittedly varying across times and cultures, are reduced to a pervasive, transhistorical ‘need.’ Meanwhile, women’s own resistance to this control, often successful, as well as their complicity in it, are ignored; women, in this view, have no role as agents of their reproductive destinies” (1987: 72). While recognizing the primary point Petchesky is making here about the limits of essentialist arguments, it is worth following her claim a bit further to see what this reveals about the fault lines described by Sandelowski (1990). Petchesky’s main complaint in this passage is a familiar one—that the overvaluation of male power leads to the undervaluation of female resistance. However, neither *The Mother Machine* nor *Test-Tube Women* are particularly good examples to illustrate this problem, since they are both products of feminist activism, and are thus examples of feminist resistance. Neither *The Mother Machine* nor *Test-Tube Women* ignores women’s resistance to patriarchal control—they are precisely dedicated to furthering it and constitute acts of resistance in themselves. To understand Petchesky’s complaint, and indeed to comprehend the ricochet of cross-shots aimed at various forms of determinism, reductionism, and essentialism in these debates more widely, it is necessary to engage the deeply ambivalent relationship to NRTS somewhat further.

FINRAGE
Like the Stanworth anthology, Patricia Spallone and Deborah Steinburg’s 1987 anthology, *Made to Order: The Myth of Reproductive and Genetic Progress*, contains a wide mix of feminist responses to NRTS in which both their dangers and potential benefits are explored. The association of *Made to Order* with radical feminism, and *Reproductive Technologies* with socialist feminism, while convenient and conventional, is nonetheless difficult to defend on the basis of
analyzing the actual contents of these two anthologies in more detail—which quickly reveals that their contributors, like those in Test-Tube Women, are distinctly ambivalent. Contrary to its association with an essentialized version of radical feminism, Made to Order contains more “traditional” socialist perspectives, such as Farida Akhter’s chapter describing the coercive use of wheat relief in Bangladesh to attain sterilization targets and Maria Mies’s critique of corporate capitalism in her chapter “Why Do We Need All This?” Above all, what stands out from this anthology is that, like Test-Tube Women, its idiosyncrasy and wide inclusiveness reflect its close proximity to feminist political activism. Unlike most Anglo-American feminist publications from this period, Made to Order is broadly international, containing contributions from feminists in India, Bangladesh, Brazil, Germany, Australia, France, and Britain as well as the United States. Clearly a publication produced by feminist activists, and deliberately written in accessible language, it contains, among other things, summaries of the development of new reproductive technologies globally in a series of twenty-one country reports compiled by the editors on the basis of their correspondence with the international network of local feminist activists involved in Finrrage.¹⁰ A number of traditional empirical approaches to the study of the cultural implications of new reproductive technologies were also introduced for the first time in this volume, including comparative analysis of media coverage and public debate of NRTs, and of national and international regulatory strategies. Along with Patricia Spallone’s (1989) insightful feminist analysis of genetic engineering, Made to Order is one of the first feminist anthologies to link the gender politics of IVF and other NRTs to those of bioscience, agribusiness, and biotechnology. Pleasingly, the anthology contains several authentic feminist manifestos, all of which disagree with one another. In sum, unlike the more conventionally Anglo-centric anthology edited by Stanworth, Made to Order offers an unusually international set of feminist political interventions that convincingly represent the diverse and impassioned nature of global feminist collective actions in response to the development of NRTs in the 1980s.

Above all, what distinguishes Made to Order is its indebtedness to new forms of “glocal” feminist political activism directed at the rise of new reproductive and genetic technologies. As its editors note, “this may be the era of biotechnology, but it is also the age of international feminism” (Spallone and Steinburg 1987: 16). The influence of UN Decade for Women activism is clearly evident in the form of the international feminist political networks mobilized to respond to the challenges posed by NRTs, including Finrrage, as well as networks of women health activists with links to the environmen-
tal movements, the antinuclear movement, and the effort to oppose coercive family planning measures in the Third World. Because of the vehement anti-NRT stance taken by some of its more prominent members, including Gena Corea, the “FINRRAGE position” came to be somewhat reductively associated with the “NRTs = patriarchy” stance.11 What my own experience in FINRRAGE confirmed, however, was that, like the actual contents of Made to Order, this was an international network of much greater political diversity than any simple characterization of a single position on NRTs could encompass (the claims of some of its most prominent members to the contrary notwithstanding).

I began attending FINRRAGE meetings in 1986, shortly after it was formed, as part of its British contingent, comprised (like the rest of the network) of a loose network of feminists with a variety of backgrounds and interests united by a shared concern about NRTs. If the FINRRAGE position was associated with a single unified stance outside the network, its actual workings as experienced by those within it revealed a much more encompassing definition of collective action that was largely manifest as information sharing, innovative research projects, workshop and conference organization, (very long) meetings, campaigning, writing and publishing, and generally encouraging feminist debate of precisely the kind represented in Made to Order. Serviced by a rotating International Coordinating Group that was based in Britain from 1987 to 1989, and functioning with pre-Internet technology (dependent on Xerox and snail mail), the work of hundreds of FINRRAGE members worldwide largely consisted of packaging and circulating hand-photocopied “international packets” of media clippings and policy documents, monitoring developments internationally, organizing conferences, exchanging correspondence, and developing feminist analyses of reproductive and genetic technologies that emphasized the interconnections between bioscience and biomedicine as they affected women’s rights and women’s health, as well as the environment, the economy, and ethical debate.

Shared by the most prominent members of FINRRAGE, including Gena Corea, Renate Klein, Jalna Hanmer, and Maria Mies, was a well-defined position of opposition to all forms of new reproductive and genetic technology. This position was repeatedly spelled out in a number of documents, from the founding manifesto of FINRRAGE to various publications and conference proceedings (many of which can be accessed on the FINRRAGE website, www.finrrage.org). This position emphasized the male medical takeover of reproduction, the deceptive marketing of IVF and other NRTs, the experimental nature of many NRT treatments, the exclusion of women and women’s interests
from almost all forms of public debate about nRTs, and the need for women to become more critical of techniques such as IVF that were often depicted in heroic and celebratory terms. The accompanying FINRRAGE line was simple: nRTs should be banned.

This line, however, was unevenly shared throughout the FINRRAGE network as a whole, as is evident in many of the publications associated with FINRRAGE, such as *Made to Order*, which, like *Test-Tube Women*, begins with a forceful editorial introduction by Gena Corea, Jalna Hanmer, Renate Klein, Robyn Rowland, and Janice Raymond calling for a rejection of nRTs: “By rejecting these technologies we take a woman-centred stance. . . . We should not forget that . . . the ‘technodocs’ need our bodies. . . . If we deny them our bodies and speak out angrily against them in public, then perhaps they will be forced to stop” (Corea et al. 1987: 11). Following this introductory chapter, however, is a much more mixed series of feminist responses to a wide range of technologies, in which some authors openly reject the FINRRAGE line. Green activist Linda Bullard, for example, states that she has “no quarrel with the Age of Biology” (Bullard 1987: 117) while policy specialist Patricia Hynes outlines a regulatory model for new reproductive technologies based on the U.S. Environmental Protection Agency that would allow “women [to represent] themselves on policy boards and regulatory committees as the subjects of these risky technologies” (Hynes 1987: 198). Like the chapter structures of both *Test-Tube Women* and *Made to Order*, the FINRRAGE network conjoined a small group of prominent feminists who were strongly in agreement with one another to a much larger and more amorphous group of network members who held a more diverse range of views. In addition to disagreeing about the political challenges posed by nRTs, the bulk of the FINRRAGE membership also had different views about the need for a single, unified political position in response to them. For the feminists most committed to the FINRRAGE position of complete opposition to nRTs, such as the authors of the editorial introduction to *Made to Order*, a line was a line—not a bunch of lines. This group operated much like a radical cell, often portraying their work as part of a war against patriarchy. The rest of the network operated more like a post–un Decade women’s collective action, in which a very high tolerance of diversity was both a valued and an expected component of feminist politics.

The regular meetings of British FINRRAGE members I attended as a graduate student in London, Bradford, York, Birmingham, and Leeds were highly informative and full of debate. They were also fun. The opportunity to meet other feminists involved in writing, thinking, and reading about nRTs generated enormous energy and excitement. The meetings always involved the
opportunity to learn about feminist activism in other parts of the world, and this internationalism was reflected in \textit{FINRRAGE} conferences, which brought together feminist activists from dozens of countries. The model of local activism linked to a global political agenda was thus very fully realized within \textit{FINRRAGE}, at a time when feminism was rapidly becoming a more diverse and well-organized global political movement. Fueled by the torrent of feminist publications concerning reproductive technology, including Haraway’s (1985) “Manifesto for Cyborgs” and Emily Martin’s (1987) \textit{The Woman in the Body}, to name but two of the instant feminist classics from this period, the \textit{FINRRAGE} network was in many respects one of the most successful and productive global feminist organizations to emerge during the 1980s. Like many such movements, \textit{FINRRAGE} members struggled to articulate a single political line. As a result, there were, in effect, two \textit{FINRRAGE}s—one that unequivocally advocated complete opposition to all forms of NRT, and another, larger, constituency that had a broadly skeptical caution toward the rapid routinization of procedures such as IVF, but which stopped short of insisting that no women should use them under any conditions. One of the main differences between these two different constituencies—the copresence of which was obvious to any participant in \textit{FINRRAGE} activities—was the invisibility to outsiders of the diversity of \textit{FINRRAGE} activism, masked as this was by the \textit{FINRRAGE} position or line.

Figure 5.1 illustrates the political structure of \textit{FINRRAGE} as it evolved from 1985 to 1989 from an insider’s point of view. As I have attempted to illustrate in this diagram, a division of both perception and politics separated a relatively small group of comparatively prominent \textit{FINRRAGE} activists associated with the network’s strong anti-NRT stance from the bulk of its membership, who held more disparate views, and this division predictably led to conflict. For example, while there was strong sympathy for the \textit{FINRRAGE} position of complete opposition to all forms of new reproductive and genetic technologies, many activists in the network interpreted this position as strategic, or even as symbolic, rather than as strictly literal. After all, abortion and contraception are reproductive technologies, and no one was calling for a ban on their use. Even some members who agreed with the line doubted its likelihood of success, and others expressed concern that such a rigid political position significantly weakened the ability of \textit{FINRRAGE} participants to gain a foothold in public debate. For many, the difference between their personal version of resistance and those that were officially spelled out in the many \textit{FINRRAGE} manifestos was irrelevant to most of what went on in \textit{FINRRAGE}. Like most political groups, the reality of participating in \textit{FINRRAGE} meant
working in small groups on specific tasks that did not require a precise definition of the network’s exact aims. So while it would be inaccurate to suggest that most FINRRAGE members did not share an explicitly feminist concern with the effects of NRTS on women, and the near-complete exclusion of these concerns from public debate, it was equally true that not everyone agreed about what was to be done.

Conflicts over tactics predictably ranged from mild to severe. Some members, for example, felt it was wrong to respond to public enquiries such as that of the British government in the wake of the Warnock Report, arguing that feminist responses would only legitimize a state effort to pass laws allowing for more use of NRRTS and the growth of a fertility market. Others felt a lack of response would defeat the whole purpose of FINRRAGE, which was intended to publicize a feminist critical perspective on NRRTS and to expose their deleterious effects on women. More severe conflict surrounded the often-heard criticisms that FINRRAGE neglected the difficulties of infertile women, cast IVF users as collaborators with patriarchy, and naively appealed to the state for protection (in the form of calling for a complete ban on the use of NRRTS). In a 1985 issue of the British feminist journal Trouble and Strife, infertility awareness activist Naomi Pfeffer criticized the work of FINRRAGE, claiming,
“The one voice that is never heard is that of the most directly implicated: the voice of infertile women. Because of their absence, this debate appears, from the perspective of an infertile woman, to be curiously ill-informed in terms of what it is like to be infertile, socially, medically, and emotionally” (Pfeffer 1985: 46). Shortly afterward, and in the same journal, Marge Berer, representing the Women’s Global Network for Reproductive Rights, accused FINNRAEG of “imperialist dogma” that was “void of evidence” and displayed political inexperience. “To kid oneself that the state is more benevolent than science to women is politically naïve and dangerous” (Berer 1985: 33).

Tensions concerning these questions were also present within FINRAGE and centered on various specific issues. The suggestion that FINRAGE should take a more sympathetic stance toward women IVF users was one such issue, and the question of whether assisted conception technology could be made more “woman friendly” was another. The problem posed by the stance of complete opposition was an almost constant source of debate that sometimes led to visceral disagreements. A case in point was the decision by the Bombay-based FINRAGE affiliate the Forum against Oppression of Women, who successfully campaigned for a law banning the use of amniocentesis for sex selection in the state of Maharashta, to support a strictly limited use of this technology to scan for fetal abnormality (largely in support of the reproductive crisis being experienced by women in the wake of the Bhopal disaster). For many FINRAGE participants this decision was both laudable and obvious, while for others, including many of FINRAGE’s leading activists, it explicitly departed from the network’s stated aims and official position by failing to enforce a complete ban on this technology.

These and other debates within the network reached a boiling point at the March 1989 FINRAGE conference in Bangladesh, coorganized by FINRAGE and a local alternative development agency, UBINIG. Although a productive conference in many respects, and highly successful as an international feminist forum, the event was marred by a series of conflicts that led to increasing fragmentation of the network in its wake. In the autumn of 1989 the International Coordinating Group of FINRAGE disbanded, while numerous other organizations, including the Forum against Oppression of Women, left the network. A book contract with Zed Press for the conference proceedings was canceled, and the network effectively split into those who remained part of a smaller and more politically cohesive core of radical activists (led by a new international coordinating group in Germany), and those who left FINRAGE. Along with many other FINRAGE participants, I left the network in the wake of the Dhaka conference, although I have kept in close touch with many of
its present and former members, both in the United Kingdom and in many other countries.

**Contested Conceptions**

It is in many ways predictable, given my experience of the conflicts in **FINRRAGE** over the question of women’s experiences of **IVF**, that I am inclined toward a different interpretation of the feminist divisions in this era than those which emphasize either radical versus socialist feminist divisions, or pro- versus anti- stances toward **NRTS**. My experiences led me to perceive such interpretations as too neatly polarized. Given my own interests and background, it is also not surprising that my attention was drawn to the issue that arguably unites **Made to Order** and **Reproductive Technologies** (as it united most of **FINRRAGE** with its opponents), namely that of the ambivalence of women’s reproductive agency in general and of the **IVF** journey in particular. The promotion of women’s reproductive empowerment and agency was not only a shared priority across disparate walks of feminist political opinion, and diverse contexts of feminist political activism worldwide during the 1980s, but also an issue that became particularly difficult, uncomfortable, and divisive precisely at the point that **NRTS** became involved. And no reproductive technology epitomized this difficulty more than **IVF**. As a result, not only in Western countries, but in India, Brazil, the Philippines, and the Middle East, the question of women’s relationship to **IVF** became one of the most intensely fraught political questions for feminists both within and outside of **FINRRAGE**.

Thus, despite their other differences, and in spite of being presented as opposing feminist positions, both of the anthologies discussed above addressed the issue of **IVF** in strikingly similar ways. Alongside articles that were highly critical of **NRTS** in **Made to Order** and **Reproductive Technologies** were chapters addressing women’s experiences of infertility and **IVF**, as well as the importance of protecting women’s access to artificial insemination and other reproductive technologies that were seen to offer paths forward out of rigid normative conventions of kinship and family formation, as well as the distress of infertility. Contrary to its close association with the **FINRRAGE** line, **Made to Order** contains one of the first feminist analyses of women’s experience of **IVF** by Australian **FINRRAGE** member Christine Crowe. As the editors note in introducing Crowe’s chapter: “In the debates on the new reproductive and genetic technologies, little attention has been paid to women’s experiences of infertility and motherhood. . . .Often our efforts to defend women’s right to
self-determination and reproductive choice have left out infertile women. . . .
The availability of IVF puts our politics into a new context” (Spallone and Steinberg 1987: 15). Similarly, although none of the chapters in Stanworth’s anthology directly address women’s experience of IVF, Reproductive Technologies includes a chapter from Naomi Pfeffer, the coauthor with Anne Woollett of the first feminist guide to infertility, The Experience of Infertility, published by the feminist press Virago in London in 1983. Stanworth’s introduction to Pfeffer’s chapter closely parallels Spallone and Steinberg’s introduction of Crowe’s research, emphasizing (albeit in a somewhat more critical tone) “the refusal by both supporters and opponents of reproductive technologies to acknowledge the heterogeneity of infertility [which] has had the effect of further stigmatising infertile women and men” (Stanworth 1987: 6). The importance placed on a sympathetic feminist approach to women’s experience of infertility and IVF in both of these opposed feminist accounts not only constitutes an important point of overlap but anticipates one of the most substantial legacies of these debates in the form of the analysis of how reproductive technologies are understood and experienced by those for whom they become a way of life.

Infertility and IVF
During the 1980s, the theme of women’s experience of infertility grew significantly in importance and, once again, three of the key volumes from this era usefully recapitulate some of the main fault lines to emerge in feminist debate. Pfeffer and Woollett’s 1983 guidebook was based on the authors’ own experience of infertility and infertility treatment, as well as interviews with other women who shared this experience. Designed as a feminist handbook for coming to terms with infertility, it was written to provide information and advice, and to break the silence surrounding infertility. Drawing on the work of Adrienne Rich, the authors argue that both sexuality and reproduction must be reclaimed from male-dominated frameworks and values: “We believe, like Adrienne Rich, that in the realm of sexuality and reproduction, ‘it is crucial that women take seriously the enterprise of finding out what we do feel instead of accepting what we have been told we must feel!’” (Pfeffer and Woollett 1983: 1). In their guidebook Pfeffer and Woollett interspersed detailed medical information and practical advice with chapters describing the emotional and psychological toll of coping with infertility—very much in the tradition of earlier women’s health guidebooks such as Our Bodies, Ourselves. Pfeffer and Woollett are not uncritical of NRTs or IVF, both of which, they
argue, raise questions about the social conditioning leading women to feel childbearing is an essential part of their identity. They express concern about the extent to which IVF has been developed within a male-dominated medical profession that defines women’s reproductive capacity as something to be managed and as an intrinsically flawed system (thus leading to the overattribution of infertility to the female partner, for example). They do not, however, claim that IVF is synonymous with patriarchal control, and instead are above all concerned to enable women to make their own reproductive choices, even if these may involve submitting to costly, painful, and most likely unsuccessful attempts at IVF.

Written before NRTs began to be the subject of more vociferous feminist debate, The Experience of Infertility successfully built on the self-help model of women’s empowerment established through the women’s health and reproductive rights movements of the 1960s and 1970s. That such an approach had become significantly more problematic for feminists by the mid-1980s may be one reason why no successor project to this volume was ever published. The closest candidates for such a companion volume are both, indeed, quite different from it. Tomorrow’s Child: Reproductive Technologies in the 1990s (Birke et al. 1990), produced, like Test-Tube Women, by three feminist scientists, was also a Virago feminist health handbook published in London in 1990. Like its predecessor, it provided up-to-date practical information about infertility, its diagnosis, and its potential alleviation through IVF and other procedures. Unlike the earlier volume, however, Tomorrow’s Child is concerned less with women’s experience of infertility or childlessness than the feminist debate about them, arguing, like Rothman (1986), against a wholesale rejection of these technologies and instead for greater accountability for their marketing and use, as well as better information for women who are considering these options. In the concluding chapters the authors call for an improved debate over the role of science and technology in society, increased control over reproductive technology by women, and more support of the use of such technology to challenge existing social arrangements of family, child care, and kinship, rather than reinforcing the status quo. In addition to being a guidebook, Tomorrow’s Child drew on Shulamith Firestone’s vision of the need for science, technology, and society to change in unison in order for reproduction to be redefined in ways that truly liberate women.

A different set of emphases and arguments distinguished The Experience of Infertility from Renate Klein’s 1989 anthology, also published as a feminist handbook of sorts by Pandora, titled Infertility: Women Speak Out about Their
Experiences of Reproductive Medicine. This volume is much more similar to The Experience of Infertility than is Tomorrow’s Child in its foregrounding of women’s personal experience and testimony as a basis for feminist politics, feminist analysis of reproductive health, and the feminist critique of nRTs. However, Infertility is intended to be a condemnation of ivf and nRTs, most closely resembling the account offered by Gena Corea (with whom Klein co-authored Man Made Women in 1985). As in Test-Tube Women, of which Klein was a coeditor, an emphatic editorial introduction affirms that “the message is clear. . . . ivf is a failed technology” (Klein 1989: 1, original emphasis), leaving no room for equivocation. These technologies not only expose women to “dangerous health hazards” and require that women be used as “living test sites for drugs and new techniques” (1989: 2), but “often severely violate a woman’s sense of dignity” (4) by invoking a “brutal ideology which sees women as mere breeders who need to be controlled” (6). In sum, and as the cover of Klein’s anthology affirms: “Reproductive technology fails women: it’s a con.” Correspondingly, the aim of Klein’s book was twofold. On the one hand she was seeking to expose the hidden truth of ivf and the reality behind the image of benevolent medicine and happy media stories (much as Corea had attempted to expose the hidden background of the science and marketing behind ivf). On the other hand, Klein sought to empower her readers “to have a real choice to say ‘No’ to conventional fertility treatments as well as ivf” (1989: 7, original emphasis).

Like Pfeffer and Woollett, Klein included in her handbook chapters covering a wide range of experiences of infertility and childlessness, as well as forms of its diagnosis and treatment. This inclusive spirit does not extend to Klein’s final assessment of nRTs, however. Her book closes with a forty-five-page denouncement of nRTs that calls for immediate global legislation to ban their use, and a worldwide feminist movement of resistance to oppose their future development. It is in this context that Klein pointedly describes FinnRage as a network that is not so much concerned with, but opposed to, nRTs. In a passage reminiscent of more recent critics of biomedicine and biotechnology, such as Bill McKibben (2004), Klein infuses her conclusion with a passionate injunction to act before time runs out: “There is still time to stop the technopatriarchal clock that races towards a future of people ‘made to order’—an un-humanness of an unprecedented degree. It is not too late. Immature eggs cannot yet be matured. . . . The artificial womb is not yet perfected. Living women still play the most important role in the technological set-up. May the voices of the women in this book increase a movement with a strong bias
in international feminist solidarity that resists the technologies and says no with passion” (1989: 289). Though largely critical of NRTs, however, few of the contributors to Klein’s anthology are as certain as Klein herself about the viability of alternatives to high-tech medical options such as IVF, or the possibility of large numbers of women resisting them. To the contrary, many of the contributors suggest that despite having considerable reservations about these techniques, they remain sympathetic to women who choose them for a variety of reasons. Even some of the women most critical of NRTs on the basis of their own experience reject the blanket opposition Klein advocates. As one woman described her experience in a chapter authored by German feminist health activist Ute Winkler, for example: “I could not say to a woman that she should not try it. I can understand why she would want to go for it. So I would say to her: ‘OK, it will be nasty and you will suffer.’ But I would not say that she should not be allowed to try” (Winkler 1989: 100).

The dilemma described by “Inge M.,” whereby she says for herself that she would never go through IVF again, indeed that she “would not like to be part of their machinery ever again” (Winkler 1989: 100), yet that she could not say to another woman that she should not try it, exposes the ambivalence of choices and choosing familiar to many areas of feminist politics. Indeed it is a statement that precisely recapitulates the feminist ambivalence toward IVF that has since come to dominate the debate over NRTs in general. Even while denouncing “their machinery” for herself, “Inge M.” is reluctant to dictate other women’s choices. For Klein, this presents a double dilemma since it represents not only a failure of feminist resistance but the tragedy of women’s voluntary compliance with patriarchal science, thus providing the “technodocs” with “experimental test-sites” (Klein 1989: 230): “The tragedy lies in women’s cooperation with the experimenters” (246), Klein laments, adding that “women taking part in IVF do not realize that, unwittingly, they contribute to this sick scenario of interfering with human reproduction” (279). According to this view, women who participate in IVF are not only victims but colluders (246). Yet although Klein argues that “there are no better spokeswomen against these technologies than women who have actually gone through the procedures, and survived” (286), such women themselves, as is made evident by their own published testimony in Klein’s book, do not always endorse their editor’s imperative “to be firm and advise women not to use these technologies” (287).

The model used by Klein is in fact less that of either the women’s health handbook or the self-help guide than a publication in the tradition of “speak-
living out” against war crimes, as in the feminist tribunals of crimes against women organized around sexual violence (Bunch 1982; Russell and Van de Ven 1976). Klein is not an infertile woman herself seeking to break the silence in order to raise consciousness in a manner that will assist women to find their own path. Contrary to her avowed reliance on women's own personal testimony, which, although critical, is distinctly equivocal, Klein attempts to reframe her spokeswomen’s voices as evidence of the imperative to “stop this crazy technology by saying no” (1989: 279, original emphasis).

Inevitably, accusations from feminists such as Klein, who describes women who undergo ivF as “addicts” who “willingly become research material” (1989: 249), were the source of concern to feminists researching the dilemma of infertility more sympathetically, such as U.S. nurse and anthropologist Margarete Sandelowski, whose interviews with infertile women patients during the 1980s led her to offer a very different interpretation of their testimony. Writing in 1990, Sandelowski warned of “fault lines” in an “imperilled sisterhood” and, specifically that “many feminist critiques of reproductive technology perpetuate and intensify the tensions that already exist between fertile and infertile women and reinforce, rather than counter, patriarchal ideas about and divisions among women” (1990: 34). She adds, “Current feminist discourse has largely focussed on the consequences of using technologies developed to remedy infertility rather than on the infertility experience itself” and that as a result “infertile women find themselves confronted with a group of feminists who suspect their motivations to procreate as strongly as they suspect the medical community’s desires to create babies by artificial means” (39). To the extent that such feminist arguments interpret women’s motivations to pursue ivF as “a sign of the perversity of women’s socialization” (41), argues Sandelowski, echoing Rothman (1984), they are unhelpfully “pitting one group of women against another” (42–43).

Somewhat contrary to the network’s anti-nrt reputation, the beginnings of a more comprehensive feminist account of the encounter between women and nrt s was initiated largely by members of Finrrage during the 1980s. Alison Solomon, for example, a Finrrage member and feminist health activist from Israel, was among the first to emphasize the importance of separating an analysis of the often traumatic experience of infertility treatment from the experience of infertility itself—a distinction, she suggested, that many feminist critics of nrt s had failed to make (Solomon 1989). Somewhat ironically, given its editorial stance, Renate Klein’s Infertility also contains a chapter from the Danish feminist historian and social theorist Lene Koch, a member of
who did not share Klein’s view that the only possible response to women who chose to undergo IVF was to reeducate them. Instead, like Sandelowski, Koch sought to reeducate herself by seeking out women who had undergone IVF in order to learn from their experience. As she explains in her chapter in Klein’s anthology, her research in Denmark with women who spoke to her about their experience of IVF forced her to reconsider the nature of the dilemma the technology poses, in part because of her increasing sensitivity to the reasons women are so determined to undertake it, and to succeed despite the odds.

This dilemma—which is in many ways that of “Inge M.”—was taken up by an increasing number of Finrrage members in the 1980s, following the lead of Christine Crowe, the first feminist researcher to conduct a detailed empirical study of women’s experience of IVF, which she published in 1985. Titled “Women Want It” (and reprinted in Made to Order), Crowe’s article, based on interviews with women undergoing IVF in one of Sydney’s first major assisted conception clinics, explored women’s reasons for desiring IVF treatment and, like Rothman’s study of amniocentesis, chronicled how their understandings of such a choice could change over the course of treatment, frequently resulting in outcomes they had not anticipated. Like many feminist researchers on IVF since, Crowe provided compelling data on the extent to which IVF was as much a technology of gender, kinship, and conjugality as of reproduction.

A dominant theme in Crowe’s study is the role of social pressures to attempt IVF in order to complete a family and to confirm a gender identity, as well as to affirm or repair conjugality through biological reproduction—or at least to be seen as trying to establish a pregnancy. As Crowe noted, “Most women expressed the feelings of being excluded from the social nexus of mothers and couples with children, not only in terms of neighbours, but with long-established friends. Parenthood was perceived to be the common experience around which friendships were maintained” (Crowe 1987: 89). Notably, Crowe also emphasized the difficulties described by her respondents of not being seen to try hard enough if they considered dropping out of IVF programs:

Many women stated that being on an IVF program forced them to centre their lives even more explicitly around reproduction. They recognized the inability to attempt to accept their infertility and to come to some resolve about life plans. . . . Once a woman has decided to undergo an IVF procedure, participation in the program seems to have a life of its own. For various reasons women found it very difficult to “give up” the program. Those who had initially set a time limit to how long they would
participate, or how many attempts they would have, found it very difficult to adhere to their initial resolve. (1987: 91, emphasis added)

Such findings were important to the feminist debate about NRTs for several reasons, not least the extent to which they revealed, even in these very first studies, that the pursuit of IVF was not exclusively driven by the desire to have children. As Crowe demonstrated, a fuller understanding of women’s motivations to pursue IVF revealed that being seen to try to become pregnant through IVF could in some ways perform a role similar to actually having children—at least for a time. Pursuing IVF, for example, could ameliorate the social pressures to participate in the common experience of parenthood by allowing women to center their lives around reproduction even if they failed to produce offspring. In this way, IVF could be seen to enable the performance of gender that Judith Butler would shortly be naming as a compulsory feature of identity, and that feminist kinship theorists were already describing as the product of exogamy—rather than its source.

Whereas earlier feminist accounts of the experience of IVF had documented women’s sense of being trapped in an endless series of failed IVF cycles, Crowe was able to offer an explanation of why this was so. Hence, for example, Gena Corea had clearly researched women’s experiences of IVF as part of her investigation of reproductive biomedicine for The Mother Machine. Her examples, like Crowe’s, accurately and poignantly depicted what is particularly painful about the IVF encounter:

Nancy was one of the “lucky” women who had a successful embryo transfer after her first laparoscopy in an Australian program. She was pregnant. Part of her cheered, while another part cautioned that the chances of success were small. “It was this incredible turmoil that I was in,” she explained. After about a month, she lost the pregnancy. “I wasn’t really surprised when I lost it. Some other people who I’ve talked to in the program feel devastated. I didn’t. I just felt real sad. I felt grief-ridden for a while, but I didn’t think about giving up.” After her second laparoscopy, while she, still sore, was recovering from surgery, the doctor told her the eggs they had just harvested had been abnormal. “When I went in [that] second time and my egg didn’t even fertilize, that was harder than the first time because I thought, “Well, I’ve lost a pregnancy, but next time they’re going to get it.” There were six more “next times”—seven operations in all—and they still had not “gotten it” by the time Nancy was interviewed in 1981. (Corea 1985: 180–181)
Both the tone and the context of Corea’s depiction of the experience of undergoing IVF reflect a single interpretation of this encounter, namely that it confirms a pattern of exploitation. “Of the thousands of women hoping to get a baby through the 200-odd IVF programs across the globe, the vast majority have been disappointed. The cycle of hopes raised (she’s accepted in the program) and dashed (the doctor could not get an egg), raised (got an egg) and dashed (the egg was abnormal), raised (got a normal egg) and dashed (embryo did not implant), raised (embryo implanted) and dashed (miscarried) harms women in ways pharmacrats have not acknowledged” (Corea 1985: 180). For Corea, there is no possibility of interpreting this scenario other than in terms of the harm done by patriarchal culture and its message to women about their place. “The message comes down with the force of centuries-long repetition. The patriarchy gives us the message through games, stories, toys. Our mothers whisper it to us. Our protests preach it. Our doctors give us treatments if our ovaries or our wombs fail us. It is our cell-deep knowledge: We are here to bear the children of men. If we cannot do it, we are not real women. There is no reason for us to exist” (1985: 170).

Crowe’s examples, by contrast, are more equivocally interpreted in order to reveal a more complicated struggle against these same norms of femininity. Her examples are differently inflected to allow room for resistance and to allow a more nuanced understanding of how and why people adapt themselves to circumstances beyond their control. Crowe not only illustrates but helps to explain the exact mechanisms by which people adapt themselves to choices that are not being made on terms they have chosen:

IVF may be seen by many women with fertility problems as the last in a long line of medical procedures. . . . Some women feel they “owe it to themselves” to attempt this last possible avenue before making further long term decisions about their life. Once undergoing an IVF procedure many women find it difficult to discontinue. One woman described IVF as a “whirlpool” where hope is offered “just around the corner.” The fact that IVF is possible, and its persistent lure of “next time,” makes it even harder for a woman to consider life without a child born of herself. (1988: 58)

By this means, Crowe can illustrate not only why women undergo IVF, but how they attempt to protect themselves in the process. As one patient she interviewed explained: “I know it’s not going to work again, but we’ll try anyway. You try to protect yourself. That self-protection is very strong. . . . All you’re trying to do is to cushion that emotional blow at the end” (Crowe 1988:
Crowe’s findings further confirmed that IVF patients are hardly unaware of the fact that they are undertaking IVF in a highly unequal situation, in which medical experts are in charge, while patients are both subordinate and dependent upon their doctors for the help they are seeking. As another interviewee explained: “When we first went to see the doctor [at the IVF clinic] I was saying to my husband: ‘Now, whatever you do, keep your mouth shut and be good, because this is the last chance we get’” (1988: 60).

Documenting the phenomenon later characterized by Charis Thompson (2005) as “ontological choreography,” Crowe revealed that the women patients she interviewed expected to be objectified and thought their doctors were likely to be incapable of treating them other than as “uteruses and tubes”: “They’re technical, they’re success oriented, they want to get pregnancies—that’s their job . . . to do IVF and to put embryos back, and to keep doing it day after day after day, with lots of women coming through on a conveyor belt. I don’t see how they can avoid just seeing women as objects because after all that’s what they are to them . . . just uteruses and tubes. Also, they have no training in the psychological or emotional aspects. They’d be terrified to get into that!” (Crowe 1988: 62–63). Crowe’s findings anticipate the description offered by Lauren Berlant of “cruel optimism,” defined as “a relation of attachment to compromised conditions of possibility” (2006: 21). In the same way, Berlant draws our attention to “the labor of reproducing life in the contemporary world [that is] also the activity of being worn out by it” (2006: 23), so too does Crowe provide an account of an attachment to chasing an impossible baby, noting of the patients in her study that “those who had set a time limit to how long they would participate in the program found it extremely difficult to adhere to their initial resolve; none kept to their original limit.” As another patient she interviewed explained:

“I’ve been chasing a baby ever since I was 22. You’ve got to draw the line somewhere. Thirty-five was going to be “it” . . . but I still feel that physically and mentally I could still have a child. For the last twelve months I’ve been trying to kid myself into saying that I don’t care if I quit anyhow. I’d like to be in a position so that I feel freer and not subject to any manipulation, and it’s not so important to me . . . but really, for all that twelve months it’s been a struggle inside myself, and I’ve never really reached the stage where I could say I could quit. (Crowe 1988: 64–65)

In addition to illuminating the precise mechanisms by which IVF becomes a way of life, Crowe identifies not only a feminine, and feminist, dilemma, but a technological one. There are several important paths that follow from her
investigations, including the question of what happens when technologies of gender and technologies of reproduction intersect. Or, to put it the other way around, are there circumstances in which the engagement with a technological quest or pilgrimage becomes a distinctly feminizing experience, for example in the psychoanalytic sense of how femininity is positively defined by subordination and lack? Is a certain kind of familiar heroism attached to the pursuit of impossible goals? Sara Ahmed makes an important point about the “relation of attachment to compromised conditions of possibility” (Berlant 2006: 21) in her account of “the promise of happiness” and what happiness comes “after”:

If we think of instrumental goods as objects of happiness, important consequences follow. Things become good, or acquire their value as goods, insofar as they point toward happiness. Objects become “happiness means.” Or we could say they become happiness pointers, as if to follow their point would be to find happiness. If objects provide a means of making us happy, then in directing ourselves toward this or that object we are aiming somewhere else: toward a happiness that is presumed to follow. The temporality of this following does matter. Happiness is what would come after. Given this, happiness is directed toward certain objects, which point toward that which is not yet present. When we follow things, we aim for happiness, as if happiness is what you get if you reach certain points. (Ahmed 2010: 26)

As Ahmed notes, “we might assume that the relationship between an object and feeling involves causality: as if the object causes the feeling,” when in fact the attribution of happiness to causality is often retrospective. Thus “the object of feeling lags behind the feeling” (Ahmed 2010: 27).

Berlant’s attention to the inherent ambivalence of attachments to “compromised conditions of possibility” and Ahmed’s account of “happiness means” are highly pertinent to the problem posed by IVF, which cannot simply be explained in terms of women being given the wrong messages or false hopes. The question of women’s relationship to the promise of happiness IVF offers is both more complex and in many ways less specific to women than such an explanation suggests. To paraphrase Ahmed, if IVF offers a promise of happiness, then to follow the path of IVF is precisely to move toward that which is not yet present, and thus to associate oneself with the happiness that is presumed to follow, even if the object of feeling never materializes. This is why IVF can offer a fulfilling orientation, whether or not it delivers a “take-home baby.”
A question we can now ask as a result of the long tradition of feminist studies of women’s experience of IVF that began with Crowe’s work—and indeed that some concerned IVF practitioners have increasingly asked themselves as IVF has become so much more widespread—is whether IVF is so popular in part because of its elusive and demanding requirements. Like a modern technological pilgrimage, IVF can be understood as a path that acquires moral and affective significance through the very nature of the journey as much as, if not even more than, through the fact of arrival. This is an important reason the path to IVF may be so difficult to leave despite serial failure, since ironically the endurance of so much deprivation only confirms more emphatically a dedication to the journey’s objectives.

The question of IVF’s complex appeal was also the subject of Canadian finrrage member Linda Williams’s (1988) PhD in Toronto in the mid-1980s. Exploring women’s motivations for undergoing IVF, and titled “It’s Going to Work for Me,” Williams’s research focused on why women continue to repeat IVF after failing, as most do, on their first complete cycle. Although it is in some ways a seemingly obvious question, Williams, a feminist sociologist like Crowe, provided the much-needed empirical data to account for what she described as “parenthood motivation”—an argument further developed in both Charis Thompson’s (2005) monograph Making Parents and Gay Becker’s (2000) study of IVF as a form of consumer culture in the United States. In Denmark, Lene Koch extended her study of women’s experience of IVF to make another important early finding that has been repeated many times since, namely the counterintuitive way in which women’s desire to pursue IVF treatment appears to increase in roughly the same proportion as their knowledge of why it is most likely to fail. “Somehow,” Koch observes, “information did not matter” (1990: 225, original emphasis).

In her 1990 article titled “IVF—an Irrational Choice?” Koch explores the reasons for this apparent discrepancy (later a central theme in studies of new genetic choices; e.g., Rapp 1999). She makes sense of this dilemma, as her title indicates, by arguing that the reasons women want to undertake IVF, or want to continue to undertake additional cycles despite repeated failures, are not irrational but are reinforced through the unexpected physical and emotional intensity of IVF, which engenders a rationality that is specific to the rigors of undergoing the highly stage-dependent IVF protocol, as well as the need to protect oneself against its high failure rates. Like many later researchers who have investigated women’s experience of IVF, Koch demonstrates the ways in which technological promise, reproductive labor, gendered identity, and individual agency interlock in the pursuit of IVF to produce a situ-
ated rationality characterized by a distinctive temporality, instrumentality, affective orientation, and self-protective mechanisms. She argues that appreciating the specificity of the “different rationality” experienced by women undergoing IVF is essential both to understanding why women want it and to building a dialogue about their decisions that is based on respect for their experience—to which they alone have access. To understand and respect such experiences, Koch emphasizes, is not necessarily to agree with the choices that led to them. However, she points out, a starting point of respect and understanding is a far more politically viable standpoint from which to openly disagree with such decisions than opposing them as either irrational or politically incorrect—never mind as culpable, illogical, or threatening to the future welfare of women as a group. In the context of feminist debate over IVF, Koch argues, “the belief that some views are ‘right’ and others are ‘wrong’ will not bring us closer to a better world for women” (1990: 231). Nor, she implied, would it lead to a greater understanding of the logic of IVF.

I began my own research on women’s experience of IVF in the mid-1980s for both political and intellectual reasons, including concerns I shared with several other FMRAGE members working on this theme. Like them, I became educated in the learning curve of the IVF experience through the generosity of women who were willing to share with me their experiences of this technique, revealing its many paradoxical and unexpected features. I learned, for example, that it was indeed possible to become a little bit pregnant while undergoing IVF, and that, just as Rothman (1986) had shown, such experiences changed women’s relationships to their prior understandings of choices they had made before they began the arduous process of embodying their consequences. Hence, I discovered, the choice to undertake IVF may be made on the basis of a kind of guarantee that at least if you fail, you will have the compensatory satisfaction of having tried everything, meaning you will at least not be worse off even if you do not succeed in bringing home the much-desired take-home baby, since you will have more, not less, than what you started with (having neither a baby nor the emotional closure of having left no stone unturned). What this equation leaves out, I learned, is the extent to which IVF changes the terms of this guarantee over time. By enabling a woman to begin to experience pregnancy, for example by seeing her own eggs, seeing them fertilized with her partner’s sperm, and then having potentially viable embryos transferred back into her womb, IVF ironically intensifies the very deficit it is intended to mitigate. Often, once this proximity to pregnancy is physically and emotionally experienced, the more offered by simply knowing you have tried everything is no longer enough. Thus IVF may
have taken away something you did not even realize you could lose, which is even the prospect of a closure to the pain of infertility—producing an opposite outcome to the more imagined at the outset, and one for which it is impossible to be prepared.

Conclusion
Becoming a little bit pregnant is but one of many distinctive features of what I described in my 1997 book *Embodied Progress* as “IVF as a way of life,” and many such insights continue to be gleaned by researchers from interviews with women and couples undergoing this procedure. Similar accounts of how reproductive technology alters the terrain of reproductive choice have been derived from what is now a significant number of sociological studies that broadly follow in Rothman's footsteps by chronicling not only the situated rationalities but the embodied logics of experiencing reproductive technologies such as amniocentesis, IVF, preimplantation genetic diagnosis, ultrasound, surrogacy, artificial insemination, or egg donation. Indeed, many of the phenomena Paul Rabinow described as “biosociality” in the early 1990s—to denote the technological remaking of biological ties, and the denaturalization of human biology as it came to be reengineered technologically—were first documented in the context of the new reproductive, not genetic, technologies. In vitro fertilization involves exactly what Rabinow described as the matrix of biosociality, “nature . . . known and remade through technique [until it] finally become[s] artificial, just as culture becomes natural” (1992: 241–242). “Biosociality,” he predicted, would become “a circulation network of identity terms and restriction loci, around and through which a truly new type of autoproduction will emerge” (241–242). But although he very accurately predicted these transformations in the context of the new genetics, they had already been described and documented within the feminist literature on NRTS, which precisely chronicles the emergence of new types of identity, new relationalities, and new types of “autoproduction” (as well as family production, kinship production, and identity production) in the context of NRTS.

What Rabinow’s account of biosociality leaves out is the complex texture of living an ambivalent relationship to technologies of remaking life. In contrast, this ambivalence is precisely what is so vividly foregrounded in feminist accounts of IVF. Whereas biosociality emphasizes new forms of social affiliation, and the emergence of new communities bound by a shared stake in biological redesign, the encounter with compromised possibilities that is so de-
termining of the relationship to both infertility and its treatment is the focus of the feminist work on IVF, which reveals the isolation and exclusion that create the feeling of “having to try.” In the context of IVF described by many feminist researchers, the emphasis on gendered identities adds an important dimension to understanding biosociality, as the pursuit of NRTs involves the remaking of identities, relationships, social groupings, and kinship ties. It is in this context, for example, that we can see more clearly how the familiar identity technologies of kinship and gender are not only the precursors, but also the products, of the pursuit of technologies such as IVF.