

Afterword

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Abstract

Here we provide a short reflection on the persistent themes from the volume and relate it to wider reproductive studies.

Keywords: Technologies of reproduction; discipline formation; lived experience; comparative methods; biological citizenship; reproductive justice

This book project has been in the making over many years. The idea first germinated when we were working on our respective PhD dissertations. Katie examined people's perceptions of assisted reproductive technologies in rural Scotland, and Vicky was tracing the social life of the oral contraceptive pill in London. We were regularly struck by the parallels in our ethnographic accounts of different reproductive phenomena in our many joint supervision sessions. For example, Marilyn Strathern's (1992) 'merographic connections' surrounding ideas of nature echoed in the logic of how people imagine surrogacy or weigh up their contraceptive options. This led to our first joint endeavour on nature and ethics (Dow & Boydell, 2017).

Nevertheless, the relatedness we found in our work on different technologies of reproduction continued over time and led to a more general observation of the relatedness of technologies in people's lives that has inspired this book. In a bid to test our observations, we brought both scholars and practitioners from different areas of reproductive health and technologies into conversation to examine whether and how technologies of reproduction relate to each other. This edited collection has emerged from these conversations, and the underlying precepts and principles are drawn from all the authors' collaborative intellectual labour. The colleagues and conversations that generated this collection have far exceeded the expectations of the initial workshop, particularly given that much of this work was completed under the constraints of the COVID-19 pandemic.

The relatedness of technologies across the life-course makes intuitive sense. As the proceeding chapters attest, this idea has real analytical purchase in understanding reproductive lives and engagement with technologies of

reproduction. Yet this begs a broader question, particularly given the wide recognition of relationality and of complexity thinking, why this relatedness between technologies has gone unmarked or unrecognised. One possible reason is the blinkers created by the conventions of our intellectual traditions. In the tradition of science and technology studies (STS), Adele Clarke's (1998) seminal work on disciplining reproduction provides us with insights into how reproduction became a scientific and medical speciality. Drawing on studies of discipline formation, Clarke painstakingly details how reproduction transformed into a scientific field and a profession with associations, meetings and forums, funding streams and set out conditions for knowledge production. She illustrates that this is not a coherent and premeditated process, but is shaped by collaborations, conflicts, hierarchies and differences.

We draw inspiration from Clarke's insights on discipline formation and apply these to the social scientific study of reproductive technologies to better understand the under-elaboration of the relatedness of technologies. In recent years, there have been some initial forays into documenting the field of the social scientific study of reproductive technologies. Rene Almeling's (2015) review paper on the sociology of reproduction usefully canvasses the field, and outlines the core texts of the discipline and the key concepts of this particular intellectual tradition. For instance, one such core and defining concept is that of 'stratified reproduction' (Colen, 1995), how the fertility and reproduction of some people are valued over others, and this has become almost a defining analytical feature of the field, or Charis Thompson's (2005) analysis of the 'ontological choreography' provoked by encounters with RTs. In her review paper, Almeling outlines how social scientists have conceptualised reproduction as a series of events associated with specific technologies. She then suggests that we should see reproduction as a biological and social process, much in the spirit underlying this volume. Building on this and other convening initiatives, Rene Almeling went on to bring together over 200 scholars working on reproduction research as part of the 2020 Repro Scholars Mentoring Meetup that started with a reflection by Faye Ginsburg and Rayna Rapp on the past and future of reproduction research. These moments indicate an emerging speciality of the social scientific study of reproductive technologies, much like the formation of other disciplines.

As an emergent field, some methodological and analytical conventions have come to inform the conditions of knowledge production. One such convention is that a specific technology of reproduction is treated as the object of study. The object is traced across different domains – within clinics, families, historical moments, and even within and between markets. This focus on a specific technology, Clarke argues, draws on the STS tradition of examining the 'social construction of technology' (Clarke, 1998) we can also see this in the biographic approach. There are clear analytical advantages to 'following the technology' – take, for example, the works of Charis Thompson (2005) and Sarah Franklin (1997) on assisted reproductive

technologies that trace a technology and its associated constructs over time and through different spaces. More recent examples include Daisy Deomampo's (2016) work on neo-colonial surrogacy in India and Lucy van de Weil's (2020) study of egg freezing in the context of broader reproductive politics. Both of these recent monographs have followed a specific technology of reproduction to learn about how power works at particular socio-cultural junctures.

Moreover, the focus on 'new reproductive technologies' in the earlier social scientific study of reproductive technologies parallels the boundary work noted by Clarke in the formation of reproductive science. Clarke provides a powerful example:

...the boundary between reproductive sciences and genetics is publicly construed by most geneticists as absolute and never to be crossed. While prenatal genetic screening and diagnostics, gene therapy, and fetal surgery are all predicated on the availability of abortion and other reproductive science interventions, these necessities must not be mentioned.

(1998, p. 271)

The creation of silos in reproductive sciences is paralleled in the social analysis of reproduction (Boydell & Dow, 2021). There are, of course, notable exceptions, such as Emily Martin's (1987) *The Woman in the Body* that purposefully looked across different reproductive events to capture how the cross-cutting market logic underpinning reproductive medicine conceptualises bodies.

These unspoken conventions were reflected in how the authors in this collection introduced themselves and their papers in our inaugural meeting. Almost all revealed how they appreciated the opportunity to write their paper because they had similar observations, which had remained underdeveloped as there was no space or place to pursue the thought. Like so many conventions, there are benefits and some inevitable drawbacks. One such limitation of studies that trace a specific technology means the focus is on experiences of a specific technology, usually at a particular juncture in an individual's life, rather than on how a technology figures in wider lived experience. The snapshot of a particular technology, people and settings runs the risk of losing the complexity of lived experiences and other perspectives. People do not experience a technology in isolation but as part of a broader context. A more contextualised analysis of reproduction recognises that we see technologies of reproduction as a part of life, tracing the imaginaries, values and principles that structure reproduction, as well as how reproductive experiences shape other parts of social, political and ethical life (Dow, 2016). Here we look to colleagues in clinical practice who are shifting to a more person-centred approach in reproductive health care where the focus is on

considering people's desires, values, family situations, social circumstances and lifestyles to find appropriate solutions (Constand, MacDermid, Dal Bello-Haas, & Law, 2014; Dehlendorf et al., 2021).

The empirical cases included in the preceding chapters illustrate how it is useful to 'make explicit' some of our implicit assumptions in how we study technologies of reproduction. This should not preclude studies that focus on technologies but complement and enhance them. The comparative approach is a common feature of the chapters shared in this volume. A comparative approach here refers to comparing something across space and/or across time. This could be comparing several time points in a person's life (see Boydell and Mackenzie in this collection), comparing two technologies (see Nandagiri, Wilson, van de Weil, Whitacre, Han and Hudson and Law in this collection), comparing a technology over points in time (see Hamper and Pickard in this collection) or two populations (see Kasstan and Appleton in this collection). Writing about the advantages of comparative ethnography, Simmons and Rush Smith (2019) argue that comparison extends in-depth research methods and insights across different sites, objects and actors, with the aim of tracking similarities and differences to map change, question existing categories, propose novel concepts and generate theoretical insights. Comparison allows for attention to meaning-making and lived experiences, through an understanding that all knowledge is situated in power relationships. It can bring to the fore dynamics that might be missed through focusing on a single site, offering ways to investigate the complexity, ambiguity and even incoherence that characterise lived experience. We are not unique in our proposition; feminist postcolonial STS scholars (Pollock & Subramaniam, 2016) and others show the benefits of comparative approaches, whether it be looking at racial injustice across technologies (Valdez & Deomampo, 2019) or how imperatives of contemporary parenting manifest in decisions around childbearing and childrearing (Faircloth & Gurtin, 2017). The chapters in this book show that such comparative approaches can help us create new possibilities and explore different angles that expand our thinking and analysis. Such an approach moves us away from narratives that reflect singular experiences toward accounting for how multiple dimensions intersect and interlock, in order to capture the breadth and complexity of lived experience.

Tracing experiences, constructs and logics across populations, times, places and technologies also reveals the stickiness and power of certain logics, legacies and ideologies that circulate and shape biological engagements. The chapters here illustrate how technologies of reproduction travel across all aspects of life and how these biological engagements are deeply biopolitical projects (Pollock & Subramaniam, 2016). The breadth of technologies covered speaks to the intensification of biopower more generally but also the application of biotechnologies to all bodies, not only those with a particular medical condition or disease (Wehling, 2010). People are actively re-envisioning their bodies, situations and biological destinies through

biotechnologies. New responsibilities, duties, obligations and burdens for people about their biologies accompany these possibilities. Focusing on the intersections and interplay between technologies of reproduction tell us that using biotechnologies to shape bodies and biologies has become a central part of neoliberal governance practices (Charles, 2013; Lock & Nguyen, 2018).

As outlined by Rose and Novas (2004), these engagements are forms of biological citizenship, engaging biotechnologies that shape and affect subjectivities, beliefs and biological presuppositions of disease and are linked to ideas of citizenship. Rose and Novas (2004) adopt the term biological citizenship to refer to

...all those citizenship projects that have linked their conceptions of citizens to beliefs about the biological existence of human beings, as individuals, as families and lineages, as communities, as population and races, and as a species.

(p. 440)

These chapters can be seen as accounts of biological citizenship. Each depicts how citizens relate to technologies to inform themselves and self-regulate and how these relationships facilitate engagement within a particular mode of governance and neoliberal rationalities.

For Rose (2007), individuals act and think positively about their biologies which they know and improve with biotechnologies, and therefore biological citizenship operates within an economy of hope. However, others argue that engaging with the technology can be equally driven by fear, burden, despair, guilt and exclusion (Charles, 2013). In these chapters that compare the intersections between reproductive technologies (see Bühler, Hamper and Hudson and Law in this volume), we can see how both hope and risk promote biological citizenship as the relationship between the individual, the state and biomedical technologies.

Citizenship projects are driven not only by individuals who organise biomedical classifications but also by 'incentives and recommendations from the state and other authoritative channels' (Charles, 2013). Nicole Charles (2013) argues that biological citizenship is a biopolitical tool within more extensive governmentality processes. It does not promote new rights but reconfigures a certain gendered and responsible citizenship based on rights and obligations. Several of the citizenship projects shared in this collection illustrate the 'incentives and recommendations from the state' (see Appleton and Mackenzie in the collection), and others include examples of the 'incentives' of commercial forces (de Weil, Whitacre, Han, Pickard and Hamper). With these new citizenship projects come new forms of discrimination, injustices and inequalities in accessing new biotechnologies and how obligations, duties and rights are unevenly distributed with differential implications for citizens. Speaking to a long history of technoscience and

feminism that points out how science and its subjects are gendered and imbricated in the circuits of power, Pande and Moll's (2018) account of egg donors in South Africa and Charles's (2013) analysis of the promotional materials for HPV in Canada show how the expansion and normalisation of biomedical technologies places a disproportionate obligation on women.

From the beginning of this project, we have sought to reflect seriously on the myriad ways in which the lessons of the reproductive justice movement might help shape the future of the study of technologies of reproduction. Once again, we are reminded that the phrase 'reproductive technologies' is so often assumed to be referring to high-tech techniques aimed at particular bodies – i.e. IVF or egg freezing for older, richer, white women in the Global North. One lesson of the study of technologies of reproduction/reproductive technologies has been the importance of attending to the ways in which these technologies are represented, in popular and public discourse, and where and how these representations diverge from personal experiences. Social scientists are, of course, well placed to capture and analyse both personal experiences and representations, as well as try and demystify both through empirical data. This is one reason we have emphasised the importance of both temporality and relationality in this volume, as well as the methodological and theoretical imperative to take what we know about reproductive technologies and bring them into conversation through comparative methods.

This project began with the simple and, in many ways obvious, – yet strangely under-theorised – observation that, not only do increasing numbers of people across the world encounter and (refuse to) engage with RTs during their lives, but they do so in plural ways. Different technologies of reproduction become salient at different ages and life stages, within different relationships, in different life circumstances and in different medical, legal and economic contexts. We hope that this book has put some empirical meat on the bones of this observation, as well as suggesting ways in which we might attend to this point within reproductive studies. Undoubtedly, the principles of reproductive justice can help us in this task, as they encourage a vision of reproduction in the round, that takes in all those who have been marginalised from previous studies of RTs and which takes a long view of reproduction and RTs. This approach can also offer fresh perspectives on long-standing precepts within both popular and scholarly (mis)conceptions about RTs and their users. For example, let's return briefly to Sharmila Rudrappa's study of surrogacy in India mentioned in the Introduction. For many years, we heard that people travelled to India for surrogacy because it had a good medical system but was cheaper than other locations in North America or Europe. Rudrappa's empirically informed account of Indian surrogacy provides a more complex rendering of this situation, as well as inviting us to step back and wonder about the assumptions that inform a judgement of India as a place that is cheap, but good enough. As Rudrappa shows, medical provision in India is both high standard and low-cost because of very particular

colonial and postcolonial policies of medical education and population control, as well as broader inequalities that make acting as surrogates a reasonable option for lower-income women (and training as an obstetrician an attractive choice for others with the opportunities and privileges to pursue it). Another instructive example is Dána-Ain Davis's (2019) account of reproductive injustice against black middle-class women in the United States. Once again, we could start with a popular and well-meaning assumption – that African-American women are more likely to experience maternal morbidity and mortality because they are more likely to have lower incomes. By focusing on middle-class black women, Davis explodes this neat assumption and all it can do to sidestep racism and injustice, showing that even those who are better off and who should therefore benefit from some of the privileges of class still experience disproportionately poor outcomes. As she shows, this demonstrates the necessity of a better understanding of the causes of maternal morbidity and mortality amongst black mothers that does not shy away from medical racism and the real effects it has on patient care.

These examples are cautionary tales about treating technologies of reproductive in a singular way or isolating accounts of their use that can reproduce a privileged interpretation that is blind to the experiences of those who are subject to reproductive injustice. Reproductive justice reminds us to take account of the complex contexts in which reproduction does and does not take place and the part that technologies play in upholding and/or circumventing those contexts.

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