FROM CYBORGS TO CROSS-SPECIES SOCIALITY

Donna Haraway: Manifestly Haraway. University of Minnesota Press, 2016, 336 pages. \$ 19.95

Manifestly Haraway contains a republication of two renowned texts by Donna Haraway written almost 20 years apart – The Cyborg Manifesto from 1985 and The Companion Species Manifesto from 2003 – and a 100 pages long piece at the end of the book: Companions in Conversation, a conversation between Donna Haraway and Cary Wolfe, the latter also the author of the introduction.

Apart from the sheer joy of the rhetorical performance, the interdisciplinary sweep and the iconoclastic breaking of the boundaries of science that Cary Wolfe praises in the introduction, there is no explicit motivation for the republication of the two texts. The reason for bringing these texts together, however, is hinted at by a citation from The Companion Species Manifesto where Haraway states that she "has come to see cyborgs as junior siblings in the much bigger, queer family of companion species" (103). Thus, according to Haraway, a new and more comprehensive story of the state of the world and our planet is due and this offers a chance to engage more extensively with Haraway's work as well as bringing a presentation of her thinking up to date, which is what the long conversation among 'the companions' at the end of the book is about. Through the discussion of the relationship between the two texts, their similarities and differences, major strings of thought are traced to the present day.

I share Cary Wolfe's enthusiasm rereading *The Cyborg Manifesto* – this classic, feminist, provocative and profoundly humorous text that shook up both feminist positions and science studies in the eighties – but I also share his perception that it represents a time capsule. It is a "product of its moment "(Introduction p. ix) with its focus on Marxist/socialist and radical feminisms as well as its

strong emphasis on technoscience. Nevertheless, it is still fascinating to follow Haraway's radical disruption of scientific and cultural boundaries that has formed our thinking about who we are and the world we live in. As an image of both imagination and material reality the figure of the cyborg epitomize what Haraway calls her political-fictional analvsis that evolves from three crucial boundary breakdowns: the boundary between human and animal, between animal-human and machine, and between the physical and the nonphysical. The shift in perspective inherent in these transgressions might open a political vision that embraces what Haraway calls permanently partial identities and contradictory standpoints, a vision suited to reveal not only domination but also possibility.

Haraway's cyborg feminism bears on this vision as she for instance confronts the innocence of the category 'women'. We are all (not least as white women) implicated in the entanglements of race, gender, sexuality, and class and the domination and possibilities inherent in these structures, and cyborgs therefore must denounce any natural unities, essentials or closed constructions of identities. There are no innocent positions, only partial connections. Or when she insists that the construction of communications science and biology blurs the difference between machines and organisms and thereby profoundly reconstructs the situation of women, sexuality, production and reproduction for better and worse.

The cyborg as an imagery that opens our vision to a profoundly different future may in some ways have had its time. But Haraway's text lives vividly by its playful, optimistic irony, its deconstruction of scientific and political orthodoxy and of the maze of dualisms that haunts our understanding of our bodies and selves, reminding us how much we need monstrous visions in order to see clearly.

The second text in the book: The Companion Species Manifesto. Dogs, People, and Significant Otherness, shifts the perspective from cy-

borgs to companion species as – "a more promising way to gather up the threads needed for critical inquiry" (97) in the new millennium – meaning an era of rapid destruction of the planet. It is a shift in the story of technoscience from cybernetic organisms to biopower and biosociality, i.e. to cross-species sociality with a much greater emphasis on history – history of cohabitation and coevolution among species with the dog-human relationship as the pivotal point.

But it is also to some extent a shift in emphasis from reflecting political-philosophical issues to contemplating emergent practices that will produce surviving naturecultures. It is about practices that respect difference and are able to create living space for relations of significant otherness. These practices are made vibrant through a series of dog-peoplestories that make op the major part of the text. The stories deal with evolution, love, training and breeding on several levels written to show how intertwined and common the developmental discourse and history of people and dogs/companion species are, how companion species are co-constitutive and how the nature-culture division breaks down yielding to the natureculture of all species. But they are also stories about "relating in significant otherness, through which the partners come to be who we are in flesh and sign" (116). And as such they are showing promising, emergent models of future coexistence - they are 'storytelling for earthly survival'.1

The last third of the book is a conversation that took place over a three-day period in May 2014 and stages Cary Wolfe asking Donna Haraway an array of questions starting out with questions of what the original historical conditions of the two texts were. This triggers an interesting historical, political and personal contextualisation of the two manifestos covering quite a range of global and very local events and personal experiences. The conversation then moves on to discussions of current biopolitical concepts, positions and dilemmas, the importance of eco-

logical feminist thinking and the most fascinating part of the conversation: the story of how Haraway's childhood Catholicism shaped her thinking and many of her main concepts such as 'the material-semiotic'. All in all this conversation piece is a gratifying way to get a closer understanding of the intricacies of Haraway's work although it in places is a bit of an academic hurdle race and somewhat marred by – to this reader – too much intalk.

My initial reservations about yet another republication of these well-known texts have evaporated during the reading, leaving me with a feeling of having experienced an excellent, enlightening and highly relevant journey through some thirty years of critical, controversial and necessary feminist thinking.

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Note

1. The name of a film about Donna Haraway, made by Terranova 2016.

PROVIDING A GUIDING HAND

Ayo Wahlberg & Tine Gammeltoft (eds.): Selective Reproduction in the 21st Century. Palgrave Macmillan, 2018, 198 pages. Price: 74,76 Euro.

This anthology, Selective Reproduction in the 21st Century, is edited by Ayo Wahlberg and Tine Gammeltoft, professors at the Department of Anthropology, University of Copenhagen. The contributions were originally prepared for a conference: Selective Reproductive Technologies – Routes of Routinization and Globalization in Copenhagen, December 2012.

The book consists of eight chapters: An in-

troduction, followed by three sections on 'Sex selection', 'Preventing Disease and Disability' and 'Selecting Traits'. The chapters in the book present both detailed descriptions of specific techniques and discuss the reasons for and consequences of using the technology.

Each chapter has a rather long list of references, some also a few notes and detailed lists of data sources. The various geographic and professional backgrounds of the authors – mainly anthropology, but also sociology, law, political science, and gender studies – contribute to the wide horizon of the topic covered by the anthology.

SELECTING WHAT - AND HOW?

In the introduction the editors present and discuss what they call the major forms of selective reproduction (Table 1.1., p. 2-3) and set the scene for the themes discussed in the book by summing up in the concluding part which task they have set themselves by producing this book. Their stated focus is 'empirical' (18) which is important after and against all the social and ethical debates that have taken and still take place in this field. The main questions to be elucidated in this empirical angel are what techniques have been developed to facilitate selective reproduction in recent decades, how selective reproductive techniques are being rolled out and made available within different regulatory frameworks, and how people living in different cultural settings perceive, respond to and make use of the new possibilities of selective reproduction that they are offered. It is in this perspective and with these kinds of empirical pictures that the concepts of routinization and globalization of the selective reproductive technologies (SRT) are framed.

Two chapters on 'Sex selection' follow the introduction. Trân Minh Hằng reports from her PhD study on emotional experiences of women in Vietnam, undergoing sex-selective abortion. This is a strong chapter picturing

the women's emotions, behavior, reactions and ambivalence. And with quotes from one of the informants, we see how her sexual life with her partner changes for months, as the sexual intercourse makes her think about the abortion. The emotions are analyzed in the three phases of 'deciding', 'undergoing' and 'after the abortion', and the reader follows the development until the latter phase of 'Silence, Suffering and Spiritual Relief'. Before going much into details, the context of the sex-selective abortions in Vietnam is thoroughly presented.

The other chapter in this section, written by Rhajani Bhatia, presents and discusses the development of the sex-selective reproductive technologies within the fertility industry, the history of the methods and their use in agriculture industry and the various aspects, considerations and discussions that preceded use of the technologies in humans. Focus is on two technologies: Preimplantation genetic diagnosis (PGD) and MicroSort. These two "fulfill a need based on a lifestyle desire" (46) and as such mark a step in direction of playing a role in the family identity and constitution. Or, one might say, a new type of family planning or family balance. Bathia documents and discusses how the use and development of the technologies increased in agriculture, while the "Transfer to Human Medicine" (53) happened through an underlining of the potential for disease prevention and treatment of infertility. In her concluding remarks she underlines that the life style sex selection had to be seen in relation to the widespread practices of sex-selective abortion.

This question of disease prevention is further unfolded in the second section. Laura Louise Heinsen is a medical anthropologist from University of Copenhagen working as project manager and development consultant in Copenhagen Municipality's Social Services Department. This makes her approach both scientific and based on practical knowledge. Her ethnographic exploration is based on 12 women's considerations, behavior and experiences with the non-invasive routine prenatal

screening as it is practiced in Denmark. One of the findings was that the women took the screening for granted as part of the standard antenatal care (87). Furthermore Heinsen states that the Danish state primarily has argued from the point of the couples' reproductive choices in the providing of selective reproductive technologies (ibid.).

Vincenzo Pavone and Sara Lafuente Funes have experiences in technology studies, and their professional backgrounds are Economics and Sociology. In the chapter on 'Selecting What?' they report on a study in which they identified and studied differences in the routinization trajectories in PGD and PGS (Pre-implantation Genetic Diagnosis and Screening, respectively) in Spain. They focused on what is selected, what kind of biological cha-racteristics are given priority and what visions of life are being selected and reproduced in the trajectories. They followed 21 women selected from various regions. The study revealed differences in the performed selection and that these were not due to the techniques per se, but rather to the different trajectories in which they developed (142).

Interesting and informative

The anthology is very interesting and contains much information regarding the various aspects of reproduction in contemporary countries. At the same time it is a good example of how researchers of various backgrounds using different study designs, methods and analytic approaches, quantitative as well as qualitative, together with thoroughly contextual description, constitute a good mix, especially when working within an area as complex as selective reproduction.

In my opinion, the editors have accomplished their aim by compiling the different chapters. Furthermore the jigsaw image they piece together illustrates the factors that have moved the use of technologies from 'giving nature a helping hand' to 'providing a guiding hand'.

One last remark could be that this book al-

so demonstrates the need for further scientific studies in this field, as many ideas in the text point out new questions.

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MAPPING THE SITUATION – A SUITABLE METHOD FOR DOING FEMINIST STS AT WORK

Clarke, Adele, Friese, Carrie and Washburn, Rachel S. (2018). Situational Analysis. Grounded Theory after the Interpretive Turn, 2nd Edition. Los Angeles. Sage, 426 pages. Price: 455 DKK

In 2005 Adele Clarke published the first L comprehensive introduction to her method of situational analysis, entitled, Situational Analysis. Grounded Theory after the Postmodern Turn. Since then, academics around the world have introduced situational analysis as an extension of grounded theory within the social sciences. Situational analysis is a method that assists the researcher in thinking through a research project from beginning to end, and it is particularly supportive of analytical work. Consisting of practical mapping strategies, it enables researchers and students to "just do it". Co-authored with Clarkes' previous PhD-students Rachel Washburn and Carrie Friese, this second edition has been reworked and updated significantly, and the title has been altered to Situational Analysis. Grounded Theory after the Interpretive Turn. This change of title is not incidental. It underscores how Clarke et al. position themselves as part of, and extending beyond, not only the postmodern turn, but also the interpretive turn. In line with Norman Denzin and Patti Lather, they are engaged in understanding the world as complex and heterogeneous. However, with situational analysis, they take further methodological steps, enabling work within the materialist turn while understanding the social as always co-constituted with materialities.

The second edition of Situational Analysis consists of 13 chapters divided into three parts and an epilogue. The first part, "Framing and Grounding Situational Analysis", describes the motivation for the book and introduces its theoretical roots. The second part, "Doing Situational Analysis", outlines how to conduct situational analysis in very practical terms. The third part, "Mapping Extant Discourse Materials", inquires further into the doing of situational analysis, including various forms of empirical material: from material generated through qualitative methods to visual and historical materials. The final epilogue consists of a chapter aiming to provide both teachers and students of situational analysis further reflections on this endeavour.

Adele Clarke has spent most of her academic career at the School of Nursing in the Department of Social and Behavioral Sciences at the University of California, San Francisco. There, she has conducted research on reproductive science and medical technologies. A student of Anselm Strauss, Clarke is educated in the qualitative sociological tradition embedded in symbolic interactionism, social worlds arena theory and grounded theory. Simultaneously, she has been involved in feminist health activism and gender studies, emerging as one of the pioneers in developing feminist STS. With poststructuralist theories in vogue, she has taken inspiration from Foucault's work while engaging in studies on reproductive technologies, biomedicalisation, life sciences, husbandry and knowledge transfer within medicine. Situational analysis represents a method that has grown out of her intriguing history of teaching and research; therefore, it is not incidental that the second edition is co-authored with her previous PhD students, Carrie Friese and Rachel Washburn, with whom she has worked closely since their initial graduate work until today.

Situational analysis is a method that enables the design and analysis of ethnographic and qualitative projects, which also includes historical or written sources, visual material and legal sources.

It is a methodology, or, in other terms, a theory/method package. The suggested mapping strategies - consisting of messy maps, relational maps, social world arena maps and positional maps - are conceptualised through the theoretical sources of inspiration shaping Clarkes' own academic journey. These sources include Dewey, Strauss, Haraway, Foucault, and in the new edition, Deleuze. The proposed method can be used during all points in the project: from the initial stage of developing research to "hold" the project throughout; and particularly when carrying out analyses. It is a method that enables a reconceptualisation of ethnography focusing on other types of objects of study, such as controversies in science and technology or organisational settings, the use of certain technologies, and the emergence of what is at stake in an assemblage, as illustrated in Friese's works on cloned animals (2013). In other words, it is a method that fits well in projects reconceptualising ethnography in line with what George Marcus (1998) has termed "multi-sited ethnography".

Being a method suited to engaged and critical science and technology studies, it provokes analysis of both human and non-human agencies. It is thus one of the few methods developed within science and technology studies that provoke the researcher to analyse material agencies as part of controversies or the making of the world. Finally, the analytical work that the mapping strategies encourage takes feminist theory as a point of departure, including Haraway's "situated knowledges" (1988) and Patti Lather's methodological thinking and writing (2017). It is a method constructed with a focus on intersections of inequalities asking "Cui bono? -Who benefits?" as Susan Leigh Star would have phrased it (Star 1991).

So what is new in this second edition? Thirteen years have passed since the first edition came out. Reworking the new edition, the authors have used their experiences of teaching and discussing the method with colleagues and students to the fullest. The new edition is a more user-friendly textbook. The theoretical groundings that shape the mapping strategies and their conceptualisation goes into more depth for the scholar or student less familiar with the proposed combination of theoretical roots. Importantly, central concepts for working with situational analysis, including "What is a situation?" and "What is a relation?", are what the symbolic interactionist Herbert Blumer has defined as sensitising concepts; concepts usable for ethnographic work. Likewise, the book has been updated with new project examples illustrating how the proposed methods should be used. Moreover, there are additional tips for students and teachers regarding pitfalls in analyses, such as the need not to end analysis prematurely in order to bring forward the complexities of the world analytically. It also promotes memoing (writing analytical notes) all the way from the generation of empirical material to the final analysis. In addition to situational analysis, they point out the need for work focused on the practices of writing. In other words, mapping does not in itself make an analysis. It is the mapping's provocation of analysis that is key to situational analysis. Finally, and importantly, the editor of Sage has provided an e-link with further resources and templates for the various mapping strategies of situational analysis as well as works for further inspiration:

https://study.sagepub.com/clarke2e.

These electronic templates are very helpful in starting the suggested mappings. Working interdisciplinarily with ethnography, visual material, narratives and historical sources – and from a feminist perspective – the second edition of *Situational Analysis* is highly recommended for thinking, working and teaching.

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SLAYING THE TESTOSTERONE REX – A FEMINIST BATTLE AGAINST SUPPRESSIVE INTERPRETATIONS OF EVOLUTIONARY BIOLOGY

Cordelia Fine: Testosterone Rex – Unmaking the myths of our gendered minds. Icon Books Ltd, London, 2017, 265 pages. Price: 13.22 \$

In the fairy tales, the agentic prince comes to the rescue of the princess by slaying the dragon and thereby liberating her from the suppressive animalistic beast. In a feminist and empowered version of this story, Philosophy Professor Cordelia Fine from Melbourne University arms the readers of her book Testosterone Rex – Unmaking the myths of our gendered minds (2017) with the scientific research they need in order to slay their own dragons; in particular evolutionary arguments

that feminism goes against our biologically essential binary sex differences.¹

If you are a feminist researcher who works to increase the latitude of people of all genders, then you have probably met the beast Fine intends to slay. She defines and describes Testosterone Rex as follows:

This is testosterone Rex: that familiar, plausible, pervasive, and powerful story of sex and society. Weaving together interlinked claims about evolution, brains, hormones, and behaviour, it offers a neat and compelling account of societies persistent and seemingly intractable sex inequalities. Testosterone Rex can appear undefeatable. Whenever we discuss the worthy topic of sex inequalities and what to do about them, it is the giant elephant testicles in the room. What about our evolved differences, the dissimilarities between the male brain and the female brain? What about all the male testosterone? (21-22)

In order to answer those questions, Fine discusses how evolutionary biology has itself moved beyond deterministic interpretations of sex, in spite of the fact that this discipline is still to this day often used for deterministic purposes. In other words, Fine describes how Testosterone Rex has been declared "extinct" (24) even within evolutionary biology, and that it is time to move the feminist debate past this out-dated interpretation of scientific theory and results. She achieves this by standing on the shoulders of many other feminist researchers from diverse disciplines. These include:

- 1) Biologist Anne Fausto-Sterling, who already in the 1980's took on a similar dragon slaying project with her book *Myths of Gender*
- Biological Theories about Women and Men;
- 2) Feminist Economist Julie Nelson, who is famous for drawing attention to implicit gendered assumption within economic theories, research designs, and gendered publication biases:
- 3) Neuroscientist and Psychologist Daphna

Joel, who is best known for her research which challenges the binary sex so often assumed in the human brain;

- 4) Social Endocrinologist Sari van Anders, who explores how social context and behaviours changes hormonal levels;
- 5) Psychologist Janet Hyde with her iconic feminist paper on the 'gender similarities hypothesis'.

From this broad perspective, Fine uses empirical research to systematically challenge supposedly biologically based, essentialistic beliefs about sex and gender. She begins with Angus Bateman's classical work with fruit flies, which for many years was considered the cornerstone of research on Darwin's theory of sexual selection. Bateman claimed to show that only males, and not females, gain an evolutionary advantage by being sexually promiscuous. However, subsequent analysis of Bateman's own data revealed no difference between genders, but rather that promiscuity conferred equal selection advantages to both male and female flies.

Turning to humans, Fine takes on the myth that testosterone, or the lack thereof, leads to the creation of radically different male and female brains. To challenge this assumption, Fine presents Daphna Joels now famous MRI study, in which she and her research team used 1,400 MRI (brain) scans to show that only 0-8% of the population actually have brains that we would identify as uniquely female or male. The majority of us have what the researchers label 'mosaic' brains, combining both male and female features.

My personal favourite chapter in the book is the chapter entitled "Skydiving Wallflowers". Here Fine challenges the evolutionary claim – which is often used to explain away discriminatory practices ensuring that women succeed less often in high status and well-paid careers – that men have evolved to be more risk-seeking than women. Fine systematically shows how the claim is based on multiple false assumptions and faulty research methods. Fine begins with evidence from studies

which show that risk-seeking is not a unitary trait but rather a domain specific trait, meaning that individuals who are willing to take risks in one area of their lives are not necessarily willing to take risks in another. From here she presents feminist economist Julie Nelson's important argument that masculinity and risk-taking are so strongly associated that the research tools we have developed to investigate risk-taking focus on actions in domains which are traditionally dominated by men. Finally, Fine dismantles the core assumption behind this claim, which is that this gender difference evolved as a result of women being more attracted to men who are more risk seeking. Fine presents research which demonstrate that (heterosexual) women are not drawn to risk takers in all domains, but only to men who engage in social risk taking. Adding to this finding, Fine reveals that women have been shown to be just as risk-seeking as men in the social domain. Fine finishes the chapter as follows:

Testosterone Rex implicitly blames women for their lower salary and status, distracting attention away from the "unruly amalgam" of gendered influences – the norms, beliefs, rewards, inequalities, experiences, and let's not forget, punishments by those who seek to protect their turf from lower-status outsiders – that unevenly tip the cost-benefit scale. (127)

The final weapon Fine brings forth in order to slay Testosterone Rex is a set of social neuroendocrinology studies which show that this idea has the causality backwards: testosterone does not dictate sexed behaviour, rather it is behaviour within a social context that regulates testosterone levels. Rather than human behaviour being "testosterone fuelled", our social environments and actions are "testosterone fuelling" (141). Fine presents studies which show that men who become fathers experience a decrease in their testosterone levels compared to non-fathers, and that fathers who are very involved in child-care have even lower levels of testosterone than fathers who

are less engaged. Similarly, women who act in a powerful manner experience an increase in testosterone levels (but men do not).

Thus, like the prince in the fairy tales, Fine frees her fellow feminist researchers from the Testosterone Rex, or rather, she empowers them to free themselves with the knowledge that even something so apparently essential as differences in our sex hormone levels are the product of everyday social and cultural practices and not just of our extinct evolutionary history.

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Note

1. Fine pays due to Richard Francis for the term 'Testosterone Rex': "Science writer and behavioural endocrinologist Richard Francis coined the term "Testosterone Rex" to poke fun at the mistaken conception of testosterone as the "super-actor" – the "plenipotent executor of selection's demands that simply "takes care of everything" (129).

PH.D.-DISSERTATION-NOTICE

Michala Hvidt Breengaard: HOW TO MOTHER? Practices of infant feeding and the formation of maternal subjectivity among middle-class mothers in Beijing

The dissertation investigates practices of I mothering in contemporary Beijing. It departs in qualitative interviews with 21 welleducated Chinese mothers as well as eight interviews with breastfeeding advocates. Through a narrative approach, the dissertation explores formations of maternal subjectivity with a particular interest in lived life. It explores how norms of childcare provide mothers with an ongoing task of improving their mothering skills. How mothers are inclined toward expert knowledge and how it conflicts with the elderly family members in the Chinese culture of multiple caregivers. It shows how breastfeeding is not only a matter of medical discourses, but also a bodily and emotional investment in a certain maternal subjectivity. In close dialogue with the empirical stories, the dissertation continuously discusses subjectivity as changeable as well as the implications of working with an unstable subject in empirical studies.

By: Department of Sociology, University of Copenhagen

The defence took place: 1st December 2017

Committee/opponents:

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