

Somatosphere Presents

A Book Forum on

Plastic Bodies: Sex Hormones and Menstrual Suppression in Brazil

by Emilia Sanabria

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We are very pleased to bring you a set of thoughtful engagements with Emilia Sanabria's remarkable book, [Plastic Bodies: Sex Hormones and Menstrual Suppression in Brazil](#) (Duke University Press, 2016). As you'll see from the commentaries, *Plastic Bodies* is already well on its way to becoming a touchstone in the medical anthropology and STS literatures on gender, bodies, and pharmaceuticals.



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Plastic Bodies, plastic lives: ambiguity, corporality and change in Brazil

ELENA CALVO-GONZÁLEZ

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Plastic Bodies powerfully convinces us that Bahians do not conceive of their bodies as a given, already constituted thing. Rather, they are understood as an on-going project, never finished, and always capable of undergoing (yet more) transformation. Bahians don't seem to shy away from transformation, be it in terms of their bodies or, in general, in their lives. As a long-term resident of Salvador myself, I remember a visit I received from a North American friend who returned to the city, where she had lived for twenty months, after having been away for over a decade. After catching up with all her acquaintances, she confided in me that she was feeling as if her life during that period of time had been ten years, whereas that of her Brazilian friends seemed to have lasted, at the very least, double that: "they all changed so much, careers, jobs, partners, hobbies...the one thing that didn't change was their looks, they all looked pretty much as they did ten years ago!" Bahians embrace change, within their bodies, in their lives, and in their embodied life. Plastic bodies for plastic lives, lives too caught up undergoing and effecting all these changes to completely adhere to what we could call "western" expectations of continuity and essence. At the same time, and as my friends' remark on her Bahian friends' unchanged looks show, it is not as if there aren't certain social pressures at play that constrain the possible changes these bodies can or, at least ideally, should undergo, particularly with regards to the public ageing of women something that *Plastic Bodies* also reminds us about throughout the text. And yet, when it comes to on-the-ground practices regarding the body, things are not necessarily a matter of either/or, which leads me to bring up the central role that ambiguity has in Brazilian every day life. Take for example the nonchalant way with which a woman at a relatively refined restaurant loudly condemns a fellow diner's food choice on the grounds that it could give her diarrhoea, which contrasts with the efforts, narrated by Emilia, taken by women in general to publicly manage and hide their menstruation. While the materiality and sensuousness of bodies is

acknowledged in public, those very same bodies, their boundaries and movements, are also under constant scrutiny, open to receiving either social approval or reproach by others. Skin colour or facial features, hair, demeanor and mannerisms, can be read by others as markers of class, race and gender, all deeply observed and taken into account in everyday relations, normally being acknowledged in subtle and non-verbal ways, in interactions both within and between social classes. The way these bodily readings actually affect and determine social exchanges is also not clear-cut and final: ambiguity is also very much at play, with no definite social script that all actors involved can consistently follow. The end result is what *Plastic Bodies* very fittingly portrays: how materiality, excess and ambiguity feature in Brazilian everyday life, lived through bodies that are constantly negotiating how they are perceived, and the effects that this has on ideas about bodily plasticity.

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Fluid Hormones

ANITA HARDON

University of Amsterdam

In *The Social Lives of Medicines*, my co-authors and I argued that the efficacy of pharmaceuticals is multifaceted, consisting of material as well as social/meaning efficacies. While material efficacy is located in a drug's pharmaceutical content, its meaning effects are related to culturally specific expectations of the drug's effects. The latter—acknowledged by medical researchers and practitioners as “placebo effects”—are not attributed to a drug's material content. Social efficacy, we argued, involves the relational context in which medicines are used, for example by a mother treating a child with cough syrup. The cough syrup not only suppresses the cough; it also calms the child and projects to neighbors and family members the provision of good care. In emphasizing the sociality of medicines, we sought to understand how efficacy is shaped by “common social experiences in the context of social relations” (Whyte, van der Geest and Hardon 2002: 169).

Emilia Sanabria, in her earlier work (2009) as well as in this monograph, has criticized this conceptualization of efficacy, arguing that it leaves the materiality of pharmaceuticals under-theorized. She states that her book critically engages with our approach “from the perspective of its tendency to take the object for granted, and to not attend to the absorption, dissolution, or enmeshment of the things into bodies in which they become efficacious” (Sanabria 2016: 40). Inspired by Tim Ingold's call (2012) for social scientists to study the properties of things and how they change as they move, not only through space and time but also through the body, “sustained thanks to the continual taking in of materials from its surroundings, and in turn, the discharge into them, in the processes of respiration and metabolism” (Ingold 2012: 438)—Sanabria approaches bodies as porous and plastic, in the sense that they both “receive and give form” (Sanabria 2016: 40), and shows how the properties of drugs are tinkered with by users, doctors and pharmacists, producing multiple efficacies.

Sex hormones are good things to think with. In Brazil as well as elsewhere, they are widely used and prescribed to regulate fertility. Anthropologists have shown how the properties of sex hormones are tinkered with by consumers around the world for all kinds of off-label

purposes, including delaying menstruation, inducing abortion, enhancing skin and growing breasts. Consumers adjust dosages and administration forms, while situated notions of efficacy travel by word of mouth. For example, in Indonesia, Nurul Ilmi Idrus and I observed how male-to-female transgenders use contraceptive pills and injectable hormones to “feminize” their bodies using large quantities of contraceptive pills alongside hormonal injections. Each of our informants balanced side-effects (headaches, nausea and lack of libido) with desirable efficacies (Hardon and Idrus 2014). Science and technology scholar Nelly Oudshoorn (1996) has shown how these user practices have influenced reproductive research, which aims to develop a “cafeteria” of hormonal methods involving multiple routes of entering the body (through vaginas, as implants, and as injections in addition to the oral route).

Sanabria’s ethnography suggests that Brazil is the epicenter of innovation in the field of hormonal drugs. Here, leading gynecologists and reproductive scientists have been at the forefront of experimentation, attentive to a wide range of user desires. Different mixes of hormones are prescribed by gynecologists and produced by so-called “manipulation pharmacists” to achieve specific kinds of sexual and reproductive selves, while pharmaceutical companies are producing contraceptives with a wide range of properties including suppressing menstruation and relief from acne. Sanabria shows how doctors emphasize the benefits of sex hormones—enabling women to stay young and sexually active—while discounting side-effects such as headaches and weight gain.

While medical anthropologists have widely studied the use of sex hormones and STS scholars have investigated their making, I have yet to come across a single monograph that combines the two, showing how the efficacies of sex hormones are continuously articulated and re-articulated through intertwined and situated processes of consumption, manufacturing, selling and prescribing. I am fortunate to have recently elaborated this approach with Emilia Sanabria in a forthcoming review, in which we call on anthropologists to examine pharmaceuticals as things that enter bodies, disintegrate and flow back into environments, while being reflexive about how we mobilize biomedical models and ecological understandings and for what ends (see Hardon and Sanabria, forthcoming 2017).

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Anita Hardon is a Professor of Anthropology at the University of Amsterdam, where she also serves as the Co-Director for the Institute for Advanced Studies. She has published widely on the anthropology of pharmaceuticals; immunization; new sexual and reproductive technologies; and AIDS therapeutics. Since 2012, she has directed "[Chemical Youth](#)," a multi-sited comparative ethnography which aims to understand what chemical and pharmaceutical substances, and not only illicit narcotics, 'do' for youths.

How to deal with the politics of body plasticity?

DANIELA TONELLI MANICA

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Plastic bodies is a required read for researchers interested in anthropological approaches to issues such as the body, health, gender, technoscience, biomedicine and pharmaceuticals. Emilia Sanabria's ethnography of different substance flows such as sex hormones and menstrual blood in Bahia, Brazil, explores the idea of "body plasticity", a concept inspired by Catherine Malabou.

It is not by chance that the book opens and ends with Elsimar Coutinho, the Bahian MD who is locally and internationally known for his involvement in the development of a series of contraceptive technologies to suppress both menstruation and ovulation. As one of the main proponents of menstrual suppression through the continuous use of synthetic sex hormones, Coutinho argues that contemporary menstruation is a "social" phenomenon due to its efficacy in the control of women's fertility in "modern" societies. According to him, in "nature" females don't menstruate – which situates menstrual suppression through the use of sex hormones as a sort of "paleofantasy" technique that aims to restore, through technology, female bodies to their alleged "natural" state.

As Sanabria discusses in the book's introduction, the development of the pharmaceutical industry and hormonal contraceptive methods in the second half of XXth century made it possible to "manage" sex hormones and menstrual blood. The image chosen for the book's cover, for example, draws attention to the birth control pill's pause or placebo pills that mimic monthly bleedings. Although the technical possibility of menstrual suppression was only explored by the global pharmaceutical industry near the 2000s, many Brazilian women have experienced long-term hormone-induced menstrual suppression since the 1970s, possibly due to Coutinho's local importance and influence.

Sexuality and biological reproduction, as we learned from Foucault, are very political matters. When crossed intersectionally, that is, considering not only gender, but also race and class, the

discussions become even more politically charged. Subdermal implants, for example, faced tenacious opposition from feminist and black-feminist movements in Brazil, both, as they were being developed, and in their early stages of use (in clinical trials, family planning programs and/or commercialization in private clinics). How feminist movements dealt (and deal) with contraceptive technologies and the medicalization of reproduction continues to be of central importance today. How should we think about biomedical interventions such as sex hormones? Should our bodies be less plastic, and more closed?

Indeed, bodies and substances are not put in relation to one another arbitrarily. Instead, they are mingled according to very different biopolitical criteria. In order to consider what Sanabria argues to be the malleability and plasticity of Brazilian bodies that renders their “openness to intervention” (p. 6), certain connections must be considered. For example, between substances (sex hormones in different forms and shapes), projects of population control and nation-building (the “modernity” project in Brazil) and biopolitics (which lives are valuable and welcomed, and which are dispensable).

In a very thought-provoking text, Sanabria follows both “hormônios” and menstruation. Her work sharply addresses racial, class and gender issues without falling into the trap of taking them as a given, or fixed condition situated in the body (in the case of race and gender, especially). These differences and inequalities appear throughout her work as she narrates the circumstances witnessed during her research, and tries to situate her interlocutors’ narratives.

Sanabria’s work is innovative and inventive, responding to the impacts of neomaterialism, feminist studies of science and the “ontological turn” in anthropology. Instead of taking the bodies’ frontiers for granted, Sanabria prefers to focus on the very process of their making. This is a great contribution to contemporary studies of the body, for it represents a well-succeeded effort to think about bodies in flux with the world and their materiality, plasticity and malleability. They are living bodies, in action and in context. Her book goes beyond the vision of bodies as given entities, considering their agencies and as parts of the assemblages that compose vital and post-human processes. This includes different engagements with technoscientific artifacts, such as the sex hormones.

In Chapter 3, we learn how *travestis* from Bahia make use of some of these artifacts (estrogens, mainly) to overcome expectations of sexual dimorphism and gender identity based on stable corporeal forms. As Sanabria beautifully shows, the material potency of hormones exceeds

their “gender-microfascist” prescription – as Preciado might put it. Once the bodies are considered open to different flows, bodily modification can be performed on a molecular level by a (subversive) use of these substances. In this case, to feminize a male body.

I find the idea of an “excess” of potencies of a technological object – that is, in this case, the off-label properties of sex hormones – as very stimulating to explore and to engage with politically. We might attribute, as the *travestis* show, a political positivity to sex hormones’ agency in terms of gender and sexuality, by questioning heteronormativity and the two-sex model. On the other hand, it is this very same “excess” of potency that compounds the basis for classifying “collateral” or “side” effects of a medication or substance.

Her book made me think if it is not this same potency or agency of sex hormones that haunts us when white-well-settled-powerful men such as Coutinho express their confidence in the strength and appeal of this technical object among women. With a trajectory marked by gender, class and race privileges, that I address in my doctoral dissertation, Coutinho defines contraceptive hormones that suppress menstruation as libertarian artifacts at women’s disposal because he knows that most Brazilian women are trapped in a beauty and body-centered heterosexual subjectivity. Based on numerous patient stories, he knows the perversities reproductive life may cause to (often black) poor women’s lives, the difficulties menstruation and maternity in general represent to working women in a context of competition, reduction of labor rights and scarce resources. He also knows how much (often white) upper-middle class women are willing to pay to “enhance” their sexual desire, body attractiveness and to have their fertility and sexuality controlled in molecular terms, with the help of convenient subdermal capsules changed every other semester. He knows the power and ability of contemporary and local biomedicine to solve such problems, although he prefers to dodge discussions about the problems (side/collateral effects?) they may cause.

What is stimulating about this “excess” of agency has to do with the discomfort Sanabria expresses at the end of the book with positions like Coutinho’s and the usual academic and social movement responses to this expansion of biomedicalization and the pharmaceutical market: pure and absolute technophobia doesn’t solve the problem. As Donna Haraway made clear when she brought the figure of cyborgs to feminist-marxist theoretical/political stage, there is no point of “pre-artifice” to which we can return and no way to refuse being part of this global-contemporary process. We have to “stay with the trouble”. And yet, from within, be

able to forge detours and escape routes. We need to give better answers to the question of how to deal with the politics that rely on, and take advantage of, certain bodies' plasticity.

The stabilization of technical objects such as sex hormones in Brazil (or any other context within reach of pharmaceutical markets) has to be thought about critically, and ethnographically addressed, to reveal its technopolitics and the complexities involved. In this sense, *Plastic Bodies* is disturbingly accurate to disclose how Brazilian bodies engage multiple agencies within public and private health policies and institutions; biomedicine and its biopolitics; pharmaceutical markets; gender, sexuality and reproductive expectations; and race and class tensions. Sanabria proves menstrual blood, its suppression, and sex hormones are viscerally important to any analysis of life dynamics in a contemporary world – a welcome contribution for such violently conservative, xenophobic and misogynistic times.

[Daniela Tonelli Manica](#) has a PhD in Social Anthropology from the University of Campinas, São Paulo, Brazil. She hopes Brazilian public universities will survive Brazil's recent state coup, so she can continue to be an Adjunct Professor in the Cultural Anthropology Department of the Institute of Philosophy and Social Sciences at the Federal University of Rio de Janeiro (IFCS/UFRJ). She is also a professor in the [Sociology and Anthropology Post-Graduation Program](#) at IFCS/UFRJ, where she coordinates the [LEIC](#), Laboratory of Ethnographies and Knowledge Interfaces. With Suely Kofes, she organized the collection of essays "[Vida & Grafias: narrativas etnográficas, entre biografia e etnografia](#)". She is currently (2017), a post-doctoral researcher at the Department of Scientific and Technological Politics in the Institute of Geosciences at Unicamp, where she is revising her PhD thesis for publication as a book, and conducting ethnographic research with Brazilian scientific laboratories that are trying to develop "stem cells" out of menstrual blood.

Plastic bodies

EMILY YATES-DOERR

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Plastic Bodies is an extraordinary monograph, produced from a decade of careful engagement with techniques of place-making, othering, and ethnographic theory. Anthropology at its very best, this is work that makes evident the plasticity of the binary. Through gripping stories of the self in the other, the here in the there, nature in artifice, and the beauty in mess, readers come to understand that binaries are always socially made. Because sociality is not fixed, binaries are always on the move. When differences take the form of one side or the other, this is never the end of the story.

“War on Menstruation!”

Sanabria’s study of the role that sex hormones play in contemporary social life in Salvador, Brazil opens with a troubling observation. Contraceptive hormones, taken by well over 100 million women worldwide, are increasingly marketed in Salvador as being more natural than menstruation. Both evolution and religion are drawn into the fold: *Your grandmothers, pregnant and nursing, did not have regular periods; Eve did not menstruate!* To regain a woman’s natural state in conditions of modernity, preventing this “useless waste of blood,” experts routinely tell women that it is necessary to incorporate ever more pharmaceutical hormones into the body. Suppression in the name of liberation.

That well-financed marketing campaigns brand hormones as natural has particular salience in the global south, where neo-Malthusian concerns for overpopulation serve to justify interventions that seek to control much more than population size. Readers will come away from the book with a clearer sense than ever that blood – and bleeding – are sites at which social hierarchies are reproduced and renegotiated. But as the intersectionality of gender and race becomes obvious, so too does it become obvious that ontologies of gender and race are situated in environments that do not easily travel. That race and gender are co-constitutive in Bahia has different material effects than their co-constitution elsewhere. (In this sense, the text is a nice corrective to what Sanabria refers to as anthropology’s “bad habit” of mistaking multiplicity for relativism).

As plastics in the form of pill packages, synthetic injections, and their toxic environmental afterlives are among the objects studied, *plasticity* becomes the driving analytic of the text. Sanabria situates the term as a capacity to receive form, and also as a capacity to give form in that it carries resistance. She draws on the writing of Malabou to make a distinction between flexibility and plasticity. “Flexibility” has been colonized by neoliberalism, a critique made by many, including Emily Martin’s brilliant *Flexible Bodies* some decades ago. Plasticity, however, is not merely receptive but adaptive. The term connotes polysemous dimensionality, containing both determination and a capacity to be otherwise.

The book takes an “object centered” approach, following hormones through their diverse leakages in and out of practices of medicine and everyday life. At the same time, Sanabria intervenes with a smart twist on object-centered anthropology by showing that objects might be better conceived as materialities, or, more precisely, “accreted socialities.” Building upon scholarship attending to the [social lives of medicine](#), she shows us how making an object travel requires that a certain amount of context must travel as well. The context that travels is not innocent, as becomes clear through careful ethnographic description of the chemicals available in fertility drugs, how they are marketed, and in whose bodies they wind up. (Sanabria also gives us her own exquisite reflections about what has been written in and out of the story she tells. Pages 195-197, especially, might be required reading for everyone interested in writing ethnography because they do such a fantastic job of unpacking the problems of describing an “other” place that, in living and in writing, becomes one’s own.) Traveling context – and the constant making and unmaking of material sociality that goes with this – is what the analytic of plasticity helps the reader to grasp.

The text critically engages with bodily integrity, demonstrating how people treat the body as bounded while simultaneously attending to its malleability. At the heart of plasticity is the shift in focus from *either/or* to the space of *and, and, and*. Bodies are bounded, *and* they overflow their boundaries. This is where the innovative force of plasticity becomes especially powerful and Sanabria’s contribution to decolonial anthropology so compelling and urgent. It’s not “the body” that needs to be overturned, but rather the logic underpinning “matters of fact” that requires something to be either one thing or another. Plasticity, as such, is not so much a condition of possibility; it is a condition of actuality, that applies not only to bodies in Bahia, but to *every body*— although people in Bahia may generally have a better sense of this truth than most. In Bahia, nature, as well as *matters of fact*, have long been taken to be plastic.

In its meticulous focus on Salvador, *Plastic Bodies* offers readers from elsewhere powerful insight into a revolutionary politics of bodies. I am wary of re-centering contemporary US politics in the discussion, given that American politics are already taking up a great deal of academic space. Yet because US Americans have so much to learn from the ways in which Latin Americans – and particularly Latin American women – have responded to centuries of suppression, a brief comparison seems worthwhile:

As with much in political life, *Plastic Bodies* confronts us with deeply entrenched misogyny. Picture a so-called expert who unflinchingly describes a woman as a dog in estrogen-emitting heat, and suggests she should use the drug *Elcometrine* to control her body since she has “no tail to prevent penetration.” Elsewhere: a doctor who threatens Sanabria, while gently stroking her cheek, with the promise that if she doesn’t take hormones she’ll “live to regret it.” Powerful men who treat women as property are not new; capitalism and democracy alike have been founded upon this abuse. Still, for as long as there has been abuse, so too have women engaged in its refusal in powerful ways. I’m struggling with my language here, for I’m not sure that refusal, which retains focus in “no,” best characterizes the ways in which women in the text, even amid a good deal of horror, cultivate vibrant, alter-native pathways of joyous living (that their productive activities get such little academic and political space does not mean they are not shaping the world). In her response to the book forum, I would be interested to learn more about how Sanabria thinks the work of “and, and, and” can interfere with the misogyny of politics as usual today, and how might this be different from – or, better put, *multiple to* – the spaces of proliferation encouraged by promissory pharmaceuticals (in which a production of possibilities resonates with insatiable capitalist longing).

I suppose an answer to this question is already anticipated, since the book might be read as an intervention that unsettles the way in which interventions have tended to proceed. Sanabria shows how the rhetoric of choice underpinning much of the global push for change embroils us in a limitless, and violent, spiral around the desire for more intervention—and with this, more of a certain kind of nature. Drugs to encourage “natural” libido in the face of late-capitalist exhaustion, drugs to then control the side effects of these drugs, and yet more drugs to control the side effect of those to achieve the most natural state of all. Just yesterday in Guatemala, where I’m writing this commentary, a midwife told me that it took ten injections of different neurotropas to cure a patient of her husband’s adultery and alcoholism, to return her to a place of balance. Sanabria’s text is filled with similar stories.

In the face of technologies that are either counterposed to nature or used in the name of nature, Sanabria works to articulate a mode of being technological that is not defined by its relation to nature. In doing so she shows us that the distinction “not intervened in / intervened in” (which might be read as natural/cultural) is not the correct site at which to evaluate the politics of intervention. This observation is critical for undoing a dangerous, flawed comparison between the partiality of nature made apparent by feminist science studies and the “alternative facts” deployed to justify racist and sexist politics today. Indeed, the capacious ontologies of mattering described in *Plastic Bodies* bare no resemblance to the ‘post-truth’ that is leveraged by neo-conservative politics. The book makes evident that we are no way *beyond* truth; that truth is multiple, makes it ever more urgent.

Sanabria leaves us with the idea that instead of projects that desire after that which is natural, we might instead focus on design.

“We need to learn with the explosive and potentially corrosive character of plasticity, without yearning for a lost stable referent or investing too much hope in an endless flexible promissory future.”

We might, in other words, move closer to the generative capacity of spaces that are otherwise to dominant and dominating narratives (while also recognizing how much more than ‘narrative’ is at stake). A world of plastic bodies may be unsettling for those who long to live upon the solid ground of “nature.” And that is exactly right: unsettling nature is precisely what we should be doing. The forms of sociality that we will need to remake in its place may not be solid—and this is why they hold tremendous, and ever more necessary strength.

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A response

EMILIA SANABRIA

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A fake (menstrual) period? As I began exploring potential fieldsites, I rapidly came across the phenomenon of menstrual suppression which featured widely in global media in the mid-2000s. While the Financial Times evaluated the economic burden of menstruation on the economy (but had little to say about the surplus value menstrual suppression generates for the pharmaceutical industry), women's magazines featured enthusiastic neo-feminist editorials lauding the benefits of freeing oneself of the biological obligation to menstruate. The periods induced by the oral contraceptive pill's 7-day interval were rebranded as "fake." Some, most notably the Bahian gynaecologist Elsimar Coutinho, pushed the rationale further, arguing that menstruation is unnatural and "useless," the product of civilization which reduces the intervals between pregnancies and the duration of lactation (Coutinho, 1999).

My objective had initially been to remedy what I saw as a dearth of ethnographies that dealt with women's experiences of menstruation. The ethnographic record is full of analyses of menstrual symbolism, but there was less, if anything – beyond Emily Martin's (2001) seminal [\[1\]](#) *The Woman in the Body* – on how women experience and manage their bleeding. In the course of fieldwork, the question of menstruation gave way to that of pharmaceutical sex hormones and their repackaging, as women are increasingly proposed contraceptives to manage, interrupt or reduce their periods. As I began to follow hormones, fieldwork led me to places I had not initially foreseen: a blood donation centre, the operating theatre where vasectomies and tubal ligations are conducted, the weekly meetings of the Bahian Association of Travestis, the state of Bahia's health secretariat's IT services or a compounding pharmacy where vats of imported powdered hormones are handcrafted into subdermal hormonal implants. Salvador da Bahia is an exuberant and generous city (or at least it was). Decades of clinical trials for hormonal treatments – including many of those that eventually led to the FDA approval of the highly controversial Depo-Provera three-monthly contraceptive injection – made it an ideal place to carry out ethnographic fieldwork around these questions and to link them to broader issues of modernization, changing labour and gender relations, situating them within stratified biopolitical projects.

To make sense of menstruation and its hormonal transformation, it became clear that I needed to situate this within a wider economy of bodily plasticity in Brazil, from plastic surgery (Edmonds, 2010; Emonds & Sanabria, 2014) to the epidemic of c-section births (McCallum, 2005). This placed plasticity and the policing of the boundary between nature and artifice at the core of the inquiry. The book thus stemmed from a concern that arose as I thought about bodies – women’s bodies in particular – *from* rather than *in* Brazil. Through a decade of fieldwork and engagements with colleagues and friends in Brazil I came to better understand certain implicit assumptions I inherited about bodily norms and to identify more clearly the bodily norms that pervade our analytics. This book is an attempt to render some of this in a manner that does not reduce it to a difference between here/there but rather explores the variegated contingencies and normativities through which bodies come into being and take shape.

As I worked against naturalizing assumptions about what bodies are, seeking to reveal ethnographically how they are made to be what they become, it gradually became clearer that my central question was really about how the body’s capacities are moulded, manifested or policed, and to what ends. When I began this work, the literature I encountered often presented the body as a kind of blank canvas, differentially inscribed by “culture.” Fieldwork challenged this idea profoundly. Bodies, it appeared, not only receive new form and content from their environments, but are plastic. That is, they give themselves (new) form through such transactions, while enduring. Such a statement is of course the luxury of hindsight, and of having had the chance to think through these issues over time. The central concern with boundaries and hygiene that organised the dissertation evolved into a reflection on plasticity and the tension between change and endurance, between what is given and fixed and what is transformable.

I first discovered Anita Hardon’s inspiring work on pharmaceuticals and contraceptives in Portuguese translation during my first visit to Brazil and still have the battered and much annotated photocopy! This work was incredibly useful in setting about fieldwork – its own precursor in multi-sited ethnography – and provided a fabulous place from which to probe the intermingling and entwinement of pharmaceutical effects. To have the opportunity to work through these questions with her has been a rare privilege, not least thanks to the immensely generous and enthusiastic approach she cultivates. Chapter 5, in particular, owes much to the extended conversation Anita and I have had, drawing on this to explore in detail the materiality and “thinginess” of hormonal drugs – beyond their pharmaceutical compositions. I

use this case to suggest that pharmaceuticals – and hormones in particular – have a great deal to contribute to feminist theorizations of materiality. Through this case and in the work I have been pursuing since alongside Anita in the ChemicalYouth program (<https://chemicalyouth.org>) I have been thinking through materials-semiotic entanglements in ways that do not purport to know before the ethnographic inquiry where things are situated along material-semiotic continuums. In our forthcoming review (Hardon & Sanabria, 2017), we ask which of the potential pharmaceutical efficacies a drug has are actualized out of the myriad possible local iterations of pharmaceutical action. We explore the political, economic and regulatory labour that goes into facilitating or blocking certain efficacies over others.

Daniela Manica picks up the “paleofantasy” theme that runs through the tautological idea of returning the female reproductive organs to their purported natural state through artifice (synthetic sex hormones). While this idea may seem strange to readers in the US or Europe, it has a certain immediacy in Brazil on account of the relatively recent reduction in birth rates. One nursing auxiliary I interviewed had been using Depo-Provera for twelve years to suppress menstruation because of painful periods. During a conversation we had over coffee, after a busy morning attending patients in a health post on Salvador’s periphery, she explained: “Woman was made to procreate, not menstruate. It is only with modernity that woman had to leave the household and take charge of her own life. This is what made her menstruate.” This idea was reiterated time and time again in my encounters in Salvador. These are accounts of the social making the biological. As such, they invert the common idiom of the social being “after nature” (Strathern, 1992) while paradoxically appealing to a real, original biology.

Writing a book like *Plastic Bodies* was an ambiguous endeavour. Part of this stems from the ambiguity inherent in Bahian social life, a point that Elena Calvo Gonzalez highlights in her review. Anything one writes about Salvador can be unwritten or contradicted. In this sense, Daniela Manica and Elena Calvo Gonzalez’s reviews matter immensely to me, as doing justice and conveying accurately something of the reality I observed in Brazil raised substantial anxiety. Beyond this productive anxiety, it became an opportunity to reflect on location and my own relation to Bahia as a place from which I was thinking. This was further complicated by the fact that Bahia, while partaking in something distinctively recognisable as a modernist agenda, almost deliberately challenges the categorical distinctions upon which such agendas are constructed (or at least analysed within academic discourse), preferring what van de Port (2011) aptly sees as a Baroque aesthetic which is inclined to mixing and troubling totalizing narratives. So rather than highlight the plasticity “there,” so to speak, the text attempts to

underwrite *from* Bahia the implicit assumptions concerning fixity and essence that continue to pervade the analytics and conceptual tools of academic discourse.

That the reviews assembled here come from colleagues located in Brazil and the Netherlands is meaningful with regard to this point, for much as I sought to problematize the “there” of fieldwork, I also sought to trouble the implicit “here” from which I was writing, inspired by the work colleagues in these places are producing as they unwrite the implicit placedness of theory (Mol, 2014; Yates-Doerr, 2015). Indeed, being based in France, writing about and from Brazil for a North American Press posed more than linguistic challenges – a point I have been fortunate to discuss at length over the course of an immensely productive conversation with colleagues at the University of Amsterdam, in particular Emily Yates-Doerr. The passage she describes as “exquisite” is deeply informed by the inspiring conversations we’ve had about place, theory and writing. The question she poses in her review, namely where the difference between my Bahian-inflected commitment to multiplicity or insistence on staying with the trouble of contradiction (before we were given such an apt turn of phrase by Haraway to name what we were trying to do) and the insatiable horizon of capitalist growth lies. It’s a challenging provocation, and the line between the two, as she rightly notes, is a treacherously thin one. My answer is that the book was an attempt to respond to multiplicity and contradiction with a “both, and” as an alternative to the categorical work of differentiation that theory oftentimes operates in counter-posing or contrasting with “either, or.” This (“both, and”) is a small, but I feel significant difference to “and, and, and”. Moving back to the conceptual language of the book, the difference between “both, and” and “and, and, and” is precisely the difference that Malabou leverages between plasticity and flexibility. And it is in that small space of difference that we may perhaps have most to hope for.

This ties into the questions that Daniela Manica poses in her review, namely what the notion of bodily plasticity might entail politically. “Should our bodies be less plastic, and more closed?” she asks while pointing to the issue of hormonal “excess” and proliferation as a politically ambiguous zone when unleashed from its natural referent. In *Plastic Bodies*, I argued that the distinction between nature/culture is not the place to ground our political response. Grounding a feminist resistance in women’s anatomy is deeply problematic. It relies on an apolitical understanding of biology that is blind to race, trans-, queer- and non-reproductive personhood. In her response to the book, Daniela Manica thus asks how to we address a politics that takes advantage of bodily plasticity? While we – as feminist scholars – may welcome this move away from the natural it is not without a valid concern for what can unwittingly come

meddled with this. The excess agency of hormones that is put to work emancipatorily by travestis, as Daniela Manica astutely notes, is the very same agency that is also used to reinscribe sex binaries and normativities. The answer for me is again in the distinction between plasticity and flexibility. The oppressive or exploitative politics that Daniela Manica refers to is one that exploits flexibility's infinite extendability, not plasticity. For to recognize plasticity, politically, would mean to recognize not just one pole of plasticity (the capacity to change and receive form) but also – and crucially – *simultaneously*, the capacity to endure, to yield a constraint to such demands. The promise of plasticity thus defined is that it has this “both, and” capacity to bring together two otherwise opposed meanings: that of necessity or determination of form and that of liberty or capacity to become otherwise. The tension between them is what constitutes the force of this concept and, I believe, its political promise within the rich repertoire of feminist responses to neoconservative orderings and categorical differentiations.

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Notes

[1] As I reread this, I note the irony of using the term “seminal” to describe Martin’s work which certainly warrants that as part of our feminist toolkit we enable the term “ovarian” to describe work of great influence for a field!

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