

Fluid Reading Practice: On the Queer Potential of Studying Nonhuman Animals

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ABSTRACT

This paper contributes to recent discussions about the relevance of the natural sciences and nonhuman animals in feminist theory by drawing from feminist debates on the queer potential of studying nonhuman animals. The paper discusses readings on the intertwining of scientific accounts of nonhuman animals and politics; how different nonhuman animal bodies have enabled various conceptualisations of sex and physical intimacy and have been enmeshed in the politics of sex; and how to read the relevance of accounts of the diversity of nonhuman animal sex(es) for feminist endeavours. These discussions contribute to an exploration of ‘fluid reading’, a feminist reading practice which draws inspiration from and moves with both new materialisms and poststructuralisms. The paper proposes that not only mood is important in feminist reading practices but also movements and flows.

Keywords: feminist reading strategies, nonhuman animals, queer, poststructuralism, new materialism

INTRODUCTION

This paper contributes to recent discussions about the natural sciences and nonhuman animals and/in feminist theory by drawing from feminist debates on the queer potential of studying nonhuman animals. I discuss how the question of the queer potential of nonhuman animals has been drawn into debates between poststructuralist and new materialist feminisms (or material feminisms, e.g. Alaimo and Hekman 2008). These debates have been the focus of feminist theory for a while, and the importance of taking nonhuman animals into account in feminist theory has certainly been argued (Birke et al. 2004; Haraway 2008). Feminists dubbed as new materialist, mainly those inspired by the natural sciences, have noted the proliferation of poststructuralist approaches within feminist studies and argued that feminists also need to account for the ‘materialization of matter’, including nonhuman animals (Barad 2003; see also Birke et al. 2004; Alaimo & Hekman 2008; Alaimo 2010; Wilson 2010, 2015; Grosz 2011; Kirby 2011). In response, cultural studies scholars have expressed concern about the ways in which natural science-based arguments have begun proliferating and about their implications for maintaining the nature-culture binary (Ahmed 2008, Sullivan 2012). Some poststructuralist scholars have argued that a focus on scientific analyses of nonhuman animals particularly are not necessary for a feminist analysis of sex:

Why, I am left wondering after having read a plethora of ‘new materialist’ writings, do we need to turn to ‘scientific’ studies of bonobos, bowhead whales, bighorn sheep, buff-breasted sandpipers, aphids, to see physical intimacy as radically diverse? Why do we need to look to bacteria (or, more correctly, to contemporary scientific perceptions of bacteria as a form of species-being) in order to envisage our ‘selves’ as other than singular bounded beings whose identity is innate and unchanging? (Sullivan 2012: 308)

In this paper’s affective beginnings, I was both inspired and provoked by the article by Sullivan cited above, especially her way of reading the work she dubs new materialist — which I found unfair, even if I agree with many of her points (for more, see Irni 2013a). This paper, while acknowledging Sullivan’s apt and important arguments, takes her article, *The somatechnics of perception and the matter of the non/ human* (Sullivan 2012), as an example of reading in the spirit of a hermeneutics of suspicion. Felski (2015) discusses such reading habits more widely, related to the moods and modes of academic critique. The key elements of this reading habit consist of:

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a spirit of skeptical questioning or outright condemnation, an emphasis on its precarious position vis-à-vis overbearing and oppressive social forces, the claim to be engaged in some kind of radical intellectual and/or political work, and the assumption that whatever is *not* critical must therefore be *uncritical* (2015: 2, emphasis in original).

This paper, then, explores my agreements and disagreements with Sullivan, both concerning nonhuman animals and the ways in which critique is put to work, particularly from the perspective of how nonhuman animals matter for feminist scholarship, critique and politics. However, my purpose is not only to examine Sullivan's work but also to develop an alternative strategy of critique.

I suggest that it is important to resist the tendency in recent debates of creating boundaries and gaps rather than inspiring exchange between poststructuralist and natural science-inspired feminist approaches. To provide an alternative to reading strategies which assume new materialism and poststructuralism as separate frameworks with a gap between, I explore what I tentatively call a 'fluid' reading strategy, inspired by new materialisms. From process philosophy, new materialists draw the idea of the world as affective and fluid movements (Kontturi 2014). Here, I do not endorse process ontology or make an ontological argument but rather, I explore a strategy of reading which attunes to feminist theory production and argumentation as *movement*.

My reading strategy is an attempt at sensitivity to the nuances of these debates, a deliberate attempt not to oppose nonhuman animal studies and new materialisms to poststructuralist feminisms but rather, to explore how, by drawing important points from both perspectives, the queer potential of becoming-with nonhuman animals can be assessed. Crucially, I am neither arguing *for* poststructuralist approaches *against* natural science-inspired new materialisms nor *for* new materialisms *against* poststructuralist approaches. Being influenced by both makes me move between what seems to be constructed as the different 'poles' of these debates. However, I am convinced of the importance for feminisms of 'staying with the trouble in serious multispecies worlds' (Haraway 2016: 12). That is, I believe discussion about nonhuman animals is indeed a valuable 'critique of our own'. Aligning with the trouble, I strive for a transdisciplinarity within feminism that draws inspiration 'beyond disciplines and beyond existing canons' (Lykke 2004: 96–97), in this case both from natural science-inspired new materialisms and poststructuralist feminisms.

In what follows, I discuss issues related to how and whether feminist theory becomes-with (Haraway 2016: 12) nonhuman animals.¹ I first discuss poststructuralist understandings of the intertwining of science and politics and their implications for engagement with scientific accounts of nonhuman animals. Secondly, reading the feminist scholar of the history of sex hormones and genetics, Helga Satzinger (2012), I illustrate how a nuanced engagement with sciences which bridges poststructuralist critique and a material feminist account of the materiality of concepts (Barad 2007) enables us to account for how different nonhuman animal bodies have enabled various conceptualisations of sex and physical intimacy. This stresses the importance of accounting for how nonhuman animals are enmeshed in the politics of sex. Thirdly, by reading feminist work inspired by studies of nonhumans, particularly by Myra Hird and Stacy Alaimo, I discuss how to read the relevance of accounts of the diversity of nonhuman animal sex(es) for feminist endeavours.

My reading strategy is influenced by Sara Ahmed's note about reading as a 'labour of love' (Ahmed 2008: 30) and by Clare Hemmings' (2011) work on feminist genealogies and, particularly, their affective investments. I also agree about the importance of being sensitive to affects which emerge from the texts one is analysing (Hemmings 2013) and how these affects orient one's reading (Felski 2015). I have also read with admiration feminist texts where critical or analytic rhetoric is built by writing the author's position as implicated in rather than opposed to the problematics being discussed (e.g. Wiegman 2014). One key feature in writing one as implicated is to avoid 'founding gestures' which establish 'identity in and through differentiation' (Sullivan 2012: 302). I avoid founding gestures but suggest an alternative focus on differentiation: moving with the texts by striving to acknowledge multiple differences as well as multiple resonances in the process of 'becoming-with' other feminist texts. Slightly differing from Felski's (2015) analysis of reading, I suggest that suspicious reading is not merely about a suspicious mood but about a particular kind of movement, or rather, a stopping of movement — and inspiration — between theoretical perspectives and scholarly works. Drawing from both poststructuralist work and natural science-inspired new materialist feminisms, I attempt an alternative, more fluid assessment of these approaches.

¹ This Haraway-inspired becoming-with differs, for example, from the project of Deleuze and Guattari's notion of 'becoming animal', because, in the interpretation of Kari Weil, 'what Deleuze and Guattari see as a liberatory plunge into animal difference, outside the confines of human signification and into a state of animality', has 'little to say about the actual animals we live with' (2012: 16). See also Haraway's own critique of Deleuze and Guattari (2008: 30).

ON SUSPICIOUS READINGS OF NATURAL SCIENCES

Regarding politics, a crucial disagreement between ‘poststructuralist’ perspectives — approaches inspired, for example, by Foucault and Butler — and the ‘new materialist’ approaches concerns whether politics is a mere human endeavour or whether nonhumans should be understood as agentially part of it. Those inspired by new materialist or material feminist arguments view the focus on the nonhuman as not a ‘worrying turn away from the more traditional grounds of feminist theory and politics’, but instead, ‘feminists can come to recognise how nonhumans can be constituted and thought in and through particular worlds in which “we humans” are but one nominated set of players’ (Hird and Roberts 2011: 115). I am especially interested in what we make of scientific accounts of nonhuman animals. For some, scientific accounts are interesting, for example, because they can help in formulating how nonhumans are agential and, in this sense, can be seen as participating in ‘politics’ (e.g. Hird 2009a; Bennett 2010). In some poststructuralist perspectives — which are certainly not the only possible ways to be inspired by poststructuralisms (or Butler or Foucault) — the political is, rather, situated in human practices, and sciences appear in contrast to political endeavours. For example, political and feminist theorist Tuija Pulkkinen defines political thought in contrast to scientific endeavours:

By political thinking I mean seeing the contingency of things; seeing that things could also be differently. In this sense, political thinking can maybe best be contrasted to a universalized “scientific” approach that strives to unambiguously explain how things are in reality. (Pulkkinen 2011: 37, my translation)

A political analysis instead focuses on ‘practices that are constitutive of discursive objects’ (Oksala 2011: 289). This understanding, inspired by Foucault (for Oksala) or Butler (for Pulkkinen), involves a commitment to an ontology which is not stable and eternal, which can be politicised and which is ultimately a result of political struggles — a point I suggest is extremely important. However, Oksala then defines *agency* related to these struggles:

Foucault did not discover a previously unknown new agency, called practice. Practices do constitute subjects and objects, but practice is not a prime mover or a hidden engine that creates reality; *it is what people do*. (Oksala 2011: 289; my emphasis)

Here, change is articulated as a result of politics and what people do. According to such a critical feminist project, if *politics* is related to natural science, it is a project of outsider critique, showing how natural science research and its results are not neutral or objective. From this perspective, the results of scientific practices are products of human conceptualisation. If something other than human practices exists, it is not assumed to be agential, but as Oksala states, ‘this preconceptual materiality can be objectified in different ways in different historical practices’ (Oksala 2011: 290). Moreover, at least part of the ‘metaphysical background beliefs operative in scientific research (...) can be fairly easily articulated and critically scrutinised’ (Oksala 2011: 287). From this perspective, natural science conceptualisations hardly appear interesting, as such or for queerfeminist projects, because this approach implies criticising natural sciences suspiciously and ‘from above’ rather than allowing an encounter (movement towards) which can inspire queerfeminist analyses and further encourage accounting for the significance of scientific accounts of nonhuman animals for and in feminist theorising and politics.

A similar understanding of relations of science and politics is also implied within Sullivan’s argument. In her article, politics is first and foremost situated in the visual: ‘visuality is, by definition, an ethico-political phenomenon’ (2012: 303). This, then, pertains to how we can understand scientific ‘facts’, and in her reading, this becomes problematic in ‘new materialism’. Sullivan’s critical strategy in answering the critique posed against poststructuralists is to suggest that new materialists themselves do what they purport poststructuralists do, namely make a distinction between nature and culture:²

‘The body’ as it is (re)presented in the vision Alaimo and Hekman offer is imbued with or animated by something (they perceive as) other-than-cultural — a force which, by implication, must, one can only presume, be ‘natural’, fundamental, *a priori*. Moreover, this ‘more-than-human’ or ‘other-than-cultural’ force, this nature as agentic, is clearly conceived as separate from, at odds with and prior to ‘humans’, and the (instrumentalist) technologies with which we aim to apprehend the world. (Sullivan 2012: 301)

These technologies are called by Sullivan the ‘somatechnics of perception’, which constitute our vision. This pertains to how ‘facts’ are understood, or rather, questioned. Drawing, for example, from Donna Haraway, Bruno Latour and others, facts are always ‘made’:

² In the case of making the distinction between nature and culture, I disagree with both the alleged critique of poststructuralists and Sullivan’s reading of the new materialists, but this is not the focus of my present paper (see Irni 2013a, 2013b).

Facts are (...) crafted, they are the vehicle and effect of particular technés, particular learned ways of seeing and knowing, particular orientations to the world, rather than a priori things-in-themselves. (Sullivan 2012: 311, note 9)

This concerns both facts about ‘nature’ and our readings of other scholarly work. Crucially, from this perspective, scientific studies cannot contribute much in terms of feminist politics – the politics, rather, being ‘located’ in the questioning of scientific visions. These approaches exemplify one way in which feminists relate to natural sciences, by way of *critique* in contrast to *engagement* (Hird 2009b: 330–331, 343). I suggest that here the crucial difference between critique and engagement is *not* between acknowledging the ‘political’ inherent in knowledge production (critique) and an *uncritical* taking-for-granted of scientific perceptions (engagement). Rather, the engaging (‘moving-with’) approach, in addition to assessing non-innocent ways of knowledge production, instead accounts for more details and acknowledges differences within scientific endeavours. Because the type of above-mentioned poststructuralist arguments mostly bracket out the possibility of the sciences offering anything ‘new’ or inspiring for feminist politics, they generally also bracket out the question of how nonhuman animals might matter (or materialise) in discussions of whether natural sciences can inspire feminist politics.

ON EMBODIED CONCEPTS

Below, I draw upon another feminist perspective on science, sex and nonhuman animals as my guide, that of science historian Helga Satzinger’s (2012) account of the politics of gender concepts in the history of genetics and hormone research in Germany before the 1940s.³ Importantly, Satzinger’s article suggests a profound intertwining of matter and meaning in the sense that scientific conceptualisations of sex are ‘embodied’, in this case by nonhuman animal bodies. Her work provides an example of how to bridge poststructuralist critique (she remains critical of scientific knowledge production in terms of the ways in which accounts of sex and race are produced) and those new materialist approaches which engage in detailed ways with the sciences. As Satzinger notes:

I also want to stress the point that we have no adequate terminology yet to describe and account for the *materiality of different bodies* while avoiding the gendered assumptions of the biological sciences. Even the *biological constituents of the body*, like ‘cells’, ‘genes’, ‘hormones’ and ‘chromosomes’ *embody gendered concepts*, which I hope to show. (Satzinger 2012: 736, my emphasis)

The idea that concepts are ‘embodied’ — in combination with understanding that no ‘neutral’ gender terminology exists — could be seen to tie together important points from both poststructuralist and natural science-informed analyses. For example, philosopher-physicist Karen Barad, one of the ‘new materialists’ Sullivan criticises, ponders concepts as ‘defined by their specific embodiment’ (2007: 143). For Barad, the insight by physicist Niels Bohr that ‘concepts are not ideational but rather actual physical arrangements is clearly an insistence on the materiality of meaning making’ (2007: 147). Such comments are effectively ignored by readings such as Sullivan’s, which suggest that Barad and other ‘new materialists’ assume the above-mentioned nature-culture gap (see e.g. Sullivan’s argument cited above, regarding ‘agentic nature’ being ‘separate from, at odds with and prior to “humans”’ and their ‘(instrumentalist) technologies’; 2012: 301). When comments such as Barad’s are considered, however, the divide between new materialist and poststructuralist accounts seems less wide. Suggesting that the materiality of different bodies embodies concepts, Satzinger argues — alongside other feminist science studies scholars — that a ‘material and practical framework is important in explaining why certain concepts were developed and applied’ (2012: 750). The idea of embodied concepts allows an *activity or recalcitrance of matter* — in this case, in the form of what nonhuman animal bodies enable or disable for scientists — called for by new materialists. It also suggests the inextricable intertwining of ‘nature’ with concepts of sex.

One of Satzinger’s examples is the cross-breeding experiments started in 1913 by geneticist Richard Goldschmidt, attempting to reconcile a genetic understanding of inheritance with embryologic development notions. The older embryology saw sex differences as resulting from the development of an originally ‘bisexual’

³ Examples of some of the most discussed feminist scholars who have engaged with the sciences include Elizabeth Grosz (2011) and Elizabeth Wilson (2015). Despite this — space not allowing for an extensive exploration with many different scholars — I want to engage with Satzinger’s work. This is because of my own personal interest in histories of the so-called sex hormones but also because Satzinger’s empirically rigorous and politically interesting work is not as well known in the feminist Anglo-American mainstream and, as such, deserves to be discussed more. I am also tempted to foreground scholarly work which engages with both sex and race in relation to science and which does not take a stance against poststructuralist feminisms or new materialisms. With this choice of a discussant, I also aim to show that scholarly work which could be read as ‘critique’ can also be utilised with ‘new materialist’ work without the need to consolidate the existing boundaries between poststructuralisms and new materialisms.

embryo; according to embryological understanding at the time, every organism had potential to develop in more than one direction in terms of sex. However, the then-dominant chromosomal theory — based on researching animals such as the fruit fly *Drosophila* — postulated a strict binary difference in sex determination; the organism would develop either into a female or a male.

Accounting for the material conditions of the development of early genetics, Satzinger suggests that in addition to the importance of the microscope and research techniques involving staining, a precondition for developing the chromosomal theory of heredity was ‘a new interpretation of fertilisation as the fusion of two morphologically and functionally different germ cells’ (Satzinger 2012: 742). Zoologist Theodor Boveri and his wife Marcella Boveri, who also contributed, researched sea urchins and a parasitic worm called *Ascaris megalocephala*, because both species had male and female forms and therefore, according to the zoologists, could model human heredity. However, because spermatozoa only contributed chromosomes but egg cells also contributed cytoplasm, in order to see their inputs as equal, a particular interpretation of the cytoplasm’s function was required, foreclosing the idea that the cytoplasm could also contribute to inheritance. As Satzinger suggests, in Boveri’s work, the cytoplasm was considered important ‘but only during the embryonic development of the organism’. Satzinger adds:

Here was the realm of female influence, which could be framed in the classic notion of nutrition, care and guidance. (...) For the following decades, this hierarchical gendered order of the cell and hereditary processes created a blind spot for genetics, which focused on the genes in the chromosomes only. Processes of cytoplasmatic organisation of the ‘hereditary substance’ have since slowly come back into focus under the name of epigenetics. (Satzinger 2012: 744)

While Boveri, whose sea urchins enabled accounting for the importance of cytoplasm, at least acknowledged its importance in an organism’s development and its cooperation with chromosomes, further developments pushed the cytoplasm virtually aside. Importantly, the binary account of sex related to heredity strengthened by these developments was not only a question of scientists’ binary assumptions but of what the *bodies of the model organisms* enabled the scientists to conceptualise. With fruit flies, the ‘investigation into heredity was reduced to cross-breeding experiments in the search for genes on chromosomes’ (Satzinger 2012: 745). Influential in this work was Thomas Hunt Morgan’s research, which used the fruit fly *Drosophila melanogaster* as a model organism. As Satzinger notes, utilising this fruit fly was well suited for the ‘establishment of a theory of the gene as sites on the chromosome’, but it was ‘not as well-suited to investigating the interaction of chromosomes and cytoplasm’ (Satzinger 2012: 745). When *Drosophila* research became popular, the dual, hierarchical gender assumptions in genetics were strengthened rather than questioned. In this sense, scientific gender conceptualisations can be interpreted as ‘embodied’ — by, among other things, the nonhuman bodies utilised in the experiments.

Goldschmidt, in turn, studied different populations of the gypsy moth *Lymantria dispar*. These experiments did not support the idea of a strictly binary sex:

Certain combinations of different populations resulted in offspring which no longer showed clear signs of being male or female, such as wing pigmentation or size and morphology of the antennae. Goldschmidt termed these specimen ‘intersexes’. He claimed that he could produce all stages of intersexes between male and female by choosing the appropriate populations for his experiments. (Satzinger 2012: 746)

Based on this, Goldschmidt argued that ‘every individual organism and even each of its cells had the potential to develop in the male or female direction, with all intermediate stages possible’ and that ‘masculinity and femininity were not two exclusive binary possibilities, but rather admixtures’ (Satzinger 2012: 746). He further suggested that there was no pure masculinity or femininity, but rather, that both were present in each individual, but one or the other may prevail. He could then argue for the decriminalisation of homosexuality ‘as one of many natural ways of being’ (Satzinger 2012: 746). He also participated in discussions about what was then called ‘hermaphroditism’, arguing that such individuals should not be assigned to female or male categories, because they did not fit into them (Satzinger 2012: 746). This story suggests that it was not only political ambitions or the human somatechnics of perception that were important, but also the ways in which different scientists conceptualised sex as ‘embodied’ — by basing their arguments on nonhuman animal bodies. In this sense, research based on nonhuman animals has enabled seeing a multiplicity of sexes as well as what Sullivan (2012: 308) calls seeing ‘physical intimacy as radically diverse’. This point does not ‘counter’ Sullivan’s argument but rather, bridges natural science-inspired arguments and poststructuralist arguments, Sullivan’s included.

However, Goldschmidt’s *völkisch* and right-wing contemporaries used his research completely differently. Fritz Lenz was a racial hygienist and became a leading human geneticist during the Nazi era. Lenz also studied *Lymantria dispar* but used both his own and Goldschmidt’s results to justify racial hygienic thinking rather than to argue for acceptance of human variety. Satzinger explains:

For Lenz and his völkish colleagues, the Nordics or Aryans were the most highly developed race. They were characterised by the most pronounced physical and mental difference between men and women, which was marked politically by their difference in their legal status. Lenz saw the blurring of a clear binary human gender order, as it unfolded in the years of the Weimar Republic, as a dangerous sign of racial degeneration. Using the results of Goldschmidt's cross-breeding experiments, Lenz claimed that miscegenation ('Rassenmischung' or even 'Rassenschande') was the genetic cause for this process. (2012: 747)

At this point, miscegenation was mainly seen concerning marriages between so-called Aryans and Jews; the idea that marriages between Jews and 'Germans' (as if Jews could not be Germans) produced degeneration 'by effeminising men and masculinising women' had long circulated. Marriage bans were instituted by the Nuremberg laws in 1935. In 1920s genetics, interpretations based on cross-breeding experiments with gypsy moths strengthened these ideas, which were also used in arguing against women's rights:

According to Lenz and his allies, the highly visible New Woman of the Weimar republic, female suffrage and the efforts to invent new gender orders beyond the heterosexual matrix of strict binaries could be understood as a genetic process of degeneration. (Satzinger 2012: 747)

Even if Satzinger also mentions a range of more empowering arguments based on the sciences during her 1900–1940 study period, the different, contradictory uses of the sciences explain why she argues that feminists should refrain from relying on the sciences when doing feminist politics. In this sense, Satzinger's own analysis — despite fine engagement with the nuances of scientific endeavours — consolidates a divide between feminism (assumed to consist of non-scientists?) and science. However, the value of this paper for the task of exploring the queer potential of becoming-with nonhuman animals is in her sensitive attending to the embodiment of nonhuman animals in theories of sex. She shows in detail the relevance of not only the gendered and racialised assumptions guiding scientific interpretations but also the significance and participation of different and particular nonhuman animal bodies — how they have embodied and enabled different conceptualisations and politics of sex and race. In this sense, her study exemplifies how nonhuman animal bodies are hard to extract from feminist concern about and critique of the politics of sex. Therefore, I see much value in feminist accounts which attend to how, for example, 'bonobos, bowhead whales, bighorn sheep, buff-breasted sandpipers, aphids' (Sullivan 2012: 308) and other critters embody concepts related to sex and the sexuality also of humans and, at times, how they participate in broadening both scientific and political perspectives on sex.

ON READING SCIENCE-ENTHUSIASTIC FEMINISTS

In my reading, Sullivan's suspicion towards studies of nonhuman animals stems from her way of responding to two different but intertwined questions. One is the question about relations between the natural sciences and what Hemmings (2011) calls 'interdisciplinary humanities', and the natural science-inspired feminist arguments where feminists are encouraged to take into account the activity of 'matter' (e.g. Barad 2003; Birke 2003; Hird 2009a, 2009b; Kirby 2011; Wilson 2010). The other question concerns accounting for varieties of what is called 'sexual behaviour' in nonhuman animals. Sullivan is critical of arguments she reads as suggesting that feminists make 'scientific studies' primary, in other words, the assumption that scientific studies both enrich feminism and produce knowledge feminism cannot do without:

I am both sceptical about, and uncomfortable with, the idea that we must turn to the voice of authority (in the guise of science or male philosophers) in order to see clearly, and so for strategic ethico-political reasons, I will resist such a move. (Sullivan 2012: 308)

I read this as connected to her reading that sex and sexuality are primarily understood in the sciences in relation to species-being. Let me emphasise these parts of her argument:

Why (...) do we need to turn to '*scientific*' studies of bonobos, bowhead whales, bighorn sheep, buffbreasted sandpipers, aphids, to see physical intimacy as radically diverse? Why do we need to look to bacteria (*or, more correctly, to contemporary scientific perceptions of bacteria as a form of species-being*) in order to envisage our 'selves' as other than singular bounded beings whose identity is innate and unchanging? (Sullivan 2012: 308, emphasis added)

In terms of species-being — what Sullivan sees these studies as being about — I interpret her worry as concerning the reduction of sex and sexuality to a question of species-specific reproductive practices, thus neglecting cultural aspects involved in sex and the sexual practices of humans, as well as ways in which these

nonhuman practices are interpreted as 'sexual' (for a similar argument, see Kulick 1997). My interpretation of Sullivan relies on the following:

It is a small, and seemingly logical step then [after positing matter and nonhuman animal behaviours and morphologies as 'more-than- or other-than cultural'] to imagine 'sex' in terms of agentic physical/material processes — the ejaculation of semen, the contraction of nerves, increased blood flow, muscular spasms, the production and release of pheromone-soaked scent and so on, which combine in ways that make sex as an act which occurs (usually, but not always) between members of a particular species, visibly self-evident. (Sullivan 2012: 309-310)

Sullivan adds that 'this particular vision constitutes life in terms of species-being' rather than being a description of that which exists as such (2012: 310). I agree here, in the sense that I also find it problematic if readings of sciences which promote binary understandings of sex and sexuality, such as very particular evolutionary narratives, are assumed as a truth-base for feminism in the understanding of sex and sexuality (for an example of such an argument, see Rotkirch 2003). I find this problematic, particularly if it is assumed as a one-way interdisciplinary relation, where natural sciences are simply assumed to provide 'hard facts' about nature, without simultaneously claiming that natural scientists themselves need to take seriously ways in which what Sullivan calls somatechnics of perception affect their work (see also Ahmed 2008; Irni 2013a; Kulick 1997: 231; Roy 2008). However, note that feminist work, and Myra Hird's particularly (Hird has focused on bacteria, and Sullivan seems to refer to her in the comment above on bacteria), also problematises the centrality of binary sex in evolutionary narratives, including the problematisation of what the very notions of sex or reproduction indicate, and Hird's work focuses on evolutionary narratives based on species merge rather than differentiation (Hird 2009a: 83, 91–115; Hird 2012). This means that for feminist scholars inspired by biological sciences, understanding nonhuman bodies far exceeds any simplistic narratives which lead to imagining sex as 'the ejaculation of semen, the contraction of nerves, increased blood flow, muscular spasms, the production and release of pheromone-soaked scent and so on', as expressed by Sullivan.

Indeed, another background intertwined with Sullivan's arguments derives from discussions raised by the biological sciences and from studies which have shown varieties in various species in terms of what these studies call 'sexual behaviour'. Those enthusiastic about these developments argue, for example:

Notwithstanding the sheer delight of dwelling within a queer bestiary that supplants the dusty, heteronormative Book of Nature, the recognition of the sexual diversity of animals has several significant benefits. Most obviously, scientific accounts of queer animals insist that heteronormativity has damaged and diminished scientific knowledge in biology, anthropology, and other fields. (Alaimo 2010: 54)

Sullivan makes the focus on nonhuman animal research problematic by analysing Myra Hird's (2008) article 'Animal Trans' as well as her research on bacteria. Sullivan is not convinced that such studies help us 'see physical intimacy as radically diverse' (2012: 308; see the longer quotation in the introduction). Her concerns seem to align with those of other critics, who argue, for example, that gay rights advocates might be 'better off relying on other discourses through which civil rights are claimed', because '(s)uch evidence remains inconclusive, uneasily generalizable across species, subject to wildly divergent interpretations, and likely to fail the endeavor of understanding animal behavior on its own terms' (Chris 2006: 165; cited in Alaimo 2010: 58). Sullivan argues that the problem lies in the following, referring to her reading of a particular white optics as exemplified by a Scottish 'Lady of Quality', Janet Schaw, who belonged to the eighteenth century colonial elite and who tells a story in her journal about misperceiving black children as monkeys:

In each case, organisms perceived as belonging to a particular species (in terms of 'genus' and 'sexuality') are looked at, their being is interpreted (and thus constituted) in and through a perceptual schema that is particular to those who are doing the looking; a universalizing (anthropomorphic and/or colonizing) heteronormative optics that reduces alterity to its own terms, in much the same way as the encounter between Schaw and the anonymous 'non-human' 'negro children' does. (2012: 305)

I agree that reducing alterity to one's own terms remains problematic, an example being the labelling of particular animals as 'queer'. However, this is also acknowledged by Myra Hird, who critically analyses her own previous text:

The problem with my [earlier] argument, it seems to me now, is that I read nonhuman living organisms through the lens of queer, rather than critically reflecting upon how we socioculturally constitute queer and how we might read queer through a nonhuman lens. (...) we need to resist the temptation to name

certain species as queer. (...) It is much more interesting to consider how we might understand trans in humans from, say, a bacterial perspective. (Hird 2008: 242–243, cited in Sullivan 2012: 306)

Yet Sullivan is not convinced by her argument and suggests that:

there nevertheless remains the problematic conflation in her schema, of seeing otherwise, of “reading through a nonhuman lens”, with a move beyond (the limits of) “culture-centrism” which she associates with a particular kind of poststructuralist feminist enterprise; one that overlooks, fails to recognize, or misperceives that which is seemingly beyond or other than, “culture” (Sullivan 2012: 306).

Here I claim that Sullivan’s reading, however, amounts to a hermeneutics of suspicion, as described by Rita Felski (2015: 1), where ‘the task of the social critic is now to expose hidden truths and draw out unflattering and counterintuitive meanings that others fail to see.’ Paradoxically, while Sullivan criticises Hird for criticising poststructuralism (for failing to see), Sullivan’s own reading posits a similar argument; even if Hird has transformed her own thinking, she (still, according to Sullivan) criticises poststructuralism and fails to see a problem in her own enthusiasm with bacteria and the inspiration which various biological arguments can give. However, Hird’s example cited by Sullivan to back up her argument contains no explicit criticism of feminists or poststructuralists in general. In other words, I see no necessary connection between critique of poststructuralism and engagement with biological sciences, and I suggest that Sullivan’s critique here constructs an unnecessary gap between poststructuralism and such engagement in Hird’s text.

I also find the analogy Sullivan constructs between racialisation and Hird’s and other ‘new materialist’ arguments not to be so useful:

These founding gestures (which are central to Hird’s thesis, and typical of new materialism more generally) seem to me to share much with the somatechnics of perception at work on that hot December day in 1774 when Janet Schaw encountered the anonymous ‘nonhuman’ ‘negro children’ (...) (Sullivan 2012: 307)

As Sullivan does not specifically show any racialisation in Hird’s work or other new materialists she discusses, I suggest that this move, rather than being an apt critique of the work she discusses, risks amounting to framing oneself as engaged in ‘radical intellectual and/or political work’ (Felski 2015: 2). Sullivan, *while* drawing on ‘white optics’ as a key notion of her critical endeavour (which is fine), *ignores* the postcolonial critique by which some of those whom she labels new materialists, for example, Karen Barad, have been inspired (see Irni 2013a: 357–358). The analogy to racialisation therefore appears first and foremost as serving to strengthen Sullivan’s argument and her position as critic, rather than doing apt critical work in terms of her reading of the ‘new materialists’ she cites. (Note that I am *not* arguing that new materialism per se is free from white optics; see also Irni 2013a.)

That said, I read Sullivan as suggesting that the problem is not the analysis of nonhuman animals per se (she refers appreciatively several times to Haraway, including Haraway’s (2008) *When Species Meet*). Rather, the problem is whether such readings assume that the behaviour of nonhuman animals can be approached without any ‘somatechnics of perception’ and be used as a critique against poststructuralist feminists and their ‘inability’ to see ‘beyond’ culture. In my reading, Hird’s (2008) point is to approach critically neither feminists in general nor poststructuralist feminists particularly. Instead, she specifically criticises a few trans-unfriendly feminist arguments that posit cis-women as more authentic or natural than other women. According to Hird, these arguments are based on human-centred understandings of technology (an assumption that human transformations of sex characteristics are not natural because they involve technology) as well as a binary ontology of sex assumed as natural. As Hird shows, these arguments do not hold if ‘nature’ is read in terms of various nonhuman critters and their ability to use technology, and if the many-faceted variations of sex and sex transformations are assessed.

I agree with Sullivan that it is problematic if arguments derived from the natural sciences are taken as primary *as such*, compared to cultural studies and humanities. However, I do not read Hird’s project in terms of queer and trans politics involving ‘the idea that we must turn to the voice of authority (in the guise of science or male philosophers) in order to see clearly’ (Sullivan 2012: 308). Neither does Hird’s project simply consist of making an analogy between trans persons and the sex transformations of nonhumans (such projects are also criticised by Kulick 1997) — an analogy which might involve a problematic reading of nonhuman animal behaviour in human terms. The point of Hird’s critique, in my reading, is not that biological sciences should exert an authority which decides whether feminisms should be inclusive or whether particular types of passions, behaviours or identities are acceptable, - but rather, it is her problematisation of assumptions related to nature, the natural and authenticity. I read this, rather than as reductionist endeavour, as transdisciplinary work contributing to assessing how feminist theory becomes-with nonhumans.

ON THE AWE-SOME SEX(ES) OF NONHUMAN ANIMALS

The problematics of interpreting nonhuman animal behaviour and making analogies to human behaviour (e.g. in Kulick 1997) and of forgetting the somatechnics of perception (Sullivan 2012) raise yet another kind of challenge. It is appropriate to ask whether some of these studies, such as Sullivan's, that criticize feminist scholarship inspired by nonhuman animal studies draw their argument from the human-centred assumption that nonhuman animals do not have culture. Stacy Alaimo notes:

In terms of environmental ethics and politics, it is crucial to acknowledge animals as cultural beings, enmeshed in social organizations, acting, interacting, and communicating. An understanding of animal cultures critiques the ideology of nature as resource, blank slate for cultural inscription, or brute, mechanistic force. (2010: 60)

Even if Sullivan argues that it is problematic to perceive nonhuman animals as outside of culture, her solution is not to recognise culture in nonhuman animals but, rather, to question the relevance of scientific accounts of nonhuman animal sex for feminist critique. She assumes that nonhuman animal behaviour is in scientific accounts (necessarily?) misperceived by researchers, and that animal alterity is reduced to the researchers' own terms (Sullivan 2012: 305). Here, I suggest, is another instance of the hermeneutics of suspicion. The point of feminist discussions as I read them is not to make direct, simple analogies between nonhuman animal and human behaviour but is to approach nonhuman animals from the perspective of the complexity and diversity of the animals' own behaviour. In addition, discussions such as those of Alaimo (2010) and Hird (2009a, 2012) criticise heteronormative assumptions and the linking of sex and reproduction in the biological sciences as well as recognising that humans are not so unique in their capacities, after all. Within research concerning queer and trans perspectives with respect to nonhuman animals, there may be simplifications, but this does not mean these perspectives should be wholly neglected and their value for feminisms denied. Alaimo (2010: 66), for example, criticises some accounts of nonhuman animals for offering interpretations which clearly anthropomorphise nonhuman animal behaviour, for example in discussing domestic violence or divorce in nonhuman animals. Instead of concluding from these challenges that studying nonhuman animal behaviour is useless or is necessarily problematic, Alaimo calls for accounts which give value to 'scientific accounts of sexual diversity in nonhuman animals, in the sense that these accounts are accounting for something — something more than a (human) social construction' (2010: 67).

I do not interpret Alaimo to be arguing that animal behaviour can be accessed 'as such' without the 'somatechnics of perception,' to use Sullivan's terminology. Rather, I interpret the quotation from Alaimo given above as acknowledging the diversity of nonhuman animal behaviour. Sullivan herself criticises the introductory chapter to the book *Material Feminisms*, by Alaimo and Susan Hekman, giving the impression that these scholars fiercely oppose poststructuralism (Sullivan 2012: 300–301). Yet in that introduction, we find a comment (concerning the chosen authors in the book), which guides my reading of Alaimo also with respect to her nonhuman animal accounts:

We have brought together thinkers who are attempting to move beyond discursive construction and grapple with materiality. A central element of that attempt, however, is to build on rather than abandon the lessons learned in the linguistic turn. (Alaimo and Hekman 2008: 6)

I read such an approach, for example in Alaimo's argument, that a feasible account of 'sexual diversity in nonhuman animals' simultaneously 'encourages an epistemological-ethical stance that recognizes the inadequacy of human knowledge systems to ever fully account for the natural world' (2010: 67).

In a sense, Sara Ahmed's (2000) notion of strange encounters may enable an understanding of these challenges. Ahmed problematises cultural understandings of the 'strange', noting that some persons are culturally *recognised* as strangers rather than inherently being unfamiliar. In this process, both strange and familiar become effects of a particular somatechnics:

Perception, then, is both the vehicle and effect of a particular situated somatechnics, an orientation to the world in which the I/eye is always-already co-implicated, co-indebted, co-responsible. (Sullivan 2012: 302)

For Sullivan (and other poststructuralists and most new materialists, I would claim), this means that nonhuman animals cannot be approached *as such*. While I agree with the importance of accounting for the somatechnics of perception, at this point, Sullivan's reading can be said to create an impasse; it appears as though the reading of queer potential in scholarship on nonhuman animals can only involve a problematic, unreflected conflation of human concepts of nonhuman animal life. (However, as pointed out above, sometimes it may be the other way around, as sometimes it is the matter of particular nonhuman animal bodies which enables human concepts.)

Attempting to read those inspired by queer accounts of nonhuman animals — such as Alaimo — in a more benign way, I suggest that studies which *queer* nonhuman animals themselves involve struggling with learning to see nonhuman animal sex otherwise, to *broaden* all-too-familiar patterns of seeing.

I propose that this learning to see otherwise has its own value, which is not dependent on how contested these readings of nonhuman behaviour might be within the sciences in question. As I interpret Alaimo, the value of research on varieties of animal sexual behaviour is mainly in the *affective opening up of imagination* to new possibilities in thinking about sex and gender (Alaimo 2010: 67–68). Crucially, I interpret this to suggest that this opening up relates to the fact-value assumed of these studies (=that they are science) and that, for example, science fiction would not do the same affective job. However, rather than reading Alaimo as implying an argument against poststructuralism or for believing uncritically in ‘facts’, I read this opening up as a sort of ‘becoming-queer-with nonhuman animals’. By this I do not mean that the person who reads stories about queer nonhuman animals starts identifying as non-heterosexual; rather, I mean to point out the affectively moving reading process for some readers. For example, it seems that readers such as Alaimo experience this reading as opening up new worlds, helping one to see anew relations among nonhuman animals and to rethink one’s own relationality to ‘nature’ and nonhuman animals. In *this* sense, I agree with Sullivan that ‘perception is always-already “of-the-world”, always already a co-constitutive “seeing-with” that shapes the seer and the seen, the knower and the known, such that they are always intertwined (although never reducible to one another)’ (2012: 303). Learning to see anew might then constitute a ‘seeing-with’ nonhuman animals which transforms the seer as well as perceptions about these critters.

Alaimo cites several readings which describe, for example, the exuberance of nature which overwhelms, the inventiveness which shatters human categorisations, the experienced wonder and a profound sense of awe (2010: 67–68). Alaimo herself states, regarding her reading processes:

I must admit that I was rather astonished by Hird’s, Roughgarden’s, and Bagemihl’s accounts of the enormous variety of sexual diversity throughout the nonhuman world. Who knew? (2010: 56).

She further narrates this experience as a ‘sense of astonishment’ (2010: 56). One issue bracketed by Sullivan’s sceptical argumentation is the *affective potential* which queering nonhuman animals seems to enable. Alaimo writes:

Despite the scientific aim to make sense of the world, to categorize, to map, to find causal relations, many who write about sexual diversity in nonhuman animals are struck with the sense that the remarkable variance regarding sex, gender, reproduction, and childrearing among animals defies our modes of categorization, even explodes our sense of being able to make sense of it all. These epiphanic moments of wonder ignite an epistemological-ethical sense in which, suddenly, the world is not only more queer than one could have imagined, but more surprisingly itself, meaning that it confounds our categories and systems of understanding. (2010: 67)

Such affective (reading) encounters with nonhuman animals, affective ‘becoming-queer-with’, are not primarily oriented against poststructuralism; nor is their value only in the adequacy of the facts. Rather, such encounters can open up potential — as Alaimo (2010: 68) puts it, the potential to ‘foster queer-green ethics, politics, practices, and places.’⁴

ON MOVEMENTS AND FLOWS IN FEMINIST CRITIQUE

I chose Sullivan’s (2012) text for this scrutiny and thinking-with because it inspired me in interconnected ways. First, as I share several of her arguments as well as some from the new materialists she criticises, it is inspiring to practice an alternative reading strategy which does not choose a stand on ‘either side’ of these debates. Secondly, her critique, as well as more enthusiastic work on nonhuman animals, provoked me into thinking through feminist readings also as practices of becoming-with nonhuman animals.

I find important Felski’s and Berlant’s observations of our affective immersion in our critique. However, I also wish to introduce critique as movement. I have been inspired by Felski’s account of the tradition of the hermeneutics of suspicion in critical studies more broadly, and I have made use of it in my reading of Sullivan. Both Sullivan and I affectively defend feminists whom we feel are read in unfair ways, but our mood and mode of reading differs related to those feminists inspired by scientific studies on nonhuman animals. While Sullivan remains sceptical, I advocate a more fluid reading and open mood, which also enables movement and inspiration

⁴ For example, such potential includes more adequate political responses to toxic environments and chemicals which do not fuel the trans- and queerphobic tendencies in some environmentalist activism (for critiques of these tendencies, see Di Chiro 2010; Honkela and Irni 2014).

between new materialisms and poststructuralisms. This fluid reading attempts to account for nuances in the discussed work and avoids merely picking out sentences which enable a certain kind of critique (as I suggest Sullivan does, for example, in her readings of Alaimo and of Barad).

Rather than abandoning critique for ‘postcritical’ (Felski 2015) reading habits, however, I have here explored a reading strategy — or critique, if you will — which allows moving between and both with and against theories one reads, rather than necessarily sentencing theorists one criticises fully to the ‘against’ category (as Sullivan seems to do with new materialists). I suggest that such a reading habit, which Felski calls ‘suspicious’, practised by Sullivan, is not only about suspicious mood. I wish to pay attention to the movement at hand. As Felski argues, a suspicious mode of reading is ‘parasitic’ and ‘could not survive without the very object it condemns’; but simultaneously, suspicious ‘critique opens up a gap between itself and its object’ (2015: 126). In my interpretation, what is crucial is the building up of (what I see as an unnecessary) gap between the discussed approaches and theorists, the *stopping* of the inspirational movement and flow between various new materialist and poststructuralist approaches.

It is certainly clear by now – because I have also voiced my disagreements with Sullivan – that the fluid reading I advocate does not propose merely to agree or to empathise with the text. While I prefer reading approaches which seek contact and inspiration — movement with — rather than writing only against other feminisms, a ‘fluid’ critique is not always in agreement. Rather, it attempts to voice disagreements in a more nuanced way; it strives for sensitivity to differences — for example, as nuances and details in argumentation (see Irni 2013b) — and, as already noted, sensitivity to the affectivity involved in reading. As Susan Strickland (1994) has noted, encountering differences and disagreements sometimes includes becoming painfully aware of one’s situatedness and perception. However, this process, at least for me, also entails a possibility for affective becoming-with feminist arguments.

As Felski says, finding alternatives to the suspicious reading habit ‘would allow us to be surprised by what our colleagues have to say; it would encourage us to pose different questions as well as discover unexpected answers’ (2015: 150). This includes colleagues across the humanities and the social and natural sciences and the various ways in which nonhuman animals can be part of feminist theoretical intimacies — animating feminist theory, as I argue, for example, one finds in Hird and Alaimo. Indeed, in several ways, nonhuman animals are important for feminist scholarship and politics. Even if scientific accounts of nonhuman animals cannot always be taken as ‘facts’ which should or can guide feminist politics, it is important to acknowledge which nonhuman animal bodies are embodied in which facts and with what consequences (both to the animals themselves and to our scientific conceptualisations of sex and race). In this paper, I have considered it affectively important to learn to see the diversity of sex ‘in nature’. Like Alaimo (2010), I wish to see more queer-green collaborations, which such readings may effect. It is important to avoid interpreting nonhuman alterity merely in our own terms, as Sullivan (2012: 305) stresses, *and*, as Alaimo (2010: 60) suggests, to learn to recognise nonhuman animals as themselves ‘cultural beings’ and as other-than-resource, for both our theorisation and our practices.

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