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The postconventional body: Retheorising women's health☆

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ABSTRACT

We propose that women's health—both theory and practice—is a powerful arena in which to re-align and change the modernist theoretical underpinnings of current biomedical paradigms, which limit our understanding both of concepts of health and illness and of the impact of health care technologies on the body. We highlight the necessity of a move to a more dynamic paradigm for health and illness in the clinic, as well as a theoretical fluidity that allows for the real messiness of lived bodies. We argue that postmodernist thought, within wider feminist theory, is one of many perspectives that can contribute to contemporary biomedicine by providing theoretical underpinnings to develop 1) an understanding of bodies in context, 2) an epistemology of ignorance, and 3) an openness to the risk of the unknown. While these all entail a commitment to self-reflection and a willingness to be unsettled, which may not seem practical in the context of medical practice, we argue that self-reflection and unsettledness will provide pathways for grappling with chronic conditions and global bodies. Overall, we suggest that women's health practice can serve as a site in which both sides of the humanistic/scientific divide can engage with a human self in all its corporeal variety, contingency, and instability. More specifically, by providing a space within the clinic to examine underlying ontological, epistemological, and ethical assumptions, women's health can continue to contribute to new forms of biomedical practice.

Introduction

> [B]io-medicine is still caught in the clutches of the Cartesian dichotomy and its related oppositions of nature and culture, natural and supernatural, real and unreal. If and when we tend to think reductionistically about the mind-body, it is because it is "good for us to think" in this way. To do otherwise, using a radically different metaphysics, would imply the "unmaking" of our own assumptive world and its culture-bound definitions of reality. To admit the "as-ifness" of our ethnoepistemology is to court a Cartesian anxiety—the fear that in the absence of a sure, objective foundation for knowledge we would fall into the void, into the chaos of absolute relativism and subjectivity.
> (Scheper-Hughes & Lock, 1987: p. 30)

The practice of women's health is now woven into the mainstream of traditional biomedicine. From its early origins in self-care and the de-pathologizing of women's bodies, the practice of women's health has grown to be a major sector of the health care industry, often consisting in specialist clinics for women's reproductive, heart, and bone health—which are seen as distinct from those of men (for example see: Rosenfeld, 2001). From the days when it was supported by the early, lone voice of the Boston Women's Health Collective (1976), women's health has come to have advocates in US Congress, the National Institutes of Health, Health and Human Services, and the Canadian Institutes of Health Research. Consumers can engage with women's health centres through such on-line women's health sites as 'Women's Health Matters' (http://www.womenshealthmatters.ca/index.cfm) and 'Gender Biology.net' (http://www.genderbiology.net/genderbiologynet/web_sites/)—to name just two of many. Such 'mainstreaming' has been good news for the health of all of us, as many demands of the early movement—the agency of patients in their own health care, and an acknowledgement that the relationship between patient and

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provider makes a difference in the treatment outcome—have become 'best practices' in contemporary health care.

Despite—or perhaps because of—its success, however, the practice of women's health has become a jumble of biomedical expectations[1], reproductive health politics, and surveillance of conditions more common in women (e.g., Rosenfeld, 2001; for further discussion on this point see: Clarke & Olesen, 1999). At the same time, feminist theory, which as part of second wave feminism once undergirded and guided the women's health movement, has, with some notable exceptions, turned away from the biological body to adopt a more discursive approach. To some extent, these developments have left postmodernist feminist theory unaligned with current women's health practice. The result has been a divergence of what we might call 'women's heath qua movement' and 'women's health qua practice.'

The aim of this paper is to explore how to align poststructuralist concerns with the practice of women's health—i.e., how to reunite theory and practice—so as to reinvigorate women's health clinics as spaces for active theoretical engagement. This goal is in keeping with the politics of women's health, which, even in its early days, served as a space for ontological and epistemological inquiry. Indeed, as Tuana (2006) points out, one of the most important functions of the women's health movement has been to lay ignorance bare. We believe that bringing a poststructuralist perspective to bear on concrete issues of women's health, in turn, will open up a space in which to grapple with some of the current problems of the health care system in general and the health of women in particular.

Problematic

Contemporary practice of women's health care stumbles over two key modernist assumptions:

(1) The binary divisions and separability not only of illness and wellness, but of related body structures, female/male, nature/nurture, sex/gender, and patient/physician; and
(2) The notion of an autonomous, self-owned body.

With regard to the first, many current women's health practices still operate within a context of a healthy/sick binary, making a person univocally 'better', or bringing them closer to a universalized notion of 'normal'. Such practices are politically troubling, given that one of the most important contributions of the theoretical feminist agenda has been to challenge both the primacy of the universal, white, able-bodied, masculine subject, and the unexamined normative codes that underlie it (Shildrick, 1997).

Through a sustained critique of the supposed neutrality of traditional health care, feminist studies have shown how a network of hierarchical binaries around gender, race, and class inflect the distinction between health and illness. In order to move forward, practice must attend to each in their specificities (Clarke & Olesen, 1999). In addition, we must not only challenge the normative assumptions embedded in traditional biomedicine, but also find ways to accommodate a bioscience that is growing increasingly technologized, which is generating ever-expanding possibilities, leading to unpredictable data sets, and throwing up unfamiliar problems and dilemmas. It is increasingly clear as well that the classically modernist model of the body—as a well-defined machine comprising distinct systems—is being overtaken, even in the most scientific contexts, by the realisation that all corporeality is constantly changing and ultimately uncontainable. Morphology is not an unchanging given, but a process without end.

Uncovering (hierarchical and conflated) normative assumptions, recognizing the disruptive morphological impact of new technologies, and attending to the specificities of particular contextual practices all serve to destabilize the 'neat' suite of binaries on which modernist practice has rested for so long.

Just as serious an impediment to a progressive women's health is the second problem: the assumption endemic to current Western biomedicine, including women's health, that the health care consumer is a free, rational, self-determining subject—with unexamined and unchallenged agency through, and property rights over, her own body. Without taking anything away from the importance of acknowledging authentic agency, it can nevertheless be seriously problematic to view all biomedical interventions into the body—e.g., in assisted reproductive technologies, gastric bypass, cosmetic surgery, etc.—as unexamined choices made by the rational subject about her *self-owned* body. As we will show (below) in concrete cases, such an assumption can 'disappear' political influences and pressures of power, deny (or exculpate) care-givers from appropriate responsibility, and paint as 'beneficial to women' treatments that may literally cause unwarranted and unjustifiable suffering.

By setting aside the theoretical assumption of an unproblematically self-owned body, a space is opened up to consider the effect of interventions and modifications from different perspectives. Attention can be given to how the procedure acts on the person through a full consideration of context, rather than presuming that engagement with biomedical interventions can be decided solely on the basis of their accord with claims to individual agency. Such a contextual view of health, moreover, could give women's health the tools to interrogate the real dilemmas of technologies that invade a woman's body in ways that, in the limit, can in fact usurp the notion of autonomy. Such an approach could in turn offer new grounds for considering the effects and bioethical implications of such technologies as assisted reproductive technologies, transplantation, and body modification.[2]

The goal of our project is not simply to critique these traditionalist assumptions, but to urge an uncovering of the places in which the application of unexamined normativities, simplifications, and idealizations obscures the very real complexities, impasses, and misunderstandings that characterize decision-making and treatment in health matters and thus, the shortcomings of rule bound action. The result will have application both in the realm of the everyday and in the face of life and death decisions. More pragmatically, we argue that replacing these modernist conventions with a theory-practice alignment that takes account of contingency, situated lives, and the messiness of the material world is a practical way to deal with concrete contemporary conditions.

More theoretically, our contentions are two.

First, we argue that postmodernist thought can provide a ground from which to adopt such an uncovering viewpoint, allowing more adequate action in the face of an ever-changing body that cannot be restored to any single, unchanging normative position. Whether subsumed under the term 'postconventional'[3] or named as poststructuralist, deconstructive, or postmodernist, this body of thought troubles and disrupts reformist goals by insisting that knowledge is always fragmented and dispersed in a series of

[1] Here, we wish to differentiate between the current practice and the movement/theorizing of women's health.

[2] Susan Sherwin (1992) expands on the relevance of feminist ethics to health care ethics, in general, in her book, *No Longer Patient: Feminist Ethics and Health Care.*

[3] The term 'postconventional' cannot be defined adequately in a few points, and its use here signals just some of its facets that might support a radical rethinking of the developments that impact on the care of the body.

possibly conflicting discourses that will never resolve into a unified whole.[4] It does not claim that the search for new, or even 'better', knowledge should be abandoned, but rather that no single thesis should be justified or adopted as a source of ultimate authority. Postconventional perspectives[5] comprise the social and political as well as individual bodies/selves, thereby giving us resources to understand cases of surveillance and control over ourselves and over others

Second, although modernist assumptions continue to hold sway in health care practice, and remain as something of a 'mythos' in science, we argue that in point of fact contemporary science is (knowingly or unknowingly) moving out from under their grasp. In particular, we believe that a poststructuralist approach will do justice to a wider variety of biological exemplars than is commonly recognized, as well as satisfying the feminist science admonition that it is more appropriate, even within bioscience, to adopt an openness allowing for systems that are flexible, adaptable, and dependent on context for their external expression (Fausto-Sterling, 2008).

The re-alignment of practice with theory based on this pair of contentions, in turn, we hope, will provide a productive basis for dealing with impending quandaries around agency, new technologies, and ethics.[6]

Embodiment

One highly relevant feature of postconventional perspectives is that, in place of the quasi-Cartesian binary split between mind and body, it employs the notion of *embodiment* to signify the intertwining of mind and body, as well to express a dynamic interplay—a reciprocity—between the whole person and the external world.[7] Poststructuralist theory suggests that oppositional difference between bodies, and between body and mind, be replaced not just by multiple differences, but by what Derrida (1972) calls *différance*, in which no element has independent meaning or value. The term *différance* implies an overflowing and intermingling of categories in which there is no access to a fixed or singular essence, and in which meaning is constructed through a network of interdependencies.

In their ground-breaking paper, 'The Mindful Body', Scheper-Hughes and Lock (1987) elaborate on these issues in their use of postmodernist theory to posit three "bodies": (1) the *individual body*; (2) the *social body*; and (3) the *body politic* (1987).[8] In their discussion of different cultural views of the healthy and sick body, they note significantly that causes of culturogenic death—nocebo (voodoo, pointing the bone, etc.) and placebo (unexplained cures deriving from faith)— '…are integral to all sickness and healing, for they are concepts that refer in an incomplete way to the interactions between mind and body and among the three bodies: individual, social, and politic' (1987: p. 30). In place of a traditional model in which the transcendent mind is unconstrained by the lumpen flesh, and, indeed, ideally controls it, they demonstrate through ethnographic examples how a person's very sense of identity, their becoming in the world, is dependent on these three bodies.

Bioscience

Perhaps surprisingly (our second contention), poststructuralist themes can be found in the results of contemporary biological investigations of the body as well. While biomedicine is best known for its separation and individualization of body parts into independent systems (Scheper-Hughes & Lock, 1987; Taylor, 2006), well-known reciprocities between the nervous and other body systems have recently spawned whole new fields of research: neuroendocrinology, between nervous and endocrine systems; and neuroimmunology, between nervous and immune systems, to name but two examples. Even developmental biology provides strong evidence undermining any strict sex/gender or female/male binary. How should we classify a person with male genitalia but XX chromosomes, or XY chromosomes in a body that in other respects would be associated with the female (Fausto-Sterling, 2003)? Reciprocity between the social environment and (supposedly) distinct selves is well-developed in research showing that women who live together menstruate in synchronicity, thus interlocking individual physiology with bodies outside of our own (Stern & McClintock, 1998). So exquisite is the communication between the disparate sites, with fine adjustments made constantly on the basis of those communications, that it renders meaningless the enterprise of determining which body is in charge. Each is both controlling and reacting, exemplifying how the self is never separable from its own materiality, nor fully separable from other selves.[9]

Current biological understanding in a field known as epigenetics also supports the notion of a political body that undergoes and enters into reconstructive change over its lifetime, within a context of constant interplay among experience, environment, and the expression of genes. Epigenetics demonstrates differences in resilience and vulnerability in different animals under the same stressful life circumstances, including the trauma of poverty and war (Krishnan et al., 2007). It has also shown that early experience such as child abuse and deprivation can alter gene expression, and hence brain circuitry, changing both animal and human behaviour throughout life (McGowan et al., 2009).

In fact any serious perusal of the biological literature reveals active areas of research into phenomena that cannot be reduced to a single variable. For example: the intellectual bedrock of empirical studies on biological rhythms is the notion of a body whose successful functioning cannot be extracted from the world: light, dark, dusk, dawn, and intermediate states all affect endocrine activity, neurotransmitter secretion, and other body states, (re)constructing the body as it goes through the day (Moore, 1997). Any close scrutiny of endocrinology research reveals that there is no guarantee of an unchanging biology as the material base for a stable normative self: hormones change physical states; cognitive strategies may be influenced by the presence or absence of estrogens or androgens early in development; the onset of a psychosis such as schizophrenia may depend on the types and quantities of circulating steroid hormones (Einstein, 2007). Finally, empirical

[4] The value of this approach has been demonstrated in Clarke and Olesen (1999).

[5] As one reviewer of this paper pointed out, we could (and perhaps, should) use phenomenology as a perspective through which to explore a retheorization of women's health. Indeed, Ros Diprose's (1998) work on the clinical encounter demonstrates aptly how the phenomenology of Merleau-Ponty might be utilised to better understand what is ethically at stake. For Merleau-Ponty (1962, 1968), the embodied self and every other materiality is constituted in relation: there is no separate and independent subjectivity, but only the highly mediated experience of becoming-in-the-world-with-others. As he puts it: 'the world of each opens upon that of the other' (1968: p. 141).

[6] The importance of a bioethical framework—the area in which explicitly feminist input has been most influential (Shildrick & Mykitiuk, 2005)—should not be underestimated at a time when existing expectations and certainties are continually challenged by the dilemmas posed by new technologies.

[7] We recognize that the term 'embodiment' itself betrays the legacy of the very mind–body distinction from which it is trying to escape.

[8] By 'body' here and throughout the rest of the paper, we intend a fused or inexorably entwined body and selfdsomething one might also call a "material self" or "material person".

[9] This has been discussed for the science of physics by Karen Barad (1999) in her paper on Bohr. What, after all, is the Heisenberg uncertainty principle if not an acknowledgement of the interconnectedness between the experimenter and the experiment; or the object being measured and the apparatus measuring (Barad, 1999)?

research on stress leads to an allostatic model of stress that explicitly incorporates personal history, current environment, and genetics to provide an explanation of each person's ability to equilibrate to allostatic load over the course of a lifetime (McEwen & Seeman, 1999).

The importance of context is thus uncovered not only in post-conventional theory, but also in bioscience itself. The whole organism can no longer be assumed to act as a self-contained unit unaffected by the world around it. Many areas of bioscientifc inquiry acknowledge—even depend on—specificity, contingency, and the eschewing of binaries matched by the messiness and realities of postmodernist theory.

Do multivariable models not provide more insightful understanding of a person who is born into war-time conditions, migrates to a refugee camp, and is then airlifted to safety? Or of a peri-menopausal woman considering modification in order to give birth? To some extent, the multiply variant constituents of the whole body in context can be, and have been, individually tracked, but we are learning from bioscience that they are rarely reducible to a *fixed* biology. As feminist theory in general has long recognized, there is no universal template for corporeality, and any appeal to singular normative standards does violence to all (Shildrick, 1997).

Many women's health theorists have not only taken the experiential habitus and connections between bodies into account, but also recognized how science can be a partner, not an obstacle, in making such a move. Fausto-Sterling uses the science literature to challenge such traditionally binary categories as female/male and African/Caucasian. Using data from the developmental biology of sexual differentiation, she makes the case that as a category, the biology of sex is not binary (2003). Using epidemiological data she demonstrates that racial categories are irrelevant to understanding osteoporosis; being African-American is irrelevant to the incidence of osteoporosis, but where a person lives and how much sunlight they are exposed to over the course of their lives is deeply relevant (Fausto-Sterling, 2008). Fausto-Sterling thereby shows us that the science literature, itself, demonstrates that some of our most cherished categories are meaningless when individuals' situated biology is taken into account.

Donna Haraway's (1989) work similarly engages the scientific literature's descriptions to question the binary of self/non-self so often used to conceptualize immune system response. Polly Matzinger, herself a practicing immunologist, reinterprets her data to postulate a 'danger model' of immune action in which, rather than having a self/non-self construction, immune response is '…guided instead by an understanding of the body's need to recognize and respond to signals of danger, regardless of their origin' (Weasel, 2001, p. 31). Weasel quotes Matzinger as explicitly recognizing the failure of the self/non-self model to explain Matzinger's own data: '…over the years that I have been trying to understand immunological tolerance, I have been intrigued, mystified, and dissatisfied by a range of phenomena that didn't fit with the view that the immune system reacts against anything foreign and is tolerant of anything that is self' (Matzinger, 1994: pp. 991–992; Weasel, 2001: p. 32). Elizabeth Wilson urges us to tolerate and explore reductionism in order to develop new models of embodiment; in doing so, she engages with psychology and neuroscience to elucidate what kinds of bodies reductionism might offer (Wilson, 2004).

Challenges

The challenge we face is to bring these discursive and bioscientific understandings of context, embodiment, contextuality, and multivariant dependence into the clinical setting. The challenge is for practitioners—of women's health and more broadly—to acknowledge intrinsic intercorporeality and a deeper recognition of interconnectedness of bodies, body systems, and body and world.

The problem is that those who *do* women's health—practitioners at all levels of health care—engage in their craft under certain practical constraints: time, money, life, and death. Understandably, such unavoidable constraints often inhibit radical change. The urge to impose order, to neatly distinguish between *good* and *bad* interventions, or to have a determinate assessment of consequences using fixed metrics, can lead to these practices remaining unmarked by intellectual developments elsewhere that problematize such normativities. In particular, given the practicalities of practicing medicine, it can be argued that operating from an attitude of contingency and interconnectedness might paralyze the practitioner with possibilities.

Two considerations, however, suggest that, on the contrary, adopting such an attitude is both necessary and possible.

As regards necessity, first, the problem is that while modernist treatment protocols can seem objective and clear, their failure to consider the contingencies of individual lives can mean that protocols designed to create a level playing field can instead result in the denial of critical care. Hawker et al. have explored the relative ease with which women and men with the same type and severity of knee problems are recommended for total knee arthroplasty by Ontario practitioners. Interestingly, while the doctors studied stated that the sex of the patient did not enter into their decision to refer, the study revealed that the odds of recommending total knee arthroplasty for a male patient were 22 times greater than those for a female (Borkhoff et al., 2008). The point is that in order to produce an allegedly 'fair' decision-making metric, the protocol is based on the 'typical normal body' which, as it happens, is unfair to women because it does not consider the contextual contingencies of their lived lives. Is it that the metric for determining who is a good candidate for such surgery privileges the male life—men are more likely to have someone at home to care for them after surgery—and disadvantages women because we are more open to alternatives to surgery (for example, physical therapy)? While the answers are not known, these kinds of findings open the door to deeper questions whose exploration must encompass the role of context and situatedness within the metrics for decision-making themselves.

Failure to consider contingency and *différance* also raises concerns in the bioethical domain, in cases where it leads to serious fractures in care. For example, as the observant clinician already knows, efficacious local treatment does not always lead to illness-free post-treatment lives. Mastectomy may 'cure' breast cancer, but results show chronic, neuropathic pain in approximately 40% of women who have had this treatment (Smith, Bourne, & Squair, 1999), and approximately 20% also experience phantom breast sensations (Dijkstra, Rietman, & Geertzen, 2007). When one part of the body is excised, it results in a neural rewiring that attempts—whether it is successful or not—to accommodate this change (Ramachandran & Blakeslee, 1998). Thus, the connection between the reproductive system and the nervous system is ignored at the patient's peril. Any cutting of the body such as in mastectomy, female genital cutting, cosmetic surgery, or transplantation, can modify the entire body via the plasticity of the central nervous system, to name just one body system (Einstein, 2008). To fail to make the patient aware of this belies the notion of informed consent.

Similarly, it can be markedly practical, as well as leading to better care, to recognize that, just as body systems are not really autonomous, neither is the person with relation to the world (i.e., to relinquish allegiance to the second major modernist assumption identified in Section Problematic). Privileging the autonomous body without considering the circumstances in which it engages can have negative consequences and undermine medical efficacy. Consider the 'rational' patient in an intensive care unit (ICU), intubated and tied to the bed to keep her from pulling out her

trachea tube. It is well documented that a temporary mental state known as 'ICU psychosis' is linked to the intense discomfort of the procedures and constant activity of the ICU, as well as to sleep deprivation. Even though the patient may appear to respond clearly to the orders of doctors and nurses, she is arguably not 'rational' enough to be allowed to determine her own release time from the hospital. The conditions under which she is making the decision render her unable to accurately assess her readiness (and that of her body) to undertake her own care at home (Misak, 2005). In this case, a 'rational' decision about care should not only involve her whole person in context, but should also consider whether she might receive more appropriate care if she was not treated as if she 'owned' her body.

As regards possibility, recognizing the inseparability and contextualization of bodies can lead to a *different* approach to care, not necessarily to a *more difficult* one. Consider for example the impact of poststructuralist themes on the interaction between provider and patient. Luce Irigaray (1993) sees the self/other relation—between health care provider and user, for example—not in terms of distinction, but as a mode that occurs 'between-subjects'. In this way the health care encounter can be rethought as one that mobilizes a circuit of embodied *exchanges*, keeping differences in play rather than evaluating them against a single normative standard. An understanding of the operation of *différance* in the clinical context can also lead to face-to-face biomedical transactions being modelled on something other than the meeting of two or more supposedly autonomous persons negotiating across the safe space of separation created and sustained by the distinction between healthy and ill.

Provocatively, in an attempt to instill just such a perspective in medical students training to become general practitioners (GP), Jaye (2004) asked GPs in a biomedical anthropology class to read the paper by Scheper-Hughes and Lock (1987). She then conducted qualitative interviews, to explore whether or not understandings from that paper influenced the GP's understanding of the clinical encounter. Jaye asserts that themes arising in the interviews support the conclusion that "…it is possible for medical practitioners to problematize the Cartesianism of biomedicine and its effects on both patients and doctors, and to conceptualize the integrative framework encapsulated in the notion of embodiment as lived medicine" (Jaye, 2004: p. 47).

For health care professionals and users of the system alike to acknowledge the uncertainty of the biomedical task and the inadequacy of certain cherished principles might encourage the search for a range of alternative treatments and a contextual invocation of less rigid bioethical considerations. Eschewing Cartesian binaries in the practice of women's health, in sum, is not only a lesson to be learned from our current understanding of biology and biomedicine, and an important task for bringing theory back into the practice of women's health, but also critical both for health care and for bioethics.

Going forward

The aim of our retheorization is not, we reiterate, to reduce all reliance on established approaches, but rather to recommend that familiar models always be kept open to critique and constant revision—not only in instances where normative expectations have already been breached or revealed as inadequate, but as a standing practice, to be applied in each and every case in the clinic. No matter how beneficial, any attempt to systematize issues will inevitably do injury to their full complexity, whatever the level of inquiry. Even in situations of enormous pressure, where systemization may clearly play a pragmatic role, an acknowledgement of the dimension of undecidability lends an openness to potentially very different actions that in the long run could be not only life-saving but enhancing of full humanity.

To use the space of women's health for epistemological work requires reassessment, reinterpretation, and a willingness to face mutual ignorance in the theoretical, biological, and clinical realms. On the feminist side, while some feminist approaches to biomedicine have incorporated the science of bodies (Fausto-Sterling, 2000; Grosz, 1994; Martin, 1994; Wilson, 1998), that very acknowledgement of the centrality of the body in all its aspects has been seen by others—who harbour a lingering feminist mistrust of bioscience and related technologies—as inviting essentialist interpretations. The result has been an unfortunate hindrance to deep engagement between feminist theorizing and biomedical research and development.

To remedy the situation, feminist philosophers will need to address their own ignorance of a body that gets sick and dies—both in spite of, and because of, its social construction. What is required is an explicit commitment to retain "…simultaneously an account of the radical historical contingency of all knowledge claims and a no-nonsense commitment to faithful accounts of a real-world" (Haraway, 1988, p. 187). Similarly, bioscientists will need to be open to feminist theory and be ready to reinterpret current scientific knowledge and to design future empirical work from a feminist/poststructuralist perspective.

As we have said, some scholars on both sides are already doing so; the challenge is for such a rapprochement to enter clinical practice. Easing the prospect, as our use of bioscientific examples has demonstrated, is the fact that 'feminism/bioscience' is itself no simple binary. Contrary to popular mythos, as we have tried to demonstrate, empirical research of the body lies not in some realm of truth and purity, but like all discourses is the outcome of partial perspectives. The task for a strong and inclusive retheorization, then, is to ensure that no single set of beliefs is allowed to dominate, and that a deconstructive critique is continually mobilized.[9,10]

In embracing this project, we must all be prepared, moreover, not just to recognize and work through the repercussions of normative bioscientific impulses, but also to address our own entrenched beliefs. All of us interested in the potential vigour of the practice of women's health need to actively identify and explore our own areas of ignorance. We need to acknowledge that there are systemic as well as biological aspects of embodied persons of which we know little or nothing—a "speculum" (to quote Tuana's title) of ignorance—that requires interrogation, with regard both to *why* we are ignorant, and to those things of which we are ignorant (Harding, 2006; Tuana, 2006). In the empirical domain, an epistemology of ignorance has the potential to uncover areas concerning the interactions of the biological body and differential culture that are widely unstudied. It is also imperative that we step outside the traditional biomedical research binary of the scientist and the subject studied. As Tuana reminds us: "Ignorance, like knowledge, is situated" (2006: p. 1).

One strategy to break free of our own situated ignorance is to ask particularly situated women what they consider is important to understand about them. Surprising knowledges can emerge from such an approach. For example, when women in three disadvantaged Beirut neighborhoods were asked about their primary health concerns, the results surprised the researchers, who had assumed reproductive health to be the most important issue. The women, themselves, however, cited musculo-skeletal health first and mental health second—with reproductive health ranking only *ninth* (Zurayk, Myntti, & Salem, et al., 2007). So why do we keep studying the reproductive health of women in Beirut when women, themselves, do not consider it of high concern?

[10] In their essay on revisioning women's health, Clarke and Olesen refer to this as 'diffracting' (Clarke & Olesen, 1999).

A non-prioritized integration of feminist approaches with biomedical understanding will lead not only to advances in health care practice, but also to the development of important new knowledge in both realms. For example, the following questions about the biological body could be well-served by collaboration among feminist epistemologists, bioscientists, and the community that sets out to interrogate our mutual ignorance and the reasons for it:

- What does the map of the female body in the brain look like, and does it change with the ovulatory cycle and with age?
- Why are conditions classified as autoimmune up to ten times more common in the XX body than in the XY body?
- How does sense of self vary with genes, hormones, and environment?

As a result of such collaboration, we also need to explicitly develop technologies, including intellectual ones, that will allow for exploration of this uncharted territory.

In all of this—reassessment, reinterpretation, facing the speculum of ignorance, and developing new paradigms—we take it as crucial that the materiality of persons not be separated from the constitution of the self. There is always more at stake (in research and health care) than the restoration and repair of a decontextualised body or any one of its parts. The general underlying theme of all of these examples is the need to design empirical work that variously takes into account the effects of one corporeal system on another: how intervention into and alteration of one part of the body modifies the entire organism, and ultimately, how the world writes on the body.

Conclusion

We call for the practice of women's health to move from the conventional and often static Cartesian domain into the dynamic, living realm that most typifies its subject. We are not (self-contradictorily) proposing a postmodernist approach as the only way forward, nor claiming that all the points raised would find consensus. Rather, we believe this to be one fruitful place to start bringing theory back into women's health practices. At very least, the perspective makes available a mechanism that shakes up entrenched beliefs; at best, it provides insights that demand to be tested for relevancy in the field of biomedicine. At the heart of the enterprise is a deep scepticism towards the idea that boundaries are naturally given rather than constructed, and an understanding that embodied selves are in a constant state of flux, without permanent features of identity. In place of decisive answers and resolution, there is a reflective awareness that outcomes are inherently insecure, provisional at best.

Such an approach also enables us to begin asking specific hard questions about women's health:

- Is it healthy to engage in reproductive technologies and genetic engineering?
- In cultures where women are valued for their reproductive success, what will improve their health: birth control or working skills; medical clinics or sewer systems and clean water?
- When is it helpful to biomedicalize conditions and when not?

To explore the complexities of these and other questions without expectation of universal answers or solutions is not a failing. Rather, it reflects a commitment to reconfigure, rather than simply reform, the modernist mythos of health. Women's health can open up to thinking otherwise about the issues that trouble it, not by imposing answers on tricky dilemmas, but by allowing the questions themselves to be continually reopened to create an imaginative and fluid space in which to think through all the implications, not just of diverse biomedical procedures, but of materializing new forms of embodied selves.

The process will entail an iterative process of regularly re-examining the interface of theory and knowledges arising from the laboratory, the clinic, the doctor's office, and indeed the observation of our own bodies. For feminist theorists, the imperative has always been to be relevant—to test theory in the world and use it to make things better. This will require that we:

- Engage with a broad range of bioscientific research covering both new understandings of the body and new technologies;
- Be alert to the multiple meanings and efficacy of such intellectual developments;
- Test theory against the materiality of substantive biomedical issues covering both the process and practice of professional providers and users of health care systems; and
- Remain sensitive to the bioethical implications that are generated by all these concerns.

This in turn will lead not just to new research parameters and research methodologies but to new approaches on the ground—in the clinic. Women's health involves the pragmatic call of dealing with persons within their own context.

What might emerge from an embodied, contingent approach to women's health? The following are just a few suggestions as to the possible benefits that would accrue to all if we take these risky steps into uncertainty:

- The conventional, broadly essentialist, focus on reproductive health would diminish, since the variation among women within their lives would be manifestly obvious. For some women, reproduction would continue to be of prime importance; for others, not.
- Gender differentials in 'healthy' bodies would take on new force. The demand to study how unifying body systems like the endocrine and nervous systems influence every aspect of bodies over place and time, and above all in sex/gender specific ways, would lead to new understandings of how such biological contingencies affect our lives.
- An acceptance of the notion of the embodied self would necessitate the development of new models of care for long term or chronic disease, since these are the bodily discontinuities that most affect a sense of self.
- The notion of situated lives would benefit practitioners as well as patients; mutually acknowledged constraints, risk and uncertainty would serve to limit patients' fantasies of restoration to perfect health and open new possibilities for practitioners to organize their medical practice without being penalized by systemic expectations (Gulli & Lunau, 2008).
- Instead of a person's biology being judged by a singular normative standard, difference would be valued, with no one morphology being privileged. At very least, many conditions currently labelled and medicalized as 'disability' would be rethought as merely variations of the lived body.

The list is not intended to cover all the ground, and, indeed, the adventure of the project of retheorizing women's health is that none of us can know in advance where it might lead.

Feminist engagement with women's health has been consistently active since the early 1970s. We view this call for a retheorization of women's health—an effort to reunite 'women's health qua movement' and 'women's health qua practice'—as an effort to build on and reorganize that undertaking. The case for directing

biomedical research and development, resources, and delivery towards women is a continuing aspiration that requires ongoing energy and commitment. At the same time, however, we should remember that the categories of 'sex' and 'gender' themselves impose artificial boundaries, and should not be taken as final or definitive. Our conviction is that feminist inquiry has a responsibility to engage with genetics, pain research, new surgical technologies, and so on, regardless of the intrinsically gendered components. The issue is not simply to deliver a better health context for women, but to bring all our resources to bear on issues raised by the shifting domain of health care and its new technologies, so that the damaging gaps and omissions that emerge from modernist assumptions can be exposed, challenged, and rectified. The greater aim of retheorizing women's health for the twenty-first century is the delivery of an improved and provisionally more adequate health care system. If feminist theory is willing to engage with the corporeality of the body and with the new bioscience, it can open up new directions and break out of old paradigms. Only then is it in a position to instantiate a new epistemological fluidity that can provide a flexible but coherent lens through which to interpret the body, and what constitutes health, for the benefit of variant human kinds.

Epilogue: a think tank to retheorize women's health

Based on their prior discussions around women's health, the two authors—who came together from very different disciplinary backgrounds (one in bioscience, the other in philosophy and feminist theory)—decided to pursue their ideas further by calling a conference. Working with others, they hosted a one and a half day CIHR/University of Toronto-funded (see Acknowledgments for details) 'Think Tank on Emergent Paradigms in Women's Health' at the University of Toronto in May 2006. Its aim was to bring together feminist theorists, science studies scholars, biologists, and clinicians to find and explore areas of intellectual convergence—and more generally, to dig up the ground and prepare it for planting seeds of ideas on how to proceed to reinvigorate the space of women's health.

As detailed in this paper, we believed that biologists and theorists were already working on some of the same problems of contingency and contextualization, and we anticipated that scholars in the field of science studies—who necessarily engage with bioscientific practice to reinterpret it for a social science community—might act as potential bridges between the disparate disciplines. In order to avoid the dangers of stubborn expertise and territorial defense, we explicitly did not invite participants to talk directly about their own work. Instead, we attempted to stimulate discussion via a list of key words provided to all participants, and by four interspersed formal talks touching on the following general themes: (i) where women's health is currently situated (Adele Clark); (ii) tissue engineering (Kim Woodhouse); (iii) immunology (Michael Ratcliffe); and (iv) reinterpreting scientific data (Anne Fausto-Sterling). Invited scholars attending the event served not only as bridges but as catalysts: Adele Clark, Anita Ghai, Lucy Suchman, Susan Squier, Anne Fausto-Sterling, and Charis Thompson engaged with an equal distribution of researchers from across the disciplines of the humanities, basic sciences, and clinical sciences/practices from the three Toronto Universities

Out of these initial exchanges came agreement from all participants that anyone who seeks to focus on the well-being of the body—bioscientist, clinician, theoretician—must do so from a more integrated interpretive stance that involves *contingency*, *complexity*, *collaboration*, and *conversation*. Carrying these themes and paradigms forward, the UK ESRC has recently funded a seminar series that will take up many of the issues discussed at the first Think Tank and in this paper, Retheorising Women's Health: Shifting Paradigms and the Biomedical Body: http://www.retheorisingwomenshealth.org.uk/. As women's health care rapidly adjusts and is reorganised to meet the demands and challenges of a transformation in biotechnologies, in life span, through globalization, and increasingly in the environment, we need to remain aware that there are no lasting solutions, but simply ongoing processes. While we believe that a good start has been made, the real test will be to hold on to the 'hope of liveable worlds' where the outcomes, although necessarily provisional, remain workable and productive.

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