The Hidden Dynamics of Gender and Technology in Reproductive Care

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Within the last two centuries, birth has undergone a major transformation as doctors took over and relocated childbirth from the home to the hospital, leaving the reproductive female body devalued and disempowered. Advancements in medical science have played a fundamental role in this transformation. As birth has become more and more medicalized, women seem to have lost their agency and believe the only place to have a successful birth is in a hospital. Reproductive technologies have certainly had beneficial effects, but they have also turned the mother into an extension of obstetric machines, communicating a power hierarchy that reinforces patriarchal control over female bodies. This hierarchy has had long-term repercussions for reproductive bodies, but it is largely concealed.

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New technologies and techniques have certainly been instrumental in saving many women's and their babies' lives, but they also have the potential for abuse and exploitation. Regarding the use of such technologies, such as elective screenings, anesthetics, and fetal monitoring services, it is important to remember that women are not a homogenous group. In explaining their high levels of use, as Eileen Leonard (2003) has argued, U.S. Americans often view ultrasounds and other reproductive technologies and techniques as purely beneficial, having been socially conditioned to accept them rather than question them. It is important to analyze where women stand when it comes to the technological instruments that are used on their bodies. To assume that the use of reproductive technology is in the best interests of all women is to fail to question what is obscured – that it could be an "instrument of society" with real political implications (Leonard 2003, p. 3). Lilia Oblepias-Ramos (1991) asks some important questions in this regard: "Are the women informed of the choices they can make on which technologies will serve or harm them? Can they, in fact, choose what they feel appropriate for them, or are they obliged to fit themselves to the technologies they need to use?" (p. 90). More importantly, are women even *aware* they *have* a choice? To begin to answer these questions, we must first consider five ways in which pregnant female bodies have been objectified and alienated from women themselves: the separation of mind and body, the body as a machine, the body as harmful, the body as an incubator, and finally, intervention.

The first germ of alienation is tied to the history of science and its tendency to associate men with the creation of technology and the development of structuring binaries including body/mind and nature/culture (Hopkins, 1998). During the Enlightenment, scientists developed a newfound meaning in the concept of "nature," presenting it as an unruly force that could and should be controlled by the rationality of "man." Women in this context were associated with nature, viewed as emotional and embodied, in opposition to the intellect and reason that were the hallmarks of maleness. In this frame, pregnant women, by virtue of their reproductive systems and the ability to bring forth new life, represented nature in its purest form (Jordanova, 1999, p. 164). Ludmilla Jordanova (1999) gives an excellent account of how the idea of nature was

constructed and maintained by society as some dangerous force to be conquered, writing that "woman" became synonymous with "nature" in that their bodies are "so clearly subsumed under nature's laws...that their states of mind and body can be read by the trained person" (p. 166). Nature dictated that their "uncontrolled passions" left them less amenable to reason, which necessitated a means to control them and protect them from their dangerous potential (Jordanova, 1999, p.166).

These early claims of Western science produced a legacy that persists today not just in the field of scientific medicine, but in nearly every field of study – in history, anthropology, sociology, and psychology, to name a few. While this legacy has been challenged fervently by feminists and others in recent decades, these fields and others have all been shaped in some way by this sexist binary structure. Within the techno-medical model of birth (hospital-based obstetrics), for instance, mind and body are considered not as one, but separate (Gaskin 2003, p. 158). The pregnant woman's body, set within this framework, is not considered to be a thinking body and is "aligned against reason" (Alcoff et al. 2014, p. 128). The opposition of mind/reason versus body/nature has had serious repercussions including constrained opportunities and choices for birthing women. These constraints occur, not because such limitations are "natural or inevitable but because women have been interpreted through the lens of culture, thought of as 'natural' by men who have created the very category of 'nature' to serve their own aims" (Alcoff et al. 2014, p. 129). As such, it is "the cultural, rather than the natural, character of such limitations in Western culture where 'woman' has been defined by her body and seen as trapped in nature because of it" (Alcoff et al. 2014, p. 129). It is worth re-emphasizing here that such a cultural tendency was put in place and practice at a time when women, minorities, and the enslaved were virtually excluded from areas knowledge production, as well as from medical professions. And although the number of women and minorities in medical professions have increased in recent years, it is undeniable that such fields continue to be dominated by white males. Our criticism in this paper is focused on the idea that simply by including women and minorities as medical professionals does not erase the legacy that continues to shape the ways in which birthing women are viewed in reproductive medical practices.

Society's understandings of childbirth and the bodily fluids which accompany it are two examples of how pregnant women are trapped within the natural realm. Margrit Shildrick and Janet Price (1999) describe the female body as being understood as "intrinsically unpredictable, leaky and disruptive" (p. 2). The pregnant body "naturally" produces more vaginal discharge than women who are not pregnant and the laboring body releases anywhere between two and six cups of amniotic fluid once the amniotic sac has ruptured. This 'leaky' quality is, indeed, as unpredictable as is it is disruptive – labor does not take a timeout or wait for everyone to be ready, and this is quite inconvenient for some doctors (a profession grounded in male associations). These unsettling qualities of pregnancy and childbirth, connecting women to nature's unpredictability, have thus been claimed to prevent women from making rational decisions. It is not a surprise that "the ability to effect transcendence and exercise rationality has been gender marked as an attribute of men alone – and further only some men, i.e. those who are white, middle/upper class, healthy and heterosexual – such that women remain rooted within their bodies, held back by their supposedly natural biological processes" (Price & Shildrick, 1999, p. 2). In this way, the pregnant female body is a "hybrid creature" which functions as part of a natural order but submits to cultural authority of man (Balsamo, 1997, p. 27).

Many women have been trying to reclaim the category of natural as something positive and taking pride in their ability to give birth "naturally," i.e. resisting medications created by male-associated techno-science that serve to control both the birthing body and the birthing process. While their ability to redirect negative connotations of masculinist discourse is certainly something to be admired, the pregnant/laboring body still retains somewhat of a vulnerable character as a potentially penetrable "place of ambush" (Price and Shildrick 1999, p. 4). Giving birth "naturally" may appear as an important stronghold of women's power, but nature's binary value in Western societies, as something that needs to be controlled, can always be used counter to women's power. In this way, the female body's association with nature is ambivalent: grounding "motherhood" in a natural morality renders it practical for raising children, but nature's opposition to and detachment

from science produces an image of ignorance and a lack of intelligence (Jordanova, 1999, p. 163).

Valerie Hartouni (1997) contests the notion that women, by nature, are better suited for motherhood because of inherent qualities, writing that "'being a mother' is not something women 'are' by nature, instinct, or destiny, or by virtue of being female or pregnant" (p. 30). Instead, she writes, "it is something women (among others) do: it is a conscious and engaged work in the fullest sense of the word and an activity that is still but need not necessarily be gender specific" (Hartouni, 1997, p. 30). Mothering is conditioned so much that it *appears* natural or instinctual. The mindset that women's bodies are natural thus legitimizes the male, medical professional's authority over them and likewise the alienation of the woman from her mind. A far cry from being "natural," however, is male doctors' choices of language to describe childbearing women, which serves their purposes well.

When childbirth practice shifted from the hands of female midwives to those of male doctors, American obstetrics adopted a language which described the female body as a machine (Andersen, 1997, p. 210). Seventeenth- and eighteenth-century French scientists coined such descriptions, observing that the womb and uterus worked "as though they formed a mechanical pump that in particular instances was more or less adequate to expel the fetus" (Martin, 1992, p. 54). It is fitting that American doctors would later embrace this language, considering the technological boom of the Industrial Revolution. This new language and association of women with machines marks the second germ in the pregnant woman's objectification and alienation.

Describing the pregnant female body in mechanistic terms served to distance the equality between men and women, for "it was the basic premise of physicians in late eighteenth-century France that women were quite distinct from men by virtue of their whole anatomy and physiology" (Jordanova, 1999, p. 160). By differentiating anatomical and physiological features, an argument could be made for "natural" differences – or deficiencies, regarding women – that could also serve to rationalize the inequality between women and men. Additionally, because of the way in which birthing women are described is constructed through language, there are two primary implications of this mechanized mode of description: first is the "reduction of spirit, affect, and value to mechanistic processes in the human body"; and second is the facilitation of "viewing and treating the body in [an] atomistic and mechanical fashion" (Morgan, 1991, p. 265). Such an approach aims to "render the individual both more powerful, productive, useful *and* docile," securing its hold "not through violence or force, but rather by creating desires, attaching individuals to specific identities, and establishing norms against which individuals and their behaviors and bodies are judged and against which they police themselves" (Sawicki, 1999, p. 190-191).

With the machine model, the doctor is the star of a show that had formerly been a female-centered event, directed by midwives. Ina May Gaskin, an internationally renowned Certified Professional Midwife, comments on this: "Instead of being the central actor of the birth drama, the woman becomes a passive, almost inert object – representing a barrier to the baby's eventual passage to the outside world" (Gaskin, 2003, p. 186). In her passivity, she is expected to place her complete trust in the doctor's knowledge and do as she's told and when she's told. Midwifery, however, follows a far more autonomous approach, listening to what the laboring mother's body tells her and doing what she feels is right in the moment. For example, take positioning during labor: midwifery practices encourage the laboring mother to walk around, lean over, use birthing balls – basically anything that feels good to her, because that is what moves the fetus down and out and into her arms. Physician-led hospital births, on the other hand, typically constrict the laboring woman's movements and usually confine her to a semi-reclined bed, feet in stirrups, and plugged in to intravenous tubes and fetal monitoring devices as if she is a machine herself. Not only are hospital-births stressful, they are not necessarily practical when considering that gravity works on the laboring mother's side – and laying down will not facilitate the assistance of such gravity.

In accordance with patriarchal notions that define work and labor, medical doctors focus on how technology and machinery can be used to control the progression of birth. Through the mechanized image of pregnancy, the birthing woman is prone to all sorts of mechanical malfunctions. Subsequently, if the "woman's body is the machine," then the "doctor is the mechanic or technician who 'fixes' it" (Martin, 1992, p. 54). In addition to labeling birthing women's bodies as innately irrational and treating them like machines, physicians have also depicted those bodies as deficient, uncontrolled,

and inherently diseased – marking the third germ of alienation (Price & Shildrick, 1999, p. 145).

For male physicians, who are unable to give birth, pregnancy and childbirth are not only mysterious but also frightening (Alcoff et al. 2014, p. 254). Consequently, their fears have skewed their understanding of the pregnant female body and have been reflected in medicine. This has significantly affected birthing women's ideals of their own health, for "[i]f men are the authorities to whom women turn for information about these events, certainly men's subjective interpretations are conveyed to women, who learn to perceive the world through men's 'expert' eyes" (Alcoff et al. 2014, p. 254). What was probably more threatening to male doctors, though, was not the supposed dangers of pregnancy and childbirth but the fear of not being in complete control. Contrary to the assumptions of the machine-model, the body does not always function as one wants it to even with the very best medical knowledge and equipment. If women come to believe that their bodies are dangerous, it makes it easier for doctors to maintain control through whatever means possible, all the while holding the position of the Good Guys.

According to Emily Martin (1992), gynecologists have been vilifying pregnant bodies for centuries:

> From the early description by a nineteenth-century gynecologist of the uterus as a death missile, through later (1920) descriptions of labor as being like the mother falling on a pitchfork or the baby's head being caught in a door jamb, to contemporary efforts of obstetricians to ease the terrible experience of birth for the infant by dim lights and warm baths after birth, a role is constructed for the doctor to ally with the baby against the potential destruction wreaked on it by the mother's body. (p. 64)

These erroneous conclusions stem from misunderstandings of pregnancy and childbirth. If uteruses truly were death traps, then we would not be walking the earth today. And, if the passage through the birth canal really was a traumatizing experience, all babies would show markers of it like disfigurement or compromised health. Still, the myth of the dangers of pregnancy has been deeply embedded in contemporary women's psyches, and many women have come to believe that their bodies are the enemy, making them fear childbirth as well. They have been unduly influenced by a medical discourse whose "profoundly misogynist beliefs and attitudes" are central to the transformation of the womb from a sanctuary to a "dark prison," where "women are viewed as threatening irresponsible agents who live in a necessarily antagonistic relationship with the fetus" (Morgan, 1991, p. 273). According to this framework, women's bodies are the catalyst to destruction and are not to be trusted; they must be controlled via technological manipulation to prevent them from killing their own progeny, perpetuating "the most deadly anti-woman bias of them all" (Hartouni, 1997, p. 40).

The fourth germ of women's objectification and alienation during pregnancy and birth has to do with the way the body has been painted as a mere incubator for the *primary* patient – the fetus. Like the homunculus, nineteenth-century physicians saw the fetus as an "autonomous, self-determining life form and argued that its 'subsequent history after impregnation [was] merely one of development, its attachment merely for nutrition and shelter'" (Hartouni, 1997, p. 24). Things have not changed very much in the last two centuries, for the majority of physicians and birth-advocates still regard the fetus in a similar manner despite the fact that it has had no life experiences. Just take a trip on Florida's Turnpike and you too will see the anti-choice slogans plastered on billboards, with piercing lines such as "Take my hand not my life," or "PREGNANT? Your baby's heart is already beating – call 1800848LOVE." These captions are always accompanied by pictures of fully-developed, adorable bouncing babies. Words such as "baby" and "child" are problematic since they imply that the fetus is already a full person–all on its own.

Scientific advancements in reproductive visualization technologies are partly to blame for why the fetus is "personified, perceived, presented, and produced as a person who has simply been awaiting discovery" (Hartouni, 1997, p. 23). While sonographic imaging has been immensely helpful in determining certain aspects of pregnancy, such as the growth of fetal internal organs or where the placenta is located, it has also effectively alienated the fetal body "from its natural association with the female body and is now proclaimed to be the new and primary obstetric patient" (Balsamo, 1997, p. 9).

With the focus now on this little "person" who is independent of its mother, a whole range of statutes and surveillance mechanisms have appeared to secure fetal rights. What had been created to protect women and their fetuses from harm done to them in cases of assault and battery is now used to sanction the women themselves for harm done by them unto fetuses (Hartouni, 1997, p. 41). It is the woman, then, that is the source of potential harm, the antagonist to maintaining life.

According to Martin, endowing cellular entities with personhood "will likely lead to greater acceptance of technological developments and new forms of scrutiny and manipulation, for the benefit of these inner 'persons'" – from court-ordered restrictions of women's activities to rescinding of abortion rights, fetal health will likely be top-priority (Martin, 1999, p. 186-187). Similarly, Balsamo writes that "the unborn fetus is guaranteed certain rights denied to the pregnant woman," and, as in the case with forced cesarean sections, sometimes the pregnant woman's own health and life choices are overridden in favor of fetal health (Balsamo 1997, p. 154). It is quite remarkable when one thinks of it; there is a possibility that a woman can be forced to have a cesarean – yet we cannot force a person to give blood even if it is to save a life (Alcoff et al. 2014, p. 52). Such invasion of the technological medical model of birth has arrested women's control over their own bodies. Unfortunately, the exploitation of birthing women occurs with frequency in physician-mediated births, and intervention has become the go-to choice for controlling the supposed destructive forces of pregnancy.

Intervention, the fifth germ, is the source of many heated debates between midwives and obstetricians, who often hold completely opposite perspectives. As Margaret Andersen (1997) explains, during the nineteenth-century "medical men had adopted an increasingly interventionist approach toward birth, whereas female midwives relied more on the normal course of delivery" (p. 211). Although nearly two centuries have passed, this approach still holds true for both types of maternity caretakers. Midwives' positions on technological intervention in birth is that it is not inherently wrong—it just needs to be reserved for when it is truly needed, and coercion should not be a factor in determining its use.

There are times, of course, when medical intervention is needed to save the mother and fetus. Many midwives are highly trained to recognize signs of complications and will attempt to treat them while mild, but they will also be the first person to transfer the laboring woman to a hospital before the problem becomes life threatening. The fact is that there are risks with everything in life, and research has proven that between eighty-five to ninety-five percent of women give birth safely and without surgery or instruments when the midwifery model of care is applied (Gaskin, 2003, p. 184). Their low rate of transfers to hospitals is largely due to their ability to deal with complications during labor that are less harmful than medical intervention. For instance, many doctors provide Pitocin (synthetic oxytocin) to induce labor or increase contraction intensity when labor has stalled, which inadvertently causes more painful contractions and thus higher stress levels for both mother and baby, which potentially leads to fetal distress, tearing, and more serious intervention measures such as cesareans. It is a potential rapid tumble downhill. Midwives assert there are other ways to trigger oxytocin secretion and increase contraction intensity, such as physical stimulation, herbal remedies such as blue and black Cohosh root, and homeopathic medicines like gelsemium or sepia (D. Marin, personal communication, May 25, 2015; Weed, 1986, p. 64-65). Nonetheless, since ninety-two percent of births take place in hospitals controlled by doctors and staff, interventionist practices are routine in delivery rooms and have become so commonplace that they are rarely questioned by the women who receive them (Business of Being Born, 2008; Andersen, 1997, p. 214).

For obstetricians, who are trained to detect and treat *pathology*, medical intervention is a necessity and birth is considered safe only in retrospect (Gaskin, 2003, p. 185, 307). Doctors are the ones who are ultimately responsible for the health of their patients, so they often use routine intervention as preventative medicine or apply interventions to all laboring women that should be reserved for complicated pregnancies. The problem with such premature measures is that they are often used unnecessarily. This has side-effects for both the patients, whose health may be compromised and who are robbed of the birth experience they may desire, and the doctors, who may initiate a cascade of complications that may have otherwise not happened.

The fear of malpractice lawsuits is a strong indicator of why many doctors are so quick to opt for cesarean sections with the slightest change in fetal condition (Andersen, 1997, p. 215). The option to use the cesarean sections allows for control over

what happens during childbirth and at what time. Furthermore, the history of male-based childbirth practices is grounded on the idea that women are weak by nature and that pregnancy is an illness that must be cured with drugs and medical equipment (Gaskin, 2003, p. 185). Such practices are therefore more likely to make use of medical technologies and techniques—even in less complicated pregnancies.

Considering all of this, it would appear that the answer to the initial questions is, 'No.' Women are *not* necessarily informed of what will serve or harm them, nor can they choose which technologies are used. Whether it is prenatal screenings, sonography imaging, etcetera, it is clear that "women are being subjected to increasingly intense forms of coercion, a fact that is signaled by the intensifying *lack of freedom* felt by women to refuse to use the technology if they are pregnant and the technology is available" (Morgan, 1991, p. 273). Many women feel as though they are morally obligated to say "yes" to whatever the doctor orders and that they are bad mothers if they do not comply. And no, many women may *not* be aware they *have* a choice in the matter at all. For most women, the hospital is essentially a man's world; they are often complicit in technological imperatives because they are unaware of their power to say "no." This lack of awareness is prevalent in part because childbirth practices in many hospitals continue to be dominated by masculinist principles. For many decades, many women have been denied the ability to think for themselves, worked on like machines, accused of innate harm, treated as if they are less important than the fetus which grows inside, and barraged with interventions left and right.

This is not to say that all men in the techno-medical model of care are foes or that all women in it are allies—it is the patriarchal structure that operates on using technology to control reproductive bodies that must be challenged. This is to say that it is important that women become advocates for their own health by asking questions and becoming informed of what technologies, if any, will best suit their needs, and being assertive when challenged. Simply removing childbirth from hospitals does nothing to vanquish the system of patriarchy within Western medicine. What is needed from physicians and midwives alike are "efforts to ensure that women are not treated solely as bodies, but also as subjects with desires, fears, special needs, and so forth" (Sawicki 1999, p. 199). To ensure that women are their own agents, they must be proactive and build bridges across race, class, gender, and religion, among other differences, and form connections not just between mothers or even between just women, but between women *and* men.

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