BIRTHING TECHNO-SAPIENS

Human-Technology Co-Evolution and the Future of Reproduction

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Chapter 10

CANCEROUS CONTRACEPTIVES AND THE INCUBATION OF MONSTERS:

Quechua Reproductive Etiology and Producing Necro-Techno-Sapiens

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Quechua Reproductive Etiology and Producing Necro-Techno-Sapiens

Rebecca Irons

Introducing Necro-Techno-Sapiens

Biomedical pharmaceuticals, and specifically hormonal contraceptives, are often framed as tools to help women gain control over their lives through planning future offspring and being granted the ability to pursue life projects free of childrearing concerns. However, not all perceive such reproductive technology as beneficial. For the Quechua of the Peruvian Andes, this technology may instead be the bringer of death, through causing cancerous tumors and the production of what I am calling *necro-techno-sapiens*.

While the cyborgs of contemporary imagination may have the presence of metal and machines as key features, this was not necessarily so in the original conception of the cyborg. Clynes and Kline (1960), who coined the term in reference to the future astronauts of space travel, did not solely envisage a human merged with mechanics, but an enhanced human organism achieved through the careful administration of pharmaceuticals (74). Rather than having the human rely on external machinery, they perceived cyborgs as humans enhanced biologically through injected drugs that would allow them to stay awake for extended periods, avoid radiation damage, and control metabolic function, among other things designed to facilitate survival in outer space (74–75). For the cyborg, first came the alteration of human biology with pills and potions; machinery came later. With this in mind, cyborgs and techno-sapiens may not only be produced through mechanical or electronic devices, but also through pharmaceutical interventions.

In reproduction, hormonal contraceptives are one such pharmaceutical that could potentially be framed as "biohacking" (Malantino 2017) by "enhancing" humans and rendering them cyborgian by suppressing "unwanted" menstruation and its associated bodily troubles. As suggested by Dumit and Davis-Floyd

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(1998:8), among other views, the cyborg can be seen as a "mutilator of natural processes" (see Introduction), and certainly using hormones to interfere with menstrual cycles is one expression of this "mutilation." However, as Malantino notes, "biohacking" in this way remains the purview of "a small handful of entitled, enfranchised subjects" while other, racialized subjects are denied the same agency in their dealings with these new technologies, including "forms of birth control with minimal deleterious side-effects" (2017:189), with the poor sometimes becoming "the guinea pigs of the cyborgification of…reproduction" (Dumit and Davis-Floyd 1998:2).

At first glance, it may seem out of place to focus on hormonal contraceptives—pharmaceuticals that stop the conception of babies—in a volume about the production of techno-sapiens. However, a type of techno-sapiens can be produced through hormonal contraceptives, according to the Quechua etiology of hormones and how they work on the reproductive body—a necro-techno-sapiens. In this instance, one needs to remove their biomedical hat when approaching hormonal contraceptives as drugs that suppress ovulation with the intention of avoiding fertilization, and see them Quechually: as a potion that makes your menstruation stop all of a sudden, as happens during pregnancy, but that results in the production of no living child. Where does this blood go? Two things can happen: it can form a cancerous tumor, or it can distort the development of a "fetus" into a monstrous form, as will be addressed in this chapter. These "monsters" that can have human teeth, hair, skin, and fat, but no tangible life biomedically called "teratoma tumors"—are a "dead life" produced by artificial hormones. However, with their human tissues, their sapiens-substances, they are nonetheless a remnant of life. In this sense, sex hormones hold the ability to produce necro-techno-sapiens—technologically culpable dead [human] life. As Haraway once stated, cyborg modes of reproduction represent a "promise of monsters" (quoted in Dumit and Davis-Floyd 1998:13). Thanks to biomedical pharmaceuticals, in the Andes that promise is made good.

This chapter is based on ethnographic research undertaken over one year in a rural Quechua community in the province of Ayacucho, in the Peruvian Andes. My research investigated Indigenous women's relationships to biomedical contraception, sexual and reproductive health care, and wider interactions with the national family planning program and state health workers. All names are anonymized and all translations are mine.

To properly contextualize the experiences and beliefs presented in this chapter, it is necessary to briefly touch upon the fraught relationship between Indigenous Quechua and the Peruvian state—particularly as this relationship applies to reproductive health care—to understand why the Quechua might perceive mal-intent on the part of biomedicine aside from Indigenous etiologies.

In the period 1996–2000, an estimated 300,000+ Indigenous women underwent enforced sterilization in Peru (Ewig 2010) as part of the national family planning program; many women did not give their consent, nor understand the permanence of the procedure. As the state denies culpability, instead blaming

individual health workers, justice has still not been granted for those who were sterilized. Understandably, Quechua women have been wary of state family planning ever since. Nevertheless, maternal care in Peru has continued to be medicalized, with home births and traditional midwives officially banned in 2005. Although this ban was introduced as an "intercultural birthing model," whereby Indigenous women could use some elements of Quechua cultural birth (such as upright birthing positions and the use of sheep's wool to coddle the newborn), they are obligated to give birth using biomedical facilities and university-trained obstetras (professional direct-entry midwives not trained as nurses). While this policy has been successful in reducing maternal mortality, it has been argued that this intercultural birth model is a way of luring Indigenous women into biomedical facilities and thereby influencing their subjectivities (Guerra Reyes 2019). In the case of family planning and contraceptives, women are also obligated to accept hormonal contraceptives in some instances—for example as a condition of returning home after giving birth, and to receive government welfare checks (Irons 2020). However, many Quechua women do want to practice family planning; despite prejudiced perceptions that Andean women are hyper-fertile, they mostly desire small families—they just wish to avoid the myriad conditions and perceived health complications that come with some forms of family planning.

Peruvian sociologist Anibal Quijano (2000) suggested that there is a power relationship of dominance present in situations of such disjuncture between the "official" view of the body and Indigenous etiologies. Ultimately, it is the postcolonial state's medical preference—biomedicine—that is imposed upon the Quechua through the obligation to birth in hospitals, and even the kind of contraceptives on offer (e.g., hormonal rather than behavioral). This is because of a "coloniality of power" (ibid.), whereby the Peruvian government continues to impose dominance over colonized people in the form of obligations and imposition of discourse and lifeways.

It is against this backdrop that Quechua women experience hormonal contraceptives, with the three-month injection Depo-Provera being one of the principal methods used in the rural Andes. Crucially, Indigenous understandings of the mechanisms of action differ from the biomedical model. For Quechua women, the effects produced on the body by sex hormones are potentially cancerous. In some cases, tumors are more than "cancer"—they are evidence of a distorted life that the biomedical pharmaceuticals have manipulated—an "estranged recognition" (Comaroff and Comaroff 2002) of fetal life. This kind of disrupted fetus, which, thanks to technological intervention of hormonal contraceptives, is "dead" but nevertheless held the promise of life, is an example of a necro-techno-sapiens.

Cancerous Contraceptives

In a quiet room of a rural hospital in Ayacucho, Eusebia, a 30-year-old Quechua woman who was using the contraceptive injection, confided that "sometimes we women get worried when there's no blood coming down...you should see blood every month." We were deep in a discussion about reasons why some women have problems with the hormonal contraceptives on offer in the hospital, and why people may feel that those methods could cause you harm. Eusebia had two children and desired another later on, but had decided to discontinue use of the injection as she was dubious as to what it was "really doing" inside of her, and what effects this could have on her future ability to bear children. Her concerns rotated specifically around the perceived accumulation of blood that she believed happened over the duration of the injection's three months—during which she did not see her menstruation at all. Explaining the dangerous effects of the contraceptives, Eusebia expressed concerns: "They say that it forms a tumor, it forms cancer. The blood accumulates inside of you and it forms a small ball (bolita), like a tumor."

Like many others, she had heard it rumored that hormonal contraceptives were giving women cancer due to accumulated menstrual blood, that instead of being released monthly as it should, was "stuck" inside the uterus and festering into a cancerous tumor. For the Quechua, absence of blood and menstrual suppression was not desired. Instead, this idea was replaced by the more fearsome notion of undesirable "blood accumulation." Eusebia was not the only one who felt this way, as the comments of other women suggested:

With the [contraceptive] injection there was no blood, but when I stopped using it a lot of blood came, why would that be? Was it because of blood accumulation? (Paucar, 27)

When I used the [contraceptive] injection, my blood didn't come for many months, and later it came out like clots (*coagulaciones*). Here they say that it's cancer, it's *tumorcitos* (little tumors). (Fermentina, 38)

I didn't see my blood with the [contraceptive] injection, ¿a donde va esa sangre? Where does that blood go? It stays inside you! (Samaira, 22)

Because my menstruation did not come [when I used contraceptives], I thought that the blood was inside, *sancochada* (parboiling). Inside it became like gelatin! (Eulogia, 48)

Many women expressed concern about the lack of menstruation for up to 3 months, as this is well beyond the timeframe of a "missed period" and can indicate serious consequences; women wondered if the blood had accumulated inside and was "stuck" up there, rotting and fermenting. As these quotes indicate, this trapped blood is thought to coagulate inside the uterus ("belly") and develop into a cancerous tumor.

Blood is an extremely important substance in the Andes, a "dominant symbol" of "vitality" (Bastien 2003:173), and some consider blood a finite resource. Loss of blood can result in physical weakness, and for this reason pregnancy is considered a "temporary death" in which the woman is physically

vulnerable (La Riva Gonzales 2017). However, it is not only blood loss that poses a problem; accumulation of blood is also problematic, as "body flows are of primary concern for wellbeing...impeded flow of essential substances (blood, bile, phlegm, urine, semen, feces, sweat, fat, air, water) are causes for bodily disorders" (Hammer 2001:244). When a woman does not menstruate, this flow of blood is thought to be accumulating inside instead of being expelled monthly, which would be the healthy cycle of blood. In biomedical understanding, the uterine lining will build up and thicken during a menstrual cycle in preparation for pregnancy. If an egg is not fertilized during this cycle, the lining will slough off as menstruation. The contraceptive injection can cause this uterine lining to cease building; hence the lack of menstrual blood, as it has not been produced in the first place. However, clearly this is not the dominant etiology in Quechua understandings of the reproductive body. Hammer (2001:245-246) succinctly describes Quechua women's views of menstrual regulation flows:

Women...become distressed about irregular and delayed menstrual periods. When menstruation fails to begin in a given month, women worry that the blood is stuck inside the abdomen...women say that this blood becomes 'like a baby'...while embryos are formed essentially of blood, lumps of cold blood or other growths that appear in the abdomen unrelated to male insemination are signs of danger to the woman's well-being. Women use the borrowed Western terms, tumor and cancer, to describe severe, often terminal cases of menstrual malfunction identified with the growth of masses in the belly.

Hammer's interlocutors also used "cancer" as an explanation for their hindered menstrual flows; however, she sees this as a "borrowed term" rather than respecting Quechua women's embodied knowledge. One could argue that in Ayacucho, women are not "borrowing terms"—they are identifying a Quechua etiology of cancer. When they talk of tumors and cancer, they arguably mean biomedical ("Western") cancer. Hammer noted that (cold) blood clots or growths in the abdomen unrelated to male insemination are dangerous (2001:246). However, when contraception enters the equation, it may not be so easy to tell the difference. Women are using hormonal contraception precisely because they are engaging in sexual intercourse, and thus there is a possibility of insemination.

Returning to women's comments, often the 3-month contraceptive injection was perceived as the most dangerous method, and for good reason, as this 3-month time frame and blood coagulation are significant within understandings of reproduction across the Andes. Until 3 months, as mentioned above, it is thought that a fetus is not a living entity per se, but a coagulation of blood; a trozo de sangre (chunk of flesh) (Morgan 1997:341). La Riva Gonzalez (2017:175) outlines the predominant theory of conception in the Peruvian Andes:

Conception is a process of "cooking" or "maturation" of the masculine substance (*muhu*), by the menstrual blood, the semen is considered metaphorically like alimentation that "grows," that "cooks" in the woman's body, in her blood.

Over time, this "fetus feeds on the maternal blood (liquid element) and the father gives...the solid part...the association of the female sex with the smooth, liquid element and the masculine sex with the solid element seems to confirm the idea that the body of the fetus does not form at the same time...and *during those first months is purely blood (yawarlla)*" (2017:176) (emphasis added). It is thought that this view is pan-Andean, also found in Aymara, Peru, where the fetus is "plain blood"/ *sangre plena / wila p'alt'a* for the first 4 months (2017:176), and the Ecuadorian Andes, where fetal "fermentation" can take between 1 and 4 months (Morgan 1997).

Thus, the process of blood coagulation resulting in a fetus must be understood as it relates to the process of blood coagulation resulting in a cancerous tumor. Both the development of life (fetus) and death (cancer) begin the exact same way—blood coagulates inside the uterus—however, its destined final product dictates the outcome for the woman.

There is hardly 100% faith in hormonal contraceptives, and the line between blood coagulation that will lead to a healthy, living baby and blood coagulation that will result in a deadly cancerous tumor is thin. After all, the initial process of blood coagulation inside the abdomen is the same in both scenarios. Because most Quechua users are engaging in sexual intercourse and therefore having contact with semen, what could develop is a fetus, were it not for the contraceptives. Yet contraceptive use does not discount the possible formation of a "fetus." However, it is not a (future human) coagulation-entity that is eventually formed when contraception is used, but a cancerous tumor.

It is worth noting that there is some crossover between Quechua reproductive etiology and how the fetus has been portrayed in biomedical textbooks. As Martin points out, the fetus has previously been described as a "tumor" from an immunological point of view (1998:131), due to its nature as a genetically different tissue mass, distinct from the mother, yet growing within her and thriving from her blood source. However, in this North American example, the question is posed as to why this "tumor-fetus" is not attacked by the *mother's* body. For the Quechua, the attack is the other way around, with the tumor potentially harming the woman. Even more interesting is the notion that these tumors can turn into something other than cancer—an abstraction of a fetus-that-might-have-been, were it not for the interference of the reproductive technologies. If hormones are involved and tumors are afoot, here there be monsters.

The Incubation of Monsters

While tumors have been associated with fetuses and reproduction beyond the Andean context, monster myths are found with even more frequency

(Bewell 1988). Indeed, pregnancy is riddled with potential monstrosity, with Frankensteinian imagery a particular feature of Western gestational tales and fears of catastrophic creation, forewarning the perils of overzealous use of technologies such as IVF (Almond 1998), and in this case, contraceptives.

While some perceptions of pregnancy and monsters have been analyzed as projections of latent maternal fears, there are some very real biomedical examples of "monsters" in obstetrics that may fuel such notions. Since the 16th century, medical and popular documentation of "monstrous" pregnancies and deformed fetuses has been widely discussed (Bates 2002), including in specific relation to Indigenous pregnancies in colonial Latin America (Few 2009). Today reproductive abnormalities still hold the power to incense the emotions, whether these are the "strong visceral...revulsion and fascination" (Angel 2013) produced through viewing a teratoma in a pathology museum, or the fear and indignation felt by a Quechua woman whose fetus had perceptibly gone "awry" due to hormonal contraception.

Ovarian teratomas (dermoid cysts) are germ cell tumors that can grow to the size of a grapefruit and are usually benign, though they can cause pain and infertility if left untreated. As these tumors form from a totipotential germ cell, they are able to develop a number of different types of human tissue within, including teeth, wax, fat, bone, eyes, hair, and in rare cases, partly developed limbs and brain tissue (Kim et al. 2011; see Figure 10.1). (The hair within teratomas can be of a different color from the woman's due to germ cell variation, which may contribute to perceptions that these tumors are growths of a separate human such as a fetus or a twin.) Because of this, teratomas are widely perceived as "evil twins," although biomedically this is incorrect. Like the acardiac (the congenital absence of a heart), the presence of sapiens-substance without life has influenced their naming: teras is Greek for "monster." Despite their inherently fascinating properties, virtually no anthropological attention has been afforded the teratoma in terms of reproductive health or otherwise, besides musings over whether they might be related to the global myth of the vagina dentata ("toothed vagina") (Jackson 1971; Angel 2013). Their lack of attention outside of medical research may be due to their rarity, although they arguably deserve more reflection, as for those in a rural Quechua community, the appearance of a teratoma had very much to do with fetal development and hormonal contraception's interference in it.

While the most commonly perceived corporeal outcome of contraceptive use may be a cancerous tumor as an abstraction of "normal" fetal development, in the following instance the fetal development had taken a very different turn. Although many women reported on the presence in, and belief about, hormones producing cancer, Pilajia had undergone a different experience, although it began in very much the same way. She had, as she described, experienced a sort of tumor-pregnancy.

Pilajia was married with 5 children and had been using the injection as recommended by the hospital to avoid getting pregnant again. In her mid-40s, she had agreed to use contraception to curb her fertility and avoid future offspring.



© UCL Pathology Collections: LDUCPC-UCH-MX.GYN.143.1, FIGURE 10.1 Dermoid Cyst/Teratoma Tumor. Used with permission of UCL Pathology Collections.

However, a short while after being injected, she discovered a "ball" developing inside of her. According to Quechua etiology, this would usually be identified as a cancerous tumor; however, Pilajia began to have sharp pains and so had to be referred to the regional hospital in Ayacucho city for observation. The health workers in the rural district had a name for what happened to her—it was a teratoma. However, Pilajia held a different perception of this occurrence:

The [contraceptive] injection made me grow a bolita (small ball) inside, like a tumorcito (small tumor), and on top of it, hair started to grow! It seems that when you use the injection it could make hairs start to grow on top of these tumors...but then I said to myself, a wawa (baby) must have appeared. Sometimes accumulated blood (sangre acumulado) can make tumors appear, but then for me hairs appeared on top, so it was a wawa! They told me that I had to have an operation in Ayacucho city, but I asked myself what could have happened to my blood? Hairs started to grow on top, it was like a wawa, so they said that had to take it out—because of the injection it was not a baby. But what would it be if not a wawa? Una wawita, I thought,

but they [the ob/gyn] said that it was not a baby that was growing inside of me, even though it grew hair! So, what would it be I asked myself, un monstruito, a little monster, growing inside, from the injection? I was afraid about what it would be.

Pilajia was rightfully confused about what had happened. She said that nobody had explained anything to her, although post-operation she had been shown the mass with hair. (The healthcare workers had diagnosed this as a teratoma via ultrasound, during which they also may have indicated to Pilajia that the mass contained hair.) As hair is a sapiens-substance, it seemed logical that what the hospital had removed had been a fetus, apart from one very significant fact: she had been using the contraceptive injection, which meant that she could not become pregnant in the first place. Certainly, there had been a coagulation of blood, as in the initial process of fetal formation according to Quechua etiology. In many women's perceptions, this coagulation would go on to either become a fetus (if not using contraceptives), or a cancerous tumor (if using contraceptives). In Pilajia's case it became something in-between: a tumor, but with human features such as hair. (It is very rare for women to see one of the "cancerous tumors" they perceive themselves as having.)

Pilajia's upset about this complicated case is understandable, and likely not helped by the seeming lack of information given by medical staff as to what this "little monster" might be, biomedically speaking or otherwise. Whether she had been provided with them or not, Pilajia did not mention biomedical explanations for this something-in-between, so it is important to understand her experience from her perception and not impose a biomedical framework. Therefore, while this occurrence may have been a diagnosable teratoma for health workers, for Pilajia it was much more confusing, according to Quechua reproductive etiology. In hushed tones she wondered if the injection had caused her wawa to become deformed into something monstrous that then needed surgical removal. In harking back to historical mistreatment of Indigenous women by state health services, it is not difficult to see why she might be inclined to suspect malintent.

This was not an isolated case, although Pilajia was the only woman interviewed who had personally experienced it. Other women mentioned that they had heard of such stories, that sometimes a contraception-tumor could grow into a baby, although there were no reported cases in which any woman had actually given birth to one of these "fetuses," so we do not know what kind of baby had "grown." Indeed, in a relatively small province, these rumors could very well have pertained to Pilajia, although this is difficult to evidence. There was also some confusion as to what "it" was, and stories around these incidences were ambiguous at best. Iraida, a market-seller from a small village, recalled a story about another woman from the regional capital:

Iraida: They say that there was a woman in Ayacucho, and her blood accumulated but it became like a tumor. They said that it had teeth and hair like a wawa, but supposedly she had used the [contraceptive] injection, so maybe it couldn't be a wawa, but something else growing inside...but with teeth! RI: Do you know what happened to the woman?

Iraida: They operated on her, I believe...there in Ayacucho they took it out, like when they cut the *wawa* out [cesarean]. But it was dead.

The "it" that had been produced was ambiguous for Iraida. Women had been told that use of the injection meant they would not conceive, but the presence of human tissue such as hair makes the "it" something other than a tumor. The "ball may be an 'it,' but not in the same way that a prior-to-three-month bloodball is an 'it' that may eventually become a 'someone'" (Morgan 1997). Pilajia's "it," and the "it" that Iraida spoke of could not be a someone, as "it was dead"; "a little monster," produced because the woman was using biomedical technology in the form of the contraceptive injection.

These incidences reveal that, because of pharmaceutical use, some kind of monstrous "it" could grow inside Quechua women. One way to understand this literal embodiment of an "other" within the reproductive system itself (the "other" here being biomedicine and its wider associations with a harmful post-colonial state), is through the concept of "estranged recognition" (Comaroff and Comaroff, 2002:795). According to the Comaroffs, "estranged recognition" refers to "invisible predations" that lurk beneath the surface when someone or something that was seemingly once "knowable" becomes "estranged." In their research, they discussed how people become turned into one kind of recognizable monster: the zombie. Once zombified, the person in question is no longer themselves, and their relationship to the community and their kin is forever changed.

For the Quechua, it can be argued that using biomedical contraceptives may also produce "estranged recognition" of a reproductive process that should follow a known etiology but has become disrupted due to the external intervention of hormonal interference. The same process that should lead to a healthy fetus and the reproduction of kin is instead leading to a woman's potential death through cancer, or in the case of Pilajia, a "monstrous" non-pregnancy of human form, but without tangible life; a *dead life*. There is something still recognizable in the grisly matter, or the *trozo de sangre*, as Morgan refers to Andean fetal development (1997). The hair and tissue mass found in Pilajia's body are not surprising in and of themselves, as they reflect the first part of healthy fetal development in Quechua etiology. However, because of the hormones within the injection, she should not have been pregnant in the first place and no *trozo de sangre* should be growing; thus this process is estranged, as it has resulted in an unexpected and unnerving conclusion that warps the normal reproductive process.

As the Comaroffs suggest, monster stories and fears may reflect wider societal concerns about power imbalances in post-colonial societies. Indeed, the presence of monstrous "others" can tell us rather a lot about the wider social processes in

which they occur, beyond bodies and health alone. For example, across Africa and Haiti, the zombie monster figure has come to represent the displaced person; the explosion of contemporary culture references to this creature are perceived as a reference to the mounting fears of uncontrolled migration (Stratton 2011). In reproduction, "monstrous births" have long been viewed as signs of contemporaneous events (Bates 2002), as well as being linked to colonial Latin America and discrimination towards Indigenous pregnancies (Few 2009). More recently, the image of the Frankensteinian monster is employed to represent widening concerns over artificial, technological pregnancies such as those generated via IVF (Almond 1998). These fears arise from the "natural" process of pregnancy being taken out of human hands and placed under the strict control of biomedicine and "science."

There are those who may be more accepting of this type of control in the Andean context; for example, Roberts (2012) shows how IVF is increasingly sought by women in Ecuador who wish to control their fertility. However, as with the case of Brazilian women using hormonal contraceptives to control their biology (Sanabria 2016), these forms of "biohacking" (Malatino 2017) are neither enjoyed nor available to all: they are for the white and wealthy. Indigenous women in the Andes have a very different experience of them.

Importantly, a key feature of contemporary monster theories is that of domination and colonization. For example, the zombie-monster can be seen as a product of colonization, as it arose from the power imbalances caused during this time (Lauro and Embry 2008:96); yet it is not content with its solitary existence and must produce "a multiplication of its condition" (Lauro and Embry 2008:100). As colonizers sought to expand their territory, so do monsters seek to reproduce. Touching upon the Quechua etiology of contraception-tumors, cancer can be similarly viewed as a "a phenomenally successful invader and colonizer in part because it exploits the very features that make us successful as a species or as an organism" (Mukherjee 2011:38) (emphasis added).

The notion of hormonal contraceptives producing something akin to a monstrous dead-life as well as a cancerous tumor could be read as part of the same story—a story of an increasing coloniality of power (Quijano 2000), and of the creeping dominance of the state and its biomedical institutions. The estranged recognition of reproductive processes that results serves to make a wider comment on this situation: although Quechua people want to use biomedicine and reproductive technologies, they are also afraid of the consequences, and indeed, afraid of the technology itself.

Necro-Techno-Sapiens and Reproductive Technologies

Certainly, reproductive technologies and techno-sapiens, produced through an increasing cyborgification of reproduction, may be helpful and sought after. The ability to practice biohacking—interfering with one's biology to gain control over its functions—is desirable for certain individuals in some parts

of the world. However, this desire is unequally distributed and differs in its perceptions. Malatino (2017:189) suggests that pharmaceutical inequity has colonial roots, and in the Andes, the negative perceived consequences of dominant reproductive technologies among Indigenous communities can be seen as part of the coloniality of power (Quijano 2000)—which disproportionately favors some while overlooking and obscuring the experiences and reproductive etiologies of previously colonized communities. The fact that Quechua etiology sees hormonal contraceptives as cancer and monster-producing needs to be addressed—not through "educating" them as to the biomedical model's explanation, but by making *behavioral*, instead of only hormonal, contraceptive options available to them and involving them in understanding and selecting those options.

In this chapter, the concept of a *necro-techno-sapiens* has been introduced and applied to a very limited subject of obstetric concern, the monstrous contraceptive-fetus, or teratoma. However, there are arguably far more uses and questions that may evolve from this concept throughout reproduction and cyborg research: what about fertilized but un-implanted embryos awaiting a nevercoming moment of IVF stardom—are they necro-techno-sapiens? What about fetuses that are devastatingly miscarried through technological interventions such as amniocentesis or radiography? Would they be necro-techno-sapiens? These questions cannot be answered here, yet they open up wider possibilities for discussion on the darker side of techno-sapiens, and for a focus on what happens when technological intervention into reproduction goes awry.

References

- Almond, B. 1998. The Monster Within: Mary Shelley's Frankenstein and a Patient's Fears of Childbirth and Mothering. *International Journal of Psycho-Analysis* 79(4):775–786.
- Angel, G. 2013. Pulling Teeth: Ovarian Teratomas & the Myth of Vagina Dentata. *UCL Researchers in Museums Blog*, blogs.ucl.ac.uk/researchers-in-museums.
- Bastien, J. 2003. Sucking Blood or Snatching Fat: Chagas Disease in Bolivia. In: *Medical Pluralism in the Andes*, eds. Koss-Chioino, J., Leatherman, T., Greenway, K. New York: Routledge, 113–128.
- Bates, A. 2002. Emblematic Monsters: The Description and Interpretation of Human Birth Defects in Europe, 1500–1700. MD Thesis. UCL.
- Bewell, A. 1988. "An Issue of Monstrous Desire": Frankenstein and Obstetrics. *Yale Journal of Criticism* 2(1):105–128.
- Clynes, M., Kline, N. 1960. Cyborgs and Space. Astronautics 14(9):26-27.
- Comaroff, J., Comaroff, J. 2002. Alien Nation: Zombies, Immigrants, and Millennial Capitalism. *South Atlantic Quarterly* 101(4):779–805.
- Dumit, J., Davis-Floyd, R. 1998. Cyborg Babies: Children of the Third Millennium. In: Cyborg Babies: From Techno-Sex to Techno-Tots, eds. David-Floyd, R., Dumit, J. London: Routledge, 1–20.
- Ewig, C. 2010. Second-Wave Neoliberalism: Gender, Race, and Health Sector Reform in Peru. Philadelphia, PA: Pennsylvania University Press.

- Few, M. 2009. Atlantic World Monsters: Monstrous Births and the Politics of Pregnancy in Colonial Guatemala. In: Women, Religion, and the Atlantic World (1600-1800), eds. Kostroun, D., Vollendorf, L. Toronto, ON: University of Toronto Press.
- Guerra Reyes, L. 2019. Changing Birth in the Andes: Culture, Policy, and Safe Motherhood in Peru. Nashville TN: Vanderbilt University Press.
- Hammer, P. 2001. Bloodmakers Made of Blood: Quechua Ethnophysiology of Menstruation. In: Regulating Menstruation: Beliefs, Practices, Interpretations, eds. Van de Walle, E., Renne, E. Chicago, IL: University of Chicago Press.
- Irons, R. 2020. Planning Quechua Families: Indigenous Subjectivities, Inequalities, and Kinship under the Peruvian National Family Planning Programme. PhD Thesis. UCL.
- Jackson, B. 1971. Vagina Dentata and Cystic Teratoma. Journal of American Folklore 84(333):341-342.
- Kim, M. et al. 2011. Clinical Characteristics of Ovarian Teratoma: Age-Focused Retrospective Analysis of 580 Cases. American Journal of Obstetrics and Gynecology 205(1):32-32.
- La Riva González, P. 2017. El Walthana Hampi o la reconstrucción del cuerpo. Concepción del embarazo en los Andes del sur de Perú. In: Recuperando la vida: Etnografías de sanación en Perú y México, eds. Torres, V., Anguiano, V. Lima: Ríos Profundos, 90-105.
- Lauro, S. Embry, K. 2008. A Zombie Manifesto: The Nonhuman Condition in the Era of Advanced Capitalism. Boundary 2 35(1):85-108.
- Malatino, H. 2017. Biohacking Gender. Angelaki 22(2):179-190.
- Martin, E. 1998. The Fetus as Intruder: Mother's Bodies and Medical Metaphors. In: Cyborg Babies: From Techno-Sex to Techno-Tots, eds. David-Floyd, R., Dumit, J. New York: Routledge, 125–142.
- Morgan, L. 1997. Imagining the Unborn in the Ecuadorian Andes. Feminist Studies 23(2):322-350.
- Mukherjee, S. 2011. The Emperor of All Maladies: A Biography of Cancer. New York: Fourth Estate.
- Quijano, A. 2000. Coloniality of Power, Eurocentrism, and Latin America. In: Nepantla: Views from the South 1.3, ed. Mignolo, W. Durham, NC: Duke University Press., 223-245.
- Roberts, E. 2012. God's Laboratory: Assisted Reproduction in the Andes. Berkeley, CA: University of California Press.
- Sanabria, E. 2016. Plastic Bodies: Sex Hormones and Menstrual Suppression in Brazil. Durham, NC: Duke University Press.
- Stratton, J. 2011. Zombie Trouble: Zombie Texts, Bare Life and Displaced People. European Journal of Cultural Studies 14(3):265-281.