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Recently, a series of English language novels that foreground the female body reimagine and transform their hormonal traffic from biologies linked with environmental illness to speculative imaginations of diffused, inchoate influence and overt physical and political power. As studies note, the female body's hormonal complexities render its porous interactions with the environment particularly complex in relation to disease. From autoimmune conditions to breast cancer, researchers increasingly attend to the interplay between the body's secretion and regulation of hormones and environmental chemical exposure to endocrine disruptors and synthetic hormones.[1] Meanwhile, scientists and humanistic scholars, primarily in the social sciences, increasingly consider the porousness between bodies and environments through epigenetics and environmental toxicity.[2] In a political moment that is so overtly grappling with the gendered dimensions of sexual and political power, while women's health remains a fraught political issue, this fiction presents an intriguing imaginative engagement with and expansion of this public discourse.

I would like here to begin thinking through and placing fictional engagements with this environmental porousness and varied bodily capacities in conversation with each other. This hormonal fiction, as I am tentatively terming it, takes the female body in the contemporary moment as a speculative body to reimagine the gendered and political contours of the present. Alongside Livia Arndal Woods's exploration of the "reproductive sublime," I am proposing that the biological capacities of the gendered body are becoming a site through which to interrogate pressing social and political concerns of the present. In the case of hormonal fiction, hormonal traffic within and between bodies and the world both reflect upon and reimagine power through recognition of the female body's imbricatedness in the environments within which it is dynamically situated. In the process, it also begins to grapple with the potential and limits of gendered characterizations of agency, for instance, in the common association between feminine styles as indirect and relational in contrast to direct masculine aggression and confrontation.

To begin, Ruth Ozeki's *All Over Creation* (2002) grapples with the interconnections between synthetic pesticides, genetically modified crops, and female bodily health. Ozeki's novel is set in a small farming community in rural Idaho, where a host of characters converge. Yumi, a young

woman who ran away from home when she became pregnant with the local high school teacher's child, returns to live with her parents with her three children when her father becomes ill. Living next door are Yumi's childhood friend, Cass, and her husband, who is experimenting with GMO seeds to decrease the chemical load on their farm in response to Cass's history of breast cancer and struggle to conceive. Meanwhile, a group of radical environmental activists also descend on the town to protest the GMO seed company. Ozeki's novel interweaves these social and biological concerns with reproduction and generation to suggest that the choice between GMOs, along with the agricultural corporations with which they are connected, and conventional seeds that might call for chemical pesticides is far from a clear-cut choice from the vantage point of environmental health. In Ozeki's novel, these mutually interwoven choices also suggest a basis for unexpected human relational connections;

While Ozeki's novel was written in the early 2000s, a more recent collection of fiction transforms this hormonal susceptibility to environmental illness to imagine hormonal traffic as the basis for forms of agency that take shape and make themselves felt through the body. The relational connections Ozeki proposes through grappling with the difficult choices that attend body-environment chemical imbrications become, in more recent literature, literally and ambivalently enacted through the body.

To take one recent example, Naomi Alderman's *The Power* (2017) imagines that in the contemporary moment, young girls, around the age when they might undergo puberty, develop the ability to generate and conduct electrostatic energy, which echoes hormonal development. Girls are then able to pass this ability to older women through bodily contact, while female babies the world over are being born with the power. The novel links the power directly with environmental toxicity and the military-industrial complex: researchers suspect that the sudden development of the power is linked with environmental pollution (location 666) and "an environmental build-up of nerve agent that was released during the Second World War" and has "changed the human genome" (location 1301). It also relies on an ambiguous figuration of illness to describe the power's transmission, drawing on the connection between hormonal development and disease: it feels like "[t]he flu, traveling through the muscles and joints" and "burrows through the bone like it's splintering apart from the inside; she can't stop herself seeing a tumor, a solid, sticky lump bursting out through the marrow of her arm" (location 390). [3]

While Ozeki's novel is set in a particular community and grapples with race, Alderman's novel mines the universality of shared female biology to imagine how the nascent beginnings of this power's discovery coalesce and solidify over centuries into clear gendered hegemony in the future. Alderman depicts our contemporary moment as a distant history to which the novel jumps from a distant-to-us future in which women's hegemony has been unchallenged for centuries due to their physical superiority. Alderman's novel thus returns us to the present to interrogate the contours of gendered power and challenges us to reimagine physical superiority and a sexual order in flux while also asking what kinds of gendered power our political projects in the present desire.

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[1] Karen H. Costenbader, “Genes, epigenetic regulation and environmental factors: What is the most relevant in developing autoimmune diseases?” *Autoimmunity Reviews* vol. 11, issue 8 (2012): 604-609; Jennifer D. Cook et al., “Interaction between genetic susceptibility and early-life environmental exposure determines tumor-suppressor-gene penetrance.” *PNAS* vol. 102, no. 24 (2005): 8644-49; M. Tefvik Dorak and Ebru Karpuzoglu, “Gender differences in cancer susceptibility: an inadequately addressed issue.” *Frontiers in Genetics* vol. 28 (2012): 1-11; Nancy Langston, *Toxic Bodies: Hormone Disrupters and the Legacy of DES*. (New Haven: Yale University Press, 2010); Maureen D. Mayes, “Epidemiologic Studies of Environmental Agents and Systemic Autoimmune Diseases.” *Environmental Health Perspectives* vol. 107, Supplement 5 (1999): 743-8; Annie J. Sasco, “Epidemiology of breast cancer: an environmental disease?” *APMIS* vol. 109 (2001): 321-32; Frederica P. Perera, “Environment and Cancer: Who are Susceptible?” *Science* vol. 278, no. 5340 (1997): 1068-1073; Ana M. Soto and Carlos Sonnenschein, “Environmental causes of cancer: endocrine disruptors as carcinogens.” *Nature Reviews Endocrinology* vol. 6 (2010): 363-70.

[2] Stacy Alaimo, *Bodily Natures: Science, Environment, and the Material Self* (Bloomington: Indiana University Press, 2010); Hannah Landecker and Aaron Panofsky, “From Social Structure to Gene Regulation and Back: A Critical Introduction to Environmental Epigenetics for Sociology.” *Annual Review of Sociology* vol. 39 (2013): 333-57; Harris Solomon, *Metabolic Living: Food, Fat, and the Absorption of Illness in India* (Durham: Duke University Press, 2016); Susan Squier, *Epigenetic Landscapes: Drawings as Metaphor* (Durham: Duke University Press, 2017); Kath Weston, *Animate Planet: Making Visceral Sense of Living in a High-Tech Ecologically Damaged World* (Durham: Duke University Press, 2017); Emily Yates-Doerr, *The Weight of Obesity: Hunger and Global Health in Postwar Guatemala* (Berkeley: University of California Press, 2015).

[3] All citations of *The Power* from 2017 Kindle edition. Naomi Alderman, *The Power* (New York: Little, Brown and Company, 2017).