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Feminist Perspectives on Reproduction and Motherhood and/ as Cultivation: Ruth Ozeki's *All Over Creation*

Ina Batzke

- 1 On October 25, 1998, in a *New York Times* article titled “Playing God in the Garden,” journalist Michael Pollan was one of the first who drew mainstream attention to the planting and harvesting of food containing genetically modified organisms (GMOs): “Today I planted something new in my vegetable garden—something very new, as a matter of fact. It’s a potato called the New Leaf Superior, which has been genetically engineered—by Monsanto, the chemical giant recently turned ‘life sciences’ giant—to produce its own insecticide” (44). In what at first reads like a personal essay about the planting, sprouting, growing, flowering, and harvesting of seeds, Pollan goes on to provide an extensive account of the potential menaces of genetically modifying crops: After addressing the disadvantages of genetically modified food for the consumer —“biotech foods carry no identifying labels. In a dazzling feat of positioning, the industry has succeeded in depicting these plants simultaneously as the linchpins of a biological revolution” (45)—Pollan turns to the potential risks of genome manipulation in crops and the threat of biological pollution connected to GMO farming.
- 2 Despite such warnings—and a profound resistance to the biotechnological enhancement of food¹—the production of food containing GMOs has increased dramatically. As of 2011, the United States led “a list of multiple countries in the production of GMO crops” (Bawa and Anilakumar 1035), and as of 2015, 92 percent of corn and 94 percent of soybeans is GMO produced (United States Department of Agriculture). In other words, genetically modified food has permeated the U.S. food market, with most consumers not even aware of their food choices.² Under the guise of neoliberal optimization, a new form of biotechnological manipulation has hence infiltrated the U.S. consumer market even though the debate on the safety of

genetically modified organisms (GMOs) used for food and feed “is still very lively throughout the world, more than 15 years after their first commercial release” (de Vendômois et al. 590).

- 3 Pesticides and agricultural chemicals have long been scrutinized for harming the human body, and more recently, particularly the impact on hormonal and reproductive processes has been foregrounded.³ A similar conjecture has also been established for GMOs, which were correspondingly seen as potentially hazardous for reproductive processes, due to them “influencing the endocrine metabolism” (Gao et al. 16). As with other recent biotechnological advancements such as embryo transfer technologies, embryo genomics, and the advance of stem cell technology in general, it is thus understood that the *reproductive* body is at special risk of being harmed by biotechnological advancements—a realization that sparked a number of oppositional responses from mainstream environmentalist and reproductive rights activists, as well as from the realm of autobiography and fiction.⁴
- 4 This article takes up one of the most prominent fictional responses, Ruth Ozeki’s *All Over Creation* (2003), which understands itself as a creative response to Pollan’s article and the GMO debate.⁵ The novel updates several of Pollan’s arguments as it addresses the biotechnological modification of food in a multivocal narrative, which also focusses on various instances of suppressed female sexuality: on the one hand, *All Over Creation* traces the struggle between a multinational corporation that genetically modifies potatoes and an anti-GMO activist group, the so-called Seeds of Resistance, who protest biogenetic agriculture and eventually establish a “computerized seed-library database” to maintain horticultural diversity (Ozeki 356). On the other hand, the novel draws intelligent parallels between the GMO controversy and struggles concerning reproductive justice:⁶ Yumi, the protagonist, was outcasted by the farming community of her hometown after she became pregnant with the local high school teacher’s child; Cassie (Cass), Yumi’s childhood friend, struggles to have a child, arguably because of the exposure to pesticides and chemicals on her family’s farm; and the teenager Charmey, a member of the Seeds of Resistance, becomes pregnant unintentionally, but, unlike Yumi, celebrates and embraces her pregnant body.
- 5 By intertwining these narratives of fertility, reproduction, and motherhood on the one hand, and of the introduction of GMO crops to the monoculture farming community Liberty Falls on the other, *All Over Creation* exposes the potential risks of genetic agriculture as the neoliberal optimization to food production from the vantage point of environmental and particularly reproductive health. Yet the novel arguably does more than provide a feminist perspective on the discussion that Pollan stimulated with his essay: as several critics and reviews have foregrounded, with the storyline surrounding the Seeds of Resistance and Charmey’s pregnancy, *All Over Creation* offers readers an arguably optimistic (see Dederer 30) or even utopian alternative (especially Stein 189–191, Dederer 30, but also Rouyan 155–156) to both monoculture GMO farming and “monoculture” human reproduction.
- 6 This article, however, argues that understanding the Seeds of Resistance and Charmey’s pregnancy as conveyors of “a strangely affecting optimism” (Dederer 30) only works when ignoring both the overall plot of *All Over Creation* and its destructive denouement—and that such a celebration of *All Over Creation* can help expose a reader’s embeddedness in patriarchal scripts of heteronormativity. To elaborate both arguments, the article starts by analyzing how the setting of Liberty Falls and the two

main characters, Yumi and Cassie, fictionalize the anti-GMO debate and link it to issues of oppression of sexuality and reproduction that serve as the backdrop for the mission of the Seeds of Resistance in Liberty Falls. The article then turns to the plot surrounding Charmey's pregnancy and carefully questions the arguably utopian vision Ozeki offers with it for the intertwined realms of cultivation and reproduction.

1. "Grrrrrip, weeded right out of there": Monoculture Farming and the Oppression of Sexuality

- 7 Already shortly after its publication in 2003, *All Over Creation* was widely celebrated for bringing together issues of female health and agricultural biotechnology in the context of the introduction of GMO agriculture in the United States (Dederer, also see Harris). Moreover, critics and reviewers correctly acknowledged that the novel follows in the footsteps of Rachel Carson's seminal 1962 *Silent Spring*, which for the first time documented the harmful environmental effects caused by agricultural chemicals and pesticides. While *Silent Spring* for the most part refrained from making its claims gender-specific, the publication nevertheless heralded the rise of feminist science, which began to develop a decade later. Particularly the fields of "feminist environmentalism," and, referring to the realm of literary theory and criticism, "feminist ecocriticism / ecofeminism" are relevant here, as they believe that a focus on gender—and in particular the reproductive body—can be helpful when examining interconnections between humans and the natural world. It is out of that tradition that a number of other early twenty-first century publications arose, which interrogate similar issues as *All Over Creation* and thus should be read alongside Ozeki's work: Sandra Steingraber's *Living Downstream: A Scientist's Personal Investigation of Cancer and the Environment* (1997) and *Having Faith: An Ecologist's Journey to Motherhood* (2001), Vandana Shiva's *Biopiracy: The Plunder of Nature and Knowledge* (1999), and, turning from nonfiction to fiction, *Prodigal Summer* by Barbara Kingsolver (2000) and *The Farm* by Joanne Ramos (2019).
- 8 Being embedded in both ecocritical and feminist thought, these publications share that they understand the oppression of both "the seed and women's bodies" as originating from capitalist patriarchy and its "predatory appetite" (Shiva 154). As neoliberal and neoconservative values in the current sociopolitical state of the United States collide, profit increases are the dominant parameter that drives biotechnological enhancements, even if this means harming the consumer.⁷ In *All Over Creation*, this "predatory appetite" is spatialized in the town of Liberty Falls, particularly in the "three thousand acres of potato-producing topsoil" "known as Fuller Farms" (Ozeki 2-3), the main setting for most of the events. Quite in contrast to the ironic designation of the town, for protagonist and primary narrator Yumi Fuller,⁸ Liberty Falls stands in for both agricultural and societal restriction and oppression. The first chapter ("In the Beginning") opens with Yumi comparing her childhood to a seedling that fails to grow on a potato field in Liberty Falls:

And then imagine the triumphant moment when you crack the crumbly crust, poke your wan and wobbling plumule head through the surface and start to unfurl—imagine, from your low and puny perspective, how vast Lloyd Fuller's acreage must look to you now. Of course, during most of his tenure and the decades that followed, these three thousand acres were given over primarily to the planting of

potatoes, which means that you, being a random seedling, a volunteer, an accidental fruit, will most likely be uprooted. (3–4)

- 9 This explicit tension between monoculture (potatoes) and multiculturalism (Yumi, the ‘random seedling’) continues to be a leitmotif in *All Over Creation* also beyond this introductory analogy: Yumi goes on to call herself “a random fruit in a field of genetically identical potatoes,” and a foreign species among the “monocultural” (4)—and by that she clearly also calls attention to the fact that she is the only child of Asian descent in Liberty Falls. The monocultural homogeneity—“the white fields stretched out forever” (80–81)—of the agricultural community is thus paralleled by the cultural homogeneity that Yumi already has to endure as a child and teenager.⁹
- 10 Yumi’s role as an accidental—and protruding—seedling is further confirmed when she is seduced into an affair by her high school teacher, Elliot Rhodes. In-between the somewhat naïve recollection of their “love” (22, 26) through young Yumi’s voice,¹⁰ several hints reveal that Elliot is attracted to Yumi merely because of her Otherness: “He admired Asian culture. He could never go over there, as a soldier, to kill. You leaned against the edge of his desk. He looked at you with an enormous aching,... reached up, traced the slant of your eye with his thumb, told you he had a thing for —”(21). While Yumi makes herself believe that the blank stands in for herself, the reader comprehends that its real meaning is a superficial—and profoundly racist—fantasy of any Asian female that motivates Elliot’s relationship with Yumi. He goes on to teach Yumi a Japanese “koan” (20), tells her he considers Japan to be “spiritual” and “deep” (20), and repeatedly sings the following line from the song “Greasy Heart” to her: “Made for each other, made in Japan” (26).¹¹ In other words, for him to validate their relationship, he exoticizes and portrays stereotypical racist fantasies of Japanese women onto Yumi.¹² The superficiality of their relationship is ultimately unveiled when Yumi accidentally gets pregnant and Elliot forces her to have an abortion (200). While Yumi on no occasion explicitly states that she does want the baby, she is anything but sure about terminating the pregnancy: “‘I don’t want this baby?’ you say, but it comes out sounding like a question. ‘Do you really want this abortion?’ ‘Yeah.’ You shrug. ‘Sure.’ ‘Say it.’ You roll your eyes. ‘I really, really, really want this abortion’” (199). Yumi also never openly condemns Elliot for arranging the abortion—she even becomes re-involved with him¹³—but she clearly feels used and abandoned by him, as he is responsible for making her even more of an outcast in Liberty Falls.
- 11 Yumi’s final condemnation from Liberty Falls, however, is not triggered by Elliot, but by her father, Lloyd Fuller. When he discovers that his daughter considers an abortion, he beats her up in front of their neighbors, justifying his rage and revulsion with a right-to-life rhetoric: “It’s a sin against God, Yumi! Don’t you see?” (201). It is this rather public scene that finally “weeds” Yumi (and her seed) out of Liberty Falls, as from this moment onwards, the townspeople of Liberty Falls only refer to her as the “bad seed” (79, 190, 195, 201). The adaptation of this phrase after her unintended pregnancy is discovered implies that Yumi is seen by others not only as racially mixed, but also, as Rachel Stein has argued convincingly, “so morally unfit... that as a biracial woman her genetic capabilities are questionable” (186). The reactions of both Yumi’s family and the farming community of Liberty Falls to her pregnancy and eventual abortion hence “illustrate the convergence of patriarchal Christian, right-to-life arguments and agriculturally based eugenics analogies that seek to curtail women’s reproductive freedom in the name of nature” (186). More specifically, they illustrate

how in a traditional community like Liberty Falls, the “racist patriarchy assumes white male control of the sexuality and reproductivity of women of color” (186).

- 12 Through Yumi’s recollection of the events—narrated alongside her comparison to a wild seedling—Liberty Falls is hence constituted as a place where societal control of reproduction and sexuality parallels the agricultural control of cultivation. The traditional agricultural monoculture of Liberty Falls is analogous to the social and racial monoculture Yumi has to endure, which make her escape first to San Francisco, Berkeley, and then Hawaii almost inevitable.¹⁴ Stunned and ashamed, and suffering from restrictions on her sexuality and on her reproductive choices in a community where she was born an outcast, Yumi hence eventually runs away and remains estranged from her hometown and family of origin for twenty-five years: “Just as you turn your face into the rays and start to respire, maybe even spread out a leaf or two and get down to the business of photosynthesizing—grrrrrip, weeded right out of there. Sayonara, baby” (4).

2. “Old life. NuLife. Get it?”: The Introduction of GMO Farming to Liberty Falls

- 13 These recollections of Yumi’s youth are the backdrop to the novel’s main plot which evolves around the introduction of GMO farming to Liberty Falls.¹⁵ With them, the novel offers its readers a fictionalized version of what Steingraber, Shiva, and others already had spelled out in their rather scientific and sometimes semi-autobiographical works: that it is the reproductive body which is at particular harm in agricultural communities such as Liberty Falls. When GMO farming is now introduced to Liberty Falls,¹⁶ this connection is upheld, but also updated: in fact, it is in a chapter named “Elliot” that the genetically modified NuLife potato is first introduced, as it turns out that Elliot also ran away from Liberty Falls, quit his career as a teacher, and became a public relations manager for Cynaco, the multinational cooperation behind the GMO potato. In a remarkable twist of fate, he is asked to return to Liberty Falls to respond to recent protests against the NuLife potato line (83), at the same time that Yumi returns from Hawaii. In Yumi’s recollections of her youth, Elliott was established as the villain of *All Over Creation*—and his connection to Cynaco now extends this evilness to the corporation itself, but also to the NuLife potato, marking it right from its introduction as harmful.
- 14 Elliot also himself confirms this continuation as his re-involvement with Yumi once again serves other interests than he lets on: not only does he lie about his posting with Cynaco when he reunites with Yumi, he also tries to gain insider information from her on the protesters in order to stop their demonstrations against the genetic modification of food. Elliot hence returns as a character who illustrates the way that the neoliberal agribusiness interests sacrifice women’s sexuality in order to gain capitalist profit. He is presented as a self-serving capitalist man, without concern for the potentially harmful effects of his behavior, who recklessly causes women’s suffering, without an acknowledgment of any responsibility. Notably, even Yumi’s father starts referring to Elliot as the “Terminator,” signifying both that he now represents the company that invented “Terminator technology,” i.e., the NuLife potato, but also “that Rhodes terminated Yumi’s pregnancy and her attachment to her parents” (Stein 187). Following this line of thought, with the introduction of GMO crops

—and Elliot as their representative—the story of suppression in Liberty Falls of Yumi's childhood repeats itself, as the disturbing interconnection between the corporate suppression of plant reproductivity and the social suppression of women's (reproductive) freedoms is recycled.

- 15 The introduction of the NuLife potato, however, coincides not only with Elliot's return to Liberty Falls, but also with a shift in focalization from Yumi to Cassie, who narrates her struggle with infertility in various chapters of the second, third and fourth part of the novel. Cassie gradually exposes how she and her family have suffered from both illness and an inability to bear children. Not only did Cassie's mother die of cancer (Ozeki 33), Cassie herself survived breast cancer and had to undergo a double mastectomy (77). Moreover, even though she and her husband Will desperately want children, Cassie struggles to conceive and also suffered several miscarriages:

'I'd get pregnant, quit, miscarry. Then do it all over again'.... 'Do you know why? I mean, was there a reason, or—'.... 'Could be anything,... At first we thought nitrates in the groundwater, so we got the well tested and got filters and everything, but it didn't help. Then we thought it might be one of the other inputs—stuff we use around the farm.... It's just impossible to know for sure. And even if we could prove it was something we were using, what could we do?' 'Can't you stop using it?' She looked pityingly at me. 'You really don't know shit about potatoes, do you? We got three thousand acres, it's not that easy.' 'But if it's poisoning you...''... 'Banks don't lend money to farmers who don't use inputs. Not sound farming practice.' (77)

- 16 This exchange helps the reader understand the dilemma a (female) farmer faces: the agribusiness—and with it the focus on monoculture potato farming as the only means to increase profit—forces Cassie and her husband to use agricultural chemicals, even though they suspect their harmfulness and a co-relation to Cass's infertility. While for Yumi, the parallel between monoculture farming and heteropatriarchal expectations in Liberty Falls made both her abortion and her escape inevitable, Cassie presents the physical and emotional consequences of monoculture potato farming on women's reproductivity who simply cannot leave for economic reasons.

- 17 And again in contrast to Yumi, for Cassie the introduction of GMO farming to Liberty Falls is not understood as a continuation of this dilemma. Since Cassie and Will have suspected that the chemical fertilizers and pesticides needed by their monoculture potato crops may have been responsible for both Cassie's illness and her struggles to conceive or carry to term,¹⁷ the new GMO crop, which is marketed as safer, fuels their hope to start a family once again:

She took the brochure and studied it. 'Cynaco's NuLifes,' he said. 'It's interesting. They genetically engineer the plant with a natural pesticide built right in. The beetles eat the leaf and die. They say you can reduce the chemical inputs by more than half.... She handed him back the brochure and went to the sink. 'I don't know, Will'.... 'How do we know if it's...'' 'We don't,' he said. 'But they say it's safer than pesticides.' He was trying to reassure but his voice revealed the doubt that had been eating at him.... 'At least those...' She walked over and hugged him into the curve of her body. 'Cass...' He crumpled the paper in his fist and turned his face into her stomach. She took a deep breath, stroking the long, faded strands of his hair and tucking them behind his ears. 'You really want to go through it all again?' 'There's always a chance. We gotta operate on that assumption, right?' 'Right.' (98)

- 18 With this conversation that interweaves an arguably rational business decision with Cassie's struggle with infertility, the narration fully embraces the complexity of interests that cross at the introduction of GMO crops to traditional farming: Will and Cassie want to, or even need to, believe in the innovative GMO crop as a potential

means to improve their (reproductive) life. All the ellipses—and thus pauses and silences in their conversation—stand in not only for doubt about the new experimental potato, but also for the hope that this arguably “safer” potato fulfills their wish to have children. While this hope is never spelled out, Will eventually makes it explicit by suggesting to “do a couple of test fields, say, the ones closest to the house” (98). Pointing to the vicinity to their familial home, he makes clear that his decision to adopt the new potato is anything but a purely economical one, but one concerned with health and the influence that the pesticides might have had on his wife’s fertility. This observation is also confirmed in retrospect in one of the later chapters: “Ever since their conversation about the NuLifes, Cass and Will were making love on schedule again” (126).

- 19 While the real-life counterparts to the NuLifes, the so called “NewLeafs” potatoes introduced by the biotechnological agriculture corporation Monsanto, were condemned by both environmental and ecological farmers, this dismissive perspective “misses the full spectrum that this new potato variety brought to groups of different interests” (Rouyan 150). In this hopeful moment between Cassie and Will, the detrimental connection between agricultural and female suppression that was established for Liberty Falls is interrupted or even challenged: Could the new potatoes indeed help Cassie and Will to fulfill their wish to start a family? The last sentences that the couple exchanges seem to suggest just that: “‘But safer is better, right?’ he insisted. ‘No matter what.’ ‘Safer is better, she agreed. He tugged at her wrist, reeling her back in to the frail comfort of his powerful arms. ‘We’ll turn over a new leaf,’ he said, nuzzling her. ‘A NuLife, you mean.’ Resisting, but smiling now” (98–99).
- 20 Cassie and Will’s framing would hence redefine the GMO potato as a source of hope, were the passage not to end with Cassie looking at the brochure about the NuLife potatoes once more, where a “little diapered spud” smiles at her, framed by the Cynaco slogan “We handle ‘em like babies” (96). On the one hand, this once again makes the connection between human fertility and the new GMO potato explicit: the diapered spud, the slogan and of course also the brand name (NuLife = new life) address explicitly the risks of infertility that have been connected to traditional farming and that arguably are resolved with GMO farming. On the other hand, this last look at the flyer also unmask something that Cassie and Will ignored in their considerations: that their hope is based on pure capitalist marketing, a flyer showcasing a ridiculous diapered potato; that NuLife potatoes—and their real life counterparts—are only cleverly marketed as “safer,” even though their effects have never been tested thoroughly.¹⁸ While at first the conversation and the hopeful acceptance of GMO potatoes as a potential improvement by Will and Cassie thus somewhat shakes the lopsided rejection of GMO crops as harmful, the fact that the end reveals that they both fall for a smart marketing move only underlines the pervading argument: that GMO crops, as another neoliberal agribusiness invention, are only the equally malicious predecessor of harmful agricultural pesticides and chemicals and uphold, or even reinforce, the detrimental connection between agricultural and (female) suppression.

3. “[B]oycotting the GMO crops”: The Seeds of Resistance and Alternative Scripts of Cultivation and Reproduction

- 21 While the detrimental connection between agricultural and female suppression is thus upheld even after the introduction of GMO farming in *All Over Creation*, the Liberty Falls after Yumi’s return also offers another significant disparity factor: quite in contrast to the past, when opposition to patriarchal and monocultural expectations of society could only be met with escape (Yumi), and distrust of detrimental agricultural pesticides could not be spelled out for economic reasons (Will and Cassie), the introduction of the NuLife potato is met with disagreement and protest. Notably, this turnaround is initiated not by the Liberty Falls residents themselves, but by an outsider group, the Seeds of Resistance.
- 22 The activist group arrives in Liberty Falls around the same time Will and Cassie have the argument about the NuLife potatoes. While at first they only protest near Liberty Falls, they eventually decide to go to the Fuller Farm to meet Yumi’s mother, Momoko, and learn about her “seed business,” which they understand as a worthwhile challenge to monoculture farming. It turns out that Yumi was indeed not the only ‘wild seedling’ growing on the Fuller Farm: slowly but gradually, and especially after Yumi had left, Yumi’s mother had nourished a small biodiverse garden next to the endless potato fields.
- 23 The Seeds of Resistance not only try to support to resuscitate Momoko’s gardens and eventually create a web-exchange for the seed business, but also continue their protests of GMO farming. They, for example, organize the “Idaho Potato Party” on the Fuller Farms, a festival to protest the global corporate food control, at which they symbolically destroy parts of a NuLife potato field. They also come up with a Grower’s Pledge, which assures that all seeds from the Fuller Farm are freely gifted and planted by other advocates of plant diversity. First and foremost, their actions hence represent a revolutionary opposition to the sterile, transnational capitalist monopoly that Cynaco tried to impose on farming in Liberty Falls.
- 24 The activism of the Seeds, however, is not limited to the agricultural realm; they extend the struggle between homogeneity and natural diversity to the social and cultural realm, where women’s sexuality and reproduction had become comparable sites of contention. This extension is found in both Lilith and Charmey, the two female member of the Seeds of Resistance, who both exemplify, albeit differently, the intersection between agricultural conflicts and the control of sexuality and fertility.¹⁹ It is particularly Charmey’s experience with pregnancy in the second half of *All Over Creation* which contrasts both with Yumi’s unintended pregnancy and Cassie’s struggles with infertility and miscarriage: Both Yumi and Charmey become pregnant by accident; in contrast to Yumi, who never even got the chance to get to know her pregnant body, Charmey accepts her pregnancy right from the beginning and does not question the somewhat immature relationship with the expectant father, Frank.²⁰ Indeed, the rejection and ambivalence that Yumi encountered in her childhood is translated here into an affirmative otherness for Charmey; while Yumi accepts her abortion and escape as a “bad seed,” Charmey resists normative understandings of how and when to have a baby by openly celebrating her pregnancy, even against the disapproval she encounters

in Liberty Falls. She either directly confronts people who disapprove, such as the town librarian who is shocked when she wants to borrow books on pregnancy (180), or attempts to stay away from institutions like marriage and traditional medicine because they cannot grasp her alternative visions of reproduction and pregnancy. She, in turn, prepares for a home birth (192) and only shortly before labor is rushed to the hospital against her will.

- 25 Notably, Charmey's different ideologies also gradually affect the inhabitants of Liberty Falls and particularly Cassie. At first, Cassie envies Charmey for her pregnant body and questions her ideas about rejecting Western medicine (192). When Charmey brings home pregnancy magazines, they finally start to realize that they share a common interest and enter into a closer relationship. And the further Charmey's pregnancy progresses, the closer the two become: Cassie starts to mimic Charmey's condition, as "when Charmey was hungry, Cass felt the pangs" (334). She is invited to touch Charmey's belly and "[t]ogether they played Name That Bump, gently pressing Charmey's belly to identify the baby's body parts—the rebounding head, the soft bottom, the bundle of extremities opposite the smooth arc of the spine" (334). In the way that Charmey invites Cass to "share" Charmey's body and the pregnancy—"Charmey was not shy with her body. She shared her most intimate indications: the thin leak of colostrum from her breasts and all her various discharges. Cass spent hours rubbing oil into the girl's tigh" (334)—"Cass becomes a participant in Charmey's experience of pregnancy and birth" (Schoeffel 148). How Charmey approaches her pregnancy can thus only be read as a subversive act defying easy categorization according to normative scripts about pregnancy. Notably, in turn, also Cassie develops a more complex and fluid model of familial and reproductive relations: among other things, she becomes more accepting of caring for the elder Fullers and starts co-parenting Yumi's children. She also converts a room in her house, which was meant to become the nursery for her own baby, into a room for Charmey and her baby (316).
- 26 With the arrival of the Seeds of Resistance and particularly Charmey's pregnancy, the homogeneity and suppression that characterized Liberty Falls hence finally seems disrupted: diverse seeds are cultivated, protests are held, and alternative ideas about pregnancy and motherhood are realized and celebrated. Charmey eventually has her baby, which she names Tibet, and moves into the room Cassie prepared for her. Yumi, her mother, and her children plan to head back to Hawaii, and the Seeds of Resistance plan to head out to the West Coast for a demonstration, as they feel their mission in Liberty Falls has been successful. This is the "climate of optimism" (Dederer 30) or even utopianism (Stein 189–191, but also Rouyan 155–156) that arguably characterizes *All Over Creation* and sets it apart from other ecofeminist publications, both nonfictional and fictional, which tend to end with a dystopian outlook. What sounds like a resolution or even "happy ending" is, however, not how the novel really ends. Halfway through the chapter "rogue," which up to that point indeed had offered optimism and closure to the reader, the narrating Yumi intervenes into the story: "Oh, God, how nice it would be if the story could just end here!... I could turn over the farmhouse to the Quinns and take Momoko and the kids back to Hawaii... How nice it would be... Wouldn't it? Impossible to say, because something went suddenly and terribly wrong in the story" (Ozeki 374).

4. “Oh, God, how nice it would be if the story could just end here!”: A Utopian Alternative?

27 It is this meta-comment that starts off the devastating plot twist that spoils the utopian moment: while Charmey is napping in the bus of the Seeds, the bus is blown up and Charmey is killed. Charmey’s death quite literally parallels the fate assigned to Yumi a quarter of a century ago, namely “to burn in hell” (202).²¹ Yumi experienced a metaphorical death and “hell” as a drugged-out runaway, but Charmey’s death is very unmetaphorical as she is literally blown to pieces. If we take up these parallels between Yumi and Charmey as two examples of becoming pregnant and the subsequent condemnation, then the difference between the two experiences is how well they adhered to the script of patriarchal culture: arguably, Yumi survived because she decided to escape, Charmey, who resisted normativity in all ways possible, has to be neutralized. This frustrating realization is confirmed with the decision about Tibet’s adoption after Charmey’s death:

‘Okay. So this one time Charmey told me that you guys were trying to have a kid and it wasn’t going so good, so what I want to say is, like, that if it’s cool with you, I think you guys should take Tibet’.... ‘You can’t do that,’ [Lilith] cried, glaring at Cass. ‘You can’t just give Tibet away! Charmey would have hated that!.... We can take care of her,’ Lilith was saying. ‘We’ll be back on the road soon. We’ll parent her collectively.’ But Frankie shrugged. ‘I think Charmey would have wanted it this way. ... I know a kid needs a mom and a dad,’ Frankie said. (402)

28 The conversation reiterates how Charmey’s resistant scripts of reproduction, in parallel to her body, become fully defused by the powerful appeal of the patriarchal family. In spite of Lilith’s desire to parent Tibet collectively, the other members of the Seeds eventually bow to Frank’s paternal authority and unquestioningly accept his assertion that Tibet needs a “mom and a dad” and a non-mobile home. The chapter ends with Tibet being handed over to Cassie, which means that Lilith’s desire to keep Tibet in an unconventional family is overruled—a development that at the same time frustrates Cassie’s earlier acceptance of alternatives to traditional ideologies about pregnancy and mothering.²²

29 With Charmey’s death and the adoption of Tibet at the end of the novel, *All Over Creation* thus once again highlights the extreme costs borne by women in contemporary struggles over sexual and regenerative liberty and diversity.²³ At the same time, the novel warns that patriarchal power structures oftentimes regain the upper hand, especially in traditional sites of power such as Liberty Falls, as the recuperation of Charmey’s resistant fertility and the re-scripting of her subversive script seem inevitable. The Seeds of Resistance are able to unsettle the balance of Liberty Falls for a while, however, the end clearly reveals a return to the status quo. The seed business, which stands for diverse cultivation, the Seeds of Resistance, and the “bad seed,” Yumi, (once again) have to leave Liberty Falls, while the next “wild” seedling, Tibet, has to be re-scripted: In the epilogue, it turns out that after the adoption Cassie renamed Tibet “Betty” (416), and thereby almost fully erases the connection she had with Charmey, and the alternative scripts of pregnancy and mothering the Seeds brought to Liberty Falls.

5. Concluding Remarks

- 30 It was the aim of this paper to not only outline how *All Over Creation* follows previous ecocritical and feminist interventions into the realms of biotechnology and reproduction (Steingraber, Shiva, etc.), but to also challenge the idea that *All Over Creation* offers a “climate of optimism” or even “utopianism” to its readers. It is only by prioritizing the plotline surrounding Charmey’s pregnancy and the Seeds of Resistance’s protests, and by neglecting the actual ending of the novel, that such an assessment can be made for *All Over Creation*, as it is Charmey’s literal deconstruction and Tibet’s re-scripting through adoption which upsets any utopian perspective the novel might have presented in earlier parts.²⁴ The ending seems to point to the fact that traditional power structures can successfully contain alternative scripts, and gain back strength eventually. At the same time, the more demanding question is perhaps not why *All Over Creation* had to end this way, but why despite of this devastating end numerous readers, critics, and reviewers felt that *All Over Creation*, at large, portrays utopianism or optimism.
- 31 One potential answer might lie in another reading of the epilogue, namely as presenting an alternative “happy ending” to the reader: While in one of her last narrations, Yumi identifies the moment before Charmey’s death as the positive conclusion for the story—the moment when alternative scripts had gained the upper hand—readers might instead identify with Betty’s “successful” adoption by Cassie and Will as their potential “happy end.” After all, *All Over Creation* does end with Cassie and Will, and not Yumi, as focalizers: “[Betty] was lying on a blanket in the middle of the floor, playing with her toes and watching Cass intently” (Ozeki 416). Especially when taking Cassie’s struggles with infertility in mind, it might feel “right” for a reader to identify with Cassie here, to see nothing but a happy mother with her daughter, to root for the heteronormative family, and thus to accept this development as the happy ending of *All Over Creation*. In turn, it is exactly this acceptance or even identification that can unmask the *complicity* of the reader with normative scripts of reproduction and motherhood.
- 32 *All Over Creation* hence certainly goes beyond offering a multifaceted critique of biotechnological advancements in agriculture (as Pollan did) or connecting the realms of reproduction and agriculture (as Steingraber and Shiva did); the novel also goes beyond offering a utopian alternative or a climate of optimism, as it is much messier and complicated than that. By offering multiple voices and several intersecting plotlines, which at times oppose or challenge one another, the novel rather succeeds in presenting its readers with many unresolved questions, the most pressing one indeed being why *All Over Creation* can leave readers feeling at ease, or even optimistic, even though all potentially empowering and alternating scripts have been blown to pieces.

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NOTES

1. Especially European agricultural lobbyists introduced the term “Frankenfoods” to refer to genetically modified crops from US growers and maintained a strong opposition to GMOs. As of 2010, however, even the European Union treats all genetically modified crops, along with irradiated food, as “new food,” and as of September 2014, 49 GMO crops have been authorized. The essential difference between GMO legislation in the US, the EU, and other markets thus seems to boil down to the issue of clear labeling.
2. Only recently, the United States Department of Agriculture has proposed new guidelines for labeling foods that contain genetically modified ingredients; at the time of writing this article, such were still pending (Harmon).
3. Numerous scientific journal articles address this issue; see, for example, Latifah et al.; Ziv-Gal; Pizzorno.
4. See, e.g., Sandra Steingraber’s activism and non-fiction, or interventions by the Environmental Working Group, the Center for Food Safety and the Organic Consumers Association, all based in the United States.
5. In the acknowledgements, Ozeki notes that Michael Pollan’s article “planted the particular idea that germinated into” *All Over Creation* (419).
6. Exploring interconnections between reproduction and agriculture is nothing new for Ozeki’s work: Already in her 1998 novel *My Year Of Meat*, she concatenated the use of growth hormones in cattle with infertility.
7. Rouyan explores this argument in relation to *All Over Creation* in her article “Radical Acts of Cultivation.”
8. Note that *All Over Creation* has a rather unconventional narrating style: About half of the chapters are narrated from Yumi’s perspective, using a homodiegetic narrator with a fixed internal perspective, thus presenting the reader with an imminent and emotional personal example of how farming and reproduction can be interconnected. The other half is narrated heterodiegetically with a variable internal focalization that switches between Cassie, Lloyd (Yumi’s father), Elliot (Yumi’s high school teacher and affair), and members of the Seeds of Resistance, among others. This gives the text a multivocal perspective; however, Yumi’s perspective is the dominant one.
9. In another revealing scene from her childhood, she describes how she was always cast as the Indian princess for the Thanksgiving “Pilgrim’s Pageant” (131), while all the other children could dress up as vegetables.
10. “‘I love you,’ he would say. ‘I love you, Yumi.’ And you would sob and hug your diary, where you were writing it all down, doubled over with a heartache that was the closest thing you knew to a body’s pleasure. ‘Oh, Elliot,’ you whispered under your father’s starry sky. ‘I love you, too’” (Ozeki 26).
11. Written by American singer-songwriter Grace Slick, the song “Greasy Heart” was first released in April 1968 by Jefferson Airplane.
12. See Stein 185–186 for a comprehensive analysis of Elliot’s relationship with Yumi.
13. That Yumi becomes re-involved with Elliot after her return to Liberty Falls creates a quite ambivalent situation, as Yumi herself points out as well: “And now? Elliot was back, and I could feel my cells quivering, all set to betray me again. He was still a handsome man, slightly thicker, not the whip-thin hippie I’d loved as a child, but to sleep with him now would make me somehow complicit, wouldn’t it? A molester of my own childhood?” (Ozeki 208). Moreover, Elliot is also once again lying to her, an aspect I elaborate on in the next section.
14. Note how both settings also expand the analogy between agricultural and cultural monoculture / diversity: When Yumi e.g. compares Liberty Falls to Hawaii, a site known for its

cultural diversity, she notes: “It’s never like this in Hawaii. Everything’s growing all the time—a regular hotbed of vegetative activity. But here...” (Ozeki 63).

15. The recollections about Liberty Falls before Yumi’s return make up most of the first section of *All Over Creation*, but are also presented through some analepses in later sections: in “lucky” and some parts of “nulife” in the second section, in “bad seed” in the fourth section, and in “lava” in the fifth section.

16. To be sure, all narration in *All Over Creation* is in the past tense; when I refer to “now” here and in what follows, I refer to the time after the introduction of GMO farming to Liberty Falls, what in the story is called “this particular present” (84).

17. In a scene situated much later, a Liberty Falls farmer traces the history of cancer in his family and concludes: “Maybe it’s related. Maybe it ain’t. And maybe if I was a scientist I could give you a better answer. But I’m just a farmer, so I can’t say. What it boils down to is we’re sick of chemical inputs, and they say with the NuLifes you can cut back. But you ask where I stand? Damned if I know. So what the hell? We’re gonna try a few acres. See what happens” (Ozeki 219–220).

18. Next to the demand for clear labelling of GMO products, the lack of testing was one of the main concerns environmental activists had against the introduction of GMO food into the consumer market. The novel adapts this argument (“The big corporations have introduced genetically modified food into your supermarkets and therefore into your bodies, without your knowledge or consent. There’s been no long-term testing of their safety” (Ozeki 92) from Pollan, who stated that when he had asked United States Environmental Protection Agency if they “had tested my Bt potatoes for safety as a human food, the answer was... not exactly. It seems the E.P.A. works from the assumption that if the original potato is safe and the Bt protein added to it is safe, then the whole New Leaf package is presumed to be safe. Some geneticists believe this reasoning is flawed, contending that the process of genetic engineering itself may cause subtle, as yet unrecognized changes in a food” (45).

19. As the focus of this paper is on reproduction, the following remarks will address Charmey’s pregnancy. For an elaborated analysis of Lilith’s actions, which include the use of an erotic website to promote promiscuity, see Stein 189–190.

20. Charmey addresses Frank, the newest recruit of the Seeds of Resistance, as “Petit Frank”: he is still a half-baked teenager, who is not able to take on responsibility (55, 199).

21. It was Carl Unger, Cassie’s father, who told Cassie that Yumi was going to “burn in hell” for having had the abortion. The chapter in which Charmey is killed is titled “Inferno,” referring to both the literal explosion of the Seeds’ bus but also the Christian “hell” to which Yumi was condemned about twenty-five years earlier.

22. I thus clearly disagree with an interpretation of this adoption as “exemplifying a free exchange of care and kinship, bound not by blood and biology, but by affinity, responsibility, love” (Stein 189).

23. Ironically, while the leftist activists in this novel do not understand that food democracy and women’s sexual and reproductive justice are vitally interconnected, the right-wing fundamentalists see both issues as challenges to their social norms, and so they become pawns of the transnational corporations that wish to stifle all opposition.

24. Indeed, both the *New York Times* and the *Los Angeles Times* review, as well as Rouyan’s and Stein’s article, do not discuss Charmey’s death at length in their texts.

ABSTRACTS

This article discusses women's reproductive agency and/or suppression in connection with biotechnological innovations in the agricultural industry, especially genetically modified crops (GMOs). To do so, it takes up Ruth Ozeki's creative response on this interconnection, the 2002 novel *All Over Creation*, which utilizes a fictional farmer community in Idaho to address broader cultural issues such as sexism, racism, and reproductive justice. The analysis shows how *All Over Creation* first and foremost succeeds via a multivocal narrative to create a feminist response to both neoliberal biotechnological enhancements and dominant cultural notions of fertility, reproduction, and motherhood. At the same time, this article neglects the utopian potential that critics and reviewers have attributed to the text, and instead reveals how such a reading not only ignores substantial aspects of the novel's ideological complexity, but also unmask a reader's complicity with (hetero-)normative understandings of reproduction.

INDEX

Keywords: reproduction, GMO, feminism, motherhood, reproductive justice, Ruth Ozeki

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