

TOWARDS HARMONY AND PEACE WITH NONHUMANS: Pandemics and Ecological Democracy in Greg Bear's *Darwin's Children*

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Abstract: Due to rising interest in Anthropocene and the COVID-19 pandemic, this essay aims to explore the fictional viral pandemics and the posthuman society in Greg Bear's *Darwin's Children* through the lens of new materialism and puts forth *Homo monstercus* as a new image of humanity fit for new lifeform in the era of the pandemic. As a descendent of *Homo sapiens*, *Homo monstercus* is the new protagonist of the future Earth, monster-like humanity, constantly transforming and evolving to survive the Anthropocene in harmony and peace with nonhumans. By applying theories such as Gilbert Simondon's individuation theory and Bruno Latour's actor-network theory and using concepts such as Karen Barad's intra-action, Stacy Alaimo's trans-corporeality, Donna Haraway's companion species, this paper analyzes the anthropocentric relationship with nonhumans, divulges ecological and democratic ethic which enables their harmonious coexistence and symbiosis.

Keywords: Anthropocene, Pandemic, Ecological Democracy, *Homo Monstercus*, Greg Bear, *Darwin's Children*, New Materialism.

1. Introduction

The world is in a state of total confusion and terror due to the COVID-19 pandemic. The fundamental cause of zoonosis such as COVID-19 is humans; despite being only a tiny part of the Earth's ecosystem, their ongoing capitalist predation and exploitation have

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resulted in Gaia's dissymmetry. Pandemic is "hybrids of nature and culture" (Latour, *Modern* 10), humans and nonhumans, and matter and mind, which acts as a reminder that humans should be in harmony and peace with the Earth's ecosystem. Harmony and peace are achieved by the right relations of the hybrid world of humans and nonhumans. Until recently, pandemics have been one of nature's most powerful tools for reducing the human population. The current COVID-19 pandemic is acting as a regulator for humans—whose population has increased rapidly and whose modernization and neo-liberal globalization has destroyed nonhuman nature—to live in harmony and peace with other species of the Earth's ecosystem. Sean Sturm says, "the arrival of the 'novel' coronavirus ... tells us that Gaia will not wait" (2).

In the vast history of life, virus and humans have led a symbiotic relationship and adapted through "symbiogenesis" (Margulis 33). Viruses made life for humans as it is, and vice versa. While some virus-human relationships result in death, the basic idea is that we are here to live together. We are "companion species" that form a "co-constitutive relationship" (Haraway, *Haraway* 103). In a world of "sympoietic system," we lead an inseparable life, "making-with, never one, always looping with other worlds" (Haraway, *Haraway* 216). Gaia's balance, harmony, and peace are a symphony of life by the Earth's ecosystem, and it is based on the symbiosis of companion species. This system of harmony is also marked by an open and creative structure that continues to make new melodies.

From the late 20th century, there has been a need to think about the material entanglement and intra-action in the human-nonhuman hybrid world, ecosystem of companion species. As such, 'new materialism' has emerged from previous materialism that had been put on the back burner due to the rise of radical constructivism; with a new foundation of materiality, 'new materialism' was theorized with a focus on nonhuman agency and human-nonhuman relations. New materialism, which focuses on the agency and vital force of materials previously assumed to be passive or inert, claims on the basis of recent quantum mechanics that "Matter feels, converses, suffers, desires, yearns and remembers" (Dolphijn and Tuin 59). It "is in many ways a wave approaching its crest" (Dolphijn and Tuin 16) as it is anticipated to

contribute to the understanding of the deep cause of hybrid ecosystem crises such as climate change and pandemics.

In his science fiction *Darwin's Children*, Greg Bear depicts the co-constitutive relationship of human and nonhuman virus through global warming and pandemics in the Anthropocene. Bear creates a "symbiogenetic" and "sympoietic" (Haraway, *Staying* 58) pandemic epic by delineating how new kinds of cells, tissues, organs, and species evolve primarily through the long-lasting intimacy of strangers, response-ability, material entanglement, and intra-action.

While this work provides us with significant implications for the post-COVID-19 world, independent research on this work is nonexistent. Although a few papers from journals and short reviews discuss this novel in relation to other works, they only touch upon material subjects with a heavy focus on culture.¹ This paper focuses on the dynamic process of materialization between humans and nonhumans by applying theories such as Gilbert Simondon's individuation theory and Bruno Latour's actor-network theory (ANT), and using concepts such as Karen Barad's intra-action, Stacy Alaimo's trans-corporeality, and Donna Haraway's companion species. It diagnoses and analyzes the anthropocentric relationship between humans and nonhumans in *Darwin's Children*, and divulges ecological and democratic ethics, which enables their harmonious coexistence and symbiosis. Thus this paper puts forth *Homo monstercus* as the new image of humanity fit for the lifeform in the era of human and nonhuman coexistence and symbiosis.

2. Greg Bear's *Darwin's Children*

Darwin's Children is the last of Greg Bear's trilogy on 'accelerated evolution' caused by a viral pandemic—*Blood Music* (1983), *Darwin's Radio* (1999), and *Darwin's Children* (2003). This trilogy discusses the harmonious relationship between humans and nonhumans in

¹ For example 1) Jay Clayton features plots involving Bioethics, persecution of the posthuman minority by humanity. 2) Roger Luckhurst says, "*Darwin's Children* amplifies the cultural elements of genetic transformation" (227). 3) Stephen Dougherty explores the human genome as a form of media.

relation to viruses, climate change, pandemics, and human evolution.

The summary of *Darwin's Children* is as follows: the rampant environmental stress of the Anthropocene activates the previously dormant 'Human Endogenous Retrovirus'(HERV) in the current human genome to produce 'Scattered Human Endogenous Retrovirus Activation'(SHEVA), which in turn infects other people. This infection, named 'Herod's flu,' spreads worldwide, and pregnant women give birth to mutant children. In fear of their extraordinary powers, the United States government takes advantage of public fear and anxiety to announce Emergency Action and use military force against the children to quarantine them in concentration camps.

The mutant children held in quarantine endure abuse and biopsy, and seventy-five thousand children are left to perish from the 'Hand, Foot, Mouth Disease'(HFMD), transmitted from humans as a recombined Coxsackie Virus. After two pandemics—the Herod's flu pandemic of humans and the HFMD pandemic of the children, the active discussion among scientists that the true purpose of viruses is to aid human evolution, and the shifting public image of the mutant children from fear to awe simultaneously fuel a revolution that opposes the discrimination and confinement of the children. The human race and the new subspecies learn to cooperate and care for each other and form an extended family. The new subspecies prosper and slowly replace the *Homo sapiens*, who diminish in number from the post-SHEVA syndrome.

3. Ontological Choreography of Human and Virus

Bear imagines a likely story about human and virus symbiogenesis with the help of recent "research published in texts and respected scientific journals"(Bear 475).² A new generation of mutant children, capable of replacing humans, is born during the three big Waves of Herod's flu pandemic. These new children are the product of virus and human symbiogenesis. They are adept at double-speaking with their modified tongues, using pheromones, and changing facial

²All citations from the novel are hereafter marked by page numbers in parentheses.

colours, all of which indicate a communication ability superior to *Homo sapiens*. Yet, some types of SHEVA-human relationships result in death from infection. For instance, for a female recipient of an experimental xenotransplant—a pig kidney—SHEVA had stimulated an enthusiastic release of PERV (Porcine Endogenous Retrovirus) from the pig cells, and her pig and human retroviruses had shuffled genes with latent herpes simplex virus and had begun to express. Her family and some relatives had been infected and killed by her recombined viruses(11). Despite ongoing controversy over whether the SHEVA-induced pandemic is a form of evolution or a disease, humans continue to perform biopsies and autopsies on the virus children searching for a vaccine against SHEVA. Around this time, the picornavirus—a mutant variety of Coxsackie—begins to infect the quarantined virus children and start an HFMD pandemic(184). "This thing is going through the new children like a crown fire. It's spreading by breath and touch—aerosol"(157). Nonhuman viruses, which humans had previously thought to be insensitive, inert, and passive, have, in fact, an incredible agency that can drive species to their doom. This uncontrollable "matter of concern"(Latour, "Matters of Concern" 246) is an important factor that brings change and difference to the world.

While "this disease, attacking a new and juicy population, would not readily cross over to old-style humans"(109), humans ruthlessly shut down schools and shoot at the new children at the camps from helicopters. A school director sells more than half of the school's emergency medical supplies to the black market, which worsens the state of the pandemic. The children in the school's special treatment facility for mental illness and development disabilities are especially vulnerable. Conscious citizens and parents insist that the children's deaths are "murders"(102). The pandemic shows that the production of the hybrid world is a material-discursive intra-action. Barad's "neologism 'intra-action' signifies the mutual constitution of entangled agencies. That is, in contrast to the usual "interaction," which assumes that there are separate individual agencies that precede their interaction, the notion of intra-action recognizes that distinct agencies do not precede, but rather emerge through, their intra-action"(Meeting 33).

While the pandemic from the SHEVA-human companion relationship led to developing a new human subspecies, the

human-induced pandemic inflicted on the mutant children led to innumerable deaths. This shows that the coexistence of viruses and humans does not always guarantee success but may instead result in death and agony. Nevertheless, according to Haraway, this ontological choreography of companion species is characterized by dances of harmony and coexistence through countless steps of success and failure rather than dances of death and exclusion.

Microbiologist Kay Lang's thoughts resonate with Haraway's. Kay explores biological finds and academic theories to support her hypothesis. She discovers that the "highly conserved endogenous retroviruses expressed by the trophectoderm of the developing embryo" played a significant role in protecting the embryo "against attacks by the mother's immune system," where "the viral envelope proteins selectively subdued the mother's immune response to her fetus without weakening the mother's defenses against external pathogens," thus performing "an exquisite dance of selectivity" (256).

Kay focuses on the agency of viruses within the human genome, previously thought to be mere inert matter, and compares this incredible material entanglement and intra-action to 'an exquisite dance.' In these co-constitutive relationships, "none of the partners preexists the relating, and the relating is never done once and for all" (Haraway, *Haraway* 103). "'The relation' is the smallest possible unit of analysis" (Haraway, *Haraway* 111), not the individual. Barad claims that "relata do not preexist relations; rather, relata-within-phenomena emerge through specific intra-actions" (*Meeting* 140).

Kay believes that "the beginning of sex and self-knowledge and life as we know it" is "all because of viruses," and claims that "to assume that viruses and transposable elements are first and foremost causes of disease is like assuming that automobiles are first and foremost meant to kill people" (30). She further claims that SHEVA is not an instrument of disease but a new subspecies as it acts as "mediators and messengers between cells, ferrying genes and coded data around many parts of the body, and even between individuals" (30). The focus is that the movement and action of matter always go hand in hand with information. As such, matter and meaning are an inseparable continuum.

4. *Homo Monstercus*

There is no name for the mutant children. The people who are afraid and disgusted by the children to be diseased mutants call them the "virus children" (8), while most who deem them as a new human subspecies call them the "SHEVA people" or "Shevites" (432). Kay begins to think that "all mammals, probably all vertebrates, even all animals—and possibly all forms of life above the bacteria—were genetic chimeras," and that "in a real sense, we were all virus children" (262). The term 'virus children' is indicative of the non-humanity of humans and further shows that humans are products of continuous intra-acting, "specific material (re)configurings" (Barad, *Meeting* 139) of material bodies—both human and nonhuman, and "posthumanist performativity" (Barad, "Performativity" 801). Humans are the product of a human-virus co-constitutive relationship. In this relationship, global warming's "historical specificity and contingent mutability rule all the way down, into nature and culture, into naturecultures" (Haraway, *Haraway* 104). We are in the symbiogenetic bodies of naturecultures.

I suggest that both SHEVA people (SHEVA-infected new human subspecies) and Corona people (COVID-19-infected *Homo sapiens*) be called *Homo monstercus*, each a genetic chimera of SHEVA and COVID-19.³ *Homo monstercus* is the new protagonist of the future Earth, monster-like humanity constantly transforming and evolving to survive the Anthropocene in harmony and sustainable peace with nonhumans. This is what Haraway would consider being a type of "metaplasm." According to Haraway,

³ The term *Homo monstercus* was first coined and used in my article, "Homo Monstercus: The Monster in Mary Shelley's *Frankenstein*." "This name moves away from the existing pejorative and racist image of monsters, and highlights the aspect of monsters that undergo continuous mutation and transduction in the Anthropocene. By dedicating the word 'monster' — a word used almost exclusively to express one that is abhorrent, eccentric, and abnormal — to describe humans, I try to neutralize the causal relationship of the existing language by forcing readers to rethink the dichotomy of what is human/monster, human/nonhuman, or normal/abnormal. Such use of the name *Homo monstercus* renders "major language" to stammer and "becoming-minor language" ("Darwin's Radio" 24).

sympoiesis or co-constitution is a type of “a metaplasm, changing the meaning of a gene and altering the course of a life” (Haraway 112).⁴ She uses metaplasm “to mean the remodeling of dog and human flesh, remolding the codes of life, in the history of companion-species relating” (Haraway 112). This has been the case for virus-human relationships as well. Viruses and humans have endured the same remodelling of virus and human flesh, remoulding the codes of life, in the long and deep time of companion-species relating. I call genetic chimeras, SHEVA people and Corona people into *Homo monstercus*. In this sense, *Homo monstercus* is the corporeal join of the material and the semiotic, and “fleshly material-semiotic presences in the body of” naturecultures (Haraway, *Haraway 98*).

5. Non Zero-Sum

Humans fail to respect the heterogeneity and agency of the virus children and attempt to humanize them. At the school where Stella Nova—a virus child—is quarantined, Miss Kinney—a teacher as well as a keeper—tries to teach the children basketball. Miss Kinney says, “We’re going to try something different. You’ll compete,” “You’ll play against each other and get exercise and learn physical coordination. It’s fun” (211). Yet the virus children fail to grasp the idea of a competitive game. While they understand that teams are like demes (social units for some of the SHEVA kids, 356) and that “we all want to make baskets and be happy” (213). They maintain their stance that “it hurts to make others fail” and ask back, “if I stop her from getting a basket, won’t that reduce the number of baskets?” (213). Despite Miss Kinney’s repeated assurance that “it’s called a sport,” La Shawna casts doubt that “people got hurt” when she “saw soccer riots on TV once” (213). To the new children, “adjusting to humans was a puzzle,” they were “supposed to do all the adjusting, and that made it hard” (215).

⁴Haraway says “Metaplasm means a change in a word, for example, by adding, omitting, inverting, or transposing its letters, syllables, or sounds. The term is from the Greek metaplasmos, meaning remodeling or remolding. Metaplasm is a generic term for almost any kind of alteration in a word, intentional or unintentional” (Haraway 112).

While humans enjoy zero-sum games, Shevites prefer non zero-sum games. Zero-sum games are interactions in which one side gains are the other side's losses. The sum of profits and losses is zero. Sports games of humans are an archetype of zero-sum games. Although in a zero-sum game, one must sacrifice another for profit, in a non-zero-sum game, all players can gain without victimizing anyone. While Darwin saw the survival of the fittest as the essence of evolution, there is more to evolution than pure competition. Ironically, cooperation in non-zero-sum games is a more evolved form of strategy in the race for survival of the fittest.

As seen from the basketball scene, Shevites have a tendency to strive together for a common interest. This is not just about the virtues of their character but a chemically etched human-nonhuman symbiotic feature of their DNA. The virus children can simultaneously speak two languages with their characteristic oral features, change facial colours at will to fit their emotions, and produce a variety of pheromones to express their emotional and physical state. Their use of pheromones enables them to communicate with and persuade others, identify their basic tendencies, temperaments, emotions, and health conditions and detect signs of various natural phenomena. Their extraordinary senses and various modes of communication show that humans are evolving towards a more harmonious and intricate level of sociality and collectivity via affected/affect with humans and animals and the Earth's ecosystem.

The portrayal of the basketball scene suggests that human survival and evolution drivers are cooperation, empathy, and love rather than competition. The COVID-19 pandemic implies that human survival on Earth cannot last because it was achieved through neoliberal and capitalistic competition.

6. Metabolic Rift, Affective Rift

Symbiosis is a way of life where different species are in physical contact with one another. The symbiotic HERV is in continuous contact naturally as it exists within the human body. Alaimo focuses on the 'interface' of these contacts and explores the various "material interconnections" from a "trans-corporeality" (2). 'Trans-corporeality' criticizes the idea that bodies have rigid boundaries and demands "attention to the materiality of the human and to the

immediacy and potency of all that the ostensibly bounded, human subject would like to disavow”(4). HERV and humans are inseparable and trans-corporeal symbionts. During the vast history of humans, they have been in continuous contact, shuffling and trading genetic information, and going through symbiogenesis by material-semiotic intra-action. Isabelle Stengers points out that “struggling against Gaia makes no sense—it is a matter of learning to compose with her” (*In Catastrophic Times* 53).

Nevertheless, most humans are staunch in their belief that HERV is a pathogen and that infection from a pathogen leaves you diseased, not as a new species. They try to block all contact between humans and HERV, more specifically between humans and the virus children. In the school where the virus children are quarantined, the primary method used to manage and control the children is to block and erase the flow of pheromones. Since all relationships happen from the encounter of bodies, or matters, the SHEVA children’s demes lose vitality as the children are quarantined, and all molecular encounters and flows are blocked to prevent information and affects of empathy and anger.⁵ Their pheromones—language of smell—show the inseparability of materials and meanings and provide a clear image of the material-semiotic entanglement, intra-action, and trans-corporeality in an incredible manner.

Anthropocene refers to global warming and the “metabolic rift” (Foster 155)—release of carbon and nitrogen previously tucked away by Gaia for atmospheric balance—which caused it. McKenzie Wark says, “a central theme of the Anthropocene was and remains the story of the Carbon Liberation Front” (20). This metabolic rift on Earth leads to a rift in affect between humans and nature in the form of ‘unconcern’. The affective rift resulted in “the intrusion of Gaia” (Stengers, “the Intrusion of Gaia” 386), “things strike back”(Latour, “Things” 107) like global warming and various pandemics. In the novel, the South and East of America are mercilessly sunny with a high of ninety-three and a parched summer in the fourth year of a dry spell. However, countries are

⁵Laurel Bollinger says “by forbidding the Shevite children from interacting, the schools break up their capacity to function as collective units”(393).

focused primarily on preventing the spread of the disease with closed borders, so much so that "Jay Leno had once cracked that SHEVA had pushed global warming onto a back burner" (79). Such a description, which is an accurate depiction of the present-day COVID-19 pandemic, shows that the real and the possible are continuously reconfiguring through an imaginative "diffraction" (Barad, "Performativity" 803) of pandemics. In the novel, humans—material-affectively disconnected with nature—try to eradicate the virus with vaccines, and imprison Shevites in anger and hatred. The world is "a kind of powder keg madness" rampant with fear and anger (78). All in all, this novel shows that the production of bodies is inherently material-semiotic-affective by juxtaposing the Shevites, who are prospering on Earth with empathy and love thanks to the harmonious circulation of material, meaning, and affect, to humans, who are slowly perishing.

7. Response-Ability and Ecological Democracy

For all "earthbound" (Latour, *Facing Gaia* 85) creatures to live and die well, it is of paramount importance to care and cooperate, respect one another's heterogeneity and agency, and nurture response-ability. Nevertheless, most humans explicitly express their disgust of the virus children, comparing them to skunks or dogs. The virus children and their parents become "a new and vulnerable underclass, with fewer civil protections than any since slavery" (27). Mobs torch quarantine camps where the virus children are kept prisoners and watch "two hundred kids roasted to death" (27). In anger, Fred Trinket exclaims, "our legacy ... Old genes. All those arrangements, gone!" (52). He also kidnaps abandoned or runaway virus children from the streets. The virus children do not please "the pure of heart who long for better protected species boundaries and sterilization of category deviants" (Haraway, *Haraway* 96). In Trinket's cage, there is Stella, who ran away from home, and four other virus children who were abandoned by their parents. This scene denounces humans, who are without empathy and response-ability to respond to the needs and appeals of nonhumans, and rebukes anthropocentric thinking, which assumes nonhumans to be mere passive objects for predation and exploitation.

On the other hand, there are other humans who sympathize with the virus children and respond to their calls and appeals. Bear routinely adds ‘hitchhiking’ scenes to depict response-ability to others. Stella and Will, who have escaped from school, decide to hitchhike along the way. A minivan driven by an old couple picks up the children, and while the old couple recognizes the virus children and fears infection, they are not shy of comforting them. “We’ve been reading about kids like you,” says the old couple, and asks, “hard times, huh?” (420), an affect only found in a continuous and “committed relationship” (Haraway, *Haraway* 144). The affect of trust, care, and sympathy—“the pre-individual” (Simondon, *L’individuation* 305)⁶—settled in their bodies rush into the bodies of strangers (the virus children), trans-individually beyond race and generation.

The repeated encounters in the novel resonate with Baruch Spinoza’s idea that affects tend to expand over and over again when affecting other bodies, it encounters. For example, the young hitchhiker Morgan that Mitch and Kay picked up in *Darwin’s Radio* grows up to respect and like Shevites, thus maintaining a long-lasting amicable relationship. Morgan’s empathy, which had been affected by his past encounter with Mitch and Kay, is the pre-individual that had affected Shevites in turn. By Morgan, Mitch and Kay join a Shevite community. The assemblage formed by *Homo sapiens* and Shevites can be seen as “the pre-individual potential” (Simondon, “the Individual” 313), moving beyond and through individuals and emerging as a ‘psychic and collective individuation’ through intra-action. The affect fueled by “intimacy of strangers” (Haraway, *Staying* 60) during hitchhikes is at first limited to the individual’s vitality; it repeatedly expands to form a bigger one body. The ‘bigger one body’ is what Michael Hardt and Antonio Negri mention as “the body of the multitude,”⁷ “a

⁶ Simondon views emotion as a remnant of the pre-individual in the individual and compares the pre-individual reality to Anaximandros’ *apeiron* — origin of all individuals — and christens it as Nature (*L’individuation* 297).

⁷ Bollinger says, *Darwin’s Children* “may offer us the opportunity to understand better our interconnection with the multitudes we contain” (396).

common body, a democratic body" in the "process of metamorphosis and constitution"(189). The common and democratic "collective"(Latour, *Pandora's Hope* 16) of humans and nonhumans—a posthuman community—endures the Anthropocene and Capitalocene trouble together and forms an ecological democracy that pursues common interests together to develop into a more harmonious and competent community. As Haraway had put it, "Earth's beings are prehensile, opportunistic, ready to yoke unlikely partners into something new, something symbiogenetic. Co-constitutive companion species and coevolution are the rule, not the exception"(Haraway 124).

8. Ethico-Onto-Epistemological Turn

Kay focuses on the materiality and agency of viruses based on the theory of "Extended Evolutionary Synthesis"(Haraway, *Staying* 63). After she finds that "human embryos implant in their mothers' wombs with the aid of old viral genes"(317) and that "no babies would be born if we suppressed their genomic viruses"(319), she reports her research to academia. Dr. Nilson, who represents mainstream biology, admits that they had been wrong to deny the potential of HERV. He laments that "we have failed to see the truth," "we were arrogant," and "we were men"(319). He further grieves that "biology was an incredible and archaic patriarchy ... of an old boy network"(319). Nilson's confession shows well the inseparability of science and feminism, science and politics, nature and culture, and material and mind.

The "revolution"(406) takes place not only in the field of science but also in politics. Mark Augustine, a government official who had previously been an enemy to the virus children, is accidentally trapped in a quarantine camp with one of the highest infection rates. He forms a team of healthy virus children to look after the patients and begins to understand them in depth; he is even fascinated by their incredible ability to identify and classify the infected. Later in a hearing, he changes his stance and claims that the virus children are not "the mutated products of a deadly viral disease," but "our children"(208). Augustine's "conversion" to empathy and love is not a mere "charity"(169) that objectifies the children but a product of sympoiesis that emerged from a close and continual material-semiotic-affective intra-action with them.

In such a turn of events, Kaye and Mitch began to live in a Shevite society, and slowly the Shevites came to trust them. While Kaye was teaching at the village school, Mitch was putting up new houses for the families, although it was not yet clear what shape those families would take since “the concept and practice of family was still growing” (466). Kaye and Mitch notice that “love, and new varieties of passion, it seemed, would find many new uses in Shevite society” (467). As the *Homo sapiens* and Shevites relationship shifts from death and exclusion to care and coexistence—in other words, as their assemblage takes a different form—their material-semiotic intra-action also shifts, leading to a sympoiesis of a significant posthuman lifeform. It is what Latour calls the “progressive composition of a common world” (*Politics of Nature* 53) of things. In this sense, this novel shows how we should be open to composing with others, to “the creation of always partial connections,” which produce “new relevant possibilities” (Stengers, “Speculative Philosophy” 202).

9. Post-SHEVA Syndrome, Post-COVID Syndrome

Due to “post-SHEVA syndrome,” which is “a side effect of SHEVA pregnancy” (427), the tips of Kaye’s fingers and portions of her calves grow numb as the months pass, her walk becoming less quick, and her strength and stamina waning. Mrs. Carla Rhine, who is also suffering from post-SHEVA syndrome, produces new retroviruses. While “none of these new viruses are infectious, or even pathogenic, ... they’re really playing hell with her immune system,” making symptoms of multiple sclerosis, lupus (427). While *Homo sapiens* is slowly perishing due to post-SHEVA syndrome, the era of Shevites is fast approaching with the birth of Stella’s child.

Currently, most ‘recovered’ from COVID-19 are already suffering from post-viral chronic fatigue syndrome and other debilitating conditions. Chronic fatigue is only a small part of the problem, as there have been reported cases where the virus’s genetic material was found in spinal fluid and brain cells, which can cause sudden and severe infection (Dettmer). It may be the case that we, Corona people, may suffer from severe and permanent damage from the post-COVID syndrome, just as the SHEVA people have from the post-SHEVA syndrome. The intrusion of virus—the

intrusion of Gaia, "invasion of the monsters"(Hardt and Negri 194)—forces us to be humble.

Likely other symptoms of the post-SHEVA syndrome, Kaye frequently experiences strokes which she confuses with epiphanies. On these occasions, she feels "love without condition—without desire, direction, or any quality other than its purity"(289). Shevite women feel a similar rush of affection while meditating with others. Kaye's brain scans show that "the activity centers lined up neatly" with the "scan of the infant's brain while he or she was getting acquainted with mom"(282).

While the novel offers no further explanation, I think that such epiphanies are phenomena in Kaye's brain where SHEVA had reshuffled the genes in the cells and transformed them into a baby's. At the "caveats" section at the end of the novel, Bear invites us to "imagine epiphany that touches our subconscious, our other internal minds—the immune system—or that reaches beyond us to touch a forest, or an ocean ... or the vast and distributed 'minds' of any ecological system"(476). I consider what Kaye feels as "unconditional approval and love"(165) and what Bear claims to be 'our other internal minds' or 'the vast and distributed 'minds' of any ecological system' are what Gilles Deleuze characterizes to be "a qualitative duration of consciousness without a self," "the transcendental" (not the transcendent), or "Immanence"(25-26). Deleuze says, "small children ... are infused with an immanent life that is pure power and even bliss"(30).

To put it in Simondon's words, Deleuze's 'bliss' or 'Immanence' might be a remnant of 'the pre-individual' in the individual. An individual appeals to the pre-individual potential that penetrates individuals beyond one's individuality when problems with the environment accumulate. The psychic and collective individuation then takes place. The emergence of the common world of *Homo sapiens* and Shevites in part three of this novel clearly shows the psychic and collective process of individuation. Humans in the Anthropocene go through "phase-transition"(Simondon, *L'individuation* 315) in such a manner to posthuman.

10. Conclusion

Before the common world of *Homo sapiens* and Shevites, Shevites formed a small community away from humans in an old closed

mine. The old mine is located in a majestic mountain but is a no-man's-land after humans had mined copper, tin, and gold in the middle of the last century, leaving it polluted with heavy metals and cyanide. In the woods, there are "old refrigerators and washing machines and abandoned steam and diesel engines like big iron spaceships, squat dark hopper cars, stacks of iron rails orange with rust" (435). This scene shows the stigmata of the Anthropocene in the damaged planet and foregrounds the materiality of Gaia.

In the town, Shevites heal wounds and trauma from humans, learn "how to soothe animals—black bears in particular—that they might encounter" (436) in the woods, and experiment with a way of life. The damaged town had slowly come to life once more. They are *Homo monstercus*, monster-like humanity, constantly transforming and evolving to survive the Anthropocene in harmony and peace with nonhumans. The SHEVA children, or Darwin's children, are a product of a human-virus co-constitutive relationship, and the virus enables the ontological leap of humans.

Bear not only emphasizes nonhumans as active actors but also boldly suggests posthuman ethics and a recomposition of society, in which humans and nonhumans coexist in harmony and peace, on the foreground of the dynamic process of materialization between humans and nonhumans. Foregrounding material factors and reconfiguring our very understanding of matter are prerequisites for any plausible account of coexistence, harmony, peace, and its conditions in the pandemic era. This novel is "at the heart of thinking/making for more livable politics and ecologies in the times of burning and extraction called the Anthropocene and Capitalocene" (Haraway, *Staying* 90) and sets itself apart from other Science Fiction with exterminatory narratives. Also, it urges us to live in harmony and sustainable peace with nonhumans on a pandemic-ridden planet. We, the Corona people, should keep in mind that "Gaia does not offer us a choice. Gaia simply recalls us as symbionts to our responsibility to live sympoetically" (Sturm 2).

References

- Alaimo, Stacy. *Bodily Natures: Science, Environment, and the Material Self*. Bloomington: Indiana University Press, 2010.
- Barad, Karen. "Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter." *Signs* 28.3 (2003): 801-831.
- Barad, Karen. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham: Duke UP, 2007.
- Bear, Greg. *Darwin's Children*. New York: Del Rey Books, 2004.
- Bollinger, Laurel. "Containing Multitudes: Revisiting the Infection Metaphor in Science Fiction." *Extrapolation* 50.3 (2009): 377-399.
- Clayton, Jay. "The Ridicule of Time: Science Fiction, Bioethics, and the Posthuman." *American Literary History* 25.2 (2013): 317-340.
- Deleuze, Gilles. *Pure Immanence: Essays on a Life*. New York: Zone Books, 2001.
- Dettmer, Jamie. "Post-COVID Syndrome Plagues Patients." *VOA* 1 July 2020. <<https://www.voanews.com/covid-19-pandemic/post-covid-syndrome-plagues-patients>> 5 May 2021.
- Dolphijn, Rick and Iris Van der Tuin. *New Materialism: Interviews & Cartographies*. Open Humanities Press, 2012. <<https://dSPACE.library.uu.nl/handle/1874/256718>> 5 May 2021.
- Dougherty, Stephen. "Radio, the Genome, and Greg Bear's Biological Fiction." *Science Fiction Studies* 44.1 (2017): 104-121.
- Foster, John Bellamy. *Marx's Ecology: Materialism and Nature*. New York: Monthly Review Press, 2000.
- Haraway, Donna. *Manifestly Haraway*. Minneapolis: University of Minnesota Press, 2016.
- Haraway, Donna. *Staying with the Trouble: Making Kin in the Chthulucene*. Durham: Duke University Press, 2016.
- Hardt, Michael and Antonio Negri. *Multitude: War and Democracy in the Age of Empire*. New York: The Penguin Press, 2004.
- Joo, Kee Wha. "Homo Monstercus: The Monster in Mary Shelley's *Frankenstein*." *The Journal of Human Studies* 35 (2014): 278-298.
- Joo, Kee Wha. "Scientific Knowledge and the Anthropocene: Nonhuman Turn in Greg Bear's *Darwin's Radio*." *Journal of Dharma* 44.1 (2019): 11-32.
- Latour, Bruno. *We Have Never Been Modern*. Tr. Catherine Porter. Cambridge, Mass.: Harvard University Press, 1993.

- Latour, Bruno. *Pandora's Hope: Essays on the Reality of Science Studies*. Cambridge, Mass.: Harvard University Press, 1999.
- Latour, Bruno. "When Things Strike Back: A Possible Contribution of 'Science Studies' to the Social Sciences." *The British Journal of Sociology* 51.1 (2000): 107-123.
- Latour, Bruno. *Politics of Nature: How to Bring Science into Democracy*. Tr. Catherine Porter. Cambridge, Mass.: Harvard University Press, 2004.
- Latour, Bruno. "Why has Critique Run Out of Steam? From Matters of Fact to Matters of Concern." *Critical Inquiry* 30.2 (2004): 225-248.
- Latour, Bruno. *Facing Gaia: Eight Lectures on the New Climatic Regime*. Tr. Catherine Porter. Cambridge, UK: Polity Press, 2017.
- Luckhurst, Roger. "Catastrophism, American Style: The Fiction of Greg Bear." *The Yearbook of English Studies* 37.2 (2007): 215-233.
- Margulis, Lynn. *Acquiring Genomes: A Theory of the Origins of Species*. New York: Basic Books, 2002.
- Simondon, Gilbert. "The Genesis of the Individual." Tr. Mark Cohen and Sanford Kwinter. *Incorporations* 6 (1992): 296-319.
- Simondon, Gilbert. *L'individuation à la lumière des notions de forme et d'information*. Grenoble: J. Millon, 2005.
- Stengers, Isabelle. "Speculative Philosophy and the Art of Dramatization." *The Allure of Things: Process and Object in Contemporary Philosophy* (2014): 188-217.
- Stengers, Isabelle. *In Catastrophic Times: Resisting the Coming Barbarism*. Tr. A. Goffey. London: Open Humanities Press, 2015. <http://openhumanitiespress.org/books/download/Stengers_2015_In-Catastrophic-Times.pdf> 5 May 2021.
- Stengers, Isabelle. "Autonomy and the Intrusion of Gaia." *South Atlantic Quarterly* 116.2 (2017): 381-400.
- Sturm, Sean. "To Compose with Gaia: Living Sympoetically." *Postdigital Science and Education* (2020): 1-5. <<https://europepmc.org/article/pmc/pmc7306495>> 5 May 2021.
- Wark, McKenzie. *Molecular Red: Theory for the Anthropocene*. London: Verso, 2015.