

## The Art of Interspecies Care

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AS I WROTE THE FIRST DRAFT OF THIS ESSAY, isolated with my family in a small apartment in New York City, the COVID-19 pandemic was shining a spotlight on the vulnerabilities and gaps in our networks of human care. Amidst scenes of human catastrophe, I started to collect stories of ecological resurgence. There was fake news about drunken elephants frolicking in Chinese village and dolphins in the canals of Venice, but also more verifiable reports of buffalo strolling the highways of New Dehli, mountain goats roaming the streets of a Welsh town, and leatherback turtles thriving on Florida beaches.<sup>1</sup> In addition to news of animal resilience were accounts of clear waterways, reduced carbon emissions, and pollution-free skies.<sup>2</sup> We can read these stories as evidence of the natural environment recovering in the absence of humanity. But we can also read them with an understanding that humans are an inextricable part of the environment. A testament to ecological interdependency, human attempts to care for one another were having a palpable impact on the climate. But interdependency is not necessarily harmonious and, by the time I had written the next draft, it had acquired a far less utopian cast. As the pandemic continued to rage, in cash-strapped New York City the parks filled with trash and cast-off PPE, human access was blocked by vines and weeds burst through cracked pathways, and populations of rats, raccoons, squirrels, and mice feasted on unwholesome human garbage. The West Coast burned.

I have been writing a book about the complexities of human interdependency and the meaning of care. It is not about the current crises, but my topic has become unexpectedly timely as the pandemic exposes layers, modalities, and connective networks of care that have been the subject of my research. Care is work, an attitude toward others, and an ethical ideal. I define it as the intimate and necessary labor required to sustain those who are dependent, but also the action needed to sustain lives of vulnerable others more distant in time, space, and identity. Care is almost always characterized by asymmetries of power, ability, and resources. The individuals and groups most in need of care, and those who provide it are relegated to the margins of a society that prizes independence, au-

tonomy, and productivity. Taking care seriously invites us to rethink the meaning of work, progress, and selfhood. It turns a lens on voiceless and overlooked persons and populations—the dependent elderly, sick, and disabled—as well as the underpaid and underappreciated workers who care for them. Care is a limited resource that is unjustly extracted from women and people of color, who are worn away with the toil of sustaining others while their own needs go unmet. The COVID-19 pandemic makes our interdependency exceptionally visible—literally mapped out in contact tracing and statistics about the infection’s exponential spread across the globe—but I am also increasingly aware of how it highlights human interdependency with animals and the environment. I realize that my understanding of interdependency is incomplete if it stops with human animals.

This essay is my attempt to think of care beyond the human and to extend the net of interdependencies I address to encompass nonhuman animals and the environment. It begins with care ethics, which provides robust arguments for recognizing human interdependency with and accountability to the environments in which we are embedded. Care ethics seeks justice in the context of inequality, reframing the value of a good life for dependents and those who sustain them.<sup>3</sup> However, moral philosophers often reach an impasse when forced to determine hierarchies of need, especially when they expand their consideration to nonhuman lives. Should human needs always take priority, or are there cases when human interests should be subordinate to those of other species? I take those places of confounding blockage and the inevitable compromises they require as an invitation to explore the messier and morally ambiguous domain of the arts. In what follows, I consider works of literature, visual art, and performance art that engage questions about care beyond the human, attempting to navigate with and through the impasses that so trouble moral philosophers. Thought-provoking and deeply imperfect, these imaginative works attempt to expand the contours of dignified and just interspecies care but also to identify the places where that project fails. Heeding Donna Haraway’s call to “stay with the trouble,” they point to—without prematurely resolving—the inevitable contractions and compromises that arise from the interdependency of humans, other living species, and the environment.<sup>4</sup>

Care ethics provides an important foundation for the readings to come, and its limits inspire the imaginative leaps taken by the arts. Care ethics emerged as feminists and their allies sought to reorient the subject of moral philosophy from the bounded individual to relationships. Working in a field that has valued rational objectivity, they placed new importance on the emotions and subjectivity. Where previously

personhood had been defined in terms of reason and autonomy, viewed through the lens of care, persons are relational and interdependent. Each is entitled to flourish according to their specific capacities.<sup>5</sup> More recently, the same concern with relationships and emotions that motivated many feminist philosophers to turn toward human care inspired an extension of consideration to nonhuman species, the environment, and future generations.<sup>6</sup>

Although many moral philosophers see the well-being of the environment as a precondition for, or coextensive with, successful human care, in reality there are many instances where the flourishing of one individual or species inevitably impinges on that of another. Such conflicts necessarily raise questions about hierarchies of need. Should priority go to caring for all humans on the basis of species membership or to those individuals most capable of self-awareness, regardless of species? These competing positions are crystallized in the acrimonious debate between Eva Feder Kittay and Peter Singer. Kittay advocates an ethics of care that is fully inclusive of the most disabled humans, based on the premise that species membership takes priority over all other determinations of need. She acknowledges that it is possible to care for a beloved pet, a plant, or the environment, but grants special status to care between one human animal and another, regardless of ability.<sup>7</sup> Her position has influenced scholars of disability studies to make care a more prominent subject of investigation, and their work focuses almost exclusively on human subjects. By contrast, the utilitarian Singer claims intelligence as a measure of moral standing, assigning priority to intelligent animals over the most severely disabled humans. Taking awareness of fear and suffering as his ethical barometer, Singer proposes that, in a world of limited resources, some animals are more deserving of our care than disabled humans.<sup>8</sup> Following this logic, scholarship in ecocriticism and animal studies has rarely considered the resource-heavy needs of the most disabled humans and those who care for them. These tail-chasing questions about whose needs matter more, who is most capable of suffering, and who merits care under conditions of austerity are potent ground for literature and the arts, which thrive in the domain of contradiction and compromise.

The arts are a vital resource for accessing lived realities—particularly the realities of those who are different from us—and also for expressing less apparent fears, anxieties, and desires that might be obscured by more straightforward sociological accounts or the hypothetical case studies favored in moral philosophy and bioethics. These qualities make literature and art a particularly valuable lens for the consideration of care, which is at once a set of activities, an attitude, and an ambiance created through a relationship. “Literature is elaborate, specific, and

interpretively enigmatic enough to express the multiple, often irresolvable dilemmas of care,” writes Amelia DeFalco, “the simultaneous impossibility and necessity of responding to the needs of others.”<sup>9</sup> Artful explorations into the meaning of caring and being cared for can enable new understandings of species interdependency while living with the “irresolvable dilemmas” posed by competing needs. I see aesthetics not as a ground for impartial judgments of quality, but the terrain where feelings are galvanized, allowing new perspective on debates over values and priorities. Jacques Rancière describes “aesthetic acts” as “configurations of experience that create new modes of sense perception and induce novel forms of political subjectivity.”<sup>10</sup> Similarly, Tobin Siebers writes that aesthetics “defines the process by which human beings attempt to modify themselves, by which they imagine their feelings, forms, and futures in radically different ways, and by which they bestow upon these new feelings, forms, and futures real appearances in the world.”<sup>11</sup> These accounts of aesthetic activity as an endeavor to perceive the world differently and to communicate those new perceptions to others, inform my sense of how narrative and visual forms elicit a sharpened sense of the compromises entailed in care, and, at their most hopeful, see the generative possibilities of recognizing interdependency with the most vulnerable humans, animals, and environments.

It is easiest to think about interspecies care in terms of pets and service animals. People with disabilities have been leaders in modeling intense, reciprocal connections to animal companions. Such partnerships fly in the face of history, where atypical humans were devalued through comparison with animals, such as freak show celebrities JoJo the Dog-Faced Boy, Percilla the Monkey Girl, and the Elephant Man, or by labeling the palmar fold characteristic of Down syndrome a “simian crease.”<sup>12</sup> Poet Stephen Kuusisto and artists Riva Lehrer and Sunaura Taylor provide notable counternarratives that depict caring partnerships between disabled humans and other animals.<sup>13</sup> Interspecies care is also the theme of Isa Leshko’s photography book, *Allowed to Grow Old: Portraits of Elderly Animals from Farm Sanctuaries*.<sup>14</sup> Leshko’s beautiful and serene black and white photographs seek to grant dignity without sentimentality to animals that have been treated as expendable sources of food. Humans are notably absent from these images, although their presence—whether coldly utilitarian, violently abusive, or tenderly reparative—is deeply felt in the worn bodies of these animal subjects. Leshko’s subjects include a goat resting on a bed of straw while gazing soulfully at the camera through heavy-lidded eyes; a sheep dozing in the sun, the light playing texturally across its wool; and the torso of a chicken with mussed feathers rising like a monumental white sculpture against a deep black background (Fig. 1). Grizzled fur, matted and uneven feathers, cloudy eyes, or shaky legs



Fig. 1. Isa Leshko, *Ash*. © 2019 by Isa Leshko from *Allowed to Grow Old: Portraits of Elderly Animals from Farm Sanctuaries* (2019). Reproduced by permission from the artist.

bespeak the evident age and infirmity of these animals. They remind us of how rarely farm animals have the opportunity to age, particularly when they are affected by illness or disability. Leshko resists the cruel impersonality and expediency of the factory farm by approaching her animal subjects as individuals, allowing a relationship to develop into something like consent before photographing them.<sup>15</sup> She takes pains not to anthropomorphize, insisting that the wisdom, memory, and individuality of her animal subjects are not uniquely human qualities but traits humans share with other animals.<sup>16</sup> Images of animals so clearly exuding personhood, recognition, and a capacity for pleasure suggest it would be barbaric to exclude them from our circuit of care.

Leshko's work with animal survivors took on added poignancy because it coincided with new awareness of human vulnerability. During

the time she shot these photographs, she was also confronting her mother's dementia-related dependency and eventual death. The experience of caring for and then mourning a beloved parent is a backdrop for photographs that seek to honor the dignity and wisdom of elderly, nonhuman animals, recognizing them for what they are rather than for their utility to human consumption.<sup>17</sup> But I also wonder if the reverence communicated by these portraits limits their usefulness as models for interspecies care? Much as she tries not to anthropomorphize her subjects, Leshko's portraits express a personhood particular to sentient beings, and, more specifically, to charismatic sentient beings. There is no question that her subjects meet Singer's bar for moral standing—the ability to experience fear and suffering—as well as more general self-awareness. Would life forms, human or otherwise, that do not exude such evident and individualized personhood merit equal degrees of care? Or is our care fully earned only by those who can return our gaze with such mutual recognition and aesthetic aplomb?

I am interested in what happens when we move beyond dogs, cats, and familiar agricultural animals to consider beings that cannot claim human species membership, forms of sentience accessible to human understanding, and sometimes, sentience of any kind. What happens when human artists stretch the imagination by collaborating with species that are both necessary to and endangered by human activity, but far less charismatic, individualized, and capable of recognizable forms of reciprocity?

I turn now to some artists who explore the complex interdependencies and care relations among human animals and other life forms by seeking to expand the category of sentient intelligence. They use aesthetic experience to enjoin the human audience to feel interdependency with, while respecting the differences of, the needs and motivations of other life forms. I then consider the alternatives provided by artists who are less invested in an anthropocentric conception of intelligence as a measure of ethical consideration, using species capacities—what nonhuman animals and plants can and need to do—as the grounds for mutual care and creative endeavors. Running through all of these examples of interspecies collaboration is an attention to illness and disability as the grounds for reflection on vulnerability, care, and belonging within and across species boundaries.

Animal intelligence is a consistent interest of bioartist Kathy High, whose work addresses the interdependency of species ranging from pets to microbes. Her collaborations with rats make visible the uncomfortable compromises when the wellbeing of one species is sacrificed to care for another. Rats can be pets or pests, symbols of intelligence and

flexibility, research specimens, and model organisms. Attitudes about their kinship with humans, capacity for understanding and self-awareness, and whether they deserve our care vary widely according to which of these roles the rat occupies. High's installation *Embracing Animal* works with the ambivalence aroused by rats' biological and social kinship with humans, combined with the loathing and anxiety they often inspire.<sup>18</sup> Focusing on the intense interdependencies of humans and rats, High's piece explores the activities, social implications, and affective dimensions of interspecies care. Using lab animals as collaborators, High raises questions about how new genetic technologies confound traditional ideas about species-based identity and considers the implications of nonhuman animal intelligence for ethical decisions about care.<sup>19</sup>

*Embracing Animal* makes art from the uneasy awareness of implication with nonhuman animals whose suffering is justified for the sake of human wellbeing.

High has Crohn's disease and sarcoidosis, autoimmune diseases that scientists are studying through the use of transgenic rats. The artist bought three former "breeders," whose lives had been devoted to reproducing descendants that carried copies of the human gene sequences associated with these conditions to be used in lab experiments (P 466). Like Leshko, High explores what happens when animals designed to be expendable are allowed to grow old in an environment designed to promote flourishing rather than utility. "To empower just a few, to give them a retirement they earned, why not take back these parts of ourselves and repay the care," she asks (P 471). Can care serve as a form of retributive justice for rats that have involuntarily sacrificed their lives and wellbeing? Where scientific researchers might justify the rats' suffering on the basis of their species identity, High entertains the possibilities of kinship based on shared DNA and similar needs for companionship, nourishment, and stimulation. Calling them "forgotten workers," she emphasizes continuities between their reproductive labor and the often unacknowledged and undercompensated care work performed by human women. "Through a process of empathy, and identification, and in a gesture of revolt," she writes, "our act of caring for transgenic rats honors our confused relationship. Our exchange with rats was obsessive care."<sup>20</sup> The awkward locution of this phrase emphasizes an active and reciprocal process, designed more as an open-ended experiment than a model for future arrangements.

Care first consists of meeting the rats' basic needs, but also of cultivating attitudes of respect, compassion, and gratitude in their human companions. High designed a transparent habitat to make the rats' activities visible to museum visitors and to allow regular contact with

human caregivers. It encouraged comfort and play, but made no attempt to mimic a rat's natural environment, serving as a rejoinder to the culture of the lab where the contributions, as well as the suffering, of nonhuman subjects are hidden from view. A "rat care manual" on the project website lays out basic instructions for feeding, cleaning, and entertaining, with an emphasis on wellbeing and respect for partners High elsewhere calls "non-human colleagues."<sup>21</sup> High reports that the rats thrive in their new environment, becoming much healthier than they were in the lab and taking evident pleasure in their surroundings. As with human counterparts, the rats' quality of life improves with some exposure to risk and contamination, even if it also makes them more vulnerable to illness or injury. High writes that when the exhibit closed, the rats were cared for by museum staff members who had come to love them, and they died soon after.

Even as the exhibit invites participants into a sentimental relationship with the rat collaborators, it also emphasizes their otherness, asking visitors to consider how and why we should care for nonhuman animals. It makes a spectacle of the inevitable contradictions that arise when human well-being relies on the suffering of other animals, and it draws attention to the aesthetic judgments that inform bioethical priorities. These rats are not the sleek, bright-eyed friends for sale in a pet store, but shriveled, hairless, red-eyed survivors who were never meant to be seen in public. High confesses that when they arrived, worn down by a lifetime of confinement in a lab, she felt no sense of kinship, instead finding the rats creepy and repulsive (P 465-66). As she grows more comfortable, High acknowledges that the rats' personhood is of a different order than that of their human counterparts. Installed in a museum, their transparent habitat emphasizes the rats' otherness. Unlike humans, they can thrive in an environment of constant visibility because they do not require privacy to preserve their dignity. High also identifies barriers to interspecies communication. She admits to the limits of her own understanding, inviting museumgoers to suggest ways to enrich the rats' lives and honor their contribution to human well-being. She enlists a professional "animal communicator" to engage the rats in telepathic contact (P 475). Although she gives each rat a name, High reports that they do not have a human concept of individuality, instead communicating as a collective. *Embracing Animal* thus remains committed to the idea that animal personhood rests on intelligent self-awareness, while playing with the unstable boundaries of species membership in a post-genetic era.

In High's work, the capacity for intelligence makes rats deserving of our care. While some claim that these capacities are unique to animals, others extend such properties to plants, a view increasingly backed by

scientific evidence that, absent the animal capability for locomotion, plants nonetheless possess a networked intelligence that responds to stimuli, remembers, learns, and communicates. By this account, plants are capable of expressing nurture, protection, and empathy.<sup>22</sup> In the domain of the arts, these traits open up new possibilities for engaging plants as collaborators and literary characters. Recent fiction by Richard Powers and Sue Burke uses the affordances of narrative to explore consciousness at the scale of botanical life, particularly that of trees. Although they write in different genres—realism and speculative fiction, respectively—both authors use fiction to depict enmeshed human and plant subjectivities, drawing attention to their interdependency, but also to the profound obstacles to communication on radically different registers. Both take illness and disability-related dependencies as an occasion to consider an ethics of sustainable care within and across species boundaries. As they expand the view of what counts as subjectivity and knowledge, each narrative confronts the challenge of disparate and sometimes conflicting requirements for flourishing. Both end with a melancholy awareness that it may be increasingly difficult to balance a modern definition of human well-being with that of the planetary environment.

Powers's Pulitzer Prize-winning 2018 novel, *The Overstory*, is about the vexed interdependency of humans and trees. Trees in Powers's novel assume the status of what Timothy Morton calls "hyperobjects," entities that are "massively distributed in time and space relative to humans," confounding conventional strategies of narrative representation.<sup>23</sup> *The Overstory* seeks a form that can represent both human and botanical concerns as well as varied scales of interdependency. It does so by weaving individual stories written in the mode of realist fiction into a branching, botanical tapestry of sections called roots, branches, crown, and seeds. Its sets a more conventionally novelistic concern with human lives in domains, but set within domains so immense and so miniscule that they might otherwise seem unconnected to human activity. At the level of content, each of the nine human plotlines converges with the stories of trees, which center on the plight of old-growth forests at the hands of the logging industry. These are framed by the "overstory" of the biosphere, with its extra-human scales of time and space, subjectivity, and communication. All levels thematize relations of care within and across species: how and when humans care for each other and for the nonhuman environment; the different approaches required to care for other humans and for trees; when these approaches can be complementary, and the often-irresolvable contradictions that arise between them.

At the most intimate level, *The Overstory* tells stories of individual human characters caring for one another. It treats dependency as an inevitable

fact of human life, showing the toil, but also the rewards, of caring for those who are vulnerable. Powers's characters experience a spectrum of dependencies extending from the all-encompassing needs of infancy to the illusory independence and responsibilities of midlife to the debility that comes with advanced age. Dependency relations between parents and children provide a foundation for networks of care that branch outward as characters grow and mature. As children, disabled characters like Neelay Mehta and Patricia Westerford flourish because of devoted parental care. Some characters forge caring relationships with spouses and life partners, although none with biological children of their own. The paucity of reproduction among the novel's central characters (the only protagonist to become a parent is Adam Appich, who effectively abandons his children in his commitment to trees and their defenders) bespeaks an interest in dynamics of care that cannot be explained by reference to biology, either the shared DNA of family or species. To that end, many human characters form memorable relationships with trees: a mulberry that grows beside the home of successful immigrant, Winston Ma; a different species planted to commemorate each child in the Appich family; the banyan that catches Douglas Pavlicek when his plane is shot down in Vietnam; the oak that sends Neelay Mehta to his disabling fall; the vast chestnut on the Hoel family farm; and Mimas, the endangered old-growth redwood around which environmental activists camp out for almost a year. Trees sustain human life, but are also deeply vulnerable to human devastation.

Given the centrality of trees to the novel, it may seem surprising that the plot most directly engaged with questions of human care begins with "two people for whom trees mean almost nothing," intellectual property lawyer Ray Brinkman and his wife, Dorothy Cazaly, a stenographer.<sup>24</sup> Of the novel's many entwined stories, theirs most directly puts the ethics of care for dependent humans into dialogue with care for the environment when Dorothy becomes her husband's full-time caregiver after he is disabled by a stroke. Theirs is an all-too-familiar story of sophisticated medical technology that saves a life, only to leave the patient in a state of complete dependency and his family—and most commonly his female relatives—responsible for his care. Visiting nurses come only "half as often as Dorothy needs," the couple has no children or other relatives to relieve her, and she chafes at the burden of tending to her husband (*O* 371). At first Ray finds his newfound dependency unbearable and longs for death. Like many who experience sudden and debilitating disability, suicidal depression seems a logical response in a world that values productivity and vigor.

But with time Ray and Dorothy find a purpose appropriately scaled to their changed needs and abilities. Ray's mind remains lucid and his

concentration on the immediate environment is sharpened by paralysis. He becomes fascinated with the tree just outside his window. Attunement to this particular object grants him “the ability to see, all at once, in all its concurrent branches, all its many hypotheticals, this thing that bridges past and future, earth and sky” (O 470). He communicates his excitement to Dorothy, and together they embark on an impassioned quest to learn about trees. When Ray realizes the tree grew from a seed the couple once tossed carelessly into the yard, he begins to think of it as their daughter. Having foregone biological parenthood, Ray and Dorothy imagine themselves as belonging to an interspecies family. They are loving and attentive parents who care for their offspring by allowing them to grow unchecked, their property eventually becoming so unkempt that the city takes legal action. Their newfound respect for the thriving of plant species looks to their neighbors like a fire hazard. Powers borrows his final image of the couple from Ovid’s *Metamorphoses* (a copy of which is lying on their bedroom floor), where the elderly, generous Baucis and Philemon morph into trees, “huge and gracious and intertwined. What we care for, we will grow to resemble. And what we resemble will hold us, when we are us no longer” (O 499). Initially the novel’s most banal characters, Ray and Dorothy exit on a note of mythic grandeur, having learned to care for one another and the environment in a way that endures beyond the span of an individual human life.

Ray and Dorothy are a salutary example of how care for the most vulnerable humans can extend to local acts of interspecies care. Where Ray’s decisions are guided by rational motivations, other characters exhibit forms of neurodiversity that might, in different contexts, be described as disabling. In *The Overstory* cognitive differences allow human actors to recognize themselves as nodes in broader networks of care that connect communities, regions, and species across the planet. Adam Appich, who is bullied and ostracized as a child, finds meaning in the miniscule social order of insects and, later, in the science of populations and collective human behavior. When forced to decide between his family and his activist comrades, he chooses the human collective and its solidarity with the environment. The allegiances of brilliant autistic Neelay Mehta to his computer network suggest that his preference for caring relationships at a distance or mediated by technology is a form of neurodiversity. He has few personal intimates, finding his most meaningful connections in the vibrant virtual reality he develops online and shares with users across the world. Plant biologist Patricia Westerford is shunned by classmates and, later, by fellow scientists for her controversial theories about the sociability of trees. She finds companionship in old-growth forests far from human development and attempts to care for future generations by archiving the seeds of endangered plant species.

Meanwhile, the group of radical environmentalists at the novel's center attempts to save the massive redwoods that have endured since before human civilization. According to their leader, Maidenhead, care for forests takes priority over human needs: "The world is full of welfares that must come even before your own kind" (*O* 462). In another novel, a character whose radical environmentalism is guided by voices that emerge after a near-death experience with electrocution might be seen as mentally ill. In *The Overstory*, however, Maidenhead's neurodivergence allows her a wide-angle view of planetary interdependence. Edging into the domain of magical realism, the novel suggests that she hears the utterances of a botanical intelligence unavailable to most human animals. Ultimately Maidenhead and other characters are forced into hard choices about how to distribute their care, whether to their immediate human circle or to the broader cause of interspecies well-being.

Even as humans struggle to care for trees and their environment, *The Overstory* invests the competing biopolitical systems of environment and transnational capitalism with agency. Although they operate at a level so immense that they cannot be fully apprehended by the traditional novelistic form, these forces exhibit the capacity for intelligence. On the one hand, the primordial network of trees—its collective voice set off by italics—engages in the caring activity of "feeding and curing and sheltering more kinds of creatures than people know how to count" (*O* 4). Powers uses fiction to give it a voice that describes species-level commitments to develop, remember, and protect, asking the reader to recognize a botanical intelligence as the foundation for an ethics of care. On the other hand, there is a capitalist economy created by, but now beyond the control or imagination of, individual humans and possessed of a violent and destructive agency. Capitalism swallows up family farms with "massive, managed, relentlessly productive monocrop factories"; it is a "huge, swift kick that has dislodged the planetary system" (*O* 304). These competing Manichean systems of capital and ecology evolve, and other forms emerge. Most prominent is the internet, a newcomer that can be both a tool of the industrial economy's "gospel of endless growth" and a resource for new forms of community that may one day bridge species divides by "translat[ing] between any human language and the language of green things" (*O* 276, 496). In *The Overstory*, such vast systems endure far beyond the minute historical blip that is an individual human life or even the human species.

The novel uses a broad panoramic lens to reveal patterns of interdependency across species and communities, before zooming in to reveal the intimacies that make caring relations meaningful. Ranging in scale from a tiny seed to a vast network of trees, these levels are tied together

by the capacity for sentient intelligence. Powers uses the affordances of fiction, more conventionally attuned to the subjectivity of individual humans, to imagine the sentience of tree species as well as that of vast networked technological, economic, and ecological systems. Each is able to articulate needs and motivations and is worthy of ethical consideration. Using an expanded understanding of sentience as the sorting ground for determining who and what merits our care is a powerful and moving fictional device, but one that ultimately brings *The Overstory* to an impasse of its own. The novel articulates a clamor of voices ranging from seeds to a paralyzed human to forests and transnational capital without being able to resolve these competing interests.

The ethical ambiguities of species intelligence that motivate Powers's magical realism are taken up by Sue Burke's speculative novel, *Semiosis*, which displaces them to another time and place.<sup>25</sup> Set in the late twenty-first century, the story begins with a group of humans that has fled Earth's endless wars and environmental degradation to colonize a planet called Pax. Like *The Overstory*, Burke's novel spans a history far beyond an individual human life, with each chapter devoted to a subsequent generation. Initially each species is motivated by self-interest and a sense of superiority: humans think of plants only in terms of utility, while the intelligent fauna of Pax provide (sometimes addictive) food and medication in order to bend human animals to their will. But over centuries on the new planet, humans develop an intimate relationship with a sentient and highly intelligent native bamboo that eventually learns to communicate with human interlocutors. Assuming the human name Stevland, they acquire a first-person narrative voice that speaks on behalf of the bamboo species and, in later chapters, alternates with sections voiced by human narrators. The humans recognize Stevland's personhood by allowing them to become a citizen and participate in shared governance alongside a human leader, while Stevland comes to appreciate human intellect and values, providing protection and counsel in return. Humans and bamboo develop a sustainable interdependence, caring for one another while respecting differences in physical experience, imagination, and subjectivity. Where Powers suggests that botanic sentience may be fundamentally at odds with that of the present generations of humans, Burke proposes that the two can be resolved.

Leaving behind the planetary environment where humans have failed to care for themselves and other life forms, *Semiosis* explores what it would mean to start over, building a society around mutual respect and reciprocity among species from different kingdoms. The affordances of speculative fiction allow Burke to depict a sentient plant that can communicate in written language and participate in a democratic system of

government. By the novel's end, Stevland and the human-descended Pax dwellers have formed a functional society premised on the interdependency of plants and human animals. An ethics of care among animal species proves a far more difficult proposition. The human Pax dwellers make no effort to reconcile with the dangerous predatory species called Eagles, killing them on the basis of self-defense. Because it does not articulate an Eagle intelligence, or provide them with any motivation other than predatory impulses, the novel privileges a human view of these animal antagonists. Humans have a far more ethically ambiguous relationship to the Glassmakers, an insect-like species that built a beautiful civilization before falling into a state of physical and social degeneracy. At first contact, the Glassmakers are hostile and deceptive toward the human settlers. Later humans learn that these aggressive traits arise from a debilitating feedback loop in which population-wide decline has led to conflict and want, which has only further diminished species well-being. Nonetheless, the Glassmakers have a clear capacity for intelligence and ethical judgment. Like humans, they also have individuality that makes some worthy of recognition and others irredeemable. The Glassmakers, willing to assimilate human values and behavioral norms, accept a colonial status in exchange for sustenance, safety, and social recognition. *Semiosis* explores the conflict between a utopian ethic of care and mutual recognition, and the realities of competition among intelligent species, displaced onto the alien environment of a new planet. As is true of much recent speculative fiction, the novel ends by gesturing toward a sequel. Unlike *The Overstory*, which closes by reiterating seemingly irreconcilable conflicts among species, *Semiosis* promises opportunities for further evolution in an environment less sullied by human footprints.

High, Powers, and Burke use art to imagine the intelligence of other species, invite human audiences to feel kinship with those species, and explore the ethical tradeoffs when the care of one species results in suffering for another. Each experiments with aesthetic forms to express the needs, feelings, and motivations of other living beings in a language that makes them newly accessible to humans. They see the vulnerabilities of illness and disability as occasions for human animals to recognize the sentience of other species, as well as the uneven distribution of care resources and labor within their own species. But intelligence is not the only barometer to measure the value of other lives. Another set of artists explores the possibilities of interspecies collaboration that is generative and caring without requiring the recognition of sentient intelligence. Aganetha Dyck and Caitlin Berrigan collaborate with animals and plants to make art concerned more with what species do than on accessing subjectivity or intelligence. Human disability and illness also play a prominent role in their work, but not because they offer special

access to the minds of other living beings. Rather, experiences of non-normative embodiment provide a point of entry to recognize both the distinctive capacities, as well as the needs, of nonhuman species.

The trademark of artist Dyck is her collaboration with bees, animals that are profoundly interdependent with humans, yet also decidedly different in their biological makeup and social patterns.<sup>26</sup> Bees obviously merit concern because of their essential contribution to agriculture and environmental well-being. Any claim on our care beyond such utilitarian reasoning cannot rest on bees' kinship with human animals, their sense of individual personhood, or their capacity to experience fear and suffering. Unlike High's rats, the bees in Dyck's projects don't have names, form personal relationships with human guardians, or exhibit individuality of any kind. Instead, she works with bees as a crowd, seeking collaborative methods that respect the traits particular to each species. Many of her pieces explore the implications of species-specific modes of discrimination as they put the bees' sociobiological divisions into workers, drones, and queen into dialogue with the human categories of gender and ability.

Dyck's art is premised on salutary collaboration among humans and bees in which each species contributes according to their capabilities, and, when relevant, discrete, individual participants contribute according to their circumstances. Her 1995 installation, "The Extended Wedding Party" can be seen as a sculptural conversation with bees about the gendered distribution of care work. As in human cultures, bee colonies apportion work on the basis of gender, but with a far more rigid distinction between females—who do both productive (drones) and reproductive (queen) labor—and males—whose lives are devoted to ensuring genetic transmission by impregnating a queen. These orderly assignments stand against the messier divisions of human societies, which recognize women as individuals while also tasking them, as a class, with both reproductive labor and the long-term nurture and sustenance of dependents. The installation's centerpiece is a human-sized glass dress that Dyck placed in a hive, where bees encrusted it in delicately curved and segmented towers of wax (Fig. 2). Beautiful and macabre, the installation turns an ethereal medium into something weightier and more vital. It evokes the queen bee's power to command an army of subordinate workers, but also her all-encompassing obligation to reproductive labor, as will be expected of the human bride. Meanwhile, the piece's stunning wax geometries are a testament to the labor of female worker bees, recalling the burdens women assume after the wedding dress is put away.

Where "The Extended Wedding Party" focuses on gender divisions, a piece called "Working in the Dark" speaks to the role of ability in determinations of human value. "Working in the Dark" consists of sculptural



Fig. 2. Aganetha Dyck, *The Glass Dress, Lady in Waiting*, Size 7 (Life size) 84.5cm x 72cm x 70cm, 136 kg, 1992-1998. Photo courtesy of Peter Dyck & The WAG. Reproduced by permission from the artist.

pieces that are visually arresting in their own right, but more meaningful as the result of a carefully conceived creative process. The performative aspect of the work began with Dyck commissioning author Di Brandt to write a poem about bees, which other human collaborators translated into Braille.<sup>27</sup> Dyck printed each line of the Braille poem on a separate sheet that she inserted into a hive, allowing the bees to take over. This process turns human blindness—a condition that is disabling in many contexts—into an opportunity for interspecies dialogue. The juxtaposition of bees and blind humans invites species-level comparisons of sensory priorities. Where modern human cultures elevate sight above all other senses, bees navigate the world guided by light and color, but also by sophisticated mechanisms of touch and smell. Recognizing the differences of bees' sensory capacities, the artists did not expect the insects to understand to the poem's human meaning, but expected them rather to respond to the tactility of raised print. "Braille [is . . .] a language of dots the bees will surely know how to read, because they too make dots on surfaces every time they begin a new honeycomb, and touch them

over and over in the darkness of the hive with their hands/feet,” Brandt explains. “Who knows, we thought, what the bees will do with the poem after they’ve read it? Or what they will want to say or write back to us?”<sup>28</sup> The results of this interspecies collaboration are gorgeous; each panel is differently overlaid with layers of rich yellow-brown wax and honeycomb (Fig. 3). Patches of the original Braille surface peek through, sometimes embellished with line drawings by the artist. For the next stage of the performance, humans literate in Braille read the results, finding many of the words of the poem transformed by the application of wax.

“Working in the Dark” recognizes the differences between the capacities of humans and bees, but it also attends to differences between humans. Dyck enlists bees to challenge the human hierarchies of sensory intelligence that devalue the blind. Whereas blindness is seen as a liability in a visually oriented modern human society, Dyck sees it as a gateway to interspecies collaboration. Her art does not rely on participants’ capacity for self-awareness or individual expression; she instead works with species-specific capabilities. Rather than seeking to decipher bee intelligence, she makes art out of the things bees do, eliciting their help in recognizing the liabilities of human discriminations on the basis of gender or ability.

Berrigan’s performance piece “Life Cycle of a Common Weed” reflects on the possibilities of human-plant reciprocity while also taking relatively little interest in plant subjectivity or intelligence. The artist, who has the blood-borne virus, Hepatitis C, has a particular history with dandelions, which her family harvested as a homeopathic treatment but which are



Fig. 3. Dyck, *Working in the Dark*, detail, 1999. DeLeon White Gallery, Toronto, <http://www.ecclectica.ca/issues/2009/1/creative-writing/working-in-the-dark/>. Reproduced by permission from the artist.

widely considered the “common weed” in her work’s title.<sup>29</sup> Like the rats in High’s work, the dandelion has an ambivalent status as a pest but also as a source of human well-being. For this piece, Berrigan nourished a crop of dandelions on her own blood (Fig. 4). In return for the sustenance and healing these plants have provided to humans, Berrigan “imagines the dandelion as a reciprocal empathic subject” to be sustained on the products of her own body.<sup>30</sup> Even as the concept of reciprocal empathy implies a shared capacity for feeling, Berrigan never claims that plants have an anthropomorphic intelligence or self-awareness. Thus, while the artist practices extending her human capacity for empathy to a devalued plant, she asks only that dandelions respond according to the capacities of their species, namely by flourishing on her blood.

“Life Cycle of a Common Weed” invites the human spectator to consider what it would mean to engage in a reciprocal caring relationship with a plant without attempting to imagine its plant collaborators as having anything like subjectivity. As the plants thrive, Berrigan focuses her attention on the feelings they evoke in human observers. In designing the piece, she sought an aesthetic that would elicit discomfort, which she distinguished from the reaction of shock invited by much modernist art. Where shock is sudden, dramatic, and unsustainable, discomfort comes on more gradually. It lingers and nags, feelings that Berrigan hoped would encourage reflection on the unease caused by crossing species boundaries. At one point, spectators were invited to participate in a dynamic, reciprocal performance of interspecies care by contributing their own blood to nourish the dandelions growing as the installation’s centerpiece. This transaction was meant to reflect on contagion, at once a threat but also, as Berrigan describes it, an opportunity for “intimacy, alliances, and reciprocity.”<sup>31</sup> In the context of viral diseases like Hepatitis C or AIDS, it makes sense to view the blood of other humans with fear and suspicion. However, Berrigan suggests that contagion across species boundaries can also be generative. Instead of being sickened by contact with human blood, the plants thrive, contributing to human well-being as a source of tea, salad, and medicine. Berrigan writes that the exhibit sparked controversy at Rensselaer Polytechnic Institute, where she was an artist-in-residence. When university officials questioned its safety and legality, she took it as a sign that the installation had raised unresolvable questions about the risks and sacrifices of care across species boundaries.<sup>32</sup>

These questions about interspecies care and beyond reflect my own human values and motivations. But this does not mean caring relations are exclusive to human animals, or that humans are incapable of developing intense caring attachments to and with other species or nonliving actors. Extending those considerations across species lines



Fig. 4. Caitlin Berrigan, *Life Cycle of A Common Weed* (performance documentation), 2007. Photography by Alia Farid. Reproduced by permission from the artist.

can model more equitable and sustainable distribution of care, but it can also entrench inequalities among humans. The arts do the important cultural work of capturing our sullied compromises, helping us to sort priorities, mourn our sacrifices, and glimpse possibilities of more sustainable alliances in a world where it is simply impossible to care for everyone and everything equally. As I finish this essay, the COVID-19 pandemic continues to rage. Many months in, stories of interspecies conflict are far more visible than the hopeful accounts of reciprocal care that cheered me earlier this year. In April, news that a tiger in the Bronx Zoo had tested positive for COVID-19 sparked outrage because so many humans exhibiting symptoms had no access to tests or were unable to get prompt and reliable results. Critics accused the zoo of prioritizing an elite nonhuman species at the expense of devalued classes of humans, largely working class people of color without adequate healthcare.<sup>33</sup> Scientists countered that the tiger was not draining human resources, since it required a different test than those used to detect COVID-19 in human patients. Moreover, testing nonhuman species like the tiger serves human interests since understanding disease transmission from one species to another could help efforts at treatment and containment.<sup>34</sup>

Underlying this local controversy are unresolved questions about when the care of nonhuman beings is coextensive with human care and when it serves to exacerbate human inequity. As the impact of the global pandemic wears on, it is likely that the severe economic downturn will distract attention and resources from the crisis of climate change, and put the needs of the market above those of vulnerable populations and

environments. More sustainable rebuilding would need to begin with powerful and dramatic acts of imagination that rearrange who and what we see as deserving of our care and the resources we devote to caregiving. We do not yet know what creative forms will be generated to make sense of the current state of emergency, but pre-pandemic art of the kind discussed above gives us a good place to start. Emphasizing care, it suggests that there is purpose in not-doing as well as in taking action; that we can live by values other than productivity, growth, and development; that there is meaning in the small, repetitive, tedious gestures of daily life that have typically been assigned to women and other underappreciated workers; and that our care can and must radiate outward from regard for humans to other species and beyond.

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NOTES

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