

The Making of Paths: How Movement Forms Plant–Child Relations Indoors

Leah Shoemaker

Abstract

Thinking with post-qualitative theories, this research explores the relations between plants and children through observations of movement. Human supremacy is decentred in both the material makeup of the classroom as well as in definitions used to categorize the learning that takes place in early childhood education environments. Data is distributed through lively re-storying as plants and 11 young children share an indoor play area. These stories demonstrate how the democracy of relations in a Toronto preschool classroom can use movement to observe the flow of power dynamics within common worlds. The study argues that observations of movement can contribute to the development of pedagogy that promotes collaborative and interrelated relations within human and more-than-human societies.

Key words

Keywords: childhood, common world, movement pedagogy, plants, post-qualitative, power

Author Biography

Leah Shoemaker is a writer, researcher, and educator in the field of early childhood studies. She currently works in Toronto, Ontario, playing with post-qualitative theories and urban relationships with more-than-human others. She uses feminist methods of narrative writing to share memories and identity to connect with theory and emotions.

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Note from the author:

The following article uses a different font to represent narrative stories formed through data collection. The use of different fonts encourages readers to slow down and engage with the storytelling. This format plays with the agency of text as well as the concept of linear time and physically pushes against colonial writing formats.

In an early childhood education setting where regulations and resources often limit outdoor moments, how can the indoor classroom be a setting to experience relations between plants and children with a focus on interconnection rather than separation? When classroom walls create a physical structure representing the boundary between nature, often situated as being outside, and human, more commonly situated as being inside, what type of pedagogical wondering might blur these limits of categorization?

The following research explores the coming together of young children and plants as they share the indoor space of a preschool classroom. Dominant theorizing in early childhood education (ECE) revolves around the human child and diminishes the agency within the collaborations with the more-than-human world that are necessary for life. Common World frameworks highlight these collaborations in pursuit of human and more-than-human

societies flourishing together (Taylor & Giugni, 2012). With posthuman thinking, this research uses movement to explore these collaborations as relations while resisting narratives of human supremacy over plants. The data is shared through a collection of stories intended to unsettle dominant notions of care, knowledge, discomfort, ethics, rules, and actions in the relations between plant and child. Thinking with Braidotti (2018), this theorizing does not look to better define these relations and instead pursues complexity within the “modes of relation these discourses are able and willing to open up” (p. 14). Through movement, the power dynamics between plant and child can reflect the socially situated contribution of early learning classrooms within an era of climate crisis. Through these stories of movement, the collaboration between societies is attuned to as valuable.

As an educator, the act of moving away from child-centred observations was uncomfortable and incredibly difficult. This shift forced me to focus on aspects of early childhood education that are easily avoided and ask questions that, at times, were unanswerable (Hamilton & Taylor, 2017). It led me to consider seconds that may not have been seen as valuable within the developmentally situated framework that ECE is firmly rooted in. My methods have become a push against the narratives of human-centrism present in dominant ECE theory.

Taylor (2019) suggests that focusing on small moments in research “leads us to tell

different kinds of stories" (p. 2). The stories of plant-child encounters that follow expand on the wondering, questioning, and learning that can take place when theory makes room to value a complexity of relations rather than a set trajectory of "ideal" human development. When the dominant stories of human/nature relations are not sustainable, continuing to repeat them is not an option. As I relate the observations of plant-child relations, I share them using the metaphor of paths. Using the term *paths* metaphorically explores both the visible and invisibilized connections that form between plant and child. Rather than expanding on the understanding of individual child or plant these paths contribute to understanding the collaboration between worlds. As I observed, I started to notice how power dynamics could be seen through the movement of *paths* forming between plant and child as these separate beings entangled, collided, or seemingly never touched at all.

Plot and Characters

Taylor (2017) writes that the *Common World framework* insists on the pedagogical exploration of relations by learning "collectively with the more-than-human world rather than about it, acknowledging more-than-human agency and paying attention to the mutual affects of human-nonhuman relations" (p. 1455). Additionally, Taylor & Giugni (2012) note that attention to place is a concept incorporated into the exploration of common worlds.

As a settler in what is currently known as Canada, Common World thinking requires the uncomfortable recognition that my academic experience is embedded within colonial education systems that continues to colonize Indigenous knowledge of this land.

Exploring relations between humans and plants is something that has long been done within Indigenous nations in what is currently known as North America (TallBear, 2011; Sundberg, 2014; Deloria, 2001). My exploration of more-than-human relations through a posthuman framework requires acknowledging Indigenous standpoints within my thinking (TallBear, 2011). As I explore Common World perspectives of human/more-than-human collaboration through small moments of movement, my ideas are strengthened by the recognition that Indigenous knowledges developed in what is currently known as North America have long understood reciprocal affect through teachings of relations (Deloria, 2001). As a settler engaging in educational systems I am already complicit in this erasure of knowledge, however there are opportunities to create resistance.

To reject education's pattern of control-over-knowledge I have provided data through a collection of lively stories (van Dooren & Rose, 2016). Stories are valued because they resist ownership, conclusions, and universalization. The stories from this data were written after two weeks of observing plant-child relations in an indoor preschool classroom.

Unlike many other modes of giving an account, a story can allow multiple meanings to travel alongside one another; it can hold open possibilities and interpretations and can refuse the kind of closure that prevents others from speaking or becoming (van Dooren & Rose, 2016, p. 85).

Before I brought plants into the classroom, children contributed to a group discussion on how they would like to share the space with plants and what kinds of plants they would like to share the classroom with. The soon-coming plants were specifically discussed as parts of the classroom that could be touched, moved, and

played and interacted with rather than as passive decorations.

In seeking theories that expand on the democracy of relations I also had to expand on what I deemed to be “valuable knowledge.” As someone who has spent time as an educator in the field of ECE, I was most familiar with developmental models of observations. These observations use a predetermined path of expected development to seek and observe what is considered to be “valuable knowledge” (Dahlberg & Moss, 2018). Deloria (2001) wrote that “almost all of Western science is reductionist in nature and seeks to force natural experience and knowledge into predetermined categories that ultimately fail to describe or explain anything” (p. 4). In order to resist this reductionism, the term “plant-child” is used to signal the relations between plant and child rather than simply naming the separate entities. The dash in this writing visually forms a path between these two words and helps me question what is becoming as plant and child engage (Taylor, 2017; Tsing, 2013; Braidotti, 2013; Braidotti, 2018).

The plant-child stories dispersed throughout this text are in a different font to ensure readers slow down and engage with the words. This has been done to resist objectivity and represent a holistic understanding of how human researchers are present within their work in a messy, continuous and, at times, jarring way. These small narratives provide a jump in time and deny the concept of linear development of knowledge. I considered how the format of writing contributes to thinking and how “the stories we choose to shape our behaviours have adaptive consequences” (Kimmerer, 2013, p. 30).

In considering the ecological notion of “assemblage,” the coming together and influencing among communities, Tsing (2015) writes that “staying alive—for every species—

requires livable collaborations. Collaboration means working across difference, which leads to contamination. Without collaborations, we all die” (p. 31). This contamination spreads through the relations of plant-child, but also in ways that I share these moments through storying. As I consider how plants and children are building knowledge together, my own thinking is impacted by the world-building that is taking place. I share this pedagogically through narratives and text. In the current ecological climate, attuning to the collaboration among and within categories of human and more-than-human is increasingly urgent. Exploring these collaborations through movement, something that all matter is capable of, resists the human-centric thinking that is normalized through human observations. Through movement, power dynamics can be visualized, disrupted, and dispersed.

In this exploration, 11 children aged 2.5–3 years old chose their own pseudonyms. Blue, Bulldozer, Cleah, Gooey, Green, Happy, Lily, Raya, Ronis, Unicorn, and YES shared the indoor space of a childcare classroom with plants: Small Succulents, Areca Palm, Gerbera Daisy, Dahlia, Burro’s Tail, Alyssums, Lemon Tree, Spearmint, Coriander, Osmin Basil, Strawberry Plant, Echeveria Succulent, Money Tree, Fern, Stromanthe Triostar, and Living Stone.

There are countless examples of taking and renaming people, plants, animals, and



land in order to signify control. Child-chosen pseudonyms were a small act of resisting this action and dismantling the power hierarchy between participant/researcher and child/adult. That said, including the children's participation in the research design highlighted the fact that these small considerations could not be provided for the plant participants. There are other ways that research design and writing can mitigate power, however. When writing about plant participants, I capitalized their names during individual use and removed *the* and *it* from the singular nouns and gave them the pronouns they/them/their. This has been inspired by the writing of Robin Wall Kimmerer (2013) who discusses the way the English language objectifies nonhumans. With all of this this thinking, I took plants into the childcare centre and explored how relations could be seen through movement between human and more-than-human participants rather than as a human-dominated condition.

The Making of Paths

Caring of Paths

Despite my best intentions to recognize the democracy of relations in the entire classroom (Taylor & Giugni, 2012), I still entered data collection assuming that I was going to observe dominant ideologies of empathy, care, and love from child to plant. These were humanist concepts that meant I only acknowledged children's actions. My observations did not show children watering plants or placing them in areas of sunlight or specific actions related to plant growth. This, of course, could have happened while I was not in the classroom. However, my experience encouraged me to recognize how I had limited my understanding of care by using a predetermined concept of what it could look like between plant and child.

"What was it like sharing the class with plants?" I ask Gooley as he colours his art, which he will later explain to me is a jungle plant.

"Shaking them around," he tells me.

"What did that do to the plants?" I question.

"Happy!" he exclaims.

"It made the plants happy?" I clarify.

"Yeah, and it made me happy," Gooley tells me.

Kimmerer (2013) discusses the act of love and care as being a reciprocal relationship between humans and nature.

Knowing that you love the earth changes you, activates you to defend and protect and celebrate. But when you feel that the earth loves you in return, that feeling transforms the relationship from a one-way street into a sacred bond. (Kimmerer, 2013, pp. 124–125)

While research on children's relations with nature outdoors showcases children's perspectives on building friendships with nature (Hordyk, Dulude, & Shem, 2015; Kalvaitis & Monhardt, 2012), does indoor space and material hamper the formation of similar relations? It is not uncommon to see children blurring the boundaries between human and nature when they showcase the lively and animate aspects of the more-than-human world (Taylor, 2017). Gooley did this by animating plants into beings that both feel and provide happiness in a reciprocal act of shaking. Notably, shaking was not on my radar of ways that care might be initiated between plants and children.



Instead, the shaking I observed between Gooley and plants required me to resist the urge to step in with pre-formed notions of care and stop the movement. Within this shaking, where hands wrapped around branches that swayed with their force, reverberating to the tips of leaves, concepts of happiness were constructed. As they vibrated together, Areca Palm's strength cared for Gooley's joy.

Knowledge of Paths

The night before I brought the plants into the classroom, I had nightmares where the children were dumping, spilling, and tearing all the plants. Anxiety of the unknown spread through my stomach as nausea leading up to the first moments of plant-child classroom interaction. On the first morning, the plants were spread out based on children's suggestions, dispersed on low shelves and on the carpeted floor.

Cleah is crawling around the base of Areca Palm before she stands up and exclaiming, "It's raining," as she pulls leaves over her head like an umbrella.

Meanwhile Gooley is yelling "plants" repeatedly while pointing, only quieting when his excitement is acknowledged. Areca Palm's leaves brush against their faces.

"It tickles," Gooley says before saying to his peers, "Let's touch the plants."

Unicorn comes and circles around Areca Palm before stopping to hide behind, peering through at Gooley. Unicorn pulls Areca Palm's branches around her body. Both Gooley and Unicorn pull roughly at these branches, bending them coarsely. Areca Palm moves with them. Unicorn goes over to Fern and pulls on their leaves. They break instantly, unlike sturdy Areca.

"It's going to turn into a caterpillar," she says as she holds up the foliage for me to see. I smile, and she tosses the piece to the ground where it lies disconnected from its life force, motionless.

Throughout the data collection, large Areca Palm often drew my attention and the children's attention. The movement that took place between palm-child was wider, bigger, and louder than with the smaller plants. I watched as Cleah lay underneath Areca Palm's branches, resting with a toy baby. Cleah's body would come in and out of contact with Areca Palm as she rolled to different positions. Raya and Ronis roughly bounced stuffed animals and even books off branches. When Areca Palm was in the middle of the classroom and provided more opportunity for children to interact, children would run and crawl around Areca Palm quickly and loudly. The strong branches would bend without

breaking when children pulled roughly on them. When Areca Palm was pushed to the side of the classroom, this type of movement was reduced. These interactions made me think about the ways the early childhood classrooms are organized to draw attention to certain materials, such as when play stations are set out. Nelson, Pacini-Ketchabaw, and Nxumalo (2018) argue that there is room to critically assess how colonial logics contribute to oppression and privilege through relational reciprocity. The design of the classroom promotes the importance of certain materials/species/bodies over others.

Areca Palm demanded attention, at times disrupting the smaller, quieter movement that the classroom set-up expected from the children. The movement of the children's bodies would push air towards the leaves of Areca Palm, moving them gently and leaving Areca Palm in a state of almost-constant motion throughout the observations.

When I first started growing seedlings, I read that blowing on them to mimic wind would make their stems grow stronger. I wondered how the rush of children's bodies in the classroom was interacting with the plants' stem systems. I wondered if the constant touching and

movement was hurting the plants or if it was strengthening them. Were the plants learning to grow with the children?

The plants contributed to the movement of children. Children's hands would dart out and reach for the slightly moving leaves; children would pull their fingers down towards the ends of the leaves. The children would spin their bodies around while moving past the branches that reached out over the walking paths. They would squint their eyes as the branches brushed against their faces.

The larger plants showed agency by inspiring wide, vast, loud motion to the point that the children were at times asked to slow down and control their movement to match the indoor classroom rules. At times children would play roughly with Areca Palm, and I would step in to discuss how this hurt and damaged Areca Palm. The children's movement with Areca Palm was much louder, rougher, and more chaotic than with the smaller plants. The smaller plants inspired different movement and displayed agency through breakage before I could step in with discussion or before children's actions became loud/rough/chaotic. Thus, the smaller plants were able to influence children's movement through fragility and damage.



The plants sit on the floor in the child-placed arrangement. Happy walks into the space with his eyes set on the bookshelf. As he enters, the flowers on Gerbera Daisy and Dahlia draw his gaze. His body looks uncomfortable as he contorts it slightly to navigate around the plants that are in his path. They have interrupted his action slightly; they are physically in his space.

Their presence asks him to be careful. He delicately steps around the pots without knocking any over, clearly concentrating on doing so. He grabs a book and leaves the space.

Larger Areca Palm was more subject to the human-created boundaries of what was expected behaviour and movement within a classroom. In return Areca Palm required more human interception as a form of protection as children explored these adult-created boundaries with rougher force. Often this interception of movement came in the form of rules. Rules are not ethics; they are not relationships. Rules are universal standards. I wondered how rules affected both plant and children's ability learn to move *from* each other with the mutual affect that Taylor (2017) writes about. How would this movement look over a longer period of time?

Throughout the observations I saw the different ways that children moved depended on the plant they were near. Acknowledging plants' practices of dropping delicate leaves and growing hard-to-tear stems and branches that move wildly with motion shifts human-centric thinking that measures value based on human ideals. Each of these plants were creating knowledge with the children and the ways that the classroom came together with this knowledge could be explored through their movement together.

Discomfort of Paths

As I come into the classroom this morning, I see the plants have all been "put away" on the shelves. I ask Bulldozer and Gooley if they would like to help move them. As we start to move them Bulldozer grows wary of the plants that are extra tippy such as Strawberry Plant. His face looks worried at the prospect of moving

plants that might spill. His eyes widen, and he backs away slowly, shaking his head very slightly. He looks at me and tells me he doesn't want to move Strawberry Plant so I take the pot in my hands and ask him where they should go. Strawberry Plant goes on the floor with the rest of the plants that have been placed in the middle of the carpet. Cleah has joined and steps over Alyssums.

"I stepped over it," she shouts. Later, during my observations I note that I did not write down who stepped over the plant, so I ask the group.

"I stepped over the plant because I wanted to touch it," Cleah informs me.

There is a natural "path" that has been made by the placement of the plants between Herbs and Lemon Tree. Cleah, Gooley, and Bulldozer start walking through the middle of it. The path is just big enough for the children's small bodies to pass through. Cleah is called to the bathroom and when she returns, she begins to step through the path again, stating, "Plants" as she walks. She cycles through the path again, this time skipping. Cilantro wiggles from the brush of her leg. The path is not



big enough to walk through without plants contacting human bodies.

The more-than-human world and people are constantly engaging in a process of co-evolution (Kimmerer, 2013; Myers, 2017a; Kummen, 2019) just as these plants and children were. In a developmental framework that considers humans and nature to be distinctly separate categories, these plants might be seen as no longer in “natural” habitats. Instead this garden in the classroom has been created, altering the paths of both child and plant. The concept of natural habitats separates nature and human from being entangled.

As I write, disturbing accounts of the inhumane treatment of people attempting to migrate across borders is filling my news feed. Months later, RCMP will forcibly remove people on Wet’suwet’en territory in the name of a line of pipe. As the landscapes of people’s homes change, how will patterns of entanglement change? What co-evolution is taking place between these choices, movements, actions, and the Earth?

Throughout the time the plants spend in this specific path formation some children repeatedly walked, skipped, and jumped through the path while others used it to get from one side of the classroom to the other. As I watched the plant-child worlds come together, it was rare to see children move the plants out of the way when they played. They pushed the branches, damaged the leaves, and ignored the plants as the stems hovered over the play areas. Rarely did children relocate the plants to give their own bodies more space unless specifically suggested by me or other adults. There were many moments when it would have been easier for children to do just

that. It would have been easy for them to move the plants to different locations, but they didn’t. Much of human-centric development pushes the more-than-human world in precise ways to create opportunities for specific human movement: the development of cities, the “progress” of economy, the pursuit of travel. The plants caused children to contort their bodies to interact with this path, something the children were willing and able to do. As plant and child did not move out of the way for each other, how did this discomfort contribute to complexity within their relationships?

Ethics of Paths

The plants are put up on shelves this morning so when I come in, I ask Green if he would like to help me move the plants.

“Where should we put them?” I ask him, and he tells me they should go on the tables this morning. He is referring to the different stations that are set up around the classroom with different toys on them. Each day a new activity is set up on each table. Green starts to move the plants, and I slowly back out of the action to observe.

“This one’s very very growing,” Green says about Living Stone. The plants are dispersed on the different tables. Cleah is playing at one of the tables. She shakes one of the toys that in turn shakes a piece of cardboard being used as a separator to distinguish different play centres. This shakes Spearmint, which has been placed nearby.

Lily comes over to me and asks, “Can I bring the plants over?” I tell her, “Yes,” and she brings Stromanthe Triostar over to me and asks where she can place it.

“Where do you think?” I ask her.

“Here,” she says as she moves to a low-level shelf nearby.

“Why do you want to put it there?” I ask her.

“It’s safe there,” she informs me.

Taylor & Giugni (2012) note that ethical questioning is central to Common World practice. The merging of paths is filled with a depth of ethical considerations so complicated that arguably it is not possible to attune to all of them. What is attuned to is an obligation to values. There were numerous ethical questions relating to the plants that I spent limited time exploring.

Bringing the plants into the classroom brought up questions of colonizing nature. Many of these plants would not survive the Toronto outdoor conditions, but were they moved from outdoor locations where they would have flourished? Were they grown from seed? How was purchasing these plants contributing to a violent, capitalist structure? Notably I avoided exploring these questions too deeply so I could justify purchasing the plants at the closest nursery because I did not have a car to transport them. The nursery let me borrow a cart to roll the plants over. These plants were the easiest to move.

Within the classroom what responsibility to the plants does the community hold, what values would be attuned to? Who and what benefits from having these plants in the classroom? How different were the ethics here from the ethics of the garden I once grew food in? Myers (2017b) notes that “a well-tended garden, whether in a bucket or onboard a space station, provides a stage for plants and people to perform their entangled powers”

(p. 297). Myers (2017b) argues humans do not yet know what is best/proper/good for plants and must see what becomes as plants and people come together in order to start considering this concept (p. 298). Similarly, as an educator I know that theoretical knowledge and

experience do not replace listening to children I work with directly. Lily is navigating ethics when she considers moving the plants to safety, but she is also navigating power. She seeks my adult permission to move the plants before doing so, showing that I am situated in the classroom garden as someone to make that decision. As the moments are becoming, the collaboration within these scenarios draws upon power (Myers, 2017a; Braidotti, 2018; van Dooren & Rose, 2016).

Throughout my time at the research site, Lily brought up many concerns about the plants being in the room. Given her response to altering the classroom, it was important for me to understand if Lily felt negatively about participating in the research and if there was anything I could do to rectify this. However, she confirmed that she enjoyed sharing the space with plants. When I asked her why, she told me, “Because they’re special and they need to grow.” Lily’s complicated relationship with the plants allowed room for moments that were uncomfortable for her. The relationship between Lily and the plants was not always romantically



positive. Yet, a sense of belonging and acceptance was shown as she explained that her enjoyment of the plants included needs other than her own.

Rules of Paths

In Lily's concerns were her beliefs on plant locations and rules. She was also the only child who asked me where the plants came from, navigating the understanding of the relations that led the plants into the classroom. During the assent process, I explained that we would be sharing space with plants for the research project, and Lily asked me, "Where will we play?" In response I asked Lily how she has room to play when there are other children and materials in the classroom. From here Lily distinguished that she believed there should be a "no touching" rule about the plants that then led to discussion around different types of touching. When I asked Lily what she thought other classes should know if they wanted to share indoor space with plants, she told me, "They need to know 'No breaking.' They just need to be careful." Lily's concerns showed how the classroom space is controlled by humans and that the plants had the capability to disrupt the rules enforced on the space.

Four children's bodies have started interacting with the plants in the play area. The noise is escalating, and the movement is quick and forceful. Children are shaking the plants and running around them. "I brought too many plants," I think to myself, instantly concerned with the safety and management of the children's bodies.

For Lily, when plants spilled, the solution was not to clean up or to engage with the

complicated mess; the solution was to remove the plants from the play area. Similar to the children, the plants were unpredictable; neither had a set location in the classroom, unlike many other aspects of the environment. In this classroom, echoing the familiar landscape of many early childhood classrooms, rules dictated what play materials went where. Placemats or chairs designated how many children could play at a time at each set-up station.

Over the two weeks of observations, I would come into the classroom in the morning and often ask the children if they would like to move the plants from the shelves where they had been put away for group activity and nap time the day before. The children would place the plants throughout the classroom in a disorderly way. As the days passed, I noticed the plants started to be incorporated into the classroom play-station set-up. During the final days of observations, I came in to find the plants beautifully and neatly displayed on the toy table stations set out throughout the classroom.



Within the dominant ideologies of the early learning classroom, the plants provided opportunities for “mistakes” or “accidents” regarding collision of paths/spills. Enforcing controlled locations and rules helps to negate these moments and can be seen in the set-up of many of the materials within early learning classrooms. The bodies of children are also constrained within these rules as their movements are guided by the routines and rules of the classroom. From a perspective of an educator I recognize that the pressures of large group dynamics mixed with regulations inform a desire for organization. In decentering human importance as the primary aspect of organization, I wonder how the common good for both humans and more-than-humans can be explored within the rules of organization and routine. Who and what makes these rules? Who and what are affected by these rules and how? When organizing and enforcing rules on plants within the classroom, does this build an education system that re-enforces human control over others rather than collaboration? This is often the premise of colonial environmental citizenship initiatives, and Taylor (2017) explains that many stewardship narratives focus on the anthropocentric ways that humans can save the planet, limiting the acceptance of plant/nature agency. Despite the often-positive intent, creating rules for how to interact with plants in the classroom stunts the complexity of the relationships that are being formed. Urban (2018) writes that complexity is necessary to expand who and what can contribute to new knowledge. Dismissing the agency of plants places humans in a role of supremacy. Areca Palm’s leaves tore when fingers pulled at them sharply. Rules such as “Don’t touch” or “Don’t tear” do not allow complex exploration into moments between leaf and fingers and the vastness of knowledge that is created when plant and child come together with force.

Actions of Paths

The larger plants are sitting at the back of circle time with all the children looking attentively at the front. The children are giggling and singing a song together. Areca Palm waves so slightly as the group of children move. As the song gets bigger, louder, and the movement more exaggerated, Areca Palm moves more.

Myers (2017a) writes about the ever-changing ways that plants are “doing” regardless of human noticing or interacting. Poetically Myers (2016) describes photosynthesis as “utterly magical, totally cosmic alchemical process that tethers earthly plant life in reverent, rhythmic attention to the earth’s solar source” (para. 1). As worlds constantly engage, plants have a form of power within the interactions and relations. Humans are often considered to have agency based on consciousness—if my body is lacking nutrients, I feel hungry and find food. This may be considered agency. However, the wilting of a plant leaf and the response of water from a human is not often considered plant-agency due to human-created ideals around consciousness.

As Ronis and Raya walk by the table, Strawberry Plant calls them over. “There’s a strawberry,” Raya says as she comes closer to Strawberry Plant, pointing out the berries that are still quite green.



“Another strawberry,” Ronis says, “How did that happen?”

Raya looks at Strawberry Plant, “It just did” she replies before they both walk away.

Raya seems to discredit both Strawberry Plant’s agency and the collaborations necessary to make the existence of a strawberry come to fruition. When using the human-definition of consciousness, the ripening of strawberries is not seen as agency. In the classroom, there are many movements that could negate the growth of strawberries. Will children move Strawberry Plant in a way that will provide the right nutrients and light? Will the strawberries be picked too soon? When strawberries are picked, does that encourage Strawberry Plant to make more strawberries in order to spread seeds? This relationship of co-evolution consistently brings human and more-than-human entities together, however the role plants play within this growth is often dismissed as agentless.

In Robin Wall Kimmerer’s (2013) Potawatomi teachings, the land is seen as holding gifts that come “to you through no action of your own, free, having moved toward you without your beckoning. It is not a reward; you cannot earn it, or call it to you, or even deserve it” (pp. 23–24). Kimmerer (2013) goes on to explain that an ongoing relationship is formed with the land that continues a cycle of giving. As children asked me what the plants were doing, I thought about how often my own explanations were presented, even subtly, as a narrative of plants creating a resource *for* humans rather than *with* humans. Strawberry Plant can create a strawberry without humans, but humans cannot create a strawberry without Strawberry Plant. Despite the indoor space being dominated by human-

centric movement and thinking, this reality of Strawberry Plant’s agency does not shift. What shifted with Strawberry Plant’s movement in this space was the opportunity to observe and engage with these power dynamics as paths form relationship between plant and child.

During one process of the research design, I asked children what the plants would do in the classroom and almost everyone told me that they would be growing. This question was then paired with asking “What did you do with the plants?” When I asked this question of YES, a child I rarely saw interact with the plants, she told me, “I didn’t touch them because they were so growing, but now they’re growing more and then they’ll be big plants.” When I asked why she didn’t touch them, YES told me she didn’t need to. Through my observations alone it would have been easy to miss how YES was relating with the plants. Despite her lack of physical interaction, she was aware of the plants acting within the classroom.

Moment after moment my observations felt dull to me when they lacked child interaction because my human eye was unable to observe the minuscule movement of ripening strawberries, of photosynthesis, of growth, and the ways that the children experienced this. Theoretical stories shape what is observed and valued within classroom societies. When children are the only aspect of education that is centred, how is it possible to contribute to a holistic democracy?

One of the play tables has water toys and water set up on it. YES has come over to the station and is scooping water. Fern, Strawberry Plant, and Living Stone sit at the table with her. YES is scooping water in and out of a bucket. Fern seems to be just out of reach in the middle of the table, but it is hard to tell because YES does not reach for Fern. Blue comes over to the



water table and sits beside Strawberry Plant. As Blue plays, her hand or occasionally the bucket she holds encounters Strawberry Plant. Strawberry Plant's leaves bend over the water container just slightly.

Conclusion

Using observations of movement to retell the stories of relations between plants and children allowed me to resist and question certain hierarchies of power between human and more-than-human worlds. Exploring these relations indoors accentuated the human-dominated aspects of observing physical, material space. However, it is not only the material that is defined through a human-centric lens. Through movement, the categories of care, knowledge, discomfort, ethics, rules, and action could also resist human-defined boundaries. Storying the ways that power moves through the paths of these relations promoted thinking that supports collaborative democracies of relations. Myers (2017b) asks not only “what worlds are we cultivating in our gardens, but also, what worlds are our gardens designed to reproduce? Into what futures are we taking root?” (p. 298). Rather than pulling apart plant and child to understand them, pedagogically I watched and I shared as plant-child assembled to make meaning in the worlds that they are already building together.

At the end of circle time the group is dismissed and dispersed. Raya is sitting below the shelf with Strawberry Plant on it. She uses her two hands on the shelf to hoist her body upwards and she is now eye level with Strawberry Plant. She stares for about ten seconds before leaving. When the classroom is emptied of children, I take a picture of Strawberry Plant from below, at the angle Raya would have experienced. The vines are waving gently outwards towards all angles of the classroom. If Strawberry Plant was outside in the dirt, the vines might be crawling and sprouting new plants. Some of the strawberries have started to blush red, ripening as each moment passes.



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