Journal of Childhood Studies



D032 N07 C0MpU73: Exploring (Post)Human Bodies and Worlds with/in Droidial(ity) and Narrative Contexts

Bretton A. Varga et Erin C. Adams

Volume 47, numéro 1, mars 2022

Speculative Worldings of Children, Childhoods, and Pedagogies

URI: https://id.erudit.org/iderudit/1088665ar

Aller au sommaire du numéro

Éditeur(s)

Canadian Association for Young Children

ISSN

2371-4107 (imprimé) 2371-4115 (numérique)

Découvrir la revue

Citer cet article

Varga, B. & Adams, E. (2022). D032 N07 C0MpU73: Exploring (Post)Human Bodies and Worlds with/in Droidial(ity) and Narrative Contexts. *Journal of Childhood Studies*, 47(1), 70–87.

Résumé de l'article

This article focuses on droidial bodies in children's literature to explore how speculative literacies foster necessary spaces for thinking about (non)human and more-than-human connectivity. Specifically, we share what was produced when we applied a framework underpinned by posthumanist concepts to three children's books centering robots. Using Jackson and Mazzei's thinking with theory to plug into these books, this article raises (re)new(ed) questions about the intersections of literacy, humanism, and droids. It proposes that pairingposthumanist concepts with droidial texts can be generative in thinking about, critiquing, and predicting changes with the (ever-developing) relationship(s) between humans and machines.

Copyright © Bretton A. Varga et Erin C. Adams, 2022



Ce document est protégé par la loi sur le droit d'auteur. L'utilisation des services d'Érudit (y compris la reproduction) est assujettie à sa politique d'utilisation que vous pouvez consulter en ligne.

https://apropos.erudit.org/fr/usagers/politique-dutilisation/



Cet article est diffusé et préservé par Érudit.

Érudit est un consortium interuniversitaire sans but lucratif composé de l'Université de Montréal, l'Université Laval et l'Université du Québec à Montréal. Il a pour mission la promotion et la valorisation de la recherche.

D032 N07 C0MpU73: Exploring (Post)Human Bodies and Worlds with/in Droidial(ity) and Narrative Contexts

Bretton A. Varga and Erin C. Adams

Dr. Bretton A. Varga is an assistant professor of history–social science at California State University, Chico. His research works with(in) critical theories of race, art, and temporality to explore how visual methods and artistic mediums can be used to unveil historically marginalized perspectives and layers (upon layers) of history that haunt the world around us. Email: bvarga@csuchico.edu

Dr. Erin C. Adams is an associate professor in the Department of Elementary and Early Childhood Education at Kennesaw State University where she teaches courses in social studies methods, classroom community buildings, and teacher leadership. Her research primarily focuses on economic education and subjectivity utilizing post methodologies and theories. Email: eadams55@kennesaw.edu

This article focuses on droidial bodies in children's literature to explore how speculative literacies foster necessary spaces for thinking about (non)human and more-than-human connectivity. Specifically, we share what was produced when we applied a framework underpinned by posthumanist concepts to three children's books centering robots. Using Jackson and Mazzei's thinking with theory to plug into these books, this article raises (re)new(ed) questions about the intersections of literacy, humanism, and droids. It proposes that pairing posthumanist concepts with droidial texts can be generative in thinking about, critiquing, and predicting changes with the (ever-developing) relationship(s) between humans and machines.

Key words: posthumanism; droids; speculative literacies; thinking with theory

We know nothing about a body until we know what it can do, in other words, what its affects are, how they can or cannot enter into composition with other affects, with the affects of another body, either to destroy that body or to be destroyed by it, either to exchange actions and passions with it or to join with it in composing a more powerful body. ~ Gilles Deleuze and Félix Guattari, A Thousand Plateaus

Intra/acting with speculative fictions offers a powerful approach for disrupting harmful single stories that stymie imagination, cultural sustenance, and *im/possibility* concerning morethan-human bodies and worlds (Adichie, 2009; Nxumalo & Cedillo, 2017; Saleh et al., 2018). Despite traces of humanistic indifferentiation and exceptionalism within the context of children's literature, the material turn in educational research exposes (re)new(ed) pathways (see, e.g., Kimmerer, 2013; Tuck, 2015; Tuck & Yang, 2012)

of thinking about "ways humans, nonhumans and more-than-humans are already always entangled in producing truths, realities, knowledges and relationships" (Kuby & Rowsell, 2017, p. 285).

We argue that one such (underutilized) entanglement involves the narrative and relational circuitry between human bodies and machinery created in the likeness of humans, which we refer to as droids. The imbrications among people, machines, and (science-fictional) narratives are complex, yet hold territories of cognitive estrangement (Campbell, 2019; Freedman, 2000; Suvin, 1979) insofar that speculative/science-fictional texts allow us to see ourselves from afar. Perhaps this capacity is a direct result of the tensions embedded within the genre categorization (i.e., paradoxical combination of objective science-based realities and imaginative universes). Regardless, and notwithstanding rare positionings of droids as being agential and agents of resistance against the cruelty of

humanity (Dick, 1968), droids are commonly portrayed as "silent character[s] in the narrative of both the loss and hope of some common humanity" (DeLeon, 2015, p. 6). Despite this portrayal, we argue that droids can be more than mere instruments of human desire (e.g., transportation, entertainment, communication, agriculture) and sometimes are narratively positioned to experience, endure, and reproduce various (humanistic) sensibilities (e.g., affects, emotions, dreams). And just as our social imaginations regarding the intersections of humans and machines become less speculative and more perceptible, we have been thinking about how explorations into the wiring and performativity of children's literature—featuring droids—provides points of departure for teachers/students to slacken the entrenchment of humanism through a better understanding of "how humanity comes to understand itself" (DeLeon, 2015, p. 5). Put another way, and perhaps *iron*ically, we argue that droidial narratives can be productive in redirecting our thoughts beyond human bodies while simultaneously serving as an introspective mirror which, when held up, forces humanity to confront—from a distance—ethicalities extending beyond what constitutes non/human. This might be especially pertinent for children, who have particular relationships with droids and with/in science fiction, wherein "androids and aliens demand our rethinking of the meaning of being a human and a child" (Kupferman & Gibbons, 2019, p. 6).

To this point, in this article we introduce droidiality (our term) as a framework that is underpinned by posthumanism to help us think across/over/under narrative enactments that highlight the affectual, emotional, and physical relationship(s) between non/humans, droids, and more-than-human worlds. In an attempt to expand how intensities of the world are conceptualized, we draw inspiration from Braidotti (2019b) who argues that "posthuman thinking is post-identitarian and relational: it turns the self away from a focus on its own identity into a threshold of active becoming" (p. 79). As literacy is a rich territory for engaging with intersections regarding bodily becoming (i.e., identity articulation, expression, formation; Kuby & Rucker, 2020; Tschida & Buchanon, 2017) might we ask: What can we (e.g., teachers, students, researchers) learn from droidial bodies and identities when considering the tensions among design, programming, and functionality? Further, and considering the certainty of droids in/across societies, how can these (droidial) perspectives help "normalize and contest dominant ideas of what it means to be human" (Leurs et al., 2018, p. 464)? Specifically, this paper reports on what was produced for us researchers when we applied our droidiality framework to three children's stories that center droidial bodies: Little Bot and Sparrow (Parker, 2016), Love, Z (Sima, 2018), and Rusty the Squeaky Robot (Clark, 2018).

(Posthuman) figurations of children('s picturebooks)

Children's books, because they are written by adults, reveal those adults' prevailing beliefs about the nature, character, and moral standing of children in (future) society/ies. For example, Murris (2016) outlines six historical (and often deficit-oriented) figurations of the child in the Western imagination: (1) developing; (2) ignorant; (3) evil; (4) innocent; (5) fragile; and (6) communal (p. 109). Although these attributes are undoubtedly susceptible to change over time, Sheldon (2016b) reminds us that the way that *time* (narratively) changes around the child deserves our attention. In concert with Murris's (2016) figurations of the child, dystopian contexts often problematically celebrate children as being hopeful saviours/custodians of damaged futures. These narrative framings drop the connection between agency and child, thus tethering children to the reconstruction of trauma-based worlds. As Sheldon (2016b) puts it, the innocent and agentic nature of the child "that is worth protecting cannot be preserved indefinitely, and so the child's relationship to the future is defined, in part, by a melancholic anticipation of necessary loss" (p. 4).

Books with pictures that tell all of, or part of, the story and are oriented toward very young children are called picturebooks. Following Sipe (2001), we use picturebooks as an entangled concept "to emphasize the unity of words and pictures that is the most important hallmark of this type of book" (p. 23). Picturebooks as fluidly

and cohesively text-images are particularly relevant to our work because, for all three books, the author is also the illustrator. Children's literature, specifically picturebooks, is a powerful and popular medium for connecting with young children. In social studies education, our specific field, picturebooks are often relied on for content delivery and leveraged to foster conversations about difficult topics or subject matter. Often, these books are about people and events in the past and/or represent modern social issues. In addition to content acquisition, these books are thought to provide young children with windows and mirrors into perspectives (un)like their own, but to which they can relate (Sims-Bishop, 1990). With this in mind, picturebooks are used to teach, normalize, and reify various ways of being, becoming, and cultivating relationships. Thus, picturebooks are "significant means by which we integrate young children into the ideology of our own culture" (Nodelman, 2004).

Murris (2015) suggests that "certain picture books can be used for an approach to moral education that enacts a posthuman theoretical framework" in a way that "does not try to inculcate or moralize" but instead "disrupts traditional conceptions of children and childhood" (p. 59). From this perspective, picture books can foster inquiry framed around problematizing rigid binaries (e.g., nature/culture, human/non-human, teacher/student, science/fiction) that stymie imagination and wonder (Murris, 2015). Moreover, such texts invite philosophizing insofar that upon entering queer worlds of "strange and distant and magical settings [featuring] ghosts, teddy bears, and monsters" (Haynes & Murris, 2012), students/teachers are exposed to nonnormative onto-epistemologies and identities within eschewed temporal contexts (e.g., future).

Human-cyborg relations

Robotification

Given the rapid robotification of the future, children are being acclimated to robots at an early age, finding themselves "on the frontlines of changing definitions of self, privacy, political participation, authorship and labour" (Leurs et al., 2018, p. 464). Studies of social robotics along with robophilosophy and android philosophy (Ishiguro, 2014) offer new insights or "mirrors to reflect humanities" (Ishiguro, 2014, p. 3) and new tasks that raise (philosophical) questions about "sociality and responsibility" (Cockelberg, 2014, p. 7) within the larger framing of how humans and robots might engage in mutually trusting relationships (Michael & Salice, 2014, p. 125). Within these contexts, we believe that robots—or droids—present inherently ethical questions about how machines ought to be treated and what rights they are entitled to. As authors / colleagues / science-fiction fans, we have talked at length about the efficacy of humans forcing droids to engage in problematic/risky endeavours.

In particular, we have recently noticed troubling headlines/stories that reflect our ethical concerns. One such headline, "As COVID-19 persists, Japan looks to send in the robots" (Martin, 2020), describes how robots are engaged and deployed involuntarily to situations deemed too dangerous for humans. Also, we have seen articles that feature military bases using robo-dogs to patrol their borders (Del Valle, 2021) and robots that are so humanoid in nature that they can carry on conversations with humans (Corkery & Gelles, 2020). In this way, humans and robots are becoming increasingly acclimated to one another in preparation for (peaceful) cohabitation. The way robots are treated and the way they treat us is crucial when establishing appropriate behaviour and socialization. For example, when subjected to sexist remarks or demands, home assistants Siri and Alexa respond flirtatiously. This could be a dangerous foreshadowing into human-droid relations and a reification of sexism. While science fiction has at times presented machines as dangerous and apt to take over and enslave mankind (e.g., Star Wars, Terminator franchise, and other popular media), when aimed at children, droids can also be portrayed as friendly, helpful, and unthreatening. *Star Wars* could even be said to be a primer into the ethical treatment of droids, as it has been suggested that the Rebel Alliance defeated the Galactic Empire because of their humane treatment of

droids and that, "had the bad guys" of *Star Wars* "actually bothered to think of droids as sentient beings worthy of attention and consideration, they'd have won every single war" (Asher-Perrin, 2018, para. 11).

"Errors" in (non/robotic) thinking

Building from the anthropological perspective (see Marett, 1914) that when possessing humanistic attributes, inanimate objects can enigmatically be(come) alive, Beran et al. (2011) performed a study seeking to understand the degree to which children map human sensibilities onto robots. During this study, participating children observed a nonhumanistic robot complete a series of tasks and then were asked questions relating to the robot's identity (e.g., gender, name), cognition (e.g., recognition and memory), affectual capacities (e.g., emotions), and behaviour (e.g., actions). Perhaps not surprisingly—considering the power of speculation and imagination—"more children considered the robot capable of emotions than cognition and behaviors" (Beran et al., 2011, p. 546). Although it is entirely possible that "children held little knowledge about the mechanics of robots, thus, [relied] on their existing knowledge state pertaining to humans" (Beran et al., 2011, p. 547), perhaps the participants' operating systems were defaulting to a posthumanistic perspective that acknowledges and articulates the vibrancy of matter (Bennett, 2010).

Similarly, Breazal et al. (2016) found that children aged 3–5 treated robots as companions and informants. The children showed a preference (i.e., greater trust and affiliation with) the robot that was more "socially sensitive" or "contingent" (Breazal et al., 2016, p. 489), which demonstrates their sensitivity to social responsiveness. The children's (ready) receptivity to robots aligned with a study by Kahn et al. (2012) wherein children felt that a robot named Robovie was able to think, feel, and develop friendships and was entitled to moral rights. Relatedly, researchers are seeking to understand children's treatment of nonhumanistic robots in order to prevent bot abuse. Shelly, a tortoise robot developed in South Korea, teaches children how it wants to be treated (Ackerman, 2018). When Shelly's shell is stroked gently, it lights up. When Shelly is hit or a child tries to pry its shell apart, it retreats into its shell and does not come out. Shelly is a teaching tool "created by researchers ... in anticipation of the day when robots will be ubiquitous in our lives, helping in our homes and even acting as friendly companions.... Robots must be treated fairly if they are to be fully integrated into human society" (Maines, 2018, para. 3). In short, these studies reflect the variegated ways that children assign, or at least assume, (more-than-)human-like traits in robots and may be much less hesitant than adults to see robots—both humanistic and nonhumanistic—as "friendly companions and guides in an unfamiliar environment" (Breazal et al., 2016, p. 482).

We, too, want to inquire into a robotified future. The studies cited above reflect the sorts of present/future problems and issues of interest to social scientists and educators. Researchers are keenly aware that 21st-century children are developing alongside robots and droids, who are not merely inanimate objects for amusement or workhorses of the future but companions that receive and reciprocate the full spate of human emotions and attachments. Born in the breach between human and machine (Haraway, 1985, 1991), today's children are the fully realized cyborgs: "chimeras, theorized and fabricated hybrids of machine and organism" (p. 7). To this point, Haraway (1985) predicted two cyborg(ian) futures: one was a Star Wars hellscape of machinic enslavement, a continual border war between human and machine in which humans, for a change, find themselves on the losing side. The other was a more cohesive, lateral relationship that is "about lived social and bodily realities in which people are not afraid of their joint kinship with animals and machines" (Haraway, 1985, p. 15). Further, we are keenly interested in how picture books might help children negotiate and philosophize such relationships as they come of age as "cyborg citizens" (Gray, 2001).

Positionality

As researchers and social studies teacher educators, we both identify as white and acknowledge our settler privileges in this engagement. And, we are of collective mind that while there is a nonneutrality to humanity in which power and privilege are commonly hard-wired into the (Western) human condition, we recognize decolonial, Black, and Indigenous scholarship warning of dangers of generalizing the human (Lewis et al., 2018; Nxumalo, 2020; Todd, 2016; Tuck et al., 2014; Watts, 2013; Wynter, 1984, 2003). Moreover, we recognize that targeted communities have been historically/contemporarily marginalized, racialized, and treated in a way that could best be categorized as *inhuman*. To this point, we want to draw a clear distinction between our recognition of inhumanness and our posthuman line(s) of flight. During this inquiry, it is not our goal to circumnavigate this truth but rather to possibilitate how (re)wiring our perspectives in ways that are more materially engaged can foster ethicality (Barad, 2007; Braidotti, 2002; MacLure, 2013) and progress toward a "dynamic becoming that constantly shapes and transforms us, as it [re]distributes agency among various life forms, e.g., human and nonhuman, organic and inorganic, actual and virtual" (Dernikos et al., 2020, p. 11). In taking the position that all communities are relationally nomadic—yet transversal (Braidotti, 1994; Deleuze & Guattari, 1987)—and include assemblages of nonhuman and more-than-human actors (e.g., droids), we attempt to work toward "the possibility of undoing and unsettling—not replacing or occupying—Western conceptions of what it means to be human" (McKittrick, 2015, p. 2). As Braidotti (2019b) reminds us, "clearly 'we' are in this posthuman together, but this does not necessarily spell out an ontological kind of Humanism that has unified all the humans and thus flattened out the structural differences that separate us" (p. 156, italics in original). Tracing the contours of science-fictional worlds foregrounds difference in itself (Campbell, 2019) and thus offers innumerable opportunities to analyze/ consider how the figure of the child—through resurgent materialities and more-than-human (metallic) bodies becomes made, unmade, and remade again and again.

Droidiality framework

As robots, machines, and artificial intelligence become an increasingly important part of our everyday lives—even to the point of becoming appendages—it is necessary to develop theories to make sense of the fact that, as Hayles (1999) puts it, "you are the cyborg, and the cyborg is you" (p. xii). Conceptions of the cyborg (Haraway, 1985, 1991), posthumanism, and robophilosophy are useful for considering subjectivity and ethics and how featuring robots and droidial figures in picturebooks offers children a vision of a posthuman-cyborg subjectivity, "a hybrid machine and organism ... a creature of social reality as well as a creature of fiction ... who populate[s] worlds ambiguously natural and crafted" (Haraway, 1991, p. 149). In this way, picturebooks featuring droids offer children both windows and mirrors (Sims-Bishop, 1990)—as well as entry points to philosophize the relationship between humans and materialities of the world—into ways that educators might help cyborgs enter the world unafraid of their "permanently partial identities and contradictory standpoints" (Haraway, 2016, p. 15). Along with these identity-related semiconductors, importantly, we see this framework as a conduit for further rupturing precarious (con)figurations of the child (Murris, 2016; Sheldon, 2016b) by opening portals into the future. That being said, we acknowledge that mere narrative/artistic representations of futurity will (always already) fall short in any efforts to foster temporal agency with children. With this in mind, our (speculative) framework seeks to serve as a mechanism that splices together droids, children, cyborgs, and futures in ways that focalize agency, inquiry, and philosophy.

Posthumanistic wirings

Despite the lack of research conducted around the intersections of literacy, (post)humanism, and droids, droidiality introduces a perspective aimed at computing heightened levels of humanistic attenuation by centralizing droidial

bodies. Posthumanism provides a frame to understand the "unprecedented degree of technological intervention we have reached, and the intimacy we have developed with technological devices" (Braidotti, 2019a, p. 2) as well as the extent to which we have become cyborgs (Haraway, 1991) and, especially, how "most young people in today's world are cyborgs in some form" (Leurs et al., 2018, p. 463). A particular kind of posthumanism, speculative posthumanism, makes a move from theorizing "the as-if of [science] fiction and play" (Seibt, 2018, p. 392) to the as-of-now. Roden (2018) writes that speculative posthumanism, as a "metaphysical claim about the kinds of things that could exist in the world ... opposes human-centric thinking about the long-run implications of modern technology" (p. 399), proposing that "there could be posthumans" now (p. 399).

Although picturebooks are often moralizing and (allegedly) child-centering (Floom & Janzen, 2020), posthumanism can be a way to decenter the human and the child in children's literature and to turn away, as Moss (2016) suggests, "from the idea of the child as autonomous agent and ... towards the idea of the child enmeshed in an immense web of material and discursive force [that lives on earth with] other earth dwellers and is not in an inferior position to adults" (p. xi). Droids are some of those other earth dwellers, and children are quickly being acclimated to listen to, learn from, and live among them. As such, we are prompted to ask, with Leurs et al. (2018), "How do young people come of age as posthuman subjects" (p. 463) with other posthuman subjects?

Because "language names the possible" (Deleuze, 1995, p. 6), we suggest that language also names the *impossible*. Thus, in applying droidiality, we mesh together speculativeness and impossibility in a way that attends to Braidotti's (2019b) call for the "creation of new concepts and adequate figurations to express them" (p. 123). Specifically, droidiality consists of a triad of themes programmed for exploring aspects of droidial identity and explores how these codes/combinations of parts contribute to the ways in which the droid intra/acts in the more-than-human world. We first present each of the themes and examples of subsequent guiding questions before applying the framework to each of the three children's books chosen.

Theme 1: Design and performance

Embedded in this theme are critical questions pertaining to the visual imagery (i.e., design) of the droid (G. Rose, 2016). Along with describing the droid's (moving) parts, we also asked: To what extent does the droid's design reflect humanity (Dernikos et al., 2020)? Leveraging this question, we inquired about the fulfillment of the droid's design—relating to performance—and asked what this tension might reveal about the book's programmer (i.e., author/illustrator). Moreover, considering the traditionally biological containers for thinking, knowing, being, and becoming (Deleuze & Guattari, 1987; Jackson & Mazzei, 2012)—as well as perhaps the (con)figurations of the child (Murris, 2016; Sheldon, 2016b)—we thought about what happens when these act(ion)s are executed by (algorithmically driven) droids and their operating systems (DeLeon, 2015).

Theme 2: Affects, emotionalities, and relationships

Using this theme, we thought across the various ways in which the main droidial character experiences humanistic sensibilities and how intra-actions with flora, fauna, and (non)human matter(ing)s shaped the arc of each narrative (Braidotti, 1994; Kuby & Rowsell, 2017). While thinking about this convergence, we also considered how non/human and non/droidial assemblages might be useful in (re)conceptualizing the pronoun "we" and the ethics involved in processing how the concept of relationship is commonly deployed. To this point, droidiality allowed us to describe what the droid thinks, feels, and desires (DeLeon, 2015) while also (re)directing our (ocular) attention to the currents of (humanistic) power dictating (G. Rose, 2016) these (droidial) animations.

Theme 3: Programming, genderization, and maintenance

Theme 3 explores the positionality of the author/illustrator regarding several concepts. First, we are interested in what we can learn about/from the genderization of droids in relation to the gender of the author (McKittrick, 2015). Second, we used this theme to investigate how the author addresses tension(s) regarding droidial disposability and sustainability. To which, we asked: Does the droid have a caretaker and if so, what does the relationship reveal over the arc of the story?

Methodology

This speculative inquiry into droidial worlds within the context of children's literature relied on a purposeful sample (Patton, 2002) that also enacted conceptual diversity in order to remain closely aligned with posthuman movements (Braidotti, 2019b). Book selection was based on several criteria: (1) it features a droidial subject; (2) its targeted readers/audience is very young children (age 7 and under); (3) the main character(s) encounter a problem beyond the scope of their programming (e.g., love, loneliness, sound); (4) the text prompts inquiry into the boundaries between human and nonhuman, living and nonliving (e.g., who "owns" the ability to feel emotions?). Ultimately, we settled on three illustrated books that each offers a distinct/divergent depiction of droidial (intra-) connectivity to humans, nonhumans, and the more-than-human world.

Before intertwining our thoughts, we separately applied droidiality to each of the books, making notations and posing questions in a shared electronic document. Next, we discussed one another's reactions which, in turn, were added to the document. During this process, and perhaps paradoxically considering the metallic cas(t)ings of droids, we were prompted to think about the malleability of what was being produced and how traditional applications of data that are "mute, brute, simple, and concrete" (Koro-Ljungberg et al., 2017, p. 463) only recreate, reproduce, and regurgitate defined algorithms of knowledge and understanding. While uses of "data" in qualitative research continue to be "haunted by the specter of quantitative method and its claims to rigor and reliability" (Koro-Ljungberg et al., 2017, p. 465, italics added for emphasis), (post)qualitative inquiry deterritorializes—rips away from—the conventional wirings of (bugged) data, only to reterritorialize—make a return—to the term with a broader, fluent programming(s) of meaning (Deleuze, 1978). Accordingly, we resonate with Barad's (2007) orientation that "we don't obtain knowledge by standing outside of the world; we know because we are of the world. We are part of the world in its differential becoming" (p. 185).

It is within these spaces that we begin to understand "the role of human and non/human, material and discursive, and natural and cultural factors in scientific and other social-material practices" (Barad, 2007, p. 26). Thus, we applied Jackson and Mazzei's (2012) thinking with theory to represent what droidiality produced for us during this inquiry. In particular, we used Jackson and Mazzei's (2012) thinking with theory to code our theoretically wired thoughts/questions into the (droidial) literature. This philosophical becoming—thinking with theory—plugs *into* data rather than *robotically* starting/stopping with analytical processes intent on interpretation. Leaning into Deleuze and Guattari's (1987) notion of "plugging of one into other" (p. 182), thinking with theory engages "plugging in to produce something new ... a constant, continuous process of making and unmaking" (Jackson & Mazzei, 2012, p. 1). While our application of this process (e.g., arranging, compiling, and (de)attaching thoughts/ perspectives) is represented below through textual means, it is worth noting that our methodology also takes the position that "visual images have their own effects" (G. Rose, 2016, p. 22) and were used—along with the text of the books—to guide our thinking/responses.

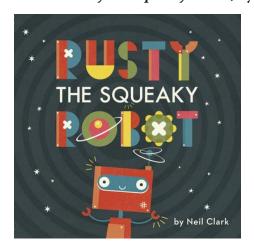
We are inclined to see this approach as an (already) futuristic and critical response to this special issue's call for the operationalization of speculative literacies, imagination, and wonder seeking to disrupt, dislodge, and disavow

static narrative manoeuverings replete with currents of oppression. By entangling ourselves with these speculative narratives and theoretical (re)positionings, we can begin to consider how children are already-droidial, already-cyborg, and (always) already plugged into the more-than-human and unjust world (Haraway, 1985, 1991; Leurs et al., 2018). Further, in our experiment with bodily circuitry, heterogeneity, and difference, we are reminded by Kuby and Rucker (2017) that "phenomena and bodies come into being through relationships" (p. 18) and that these multiplicitous relationships can have (more-than-human) im(bri/pli)cations that warrant analysis and investigation (Barad, 2007; Braidotti, 2019a, 2019b; Kuby & Christ, 2019)

In the next section, we present what was produced when we applied droidiality to each of the three books. In an effort to foreground "the materiality of language [text] itself—its material force and its entanglements in [droidial] bodies and matter" (MacLure, 2013, p. 658), we plugged what was produced into the circuitry of each book's summary that we located on each publisher's website. To assist us in delineating our intra-actions with(in) the data (e.g., text and images), we bracketed our ongoing questions and comments as researchers throughout the summaries and added notes pertaining to the illustrations in italics. We have bolded the text from the original summaries.

Droidial(ity) entanglements

Book 1: Rusty the Squeaky Robot, by Neil Clark



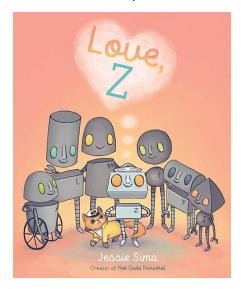
Rusty is a male gendered friendly robot that has a head, two arms, two legs but not a very happy one [Is it possible for droids to feel loneliness or sadness, and to what extent are droidial performativities of emotion a byproduct of (humanistic) programming? Throughout the book, Rusty appears to feel alone, fearful, self-conscious, anxious, depressed, astonished, loving, carefree. What does this capacity reveal about whoever programmed Rusty?]; he's feeling down about the way that he sounds [How does this reinforce an Othering relationship between Rusty and his world (Kuby & Rucker, 2020)?]. Rusty's hands look like clamps or magnets [perhaps hinting at his design being geared toward working with metal or other droids.] On the top right side of his head is an antenna emitting a signal. [Are droids ever not thinking or computing? Deleuze (1968/1994) argues that while everyone holds the capacity to think, authentic thinking does not occur unless "we attempt to think that which is unrecognizable, that which is the most difficult to think" (Hein, 2017, p. 656). How might (complex) droidial thinking reflect human ethicality?]

The other robots on Planet Robotone [The planet's name suggests tonations are a way of life and we find it interesting that negative emotions are associated with Rusty for his making of sound. All the bots and Rusty exist separately from humans. Can droids have a future that is separate from humanity? And, how can this get us to

think in a way that values "our mass impact as or more than our unique and haunting song?" (Gumbs, 2020, p. 71)]—Belle, Twango, Hoot, and Boom-Bot all of which have sound-generating parts affixed to their nonhumanistic bodies—show Rusty that being a little bit different is the best way to be, and together make a raucous song and dance that celebrates their differences [There is no mention of Rusty's desire to generate sound, but as the story progresses, his happiness appears to be connected to his ability to hear/generate sound.]. This charming story about friendship [Interestingly, Rusty appears ambiguous when he meets the other bots and doesn't seem interested in creating relationships with the new bots, only experiencing the sounds they make. To which we might ask about how the other bots—who share nonhumanistic designs—know about Rusty's emotions? Have they been watching him from afar? This gives us pause and reminds us of Braidotti and Hlavajova's (2018) call for "new evaluation criteria ... to assess the computational turn in media and cultural studies in relation to issues of power and security" (p. 10)], self-discovery [Now that Rusty has realized that his squeak is his way of generating sound, will he need the socialness of the other bots? At the end, a note appears on Rusty's chest.] and the strength of pooling everyone's talents together has a strong, empowering message of acceptance and embracing individuality. [Is there anything wrong with not appreciating a bodily trait? To what end was Rusty coerced into being happy about his sound?]

With wonderful, contemporary illustrations [To what end is Rusty mirroring humanity and contributing to the centering of humanism in children's literature? Considering the lack of droid-human intra-actions in this story, we are left wondering who created Rusty and Planet Robotone and who maintains the droids and robots.] that will appeal to young children and parents alike, the story will provoke thought—and conversation—about being different [It is believable to assume that all bots on Planet Robotone generate some sound, thus, in this context, the other bots have emotional power over Rusty. Is a lack of musical consciousness the result of Rusty's aloneness?], and how we should all embrace our characteristics and be comfortable and confident in ourselves.

Book 2: Love, Z, by Jesse Sima



When a small, ungendered robot—with two arms, two legs, a head with two eyes and body—named Z discovers a message in a bottle that gets stored in their "body box" [We wonder what will happen in the future when droids find our (human) stuff. What are the ethical entanglements surrounding (the future of) anthropology? Just as we study ancient civilizations, who studies the studiers? And to what end could droids wonder at these mysterious words and things that "do not compute"?] signed "Love, Beatrice," they decide to find out what "love" means. [Z

spends a good amount of time fulfilling their exploratory duties. There is a tension in the story between thinking/ feeling. Z thinks about luck but is in constant search of love, which is felt throughout the story. If droids are not programmed with the language to articulate certain actions, can they still experience them? The author would suggest yes, and notes that "Z has felt this before." That being said, Z—who exhibits traits of adventurousness, reflectiveness, fearfulness, humanness (e.g., gets tired and must power down to recharge) and frustration—also desires affection throughout the story (e.g., goodnight kiss) from other FAMILY bots (robot-like characters that do not resemble humans). Considering that "we are no more familiar with scientificity than we are with ideology; all we know are assemblages. And the only assemblages are machinic assemblages of desire and collective assemblages of enunciation" (Deleuze & Guattari, 1987, p. 23), to what end must we tether desire to a label? And, within the context of education, how do we create space for students to explore the multiplicities of desire in a way that is sustaining and healthy?]

Unable to get an answer from the other robots [The robots are all branded with letters. Z is the last of the alphabet. Does this imply Z is the last of their kind? We notice A has wheels. like a wheelchair. Is this a "grandparent"? Of note, at the end of story, all the droids are standing together and their brands spell out F-A-M-I-L-Y] or animals throughout the story, they leave to embark on an adventure [Z's story arc is driven by these intra-actions (and the way that nonliving things assist Z along their quest (Barad, 2007). Many of these intra-actions result in "does not compute," with Z failing to understand love.] that will lead them to Beatrice [an elderly woman]—and back home again, where love was hiding all along. [Is love a dream? Is Z's story actually happening, or on another level, is this a droid's dream-to find and be loved in a world that throws droids away? Are droidial dreams humanless(ness)? Further, we're wondering how Z is programmed. Knowing that children's literature also attempts a kind of programming on its human readers, how are we, readers, being programmed? Also, this story has us thinking about emotional support pets (Foster et al., 2020) and the ways in which animals throughout the story provided Z some level of (emotional) support. We cannot help but wonder about how future multimodal innovations might be wired to attend to the complex relationship between emotion/affection and AI (Yonck, 2020).

Book 3: Little Bot and Sparrow, by Jake Parker



When Little Bot with his two arms, two legs, hand-like appendages and face with two expressive eyes and mouth, along with a handful of random parts is thrown out with the garbage [because he "wasn't needed anymore"] he finds himself in a strange new world where "for once, he didn't have any work to do. Little Bot lay alone in the snow [Did he fall through a portal? Little Bot's unceremonious, headfirst disposal raises questions about planned obsolescence and droidial futurity. What kind of work did Little Bot do? Why can't he do it anymore? Mechanical

failure? Inability to keep up the pace? What does it mean to be "needed"? What should happen to bots when they are retired? What are they without their programmed functionality (i.e., work)?]

[Little Bot first lays in the snow. Then the grass. The seasons change and birds perch on Little Bot. He sits up and greets them with a friendly "hello" but they fly away, frightened.] Fortunately, Sparrow is there [watching Little Bot attempt, and fail, to make friends with the other creatures in the meadow. "What new thoughts does it make it possible to think? What new emotions does it make it possible to feel? What new sensations and perceptions does it open in the (droidial) body?" (Deleuze & Guattari, 1987, p. XV). She then decided] to take him under her wing. Together, they explore the forest and [Sparrow introduces Little Bot to her friends and Little Bot even (unsuccessfully) attempts to fly. He tests the boundaries of his gray mechanical body, already learning about himself and what he is and is not capable of doing. Sparrow and Little Bot] share adventures [Moreover, from Sparrow, Little Bot learns about his environment and the creatures in it, even discovering beauty in spaces that at first appeared scary.

Through Little Bot and Sparrow's relationship, children] learn[ing] what it means to be forever friends [that a friend in need is a friend indeed. In an onto-epistemological sense, what else might we learn from mammals? (Gumbs, 2020)]. This sweet, [heartbreaking] and lasting tale by Jake Parker beautifully captures the happiness and love that can come from making your first true friend [in this realm]—and the courage it takes [to acknowledge] when [the seasons dictate that] it's time to say goodbye. [Little Bot learns that he is not disposable and that parting with one another and disposing of one another are not the same thing. By the end, "the little robot dreamed" of flying high in the sky with Sparrow at his side "one is too few and two is only one possibility" (Haraway, 1991, p. 180). We are reminded that "an adult is not a dead child, but a child who survived" (Le Guin, 1975, p. 91).]

Speculative fiction and (con)figurations of child(hood)

The three texts prompted thoughts about childhood: what it means, whom it includes, and how it is represented. Traditionally, children's (picture)books are thought to be about children or childlike creatures; their characters are intended to be relatable and comprehensible to children, to whom they "show a variety of human traits without employing too much complexity" (Nikolajeva, 2002, pp. x-xi). Children's books are not just directed at children but often feature children or child stand-ins. It has been assumed that the child constructed by this literature is a human inexperienced in the ways of the world and that nonhuman characters and (con)figurations, such as animals, metaphorically reflect children's sensibilities (Nodelman, 2004). The books we analyzed do not feature human children in text or illustration, but it could be argued that the characters are childlike as each grows into self-knowledge through the course of the book. For example, Z appears to live in a nuclear family structure. Z's caretakers are visually larger and also more knowledgeable than Z. Similarly, Little Bot in Little Bot and Sparrow is childlike in that he is apprenticed into the world by a more knowledgeable caretaker (Sparrow). In this way, it could be said that machines and children learn similarly and that machines, like children, learn to appeal to human emotion—through tone, demeanour, and word choice—to get a desired result. The books do not depict distinctly human-child figures, but that does not mean there is an absence of the child. Children are present in the form of an imagined child-reader and in the robot characters, as "every robot is in a sense a child, because some adult human created that robot and android" (Levinson in Levinson & Jandric, 2014, p. 214). From this axiom, creator might mean one who assembles the machine, but, especially in our context, the adult author/illustrator brings the book's character into being. In a sense, it might seem that children's books, specifically picturebooks, have little to do with children at all. Adults write and draw the books, select the books, buy the books, and read the books. Ultimately, children's books are "a narrative that is told by an adult to and about a young person" (Nikolajeva, 2002, p. xi).

If they were geared toward adults, these picture books, which exclusively feature robots, would be considered science, or speculative fiction. Like children and droids, science fiction's attention to "technology-human relations ... challenges any distinct boundaries between the natural and the artificial, and reveals the analogical relationship between human and machine" (Kupferman & Gibbons, 2019). And, like science fiction, children and droids represent "alternative possible presents" (Jandric in Levinson & Jandric, 2019). Whereas many picturebooks may be used to teach children about the world as it is now, our engagement with the droidial triad underscored how "science fiction offers childhood studies a further mechanism for revealing the construction of childhood and the normalizing tendencies that can occur around this construction" (Kupferman & Gibbons, 2019, p. 8). Thus, science fiction, and picturebooks featuring droids, can be a way to normalize bots as affirmative/friendly/trustworthy beings and as a way to imagine a humanless future. Moreover, such texts beckon children to philosophize the role of materials in the more-than-human world and, in turn, participate in dialogues concerning futurity. From the perspective that "childhood comes from the machine [and] the machine is the thing that constructs childhood" (Kuperman & Gibbons, 2019, p. 1), perhaps children and droids represent humanity's past/future present, which unsettles (con)figurations of the adult as being (exceptionally) representative of the human form.

Beyond droidiality and toward a cyborgian future

As a distinct genre, "children's literature" presupposes children as "different enough from adults to need a special group of books and imagine a category to contain them" (Nodelman, 2004, 139). Children's fiction rests on the idea that

there is a child who is simply there to be addressed and that speaking to it might be simple [...] If children's fiction builds an image of the child inside the book, it does so in order to secure the child who is outside the book, the one who does not come so easily within its grasp. (J. Rose, 1984, p. 63)

Adults evoke this child for their own purposes (desires, in fact) as a site of plenitude to conceal the fractures that trouble us all: concerns over a lack of coherent subjectivity, over the instabilities of language and, ultimately, of existence itself. We think that droids—as presented in literature and media—also represent these anxieties, desires, and, perhaps most importantly, possibilities. We also wonder if scholars have been reluctant to take up droids because they either do not know what to do with them or view them as neutral in their nonhuman nonaliveness. We imagine that droids—like "folklore, nursery rhyme and nonsense"—have become "sidelined as mere 'rhythm and play', for fear of their disruptive potential" (Rudd, 2004, paraphrasing J. Rose, 1984, p. 139).

Relatedly, smart machines containing cognitive capacity, what might be termed cyborgs, are not subject to Foucault's biopolitics (Haraway, 1985, 1991) or Mbembe's (2019) necropolitics. That is, they are not necessarily beholden to the ebbs and flows of life and death (and the accompanying politics) in the same way carbon-based lifeforms and organisms (once) were. As Haraway (1985) puts it, "the cyborg would not recognize the Garden of Eden; it is not made of mud and cannot dream of returning to dust" (p. 9). This sentiment was particularly highlighted by *Little Bot* and *Rusty*, whose books begin when the primary (droidial) character's working life ends. As such, they exist in a kind of afterlife; their use-value having been exhausted. Because of this, it might be difficult for adults to know how machines relate to the problems of life and the philosophical and moral lessons they are supposed to teach children. We agree that droids have disruptive potential and relish that possibility, which became the central impetus for this inquiry. Thinking with posthumanism across the pages of these books reminded us that agency "is a much wider, weirder thing than human agency" (Snaza, 2018, p. 262) and that speculatory approaches to literacy are not only "necessary experiments" (Nxumalo & Cedillo, 2019, p. 108) holding the potential to unplug oppressive educational practices but that they can unlock and sustain the imagination of young learners. As *all* levels of education should be concerned with working toward a future that is more antiracist and anti-oppressive,

"ontological agential realism, and thus entanglement and intra- (not inter) action implicity" (Ringrose et al., 2020, pp. 5–6) can help us (e.g., teachers, students, researchers) think differently about *everything* that comprises the more-than-human world. Moreover, we believe that droidial texts offer a generative space for students to *create* (posthumanist) writings. Taking a cue from Kuby and Rucker (2020), we would be interested in exploring what children would produce if given the opportunity to create a droid from artistic/digital mediums. How might the design, programming, and functionality of these (student-made) droids help generate questions about humanity, materials of the more-than-human world, and how the intersections of both could be used to analyze/problematize the ways in which we treat one another?

As a collection, these books are interesting in their subversion of the notion that robots are incapable of feelings and that feelings and emotions are the one thing that makes humans human. These narratives challenge the notion that our "biotechnological hybridization [and] eradication of the human is becoming more and more feasible in terms of operational cognition and less and less so in affective-emotional terms" (Maldonato, 2017, p. 2). In fact, the books show Z, Little Bot, and Rusty's "failure[s] to compute." Although the bots have some humanoid features (two arms and legs, face, eyes, and mouth) they do not nearly approach the "uncanny valley" point of being creepy. Thus, the robots in the books are presented in human form through their sociality and emotions rather than their looks. That is, their bodies are both strange and familiar; "what estranges in these choices, then, is the very lack of estrangement, the ease with which the metaphoric register of personification becomes literalized as simply personhood" (Sheldon, 2016a, p. 33).

In *our* quest to explore droidial bodies in children's literature through the lens of posthumanism, we discovered serious themes that should not be discounted by the adults as neutral or as not producing knowledge. While we fully grasp the capitalistic intent grounding each of the summaries, we found the language included (e.g., sweet and lasting tale) to be unnecessarily uncomplicated. Each of the stories individually/collectively provides a window into the future and offers a multitude of entry points for conversations regarding the complex and (intra) connected future and agency of/between humans and droids. Further, all three books challenge the common suggestion that "robots are not going to be able to understand social situations and consequently will not be able to consistently make the right moral decisions about human social situations" (Sharkey, 2017, p. 215). In each text, bots are shown as capable of empathy, perspective, and emotional growth, "acquiring ends and roles that are not set by humans" (Roden, 2018, pp. 399–400). Within the specific context of the child, engaging with droidial books heightened our attunement to the urgency of including children in conversations about technological advances and the implications of robotification on future worlds. In this way, we believe that the droidiality framework helps rewire agency back into (con)figurations of the child by challenging normative and problematic framings (e.g., developing, ignorant, evil, innocent, fragile, communal [Murris, 2016], passive, and feeble [Sheldon, 2016b]) suggesting that children are unable to (re)shape and (re)cast unfoldings of the future.

The notion of portals came up in our conversations and perhaps further complexifies the way we might situate droidial and (yet-to-be) cyborgian children's texts. Portals in science-fiction are technological doorways that connect two separate locations in space and/or time. They usually consist of at least two connected (or attuned) gateways which can establish communication with one another and transfer matter from one to another. With this in mind, how might the idea of the portal extend students' imagination/thinking beyond text and pictures embedded within children's books? Correspondingly, how might the concept of the portal help students (re) consider the un/limitations of space and time and the (tangled) manner in which we, humans and nonhumans, (re) distribute agency and subsequent affects and emotions? A portal is a feature of both science fiction narratives and science fiction as a genre, because "science fiction reveals to the child the nature in which s/he is being educated" (Kupferman & Gibbons, 2019, p. 10). Interestingly, these conversations mis/led us to discuss the possibility of

cyborgs being the result of a human body that had returned from an infinite threshold across a multitude of time(s) and space(s). Accordingly, and considering the citizenship rights bestowed upon the droid Sophia in Saudi Arabia (Pagallo, 2018), we could not help but ask: How will children make sense of the blurred connections between human and machine in the future? And, how will society connect to and treat those that are of both human and machine?

These questions are not without tension, and while we purposefully cut together/apart (Barad, 2007) humans and humanlike robots—droids—we would be remiss not to mention the complete absence of cyborgian books that could be used as points of departure with young learners. Just as posthumanism and droidial texts further complicate how we see the ever-developing more-than-human world, according to Haraway (1985), "cyborg writing is about the power to survive, not on the basis of original innocence, but on the basis of seizing the tools to mark the world that marked them as other" (p. 55). Working with the three texts and their characters blurred the boundaries between human and machine, thus suggesting that we (e.g., educators/researchers) *can* short-circuit bodily identity markers that stymie imagination, cultivation, and expression while also rebooting "the realization of the relational interdependence between the child and the world" (Lindgren, 2020, p. 921) and, we would add, the droid. In closing, according to Braidotti (2019b), "we cannot solve contemporary problems by using the same kind of thinking we used when we created them" (p. 122). Perhaps speculative (droidial and cyborgian) and science fictional literacies can be generative in fostering suspicious spaces (King, 2017) aimed at disarming humanistic exceptionalism and what it means to be (non)child/adult/human(like).

References

- Ackerman, E. (2018, March 14). Robotic tortoise helps kids learn that robot abuse is a bad thing. IEEE Spectrum. https://spectrum.ieee.org/shelly-robotic-tortoise-helps-kids-learn-that-robot-abuse-is-a-bad-thing
- Adichie, C. N. (2009). The danger of a single story [Video file]. https://www.ted.com/talks/chimamanda_ngozi_adichie_the_danger_of_a_single_story?language=en
- Asher-Perrin, E. (2018). *Star Wars*: The Rebellion won because they treated their droids like people. https://www.tor.com/2018/01/17/star-wars-the-rebellion-won-because-they-treated-their-droids-like-people/
- Barad, K. (2007). Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning. Duke University Press.
- Bennett, J. (2010). Vibrant matter. Duke University Press.
- Beran, T. N., Ramirez-Serrano, A., Kuzyk, R., Firo M., & Nugent, S. (2011). Understanding how children understand robots: Perceived animism in child-robot interaction. *International Journal of Human-Computer Studies*, 69(1), 539–550. https://doi.org/10.1016/j.ijhcs.2011.04.003
- Braidotti, R. (1994). Nomadic subjects: Embodiment and sexual difference in contemporary feminist theory. Columbia University Press.
- Braidotti, R. (2002). Metamorphoses: Towards a materialist theory of becoming. Blackwell.
- Braidotti, R. (2019a). A theoretical framework for the critical posthumanities. *Theory, Culture, & Society, 36*(6), 31–61. https://doi.org/10.11770263276418771486
- Braidotti, R. (2019b). Posthuman knowledge. Polity.
- Braidotti, R., & Hlavajova, M. (2018). Posthuman glossary. Bloomsbury.
- Breazeal, C., Harris, P. L., DeSteno, D., Kory Westlund, J. M., Dickens, L., & Jeong, S. (2016). Young children treat robots as informants. *Topics in Cognitive Science*, 8(2), 481–491. https://dspace.mit.edu/handle/1721.1/108204
- Campbell, J. W. (2019). *The order and the other.* University Press of Mississippi.
- Clark, N. (2018). Rusty the squeaky robot (N. Clark, Illus.) Quarto.
- Cockelberg, M. (2014). The automation of the social? What robots teach us about sociality and responsibility. In J. Seibt, M. Norskov & R. Hakli (Eds.). *Sociable robots and the future of social relations: Proceedings of robo-philosophy* (pp. 7–8). IOS Press.
- Corkery, M., & Gelles, D. (2020, April 10). Robots welcome the take over, as pandemic accelerates automation. *New York Times*. https://www.nytimes.com/2020/04/10/business/coronavirus-workplace-automation.html
- DeLeon, A. P. (2015). Machines. Information Age.
- Deleuze, G. (1978). Nomad thought. Semiotexte, 3(1), 12-20.
- Deleuze, G. (1994). Difference and repetition (P. Patton, Trans.). Columbia University Press. (Original work published 1968).
- Deleuze, G. (1995). The exhausted. SubStance, 24(3), 3-28. https://doi.org/10.2307/3685005
- Deleuze, G., & Guattari, F. (1987). A thousand plateaus: Capitalism and schizophrenia. University of Minnesota Press.
- Del Valle, A. (2021, March 29). Robot dogs arrive at Tyndall AFB. U.S. Air Force. https://www.af.mil/News/Article-Display/Article/2551037/robot-dogs-arrive-at-tyndall-afb/
- Dernikos, B. P., Ferguson, D. E., & Siegel, M. (2020). The possibilities for "humanizing" posthumanist inquiries: An intra-active conversation. *Cultural Studies* ← → *Critical Methodologies*, 20(5), 434–447. https://doi.org/10.11771532708619829793
- Dick, P. K. (1968). Do androids dream of electric sheep? BOOM! Studios.

- Floom, R., & Janzen, M. (2020). A critique of child-centered curriculum. *Journal of Childhood Studies*, 45(1), 56–64. https://doi.org/10.18357/jcs00019401
- Foster, H. A., Robinson, C. L., Thomas, J. W., & Knight-Crenshaw, L. (2020). Emotional support animals: How to accommodate all students. *Journal of Cases in Education Leadership*, 23(4), 127–138. https://doi.org/10.11771555458920941557
- Freedman, C. (2000). Critical theory and science fiction. Wesleyan.
- Gray, C. H. (2001). Cyborg citizen: Politics in the posthuman age. Routledge.
- Gumbs, A. P. (2020). Undrowned: Feminist lesson from marine mammals. AK Publishing.
- Haraway, D. J. (1985). Cyborg manifesto. University of Minnesota Press.
- Haraway, D. J. (1991). Simians, cyborgs, and women: The reinvention of nature. Free Association Books.
- Haraway, D. J. (2016). Staying with the trouble. Duke University Press.
- Hayles, N. K. (1999). How we became posthuman: Virtual bodies in cybernetics, literature, and informatics. University of Chicago Press.
- Haynes, J., & Murris, K. (2012). Picturebooks, pedagogy, and philosophy. Routledge.
- Hein, S. F. (2017). Deleuze's new image of thought: Challenging the dogmatic image of thought in qualitative inquiry. *Qualitative Inquiry*, 23(9), 656–665. https://doi.org/10.11771077800417725354
- Ishiguro, H. (2014). Android philosophy. In J. Seibt, M. Norskov, & R. Hakli (Eds.). Sociable robots and the future of social relations: *Proceedings of robo-philosophy* (pp. 3–4). IOS Press.
- Jackson, A. Y., & Mazzei, L. A. (2012). Thinking with theory in qualitative research: Viewing data across multiple perspectives. Routledge.
- Kahn, P. H., Kanda, T., Ishiguro, H., Freier, N. G., Severson, R. L., Gill, B. T., Ruckert, J. H., & Solace, S. (2012). "Robovie, you'll have to go into the closet now": Children's social and moral relationships with a humanoid robot. *Developmental Psychology*, 48(2), 303–314. https://psycnet.apa.org/doi/10.1037/a0027033
- Kimmerer, R. W. (2013). Braiding sweetgrass: Indigenous wisdom, scientific knowledge, and the teachings of plants. Milkweed Editions.
- King, T. L. (2017). Humans involved: Lurking in the lines of posthumanist flight. *Critical Ethnic Studies*, 3(1), 162–185. https://doi.org/10.5749/jcritethnstud.3.1.0162
- Koro-Ljungberg, M., MacLure, M., & Ulmer, J. (2017). D...a...t...a..., data++, data, and some problematics. In N. K. Denzin, & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research*, (pp. 462–489). SAGE.
- Kuby, C. R., & Christ, R. (2019). Speculative pedagogies of qualitative inquiry. Routledge.
- Kuby, C. R., & Rowsell, J. (2017). Early literacy and the posthuman: Pedagogies and methodologies. *Journal of Early Childhood Literacy*, 17(3), 285–296. https://doi.org/10.11771468798417715720
- Kuby, C. R., & Rucker, T. (2020). (Re)thinking children as fully (in)human and literacies as otherwise through (re)etymologizing intervene and inequality. *Journal of Early Childhood Literacy*, 20(1), 13–43. https://doi.org/10.11771468798420904774
- Kupferman, D. W., & Gibbons, A. (2019). Children, science fiction, and pedagogy: Children ex machina. Springer.
- Le Guin, U. (1975). This fear of dragons. In E. Blishen (Ed.), The thorny paradise: Writers on writing for children. Kestrel.
- Leurs, K., Shepherd, T., & Harvey, A. (2018). Youth. In R. Braidotti & M. Hlavajova (Eds.), *Posthuman glossary* (pp. 463–466). Bloomsbury Academic.
- Levinson, P., & Jandric, P. (2019). Children and pedagogy between science and fiction. In D. W. Kupferman & A. Gibbons (Eds.), *Childhood, science fiction and pedagogy: Children ex machina* [Kindle edition]. Springer.

- Lewis, J. E., Arista, N., Pechawis, A., & Kite, S. (2018). Making kin with the machines. *Journal of Design and Science*. https://doi.org/10.21428/bfafd97b
- Lindgren, T. (2020). The figuration of the posthuman child. *Discourse: Studies in the Cultural Politics of Education*, 41(6), 914–925. https://doi.org/10.1080/01596306.2019.1576589
- MacLure, M. (2013). Classification or wonder? Coding as an analytic practice in qualitative research. In R. Coleman & J. Ringrose (Eds.), *Deleuze and research methodologies* (pp. 164–183). Edinburgh University Press.
- Maines, C. (2018, March 23). Robot abuse is real, but maybe this little tortoise can help. https://www.nbcnews.com/mach/science/tiny-tortoise-has-big-lesson-teach-kids-about-robots-ncna859571
- Maldonato, M. (2017). Posthuman: Consciousness and pathic engagement. Sussex Academic Press.
- Marett, R. R. (1914). The threshold of religion. Methuen & Co.
- Martin, A. (2020, September 19). As COVID-19 persists, Japan looks to send in the robots. *The Japan Times*. https://www.japantimes.co.jp/news/2020/09/19/business/coronavirus-japanese-robots/
- McKittrick, K. (2015). Sylvia Wynter: On being human as praxis. Duke University Press.
- Michael, J., & Salice, A. (2014). (How) can robots make commitments? A pragmatic approach. In J. Seibt, M. Norskov & R. Hakli (Eds.), *Sociable robots and the future of social relations: Proceedings of robo-philosophy* (pp. 125–134). IOS Press.
- Moss, P. (2016). Introduction. In K. Murris (Author) *The posthuman child: Educational transformation through philosophy with picturebooks* (pp. xi–xv). Routledge.
- Murris, K. (2015). Posthumanism, philosophy for children, and Anthony Browne's "Little Beauty." *Bookbird: A Journal of International Children's Literature*, *53*(2), 59–65. https://doi.org/10.1353/bkb.2015.0030
- Murris, K. (2016). The posthuman child: Educational transformation through philosophy with picturebooks. Routledge.
- Nikolajeva, M. (2002). The rhetoric of character in children's literature. Scarecrow Press.
- Nodelman, P. (2004). Picture books and illustration. In P. Hunt (Ed.), *International companion encyclopedia of children's literature* (pp. 154–165). Routledge.
- Nxumalo, F. (2020). Situating Indigenous and Black childhoods in the Anthropocene. In A. Cutter-Mackenzie-Knowles, K. Malone, & E. Barratt Hacking, (Eds) *International research handbook on childhoodnature: Assemblages of childhood and nature research* (pp. 535–557). Springer.
- Nxumalo, F., & Cedillo, S. (2017). Decolonizing place in early childhood studies: thinking with Indigenous onto-epistemologies and Black feminist geographies. *Global Studies of Childhood*, 7(2), 99–112. https://doi.org/10.11772043610617703831
- Pagallo, U. (2018). Vital, Sophia and co.: The quest for the legal personhood of robots. *Information*, 9(9), 230–241. https://doi.org/10.3390/info9090230
- Parker, J. (2016). Little Bot and Sparrow (J. Parker, Illus.) Roaring Brook Press.
- Patton, M. (2002). Qualitative research and evaluation methods. SAGE.
- Ringrose, J., Warfield, K., & Zarabadi, S. (2020). Feminist posthumanisms, new materialism and education. Routledge.
- Roden, D. (2018). Speculative posthumanism. In R. Braidotti & M. Hlavajova (Eds.). *Posthuman glossary* (pp. 398–401). Bloomsbury Academic
- Rose, G. (2016). Visual methodologies. SAGE.
- Rose, J. (1984). The case of Peter Pan or The impossibility of children's fiction. In S. Heath, C. MacCabe, & D. Riley (Eds.), *The language, discourse, society reader* (pp. 62–72). Palgrave Macmillan

- Rudd, D. (2004). Theorizing and theories: the conditions of possibility of children's literature. In P. Hunt (Ed.), *International companion encyclopedia of children's literature* (pp. 154–165). Routledge.
- Saleh, M., Menon, J., & Kubota, H. (2018). Stories to (re)name by: Relationally living and narratively inquiring within the multilayered midst. *LEARNing Landscapes*, 11(2), 331–343. https://doi.org/10.36510/learnland.v11i2.966
- Seibt, J. (2018). Robophilosophy. In R. Braidotti & M. Hlavajova (Eds.), Posthuman glossary (pp. 390-393). Bloomsbury Academic.
- Sharkey, A. (2017). Can robots be responsible moral agents? And why should we care? *Connection Science*, 29(3), 210–216. https://doi.org/10.1080/09540091.2017.1313815
- Sheldon, R. (2016a). Spectrum orders: Digital science fiction and the corrected present. *Science Fiction Studies*, 43(1), 33–50. https://doi.org/10.5621/sciefictstud.43.1.0033
- Sheldon, R. (2016b). The child to come: Life after the human catastrophe. University of Minnesota Press.
- Sima, J. (2018). Love, Z (J. Sima, Illus.) Simon & Schuster.
- Sims-Bishop, R. (1990). Windows and mirrors: Children's books and parallel cultures. Keynote address at 14th annual reading conference "Celebrating Literacy," California State University, San Bernardino. https://files.eric.ed.gov/fulltext/ED337744.pdf
- Sipe, L. R. (2001). Picturebooks as aesthetic objects. *Literacy Teaching and Learning*, 6(1), 23–42. https://readingrecovery.org/wp-content/uploads/2017/03/LTL_6.1-Sipe.pdf
- Snaza, N. (2018). Aleatory entanglements: (Post)humanism, hospitality, and attunement—A response to Huge Letiche. *Journal of Curriculum and Pedagogy*, 14(3), 256–272. https://doi.org/10.1080/15505170.2017.1398700
- Suvin, D. (1979). Metamorphosis of science fiction: On the poetics and history of literacy genre. Yale University Press.
- Todd, Z. (2016). An Indigenous feminist's take on the ontological turn: "Ontology" is just another word for colonialism. *Journal of Historical Sociology*, 29(1), 4–22. https://doi.org/10.1111/johs.12124
- Tschida, C. M., & Buchanon, L. B. (2017). What makes a family? Sharing multiple perspectives through an inclusive text set. *Social Studies and the Young Learner*, 30(2), 3–7. https://www.socialstudies.org/system/files/publications/articles/yl_3002173.pdf
- Tuck, E. (2015). Re-visioning social, re-visioning context, re-visioning agency. American Education Research Association.
- Tuck, E., Mckenzie, M., & McCoy, K. (2014). Land education: Indigenous, post-colonial, and decolonizing perspective on place and environmental education research. *Environmental Education Research*, 20(1), 1–23. https://doi.org/10.1080/13504622.2013.8 77708
- Tuck, E., & Yang, W. (2012). Decolonization is not a metaphor. *Decolonization: Indigeneity, Education, & Society*, 1(1). 1–40. https://jps.library.utoronto.ca/index.php/des/article/view/18630
- Watts, V. (2013). Indigenous place-thought and agency amongst humans and non humans (First Woman and Sky Woman go on a European world tour!). *Decolonization: Indigeneity, Education & Society, 2*(1), 20–34. https://jps.library.utoronto.ca/index.php/des/article/download/19145/16234/
- Wynter, S. (1984). The ceremony must be found: After humanism. *Boundary 2*, 12/13(3), 19–70. https://doi.org/10.2307/302808
- Wynter, S. (2003). Unsettling the coloniality of being/power/truth/freedom: Towards the human, after man, its overrepresentation-an arguments. *The New Centennial Review, 3*(3), 257–337. https://muse.jhu.edu/article/51630
- Yonck, R. (2020). Heart of the machine: Our future in a world of artificial emotional intelligence. Simon & Schuster.