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Toddlers' engagements with preschool playgrounds: ethnographic insights from Sweden

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ABSTRACT

This article explores toddler – place relationships outdoors during early childhood education in Sweden. Informed by Tim Ingold's theorization of movement, we explore toddlers' embodied engagements with the preschool playground and how the human–non-human environments become entangled. The results show that, just as in the wider world, the processes enabling and limiting toddlers' engagements in the playground are continuously in motion. Toddler–place relationships are continuously created through a mutual dependence between human and non-human entities. In this sense, toddlers' engagements with playgrounds are not separate from the place through which they engage, but change place.

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Introduction

This article explores toddler–place relationships outdoors in early childhood education settings. By doing so, the article expands our knowledge of 'tiny human geographies' (Holt and Philo 2023) through the focus on toddlers' engagements with preschool playgrounds. Preschoolers in Sweden, and elsewhere, spend time outdoors regardless of the season or the weather which means preschool playgrounds are places important to the everyday lives of many toddlers. Outdoor activities are natural parts of preschool practice and everyday routines (Hansen Sandseter 2014), which can be understood in relation to the strong belief in the importance of spending time outdoors. Outdoors, and in particular, nature, is often viewed as a good place for children. This is connected to ideas and ideals about childhood and healthy outdoor education (Halldén 2009; Harju et al. 2021). More recently, a critical discussion has drawn attention to changes in contemporary society under which preschools are being built and expanded to accommodate more children in less space (cf. Swedish National Board of Housing, Building and Planning 2015), resulting in less natural environment being available to children in preschool playgrounds (Manni et al. 2024). These criticisms should be understood partly in relation to studies emphasizing the benefits of time spent outdoors (Mygind et al. 2021) and the importance of diverse natural outdoor settings to meet children's need for varied, challenging, and stimulating settings (cf. Fjortoft and Sageie 2000; Hansen Sandseter, Storli, and Sando 2022; Manni et al. 2024).

The emphasis on outdoor activities in Scandinavian early childhood education is reflected in studies of how teachers and children experience the preschool playground. However, relatively little is known about the youngest preschool children's perspectives, i.e. those of toddlers (Chen and Hamel 2023). This also applies to the geographies of children and youth, within which toddlers

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have occupied a rather peripheral position, although we are witnessing an ongoing shift towards greater interest in 'tiny human geographies' (Holt and Philo 2023). Focusing on toddlers in early childhood education settings is especially important because studies have shown that their outdoor practices are associated with various limitations and restrictions relating to the overall design of the space, and also to the efforts of teachers, including issues of staffing and security (Chen and Hamel 2023; Kemp and Josephidou 2023; Manni et al. 2024).

In this article, we set out to explore toddlers' embodied activities, with a particular focus on processes that enable and limit engagement (cf. Hackett and Rautio 2019). By using the term engagement, we include a variety of encounters – social, material, and with nature – with the aim of attuning to the ways in which the toddlers and playgrounds correspond or interweave (Ingold 2013). A call has been made to further explore how children are entangled in place through rethinking actions and relations from a less human-centric standpoint (Myrstad, Hackett, and Bartnaes 2022). In this article, we approach toddler–place relationships as mutually dependent and ongoing, and places, humans, and non-humans as entangled (cf. Gallagher 2019). The study adds knowledge to our understanding of how toddlers engage with an institutional setting that is important to their everyday lives, and how elements of this setting are entangled with their engagement.

Previous research

Preschool playgrounds are important places in the everyday lives of preschoolers. The outdoor environments of any school have been created by adults as 'places for children' (cf. Rasmussen 2004). As shown in previous research, however, children engage not only with official places provided by adults, but also with in-between, informal places, both noticed and unnoticed by adults (Aminpour, Bishop, and Corkery 2020; Horton and Kraftl 2010; Rasmussen 2004; Skånfors, Löfdahl, and Hägglund 2009). For example, hidden places in playgrounds can be important for developing peer cultures among children (cf. Christensen & Mikkelsen 2013). Studies have also highlighted the potential of a mixture of features in the preschool outdoor setting, such as open ground, sloping terrain, shielded places, rigid fixtures, moving fixtures, loose material, water, creatures, and fire (Lerstrup and Konijnendijk van den Bosch 2017), all of which can support children's engagement (cf. Moore 1989; see also Fjørtoft & Sageie 2000). Hence, the design of the playground can have an impact on children's choices of places and activities (Dyment and O'Connell 2013). The fundamental role of preschool playgrounds in the everyday lives of many toddlers therefore requires us to take their perspectives on place seriously when such places are created and evaluated (Morrisey, Scott, and Wishart 2015).

Public and commercial playgrounds have been discussed in previous research as representing 'alien spatialities' that limit children's participation in public spaces, creating and maintaining boundaries between children and adults (Pitsikali and Parnell 2019a, 2; see also Atmakur-Javdekar 2016; Maxey 1999), and as providing primarily for the needs of adults rather than children (McKendrick, Bradford, and Fielder 2000), thus emphasizing the adult/child binary. However, as the work of Horton and Kraftl (2018) shows, community playgrounds can be seen as co-constituted 'with, in and as the social-political lives' of wider communities (Horton and Kraftl 2018, 214). Furthermore, as the ethnographic study by Pitsikali and Parnell (2019b) shows, what they call a playground paradox seems to exist, whereby restricted activities and rules within playgrounds seem to support inter-generational play outside these areas. Extending the playgrounds, play outside has been shown to negotiate both norms and hierarchies between children and adults (Pitsikali and Parnell 2019b). This highlights the importance of both the spatial and social conditions relating to children's engagements with place (cf. Kytä et al. 2018).

In addition, playground fences have been discussed as controlling elements of childhood (Pitsikali and Parnell 2019a). Recent studies have shown how decisive the design of fences can be for the outcome of children's engagements, discouraging children from entering the space at all, or actually feeling invited to use the space while taking into account the need to protect what is inside the area

(cf. Jansson, Mårtensson, and Gunnarsson 2018). In this sense, fences can be seen to hinder engagement. However, as shown in a previous study, fences also support play on, and around, them (Pit-sikali and Parnell 2019a). Altogether, this highlights the importance of paying close attention to how children themselves engage with place, in order to gain insight into how things could be otherwise (Holt and Philo 2023), since places have multiple meanings and geographies (cf. Horton and Kraftl 2018).

Research on children's geographies more broadly has stressed the importance of the situated, embodied, sensory, and material in children's engagements with place (Bartos 2013; Hackett and Rautio 2019; Løkken 2000, 2009). Studies have shown that movement, more specifically the walking and running of young children, should be viewed as place-making activities (Ekman Ladru and Gustafson 2018; Hackett 2014, 2016) and ways of experiencing and knowing the world (Christensen and Mikkelsen 2013; Ergler, Freeman, and Guiney 2021; Hackett and Sommerville 2017; Klaar and Öhman 2014). In this sense, young children's movement is also part of the creation of everyday places (Ekman Ladru and Gustafson 2018; Orrmalm 2021). Likewise, other studies have shown that features of place are important to children's embodied learning about movement (Areljung 2019). Therefore, researchers need to attune themselves to and take seriously the ways in which children and place mutually shape each other (cf. Hackett, Procter, and Kummerfeld 2018; Myrstad, Hackett, and Bartnaes 2022).

Children's mobilities do not come into being in a vacuum, but rather are influenced by the body, materiality, architecture, sound, and other experiences going on around them (cf. Cortés-Morales 2020; Antonietta and Tebet 2021; Hackett, Procter, and Kummerfeld 2018). This illustrates an interdependence between the human and non-human, with place features such as stones and rainwater having agency by virtue of doing things to and with us (cf. Elkin Postila 2021; Rautio 2013). From these perspectives, not only are children engaging with place, but place, and features of place, can also be seen as engaging with children.

While research has acknowledged the mobilities of children and how they engage with place, there is still a gap when it comes to the activities of the very youngest – and to a large extent non-verbal – children, and preschool playgrounds (cf. Chen and Hamel 2023). Acknowledging that toddlers are deeply entangled with the more-than-human world, this article sets out to explore the ways in which they engage with outdoor settings in early childhood education.

Theoretical perspectives

The role of movement in how children make sense of and get to know a place has been highlighted by previous research (e.g. Hackett 2014). Wayfaring, a concept used by Tim Ingold (2011), refers to the ways in which beings inhabit the world through the embodied experience of movement. For Ingold (2007), movement creates knowledge of place and, by moving through the world, wayfarers become their movement.

Proceeding along a path, every inhabitant lays a trail. Where inhabitants meet, trails are entwined, as the lives of each become bound up with the other' (Ingold 2009, 33). In this way, human existence unfolds along the lines of one's own movement, and the lines of others. Place is to be viewed in a similar manner because it is continuously constituted by lines of wayfaring (Ingold 2009). A preschool, for example, is a place where the lines of both preschool children and teachers entwine. However, these lines are not contained within the preschool but trail beyond and entangle with the lines of other places; for example, the children's homes, creating a meshwork, or multiple entanglements, constituting the texture of the world. Hence, places are 'delineated by movement, not by the outer limits of movement' (Ingold 2009, 34).

Ingold's work stresses the non-fixedness of boundaries; living beings and environments are continuously changed by the practice of moving through. This opens up opportunities to rethink both playgrounds and toddlers' engagements as ongoing; neither the playgrounds nor the toddlers have fixed meanings. 'The movement of life is specifically of becoming rather than being, of the

incipience of renewal along a path rather than the extensivity of displacement in space” (Ingold 2011, 72). This touches upon a central discussion within child studies on children as either beings or becomings; that is, as either social actors actively constructing childhood, or as future adults lacking the abilities of the adults they will become (cf. James and James 2012; Uprichard 2008). Through moving beyond the division, but starting from the becomingness of everything (Ingold 2011), it is possible to recognize the temporality of children, childhoods, and playgrounds and to consider being/becoming discourses as complementing each other (cf. Uprichard 2008). Furthermore, becomingness also recognizes a mutual dependence that can be related to Haraway’s (2008) concept of becoming-with and that ‘to be one is always to become with many’ (Haraway 2008, 4).

Furthermore, through movement, places, humans, and non-humans interweave (cf. Myrstad, Hackett, and Bartnaes 2022) in a process of correspondence (Ingold 2013). Correspondence is described as a ‘dance of animacy’ between the human and non-human. Using the example of a kite being flown, Ingold (2013, 101) argues that ‘flyer and air do not so much interact as correspond’. Correspondence could thus be seen as a relation between the human, the non-human, and the environment. Thus, the form of materials, for instance, clay that has been formed by rain-water, toddlers, or loose materials in sandy playgrounds, are constituted by humans, materials, and the wider environment (Ingold, 2013, 26–28; Myrstad, Hackett, and Bartnaes 2022). Instead of viewing agency or the effects of the different agents – toddlers, body sizes, skills, rain, clothes, teachers, sticks, sand, researcher, asphalt, clay – as being involved in processes that enable or limit activities in playgrounds, in our analysis we try to move beyond binaries to explore how entities correspond; that is, how they respond to and ‘wrap around one another’ (Ingold 2013, 105; see also Hackett and Rautio 2019).

Ingold’s theories, we argue, help us to rethink the notion of preschool playgrounds as places created by adults for children. Our theoretical approach takes the starting point that human and non-human entities are mutually dependent and involved in the processes of engagement in the playgrounds (cf. Gallagher 2019).

Moving with toddlers as a methodology

This article is part of a larger research project, extending over four years, which focuses on the changes and use of preschool playgrounds in Sweden.¹ The participating preschools represent both traditional and modern facilities, a variety of designs and sizes of playgrounds, and varying numbers of children at each site (Manni et al. 2024). Fieldwork was conducted by moving with the toddlers in preschool playgrounds. Observations were carried out with a total of 26 toddlers (1–3 y/o) at ten preschools. The aim was to move with the toddlers, and to learn through their movements (cf. Ingold 2020). The data consist of field notes and images. Some images were taken from the perspective of the toddlers, encompassing their fields of vision and at their heights, and others were taken from the researchers’ perspective.

Since this study is part of a larger project, we have made several visits to the participating preschools. For this particular study, we met the toddlers in their playgrounds. Initially, we exchanged information with the preschool teachers in charge of our collaboration. The information included the number of children present that day, the toddlers with parental consent to participate, and general information about their practices. After debriefing with the staff, the toddlers were gathered together and we presented ourselves and the research project. We showed them our camera and the papers for field notes, and as toddlers were expressing interest, we showed them some images on our digital camera display. They stayed with us for different amounts of time, but most of them quickly moved on with what they were doing.

The initial idea was to centre the children, not the place or activities, and to decentre the researcher through adopting a careful, and what we thought of as a respectful, physical distance from the toddlers (cf. Spyrou 2017). This included the researcher remaining calm in their body language and avoiding talking to others. The idea was to be receptive to the toddlers moving around with as little

influence from the researcher as possible. In practice, centring the toddlers while decentring the researcher sometimes created uncomfortable distances from the toddlers, as shown in the analysis section. This led to an approach where centring the toddlers became entangled with the movements of the researcher in correspondence with a moving world (Ingold 2020). The fieldwork was carried out with a sensitivity to the fact that every research situation is unique, dynamic, and ongoing (Horton 2008). While moving with the toddlers, one child at a time, and the 'small happenings' (Horton and Krafl 2010), the researcher sometimes became more aware of ethically sensitive situations than the teachers. Altogether, this led to an approach in which the researcher moved in and out of the centre with the toddlers as a responsive approach to ethics in practice (cf. Spyrou 2017).

The research project was approved in an ethical vetting (Dnr 2021-02403) and data was handled in accordance with our project's data management plan regarding safety, confidentiality, and access. Pseudonyms are used throughout the article. All the parents of the participating toddlers received written and oral information, and agreed for their children to take part in the study through written consent forms. As the study includes very young, non-verbal, children, consent became an important part of the fieldwork, which was carried out with a particular sensitivity to the toddlers. Among other things, this meant respecting the toddlers' boundaries, when they showed a need for privacy and/or wanted a reaction from the researcher. During our fieldwork, we did not notice our observations causing any particular disturbance or distraction to the toddlers' activities. On the contrary, most of the toddlers seemed very occupied with their activities, and did not notice the researchers. On some occasions, toddlers wanted to make contact; for example, by handing the researcher materials, such as a stick or a stone, or moving closer to look into the camera. When this happened, our approach was to receive 'gifts', to say 'thank you', or to show them images in the camera. The researcher's approach was to not expand any discussion, but to decentre and continue the observation in silence. All and all, this became a situated procedure (Horton 2008).

As the first step in the analytical procedure, all field notes were transferred to word documents with accompanying images. These images have served as a visual complement, at times strengthening an argument, and at times giving the data more nuance. Following on from the methodological goal of moving with the toddlers, in the second step, we worked with the data inductively, from the bottom up, summing up each fieldnote. A central aspect of this step was trying to avoid attributing particular values to the toddlers' practices, noticing more than the obvious, and staying with the mundane (cf. Krafl 2006). After this, a more abductive approach helped us, both empirically and theoretically, to identify recurring patterns across the data set (Alvesson and Sköldbberg 2009). The results of this process are presented in the analysis section, below, supported by illustrating images.

Analysis

Wandering

A preschool playground can be seen as constituted by children and their movements (cf. Hackett 2016; Ingold 2009). During our analysis of the data, a recurring pattern quickly emerged in the toddlers' engagements with the playgrounds; what we call wandering. An excerpt from the field notes describes this:

As the fieldwork starts, the girl stands in a green area behind other places in the playground equipped with play equipment. We learn that this girl just recently started at the preschool and that she is around one year old. Slowly, she moves across the lawn, looking around. It is tricky to determine what is catching her interest. The lawn contains no objects. There are two teachers standing on the lawn at the time. The girl seems both calm and confident in her movements and does not make any sounds to communicate. (Fieldnote from the observation of Linn) (Figure 1)

As in the written and visual example of Linn, many toddlers spend much of their days wandering around, silently observing their surroundings in the playgrounds, without overtly interacting with anyone or anything, or seeming to have any particular goal apart from wandering. They move from



Figure 1. Linn wandering across a lawn in the preschool playground.

one point to another, back and forth, entering certain areas of the playgrounds but not others, challenging and being challenged by the boundaries imposed by the architecture of the playground (cf. Antonietta and Tebet 2021).

Wandering would be easy to miss or dismiss, or to interpret as aimless, due to its mundane quality. However, given its frequent occurrence among the toddlers, it seems to be constitutive of everyday life at preschool. Wandering is not something that takes place in between other activities; rather, it seems fundamental to the toddlers' engagement with the playground (cf. Hackett 2014). As a mundane practice, wandering seems to be involved in the very constitution of place and thus important to the construction of childhood in the preschool setting (cf. Kraftl 2006).

Returning to the field notes, Linn's wandering continues as she moves around silently. At times, she halts to take a look at her surroundings, at others she stops, waits, and is joined by a teacher who is gently following her calm and tranquil movement. On one occasion, Linn joins a teacher's walk, sometimes holding her hand and sometimes not (summary of the field notes from the walk with Linn). Using Hackett's (2014) ideas, Linn's wandering – both unaccompanied and accompanied – could be interpreted as a communicative practice in which others are both invited to join in and excluded from engaging with her as she moves around. Furthermore, drawing on Ingold's (2007, 2011) notion that movement is fundamental to how knowledge unfolds, Linn's wandering can be seen as one of many ways of knowing the playground (cf. Christensen and Mikkelsen 2013). Through wandering, Linn's knowing and experience unfolds along lines of her own, and along the lines of others, e.g. the teacher (cf. Ingold 2009).

Moving with things

At the start of a preschool day, loose materials can be found, ordered, organized, and stored both inside and outside, close to areas where they are to be used in the playgrounds. For example,

bicycles to be used on asphalt surfaces, small figures to be played with in certain areas, and buckets and spades for the sandboxes. Preschools vary in how strict they are with these items, their use, and where and when children are allowed to use them. In part, this is due to the dangers of things being used in the wrong way or in the wrong area at the wrong time. For example, cycling across an area when many toddlers are outside, or playing war with sticks in the greenery may result in accidents that can be avoided through adhering to rules around the use of loose materials (Manni et al. 2024). In the vast majority of playgrounds, there is an original (adult) idea behind loose materials and how they are to be used (cf. Antonietta and Tebet 2021). Such ideas are continuously challenged by the toddlers. An excerpt from fieldwork describes this:

As the girl is getting help from a teacher brushing dirt from her hands, she turns around and starts to climb up the steepest part of a hill. She needs to crawl to get up. When she gets to the top, without any major problems, she stands up and looks out over the hill. A teacher and some other children are there. A channel of soil and gravel has formed at the other side of the hill, where some children are sliding down. The girl starts sliding down. When she gets down she finds a spade, left there by somebody else. She brings it to the top of the hill where several kids from her class are now digging and playing. She looks at them without joining their activities. Instead, she sits down, and uses the spade as a sled to slide down the hill once more. (Fieldnote from the observation of Lily) (Figure 2)

This excerpt from the field notes and the image provides an example of how things move with toddlers – and how toddlers move with things – across playgrounds. Unaccompanied, but inspired by other children and later by a spade, Lily's sliding begins and, to quote Haraway (2008, 4), this illustrates that to be is always 'to become with many'. This example illustrates the various entities involved, wrapping around one another, in processes that enable activity (cf. Hackett and Rautio 2019; Ingold 2013). The hill, as a feature of the outdoor environment in this particular playground,



Figure 2. Lily using a spade to slide down the hill.

engages Lily in climbing up and sliding down, thus enabling movement. In this sense, the hill can be seen as involved in the very constitution of how Lily's lines unfold in the moment. Lily's activity is further enabled through the absence of anyone, perhaps a teacher, interrupting out of concern that Lily's engagement may cause damage to either the spade or the hill (cf. Manni et al. 2024). At the same time, as can be seen in the example, the hill bears traces, a channel of soil, shaped by a mesh-work of lines of children's movement, loose material such as a spade, and the weather (cf. Ingold 2009, 2013).

In the excerpt, Lily is moving up a hill, in a grassy area. At times, she needs to crawl to avoid falling, then she gets up and starts moving to another point on the hill where the conditions are better for sliding down. Climbing up the second time, rather spontaneously, she brings a spade that becomes involved in her activity. Using her body to climb up, adjusting her position when moving, with and without things, and using the spade to slide down. We can speculate that Lily is testing whether the spade makes sliding down the hill easier or not, perhaps drawing on previous experiences because the spade is seemingly used as a bum slider, which is usually used on snow to improve the speed of descending something. One could therefore argue that, through her overall engagement with the hill, Lily is showing awareness of friction and the conditions for moving up and down a slope efficiently (cf. Areljung 2019; Klaar and Öhman 2014).

Another observation emerging from Lily's activities concerns her unaccompanied engagement. This is a recurring pattern in the data, with many toddlers spending long periods of time unaccompanied, in the sense of not interacting with anyone else. Although other children and teachers are around, the toddlers seem to pass unnoticed. In another example from our data, a toddler sits in a sandbox with a bucket and spade for almost the entire observation period while digging a hole that grows bigger and bigger. Passing by the sandbox quite sometime after the observation had ended, the researcher noticed that the toddler was still there digging, unaccompanied. As in the observation of Lily, a first (adult) response to such unaccompanied engagement involved it being troublesome. Maybe the intuitive feeling was accurate in some situations, but we also observed intense engagements where humans were not at the centre, but rather things and the playground itself. This highlights the centrality of the non-human in how activities in playgrounds unfold (cf. Ingold 2009).

Encountering material boundaries

At preschools, multiple boundaries are crossed by toddlers every day. These boundaries may be imposed by both adult expectations and architecture (cf. Antonietta and Tebet 2021). Preschool playgrounds contain human (teachers, children), non-human (barriers, fences, edges, locks, door alarms), and social (norms, codes, rules) boundaries protecting children and the environment from harm and danger (cf. Manni et al. 2024). The toddlers in this study spent a lot of time on and alongside material boundaries, engaging with them in multiple ways. As shown in [Figures 3 and 4](#), fences around areas in the playgrounds can be used in various ways to enter and exit the areas.

The wooden boundary around the sandbox area in [Figure 3](#) is there, we assume, due to differences in level between the asphalt and the sandbox, preventing children from falling down and getting hurt. Similarly, the swing area in [Figure 4](#) is bounded to keep children away from the swings, which could potentially cause harm when in motion and being used by other children. Both areas have routes intended for entry and exit but, as shown in [Figures 3 and 4](#), boundaries blur into obstacles through the toddlers' engagement. By moving, and trying to move, across them, the toddlers challenge and push these boundaries (cf. Antonietta and Tebet 2021; Ingold 2009). In this sense, the boundaries are constituted by children's movement. However, as can partially be seen in [Figure 4](#), where Liam fails to climb over the wooden fence due to his height and that of the fence, toddlers are also challenged by the boundaries. Boundaries can thus become a more or less challenging endeavour, and more or less of a hindrance ([Figures 5 and 6](#)).



Figures 3 and 4. Elliot climbing asandbox fence to get out of the sandbox and Liam trying to climb over the fence to a swing area.



Figure 5. Tim bending down and leaning against the preschool gate.

Preschool gates could be viewed as the fundamental, enduring material boundary of a preschool. The preschool area is defined by its gates, which act as material indicators that the area both accommodates and protects vulnerable subjects (cf. Pitsikali and Parnell 2019a). An excerpt from the fieldwork with Tim describes this:

Tim moves away from the sandbox where his group is, no one notices so I [PI] follow him. He wanders off, slowly, towards the fenced gate. Around him, there is a lot of movement, children and teachers in the playground, but he doesn't care about anyone else. He seems to be moving towards something, something he's decided on. No one else, neither children nor adults, pay any attention to him. Finally, he arrives at the gate. He's moving along, touching it, bending down, trying to sit, standing there watching children and parents arriving at the preschool. He's seemingly interested, not worried or sad. He stands by the gate for



Figure 6. May is trying to grab a small stick.

some time, not trying to leave, not using any verbal expressions. He's just quietly standing there, observing. (Fieldnote from the observation of Tim) (Figure 5)

In this example, Tim is moving away from his group, wandering unaccompanied, almost unnoticed, bending down, leaning against, standing by, looking at, and making stops along the gate. The gate thus serves as more than a disrupter keeping him from straying outside the preschool area. Although intended to disrupt movement, the gate encourages it (cf. Pitsikali and Parnell 2019a). As Tim, and other toddlers, are also watching parents and children, food deliveries and garbage trucks arriving, and other people, animals, and vehicles passing by the preschool, the gates can also be said to encourage various forms of inside–outside interaction (cf. Pitsikali and Parnell 2019a). Tim's engagement is constitutive of the gate's multiple meanings. It is somewhat created through Tim's movement, but not limited to it (cf. Ingold 2008, 2009).

As dominant features of the playgrounds, boundaries are important for the toddlers' overall experiences in their preschools. As well the placement of the boundaries, their features and those of the toddler, such as height and skills, enable and limit a variety of engagements: climbing over, failing to climb over, walking and running along, leaning against, and resting beside. This shows that material boundaries, as well as the toddlers, are in the process of becoming through these engagements (cf. Ingold 2007). The multiple meanings of the material boundaries described in this section, for example, the preschool gates or wooden fences, are also made possible by the fact that they are features of the outdoor environment not requiring care and protection. Other things, such as areas of cultivation or bushes, are protected by boundaries that, through a combination of their design and rules, make engagement more or less impossible (cf. Manni et al. 2024). In this sense, the material boundaries described as examples in this section are imbued with a certain status enabling the toddlers to engage with them without any major interruptions.

Boundaries of rain

As rain starts falling, two things can be expected in preschool playgrounds; the first is that most of the children become dressed in waterproof clothes as protection from getting wet, and the second is that puddles start to form in the bumpy ground. As shown below, both serve as enablers and limiters of toddlers' engagement with playgrounds. An excerpt from the field notes from the observations of May records:

It is a rainy day and the girl is dressed in outdoor clothing, waterproof gloves and a reflective vest reaching below her knees. Outside the edge of the sandbox, on the asphalt, where sand and other materials are gathered, the girl is bending down, seemingly trying to explore something. She seems interested in some small sticks and sits down to get closer to them. She is trying to grab them but it seems almost impossible. The vest gets in the way as she stretches her arm and the gloves are too bulky to be able to grab the small objects [...] after a long, arduous struggle, the PI can no longer resist and brings a stick to the girl, stretching out her hands. The girl's facial expression reveals happiness and satisfaction. She shows her gratitude without using any words. Taking the stick in her waterproof-glove-clad hand, she watches and contemplates it for a long, long time. (Field note from the observation of May) (Figure 6)

To quote Rautio's (2013, 404) study on stones, even sticks 'do things to us and with us'. As can be seen in the example involving May, sticks do things to both children and adults. In the excerpt, various entities intertwine and take on significance for the situation involving the stick. The girl and her size, the weather, the rain, the bulky gloves enveloping her small hands due to the rain, the vest, the place, and the placement of the sticks she is trying to reach, all mutually shape an event – an extended struggle – that is disrupted when the researcher enters the situation and hands May a stick (cf. Ingold 2013). May is not alone in being bounded by rain, or by clothing. Waterproof gloves, vests that are too big for toddlers, and other weather-appropriate outdoor clothing often make it difficult for the youngest children to move and engage with playgrounds.

While the example involving May sheds light on limitations to the toddlers' engagements with preschool playgrounds, and the effects of something as trivial as waterproof gloves, it also teaches us about the research practice itself and the difficulties – perhaps even the impossibilities – of maintaining one's position as an observer, away from the centre, not responding to processes as they unfold in the field. Hence, carrying out fieldwork with the aim of centring children (Spyrou 2017) is very much entangled with the position of a researcher in correspondence with a world in motion (cf. Ingold 2020).

Furthermore, attuning to human and non-human entities and the wider environment, it becomes clear that the enablers and limiters of toddlers' engagements are also continuously in motion (cf. Ingold 2011). This is further shown in an example involving Elis:

The boy is touching the rain and mud with his hands, while the toddler next to him is digging with a spade [...] He then finds a plastic utensil, a kind of small cone that he starts using to scoop water with [...] He carries the water to a small well covered with a grate where he pours it out. Suddenly, more children and a teacher arrive. The teacher sees the boy working actively with the water and starts walking up to him. She bends down and says that he needs to wear his waterproof gloves. She grabs his hands and begins to pull the gloves onto them while the boy protests and screams [...] (Fieldnote from the walk with Elis) (Figure 7)

As in Elis's engagement with rainwater and mud, most toddlers in this study used their bodies and senses to explore natural features of the playgrounds, such as wet or dry sand, leaves etc. (cf. Bartos 2013). Furthermore, as can be seen in the example involving Elis, processes enabling engagement in the playgrounds change corresponding with changes in the weather (cf. Ingold 2020). As a response to rain, puddles start forming on the ground. The toddlers engage with the variability of rainwater as it interacts with materials and transforms them into different textures (cf. Elkin Postila 2021). The excerpt shows how Elis's lines unfold in correspondence with the rain, moving between areas as a transporter of rain, enclosing him in the moment (cf. Ingold 2013). As does the rainwater, when it unfolds along Elis's line when he mixes it with the material in the surroundings, causing it to become new textures, and when he carries it from the greenery to a well that is filling up with rainwater flowing in from several directions.



Figure 7. Elis gathering rainwater in a plastic cone.

As they wrap around one another (Ingold 2013, 105), entities are both enabled and limited through engagement. As can be seen in the excerpt involving Elis, an intervention takes place later when a teacher enters the situation. This intervention by the teacher may be interpreted as an outcome of the complex entanglement between different social, individual, material, cultural, and structural factors (cf. Priestley et al. 2013). This could be the consequence of general rules and concerns that small hands must not get cold. We can see from Elis's response to this intervention that it becomes limiting, as his engagement abruptly changes direction. After resisting putting on the waterproof gloves, he gives up and his expression signals resignation. His work stops, and so does the process by which new textures of rain and mud could have been generated (cf. Myrstad, Hackett, and Bartnaes 2022). Unlike the example involving May, it is more uncertain whether the biggest hindrance to continued engagement is actually the gloves themselves or whether it is the teacher's intervention, for how the situation developed and its outcomes.

As research practice unfolds, ethical dilemmas are always in the process of becoming (Horton 2008). As an outside observer with more insight into Elis's dedicated engagement than the insider, the incoming teacher, the researcher found that the situation became too difficult to witness. Unlike the situation with May, the researcher's position, at least physically, was decentred as the observation ended. This illustrates that conducting research is never disembodied, nor is it detached from everyday life. While conducting fieldwork, one can be deeply affected by actions and responses as they unfold in the moment, which may possibly also shape how the research is actually carried out (Horton 2008). Our experiences of fieldwork overall therefore raise some questions about the currently available codes and norms for research ethics, in which aspects such as relationships, feelings, or the vulnerability of both research subjects and the researcher rarely feature (Horton 2008).

Conclusion

Our theoretical approach, informed by the thoughts of Ingold (2007, 2008, 2009, 2011, 2013, 2020), has allowed us to follow the movements of toddlers as they unfold and to explore movement, for example wandering, not as aimless, but as meaningful expressions in themselves. By rethinking pre-school playgrounds as being constituted through the entanglement of a meshwork of lines of movement, human and non-human entities, and the wider environment (Ingold 2013), we show how

these playgrounds are more than fixed places and how the toddlers and playgrounds mutually shape each other (cf. Ingold 2008; Myrstad, Hackett, and Bartnaes 2022).

The analysis, informed by Ingold's concepts, reveals various limiters and enablers associated with toddlers' engagements. Some elements of the overall design and layout of the preschool outdoor environment – e.g. greenery and hills – appear to be important to the toddlers' engagement; evolving with the seasons and the weather, they are part of the enabling conditions for various forms of movement: sliding, climbing, and so on. Likewise, the possibility of being able to move around freely and engage with loose materials without being restricted in their scope and areas of use enables various conditions for engagement. Lily and the Spade is a vivid example of this, although the larger data set contains many more examples of children's unexpected engagement with materials, which show that things are not necessarily always valued so much for what they are, as for what they can do or become. Hence, these lessons to be learned about the possible uses of a spade illustrate how much is to be learned about why toddlers' participation matters in the planning and design of their everyday spaces. Somewhat surprisingly, aspects that at first glance may appear as hindrances, such as material boundaries or a lack of attention from teachers, also became enablers in certain situations. For example, when children moved away, unaccompanied, to engage with preschool fences and gates. In many ways, the toddlers' engagements were freed from the intentions and norms implicitly circulating within the preschool playgrounds (cf. Antonietta and Tebet 2021), and this calls for a move beyond the binary between design and making (cf. Hackett, Procter, and Kummerfeld 2018).

However, there are codes and rules that, in correspondence with the human and non-human, and the wider environment, hinder toddlers from engaging with their immediate setting (cf. Ingold 2009). As shown in the analysis, rain, for example, both enables and prevents various activities due to notions about the importance of being properly dressed for the weather. Although not centred in this study, some examples thus show how teachers are involved in processes that influence how toddlers' engagements unfold. This occurs as they gently embrace a little hand, inviting a toddler to wander across the playground, or interfere in a situation by imposing waterproof gloves on another hand. When teachers are attuned to the toddlers' activities, they are thus in a position to act or refrain from acting in ways that both enable and limit the processes by which toddlers' activities take place in the playgrounds.

We have shown how material boundaries can challenge, limit, and/or enable in correspondence with the engagers, and their sizes and skills. Hence, just as in the wider world, the processes enabling and limiting toddlers' engagements are continuously in motion (cf. Ingold 2011, 2013). Furthermore, rainwater, hills, soil, loose materials, and children enable certain engagements, while rainwater, cold, waterproof gloves, and interventions limit others. The examples involving the waterproof gloves – i.e. the girl with the stick and the boy and the puddle – show that, while these gloves can be limiting in themselves, for example by making movement more difficult, this is not necessarily the case. The girl finally gets her stick, but the boy's engagement with rain ends, which reveals that it is in correspondence with others, human and non-human, that hindrances come into being. Attuning to the little things, what small-sized bodies can and cannot do, and what is allowed to them or not, therefore seems to illustrate how embodied inequalities are both reproduced and challenged within the institutional setting of early childhood education (cf. Holt and Philo 2023). How a small body, despite such strong resistance, still cannot manage to defend itself against intervention by a larger body, and how another small body, after great effort, finally manages to get past a material boundary that is supposed to hinder it.

Our methodological starting point, moving with the toddlers, one at a time, allowed us to slow down and attune to their engagements with their environments, to the more than obvious, and even to the silent and still gestures going on in the playgrounds. Slowly observing a hole in a sandbox – dug by an unaccompanied toddler over an extended period of time – growing bigger and bigger, evoked thoughts about how big the geographical traces are that a small body can leave, and the ways in which toddlers both take up space and create marks, within micro-places and, more broadly, in wider geographical contexts. It also allowed space for our adult notions of ideas and ideals about children and childhood to unfold slowly and more critically alongside the toddlers' engagement, as shown in the analysis.

Finally, our analysis presents some examples of toddlers' deep attachments to places at varied scales, and how even the smallest spaces and materials, existing both on and under the radar of preschool staff, affect how engagements within the playgrounds unfold (cf. Horton and Kraftl 2010). Apart from showing how the tiniest stick or puddle matters and leads to commitment and resignation, excitement and sadness, it also provides examples of engagements valued by toddlers in the moment. The broader experience of early childhood education is constituted by such small, often unnoticed, engagements, and this is precisely why toddler geography matters. Furthermore, our hopes are that these perspectives can contribute to knowledge that it may be valuable to consider in future policies concerning outdoor time in preschool settings.

Note

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