

brill.com/vjep

# **Beyond Binaries**

Enacting Agency in Video Observations in ECEC

#### Ingvild Kvale Sørenssen

Department of education and lifelong learning, Faculty of social and educational sciences, Norwegian University of Science and Technology (NTNU), Trondheim, Norway ingvild.sorenssen@ntnu.no

#### Pål Aarsand

Department of education and lifelong learning, Faculty of social and educational sciences, Norwegian University of Science and Technology (NTNU), Trondheim, Norway pal.aarsand@svt.ntnu.no

#### Marit Honerød Hoveid

Department of education and lifelong learning, Faculty of social and educational sciences, Norwegian University of Science and Technology (NTNU), Trondheim, Norway marit.hoveid@ntnu.no

## Abstract

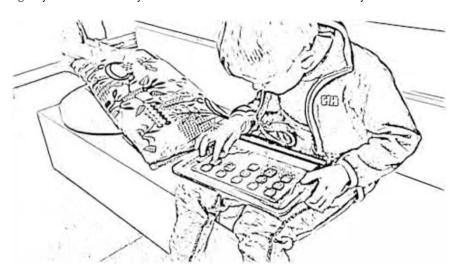
The focus on children's voices and experiences has been a substantial part of childhood studies. Research with children is closely linked to the idea of children as agents rather than seeing them as passive objects. In this article the authors examine how video ethnography, and the video camera in particular, in an Early Childhood Education and Care (ECEC) facility is an actor that actively co-produces agency. The authors explore how agency is distributed in assemblages consisting of children, the researcher and the video camera. The authors argue that approaching agency as manifold and as distributed is helpful in a critical discussion of children and agency and point to the need to study agency as entangled with human and non-human actors in relational activities. Far from being a tool to represent the real world as it is,

© INGVILD SØRENSSEN, PÅL AARSAND & MARIT HOVEID, 2019 | DOI:10.1163/23644583-00401008 | THIS IS AN OPEN ACCESS ARTICLE DISTRIBUTED UNDER THE TERMS OF THE CC-BY 4.0 LICENSE.

or merely a tool for "collecting" data, the video camera and the children are mutually constructed.

### **Keywords**

agency - sociomateriality - childhood studies - actor-network theory



FEATURE This article comprises three videos which can be viewed here.

This article focuses on a rather unproblematized binary in childhood studies where childhood scholars typically position their own research as approaching children as competent actors in contrast to "traditional" sociological and psychological research that often approaches children as not being fully competent. We redefine two well-recognized methodological stances within the field and employ them in an analysis of video observations. The first stance is the emphasis on children's perspective (James, Jenks, & Prout, 1998; Sommer, Samuelsson, & Hundeide, 2009), where the focus is on children's experiences and children as agents in sociocultural practices (children's agency). We argue that agency can be seen as distributed between both human and non-human actors. The second stance is the emphasis on doing research with children (Clark, Moss and Kjørholt 2005; Thomson, 2009), which is rooted in a view of children as competent actors (Christensen & James, 2017). Using the phrase "research with" rather than "research on" is meant to "position children as social actors who are subjects, rather than objects of inquiry" (Christensen & James, 2017, p. 1). Doing research with

children is thus closely linked to the idea of children as *competent* actors and thus contributing to a construction of childhood (James et al., 1998). In order to redefine the competent child, we draw on post-humanism through actornetwork theory (ANT) to scrutinize the concepts agency and actor. With this theoretical lens, we direct our attention to a particular fieldwork practice, namely video observation, and explore how agency, and actors, are co-constructed and discuss how research can avoid the binary of either a competent or non-competent child.

Recent research within childhood studies, as well as work using a decolonization perspective, sets out to disrupt the presupposed binaries of entities (human, non-human), and categories (adult, child) (cf. Oswell, 2013; Prout, 2005; Samuelsson, Sparrman, Cardell, & Lindgren, 2015). In the present article we add to this work by scrutinizing video clips from our fieldwork in ECEC institutions in Norway. We build on a post-humanist ontological stance where the social and material are seen as entangled and where entities are seen as mutually enacted (Orlikowski, 2007).

In this article we use the theoretical lens of ANT in the analysis of the three video clips that are presented and discussed below. Before embarking on this, we will briefly present some of the theoretical underpinnings of this post-humanist stance.

### Assemblage, Agency and Mutual Enactment

The concept of agency creates different connotations depending on one's theoretical background (see for instance Ahearn, 2001; Latour, 2005; Sayes, 2014). Even though there are different understandings and uses of the concept, it, in one way or another, involves *doing* (Sokol & Huerta, 2010, p. 47). Early work within childhood studies has been criticized for conflating children's experiences with agency (Oswell, 2013), and as Prout argues: "the agency of children as actors is often glossed over, taken to be an essential, virtually unmediated characteristic of humans" (Prout, 2005, p. 65). Lately, children's seemingly inherent agency has been problematized within childhood studies (Hammersley, 2017; Samuelsson et al., 2015).

To examine the empirical data of our study, we draw on actor-network theory (ANT) and in particular the notions *actors* and *assemblage*. ANT perceives both human and non-human entities as actors. The definition of an actor is: "anything that does modify a state of affairs by making a difference" (Latour, 2005, p. 71). This does not mean that non-humans have intentional agency, however, "the distinction between human and nonhuman is of little

initial analytical importance" (Law, 2009, p. 147). Latour calls for an examination of human and non-human actors as symmetrical actors, however, not as equal contenders: "To be symmetric, for us, simply means not to impose *a priori* some spurious asymmetry among human intentional action and a material world of causal relations" (Latour, 2005, p. 76). This implies a relational and flat ontology when it comes to the study of social practices.

Assemblages are composed of heterogeneous elements (human and nonhuman) that enter into relations with one another (Müller, 2015). Law and Mol (2008) state: "an actor does not act alone. It acts in relation to other actors, linked up with them" (Law & Mol, 2008, p. 58). These assemblages are seen as flexible and complex. Employing the notion of assemblage enables an examination of how human and non-human actors come into being in the encounter between them. Law and Mol use the term actor-enacted. "An entity counts as an actor if it makes a perceptible difference...This means that it is also always being acted upon. Acting and being enacted go together" (Law & Mol, 2008, p. 58). An actor-enacted does not act by itself but is realized in a complex set of webs. Thus, actors both shape and are shaped in encounters with other actors, whether human or non-human. They are, in other words, mutually enacted (Law & Mol, 2008; Mol & Mesman, 1996; Woolgar, 2012). This underlines the assumption that agency is *not* inherent in individual entities, but rather that agency is produced in relationships between the human and non-human (Sørensen, 2013). Moreover, this points to how assemblages work in the production of agency, and how assemblages may be seen as relational effects (Law, 2004, 2009).

According to Mol (2002, 2014), agency can be seen as multiple enactments of objects. This entails that actors differ across different assemblages, and that agency is seen as distributed and relational between what we traditionally label subjects (humans) and objects (non-humans) (Sayes, 2014). Such a stance opens for an understanding of agency as something distributed between several actors. We argue that not only are actors mutually enacted, but also; agency is mutually enacted and produced in multiple ways. Thus, one can reject the binary understanding of agency as something you either have or do not have. Instead agency is enacted in multiple ways, what we can call multiple agencies. The notion of multiple agencies suggests that different forms of agency are enacted under different circumstances and in different assemblages. We find the notion of multiple agencies to be a fruitful way of exploring (children's) agency. This notion is open for the unexpected and the flexibility with which agency becomes enacted. Bear in mind that the notion of multiple agencies does not refer to static nodes of prescribed agencies, rather it opens for almost endless possibilities in the way agency becomes

actualized relationally. This provides us with the possibility of unpacking video observations of children in kindergarten by exploring how agency is being distributed and enacted in different activities.

### 2 Video Recordings as Data

ANT is primarily a methodology (Law, 2009, p. 141). "Far from being a theory of the social or even worse an explanation of what makes society exert pressure on actors, it always was, and this from its very inception, a very crude method to learn from the actors without imposing on them an *a priori* definition of their world-building capacities" (Latour, 1999, p. 20). A key point from ANT is to follow the actors in an assemblage to see what happens when they entangle (Latour, 2005). Using video cameras to create data from the everyday life of children in kindergarten is an established research practice in the social sciences (e.g Bevemyr & Björk-Willén, 2016; Danby, Evaldsson, Melander, & Aarsand, 2018; Schanke, 2019). With visual technologies such as video cameras, still and moving images have become a significant research device and analytical tool in the social sciences (Carusi, Hoel, Webmoor, & Woolgar, 2014). The video camera and the researcher are relational actors taking part in the construction of data and subsequently the knowledge produced in a research setting.

We explored what is performed in three given events (times and spaces) in the video recordings from an ECEC facility. In this article we ask the question: How is agency mutually enacted in these video recordings? When researchers and video cameras are brought into an ECEC setting, they *do* something to the situation, they are not merely "recording reality" (Aarsand & Forsberg, 2010). Put differently, the researcher and the video camera play a part in coproducing reality, or as ANT argues, reality is a relational effect: "It is produced and stabilized in interaction that is simultaneously material and social" (Law & Urry, 2004, p. 394).

Following de Freitas (2016), we problematize how the use of video camera(s) in a research setting is "materially implicated in the production of new knowledge and new kinds of knowers, attending to the unique qualities of digital nature of video data for how it mobilizes new social and cultural relations" (p. 544). When the researcher directs a camera at children, she takes part in producing a relation between the camera, the children and the researcher. These three entities are actor-enacted in this assemblage, meaning that they are both acted and acted upon. In short, far from being a tool to represent the real world as it is, or merely a tool for "collecting" data, the video

camera, researcher and children, all mutually produce data together. Hence, observation is never a passive endeavour, but rather active production of data and consequently of knowledge. Video data are enacted through the research fieldwork and research process, hence, the presence of a video camera, and a researcher always does something in an investigated practice.

### 3 Participants and the Study

In this article we draw on video data from a larger research project, "Digital Tools in Early Education and Care", where the main objective has been to investigate children's digital practices. The video recordings were made in three kindergartens for a period of one to two weeks over a period of three years. All in all we have approximately 70 hours of video-recorded material. Thirty-five children, ages 4–6 years, and ten adults working in the kindergartens have taken part in these recordings. To observe digital practices in kindergarten, we have followed a group of children and their use of digital resources, such as tablets, smartphones and smartboards. The video camera we used was placed on a monopod. This allowed the researchers to hold it with one hand, like a walking stick. It also permitted the researcher to not merely look through the camera, but also to lean in and lean out, and to put the video camera at arm's length.

Informed written consent was given by the parents, and the kindergarten staff, and we were granted the rights to use and publish the data for scientific purposes. Doing research with young children requires ethical sensitivity and the children were continuously informed during the fieldwork about the research project and their right to decide whether they wanted to participate or not (cf. Aarsand & Forsberg 2010). All the participants have been given a pseudonym and they have been anonymized in the video recordings by using a filter that makes them unrecognizable. The storing of digitized data has been approved by NSD, The Norwegian Centre for Research Data.

In this article we present three video clips from one of the kindergartens. These events were reoccurring during the fieldwork and the three clips we have chosen serve as good examples in a discussion on multiple agencies, and on doing research with/on children by means of video cameras. One of the key points in ANT is how following actors provides insight into their reality/world, which worked as a guiding tool for us in collecting our video data. But also, the implications of the choices of the researcher when it came to which actors to follow, where, and in what context, are important in relation to data collection and knowledge production. In the three video clips we follow the entities:

children, video camera and researcher. The clips focus on what happens when these entities entangle and we explore how agency can be understood in these assemblages.

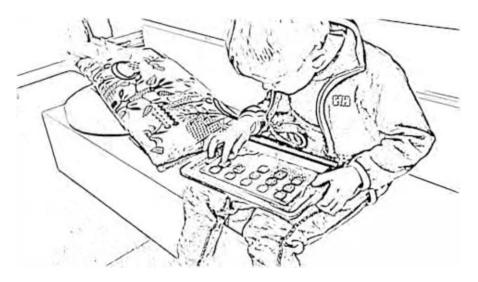
### 4 Actors and Agency in Video Observations

Treating children as social actors with agency has been a pivotal tenet within childhood studies (cf. Abebe, 2019; James et al., 1998; Oswell, 2013). In the upcoming analysis, we direct our attention on the distribution of agency in video recordings of ECEC activities. In the first clip, we address how agency is not merely produced between humans, but also between humans and nonhumans. Here the relations in the assemblage influence how agency is enacted. In the second clip we address how actors are mutually enacted. We argue that agency is not restricted to one entity but is relationally defined through actions and reactions that produce agency. Finally, in the third and last clip we show how agency can be seen as a multiple enactment and how it is distributed across persons and objects, more precisely across the researcher, several children and a video camera on a monopod.

In sum, the three clips highlight how the enactment of agency may take multiple forms depending on the assemblage. Thus, agency cannot be restricted to single entities but must be dealt with analytically as shifting sociomaterial relations.

#### 4.1 Actors – Sociomaterial Agency

Through video recordings of children in social activities we obtain a good picture (literally) of what they do, but we do not see what they see, the way they see it, and we seldom see the researcher behind or right next to the video camera. However, what can be seen is how the recorded humans, the present artefacts and the surroundings act and relate to one another in linguistic (words, intonations, stress, structure) as well as in material terms (body orientation, gaze, pointing, material framework). In the first video clip, we follow what may be treated as different entities and actors: Samuel, a tablet, a video camera and a researcher. This clip is an example of how agency is enacted in multiple ways and can be seen as different forms of agency. In this kindergarten, the children had to sign up to use one of the tablets for 10 minutes. The video clip shows Samuel who is sitting with a tablet on his knee. Samuel has had the tablet in his possession for three minutes when the video clip starts.



VIDEO 1 Samuel with the tablet. (See <a href="here">here</a>.)

It is possible to conflate the video camera and the researcher in this video clip, as they seem to be enacted as a singularity, and not as two different entities. The video camera and the researcher are entangled in such a way that they are in effect a hybrid socio-technological actor; a "video camera-researcher" that records an event. One cannot see the video camera-researcher as a body in this clip, but one sees how the recording zooms in and out on Samuel using a tablet, and one also sees how Samuel looks up at the video camera-researcher. The video camera-researcher is an actor that *does* something in this event. On a speculative note it could be argued that if the video camera-researcher had not been present, or if it had been a pen and paper-researcher, Samuel may have acted differently, perhaps asking for help when the tablet did not respond to his touch. The possibility of acting is related to the other actors in the assemblage.

In this video clip, we see Samuel tapping a screen, clicking on the buttons on the side of the tablet, shaking the device and turning it around. Samuel demonstrates that there is some kind of problem. Latour refers to the insides of machines as "the black box"; what we cannot see and what makes machines run smoothly (Latour, 1987). In this sequence, the machine does not run smoothly which turns the tablet into a highly visible actor that makes things happen. Samuel's actions are closely related to the fact that he is trying to control the tablet in some way, and at the same time they are also related to the presence of the video camera-researcher. The hybrid video camera-researcher takes part in the co-production of what happens. Instead of turning

to the video camera-researcher for help, Samuel struggles on his own until one of the adults working in the kindergarten asks him if he needs help, which he does, and then shows Samuel how to turn down the sound on the tablet.

Agency is often discussed as skills related to humans. However, by bringing the material into the discussion of (children's) agency, investigations of other conditions and possibilities for acting are made possible. The video cameraresearcher in this video clip takes part in the production of agency. Samuel touches the tablet several times, while he looks at the video cameraresearcher. Samuel appears as a human entity acting on the material (the tablet), another entity. The fact that Samuel does not manage to coerce the tablet to act as he seems to expect does not mean that he is without agency nor that he is an incompetent child. Approaching agency as sociomaterial in the study of children provides an understanding of how agency varies both within the same setting as well as across settings.

#### 4.2 Actors – Enacted

Seeing agents and agency as outcomes of sociomaterial assemblages is not a new idea (see for instance Bateson (1987) discussing the blind man with a stick) and it can be argued that the conditions for acting change with the sociomaterial assemblages. However, children's agency is not a question restricted to single entities. As mentioned above, actors and agency are shaped by multiple entities, they are mutually enacted and thus are what has been called relational "effects" (Law, 2004, 2009).

In the next video clip, a group of children are located in a "listening corner". In this kindergarten, the listening corner is both a physical place with benches in a L shape, and a space where the children and the kindergarten teachers gather to talk, read, listen to music, get and give messages and so on. Our focus in this clip is on Thea, Carol and Thea's fox. They are placed in the far-right corner in the video.



VIDEO 2 Thea, Carol and Thea's fox. (See here.)

In the first part of this clip Thea seats the toy fox beside her in the listening corner. Carol, who is seated behind Thea, sees the unattended fox and grabs it. Then a disagreement arises between the two girls concerning who has ownership of the fox. Since Thea is unable to reclaim the fox, this is a clip that might convey a notion of Thea lacking agency. However, after having studied this clip more closely we could also see how Thea is agentic. First Thea turns around to try to take the fox, while she verbally confronts Carol and claims the fox back. Then she physically raises her hand, and verbally makes attempts to get an adult's attention. When this fails, she turns to the video cameraresearcher and looks straight into the lens. Thea acts, she does something, by attempting to change the fate of the fox that is no longer in her possession. But she does not get the fox back. This prompts the question: is Thea actually an actor in this event? As stated above, an actor is "anything that does modify a state of affairs by making a difference" (Latour, 2005, p. 71). In this assemblage, we could argue that Thea does make a difference, but not the difference she attempts to make: namely to retrieve the fox from Carol. As Law and Mol argue, action moves around, and it is not always clear who is doing what. Additionally, "the difference an actor makes is not predicable. Indeed, on the

contrary: what actors-enacted do is essentially indeterminate" (Law & Mol, 2008, p. 73). Therefore, we conclude that Thea is indeed an actor who has agentic resources, however, she is not in control of how her actions unfold in a co-construction of a chain of events.

An entity counts as an actor if it makes a perceptible difference [...] This means that it is also always being acted upon. Acting and being enacted go together. What is more, an enacted-actor is not in control. To act is not to master, for the results of what is being done are often unexpected.

LAW & MOL, 2008, p. 58

Thea does not only act, she is an actor-enacted as she is also acted upon by others; she is enacted by Carol as being wrong about her possession of the fox and she is enacted by the kindergarten teacher for making noise when she should not.

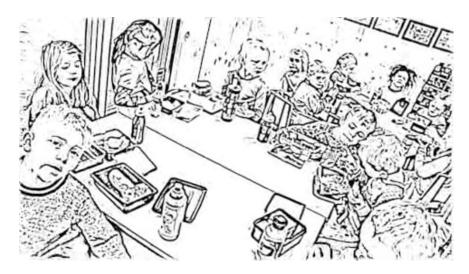
This clip shows how agency is closely related to other actors in an assemblage, and how actors can be said to be mutually enacted (Law & Mol, 2008; Mol & Mesman, 1996; Woolgar, 2012). Thea's actions respond to the disappearance of the fox from her side, and to its appearance in Carol's hands. When Carol refuses to give the fox back, the kindergarten teacher scolds Thea and asks her to be quiet. The video camera-researcher continues as before, when approached by Thea's gaze, acting as if nothing had happened. Thea finally chooses to turn around and sit quietly. In this clip agency is enacted in multiple ways and includes several different actors that restrict and make various ways of acting possible.

Following this line of thought, we could argue that Thea indeed does something in this assemblage, as her actions produce *re*actions from Carol and the adult. Carol is confronted with Thea's dismay and reacts by verbally telling Thea that it is not her fox. The adult reacts to Thea's action by asking her to be quiet. The only actor (of those we trace in this article) who seemingly does not react to Thea's actions is the video camera-researcher, but then, in our perspective, not acting is also an action. By making a difference in an assemblage, other things happen, both human and non-human entities act and are acted upon, they are equally actors-enacted. An actor-enacted does not act alone but is realized in a complex set of relations to other actors. For instance, when she becomes a disturbance to the adults who asked her to be quiet, Thea makes a difference. Even though Thea's voice does not count and is not heard in this event, she is still agentic, being a "victim" in this case is not the same as being non-agentic.

#### 4.3 Actors – Distributed Agency

Actors are social and material, they shape and are shaped by other actors, and they are mutually enacted. Seeing actors as mutually enacted dynamic hybrid entities problematizes the view of agency as something that comes from one "place" or one single actor. In the next example we direct our attention on how agency can be seen as distributed, disrupting the binaries of seeing children as participatory or not in research.

In the last video clip, the children are sitting around two tables eating their lunch when they explicitly direct their attention to the video recorder-researcher. Here we chart the assemblage of the children, the researcher and the video camera.



VIDEO 3 The children direct their attention to the video recorder-researcher. (See <a href="here">here</a>.)

This sequence starts with the children sitting and eating at two tables. They talk with each other at their respective tables, then gradually, a joint activity emerges that includes both tables, children, and the video camera-researcher. This clip shows how the video camera-researcher makes a difference; the researcher's voice is heard as she talks to the children and moves the camera up and down at the children's command, and she also shows the children the live recordings on the camera foldout screen. This is a small screen where one can see what is being recorded both when situated behind and in front of the camera. The researcher moves the camera as a *re*action to the children's questions and demands. They ask if the researcher can move the video camera up and down on the monopod and point it in different directions. In this event,

a common mealtime is transformed into another type of activity where the children, with their commands, make the video camera-researcher act in different ways, rendering her actor-enacted.

The video camera in this clip becomes more than a "tool" to record what is happening. As the event evolves, all the children's eyes are fixed on the camera and what it does. The relational effect between the actors causes the camera to move up and down, with the help of the researcher. Here agency is distributed between the children, who nominate themselves as agentic entities, and the researcher, who acts on the children's requests. It is the monopod, with its affordance of moving up and down, and the video camera's affordance of being able to flip the foldout screen with the live recordings that contribute to the enactment of agency. This facilitates the mutual enactment of the video camera, the researcher and the children. Together with the video camera, monopod and researcher, the children are forging a new and unexpected event. They performed in front of the video camera together with the researcher, who accommodated this activity. Together they enact the video camera as a point of interest. In this case, we can indeed talk of a "research with" children, we can see how the camera, the children and the researcher are "relationally linked with one another in webs", and we can see how "they make a difference to each other: they make each other be" (Law & Mol, 2008, p. 58). When the researcher turns the foldout screen so that the children can look at what the video camera is recording, they are not merely looking at the researcher or the camera, but at mediated live recordings of themselves looking at the video camera and at the researcher. The observed becomes the observer observing. Including children as both the observer and the observed can be understood as a form of disentangling and a disruption of children as the object of study. Agency in this case becomes manifold and distributed, where the traditional binaries of research on or research with are blurred.

Doing research with or on children is hardly an activity initiated by children as such, but this does not mean that they do not have a voice or agency in research. Rather the opposite is seen in these clips. We see children who display agency, however, not necessarily achieving their goals, as we saw with Thea and the fox. Altogether this begs the question: what do we mean when we talk about the competent child? And, for the matter, what do we mean by agency?

## 5 Production of Agency – Disrupting the Binary

Redefining the notion of agency and actors by drawing on ANT can facilitate and widen one's perspective beyond the child as an entity acting competently in sociocultural practices. We have underscored how actors and the distribution of agency across and within assemblages are produced. In the first clip, we pointed out how agency is not merely produced in human relationships. By analytically including the presence of the video camera-researcher and the tablet, we can see how agency was also produced by non-human actors. The second clip highlights how actors are relationally bound and can be said to be enacted and accomplished by the assembled and multiple actors. The final clip focuses on the distribution of agency across different actors. The analytical strength of approaching agency as multiple, mutually enacted and distributed is demonstrated through these three clips. We argue that they are helpful in a critical discussion of children and agency and underscore the need to study agency as entangled with human and non-human actors in relational activities.

Doing research with a video camera is not solely an issue of recording what goes on, it is also a matter of how research data is produced and consequently of how knowledge in social practices is a co-production. Drawing on ANT we have explored how entities are collectively actualized, hence our focus on agency. Thus, in research there is a need to explore how agency is actualized in different contexts and in different assemblages. This is especially important in order to avoid a facile reduction of children and agency and to end up in an either/or stance. We therefore argue that children's agency needs more nuanced theoretical and empirical investigation.

As we have shown, at times the video camera and the researcher facilitated the production of children's agency by letting the children explore different uses of the video camera. However, it was up to the researcher to either ignore or comply with the children's verbal wishes about what to do with the camera. When the children more or less demanded that the researcher move the video camera up and down, agency can be seen in the children's demands, the researcher's acting and the camera's recording. In this event, as the video camera is equipped with a foldout screen, it facilitated agency for entities both in front of and behind the camera. This then shows that it is not solely a case of children and agency, but also of camera and agency, and researcher and agency. In other words, how agency is enacted in an assemblage.

Bearing this in mind, we point out the importance of being aware that video observations are enactments that reconfigure the actions and agency of what one attempts to observe. Research is a material-discursive practice (Murris &

Haynes, 2018), matter matters, humans matter and actions matter, they are all part of producing "the real". "Children, then, are not simply the objects of scientific knowledge, they are increasingly the producers of that knowledge" (Oswell, 2013, p. 274).

Through the three video clips and our discussion, we also suggest that one cannot speak of children as having agency or not. Each human and nonhuman entity always possesses possibilities of being agentic. However, in different assemblages at different times, agentic possibilities differ, they are contingent (Luhmann, 1982). Concerning the production of data and the methodological binary of either doing research on or with children, we argue that research is always with. Researchers bring themselves and their video cameras into an ECEC where sociomaterial events are recorded at a given time and in a given space. Researchers then take these recordings back to their office and view and re-view them as part of their research and analysis process. Thus, one could argue that researchers are indeed in the business of doing research on children as the children have no say in what we record, what we see, or how we interpret what essentially becomes our data. However, this is not a clear case of engaging in research on, rather it is always, in one way or another with, as all actors co-produce what happens. Thus, instead of thinking in terms of either/or, the question may rather be who/what, when, where, how and with what consequences do children participate in research. In terms of a decolonizing approach to childhood studies, our take on multiple agencies mean there are no clear borders, agency is an enactment. Through research the reconfiguring of entanglements is a possibility, facilitating various perspectives in terms of what is privileged and given value.

As we have argued, one can theoretically understand actors and agency as relational effects where both are mutually enacted. Looking at agency as relational, mutually enacted and manifold makes it into something actualized collectively. Agency in this perspective is not an individual property but rather an entangled expression that may take multiple forms depending on the assemblage. Discussing children in binary terms, as competent or not, or as participating or not, does not contribute to an understanding of children's enactments in social and cultural practices. To avoid a facile reduction of children as either having or not having agency, we suggest a more complex understanding using a sociomaterial perspective where the social and material are seen as entangled and where entities are seen as mutually enacted.

#### References

- Aarsand, P., & Forsberg, L. (2010). Producing children's corporal privacy: ethnografic video recordin as material-discursive practice. *Qualitative Research*, 10(2). pp. 1–20. DOI:10.1177/1468794109356744.
- Abebe, T. (2019). Reconceptualising Children's Agency as Continuum and Interdependence. *Social Sciences*, 8(3), 81. DOI: 10.3390/socsci8030081.
- Ahearn, L. M. (2001). Language and agency. *Annual review of anthropology, 30*(1), pp. 109–137. DOI: 10.1146/annurev.anthro.30.1.109.
- Bateson, G. (1987). Steps to an ecology of mind: Collected essays in anthropology, psychiatry, evolution, and epistemology. Northvale, N.J.: Jason Aronson.
- Bevemyr, M., & Björk-Willén, P. (2016). Events of potential learning: how preschoolers produce curriculum at the computer during free play periods. *Tidsskrift for Nordisk Barnehageforskning*, 12(8), pp. 1–16. DOI: 10.7577/nbf.1696.
- Carusi, A., Hoel, A. S., Webmoor, T., & Woolgar, S. (2014). *Visualization in the Age of Computerization*. New York: Routledge. DOI: 10.4324/9780203066973.
- Christensen, P., & James, A. (2017). Introduction: Researching children and childhood: Cultures of communication. In P. Christensen, & A. James (Eds.) *Research with Children: Perspectives and Practices: Third Edition*, (pp. 1–10) London: Routledge. DOI: 10.4324/9781315657349.
- Clark, A., Kjørholt, A.T. and Moss, P., eds. (2005). Beyond listening: Children's perspectives on early childhood services. London: NCB.
- Danby, S., Evaldsson, A.-C., Melander, H., & Aarsand, P. (2018). Situated collaboration and problem solving in young children's digital gameplay. *British Journal of Educational Technology*, 49(5), pp. 959–972. DOI: 10.1111/bjet.12636.
- de Freitas, E. (2016). The moving image in education research: Reassembling the body in classroom video data. *International journal of qualitative studies in education*, 29(4), pp. 553–572. DOI: 10.1080/09518398.2015.1077402.
- Hammersley, M. (2017). Childhood Studies: A sustainable paradigm? *Childhood*, *24*(1), pp. 113–127. DOI: 10.1177/0907568216631399.
- James, A., Jenks, C., & Prout, A. (1998). Theorizing childhood. Cambridge: Polity Press.
- Latour, B. (1987). Science in action: How to follow scientists and engineers through society. Cambrige, MA: Harvard university press.
- Latour, B. (1999). On Recalling ANT. In J. Law & J. Hassard (Eds.), *Actor network theory and after* (pp. 15–25). Oxford: Blackwell Publishers.
- Latour, B. (2005). *Reassembling the Social-An Introduction to Actor-Network-Theory* (Vol. 1). Norfolk: Oxford University Press.
- Law, J. (2004). After method: Mess in social science research. London: Routledge.

Law, J. (2009). Actor network theory and material semiotics. In B.S Turner (Ed.) *The new Blackwell companion to social theory*, Oxford: Blackwell Publishing Ltd. (pp. 141–158). DOI: 10.1002/9781444304992.ch7.

- Law, J., & Mol, A. (2008). The actor-enacted: Cumbrian sheep in 2001. In: C. Knappett & L. Malafouris (Eds.) *Material Agency*. Boston, MA.: Springer, (pp. 57–77). DOI: 10.1007/978-0-387-74711-8\_4.
- Law, J., & Urry, J. (2004). Enacting the social. *Economy and Society, 33*(3), pp. 390–410. DOI: 10.1080/0308514042000225716.
- Luhmann, N. (1982). *The differentiation of society*. New York: Columbia University Press.
- Mol, A. (2002). *The body multiple: Ontology in medical practice*. Durham: Duke University Press.
- Mol, A. (2014, March 19.). A Reader's Guide to the 'Ontological Turn' Part 4. Somatosphere Retrived from http://somatosphere.net/2014/a-readers-guide-to-the-ontological-turn-part-4.html/.
- Mol, A., & Mesman, J. (1996). Neonatal Food and the Politics of Theory: Some Questions of Method. *Social Studies of Science*, 26(2), pp. 419–444. Retrieved from http://www.jstor.org/stable/285425.
- Müller, M. (2015). Assemblages and Actor-networks: Rethinking Socio-material Power, Politics and Space. *Geography Compass*, 9(1), pp. 27–41. DOI: 10.1111/gec3.12192.
- Murris, K., & Haynes, J. (2018). The 'classroom'and posthuman research methodologies. In K. Murris & J. Haynes (Eds.) *Literacies, Literature and Learning* (pp. 78–98). Abingdon: Routledge. DOI: 10.4324/9780203732090-4.
- Orlikowski, W. J. (2007). Sociomaterial Practices: Exploring Technology at Work. *Organization Studies* 28(9), pp. 1435–1448. DOI: 10.1177/0170840607081138.
- Oswell, D. (2013). *The agency of children: From family to global human rights*. Cambridge: Cambridge University Press. DOI: 10.1017/CBO9781139033312.
- Prout, A. (2005). *The future of childhood: towards the interdisciplinary study of children*. London: Routledge Falmer.
- Samuelsson, T., Sparman, A., Cardell, D., & Lindgren, A.-L. (2015). The active, competent child, capable of autonomous action: an inherent quality or the outcome of a research process? *AnthropoChildren* (5). Retrieved from http://popups.ulg.ac.be/2034-8517/index.php?id=2370.
- Sayes, E. (2014). Actor–Network Theory and methodology: Just what does it mean to say that nonhumans have agency? *Social Studies of Science*, 44(1), pp. 134–149.
- Schanke, T. (2019). Children's participation in a school-preparation letter activity. *Childhood*, 26(1), pp. 113–131. DOI: 10.1177/0907568218810092.
- Sokol, B. W., & Huerta, S. J. H. D. (2010). Through thick and thin: Agency as 'taking' perspectives. *Human Development 53*(1), pp. 46–52. DOI: 10.1159/000268140.

- Sommer, D., Samuelsson, I. P., & Hundeide, K. (2009). *Child perspectives and children's perspectives in theory and practice* (Vol. 2). London: Springer Science & Business Media.
- Sørensen, E. (2013). Human presence: Towards a posthumanist approach to experience. Subjectivity, 6(1), pp. 112–129. Retrieved from https://doi.org/10.1057/sub.2012.31. DOI: 10.1057/sub.2012.31.
- Thomson, P. (2009). *Doing visual research with children and young people*. London: Routledge
- Woolgar, S. (2012). Ontological child consumption. In A. Sparrman, B. Sandin, & J. Sjöberg (Eds.), *Situating Child Consumption: Rethinking Values and Notions of Children, Childhood and Consumption.* Lund: Nordic Academic Press (pp. 33–51).