

How Things Matter in Everyday Lives of Preschool Age Children: Material-Semiotic Investigations in Psychology and Education

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Summary

This article draws on materials from ethnographic and participatory research on everyday eating practices in Berlin kindergartens. It argues that agency is not always a-priori located in the human subject. Agency can be translated and distributed over relational networks that include people and things; it can even be left over to things depending on the constellation in question. A material-semiotic approach is thus outlined that pays attention to micro-configurations and closely explores action – a focus which can further advance psychological theory and methodology.

Keywords: *actor-network theory, agency, childhood, eating, ethnography, material-semiotics*

Currently many social scientists from different geographical areas and disciplines speak about matter, embodiment, and nature-culture (written as one word). They are studying how technoscience transforms everyday lives, shaping even the ways people are constituted in terms of kinship, gender, and identity (Callon 1980; Haraway 1997; Latour 1987; Law/Mol 2002; for an overview in English see: Kontopodis/Niewöhner/Beck 2011). With few exceptions, like the article by Bruno Latour on *interobjectivity* (1996) and the debate it opened in the journal *Mind, Culture, and Activity* (Miettinen 1999), the work by Estrid Sørensen on the *Materiality of Learning* (2009), or the study by David Middleton & Steve

Brown on remembering and forgetting (Middleton/Brown 2005), it appears to me that psychology has very little until now dealt with this »relational-material«, »material-semiotic«, or »post-humanist« turn – as it is often labeled (Kontopodis 2009a; Law 2004; Wolfe 2010).

This article is part of the special issue *Material Girl_Boy: Intersubjectivity and Technology in Children's Everyday Lives*, which moves in this direction (Schraube/Chimirri 2012). I focus here on non-spectacular technologies and the employment of scientific knowledge in children's everyday lives. Through empirical examples of everyday eating practices in kindergartens I suggest a relational understanding of *agency*. I speak of *agency* as the ability to directly or indirectly influence or determine how something is done. This ability might be distributed in time and space, and might also refer to a group or network of agents and not only to one entity – this depending on the configuration in question. Agency in this regard is a relational concept and is not context-free.

Below, I present two exemplary sequences from everyday practices in kindergartens and analyze them with the aim of exploring how agency might be distributed among things and people. The empirical examples stem from my ethnographic study from a kindergarten in the former East Berlin (part of the district of Lichtenberg).¹ These ethnographic materials refer to scenes or practices that frequently repeated themselves in my data records but are only employed here with the purpose of pursuing a theoretical argument – without aiming to represent everything that happened in this kindergarten.

Scene 1: When Plates And Cookies Do What Teachers And Children Do Not

It was a little bit before Christmas, and we were preparing traditional German Christmas cookies in a kindergarten in former East Berlin. »We« means 2 teachers, about 20 children aged 3 and 4, and myself. I had already been doing fieldwork for two months, participating in all possible activities, and everybody was familiar with my presence.² The children were very much involved in the activity, happy to play with the dough and make their own cookies. They wore aprons so as not to become dirty, and chef hats to make the whole event even more fun. Every child wanted to participate; we had a lot of time and a lot of dough and prepared dozens of cookies. Then it was noon, the children went first



Picture 1: Afternoon snack: One Christmas cookie per child (photo by author)

to eat and then to sleep and the cookies were transferred to the central kitchen of the kindergarten to be baked.

After a while the children woke up, and a few of them were picked up by their parents. For the rest it was time for a snack. Picture 1 depicts what the children then found in the lunch room: the teachers put just one cookie on each child's dish for snack time, keeping the rest out of the children's view. There was no buffet or central plate with a lot of cookies for each child to eat *ad libitum* – children could eat only *within limits* because, according to the anti-obesity guidelines, children should not eat more than a particular quantity of sweets. There was literally no possibility for a child to eat a second cookie. These cookies were served on small plates and the children were supposed to sit and eat at a table and observe strict rules of movement enforced by the teacher. The teacher was visible because she stood while the children were sitting, and the room was small so that she could see everything and have eye contact with almost everybody. The rule »when we eat, we do not speak« was also as usually enforced through the teacher's presence. Plates were made of ceramic because the possibility that they might break was limited in this set up. The plates + cookies went together

with the children's bodies who, by using these materials, moved in specific ways and ate *healthy*, which meant in this context *not too many calories*.

Coming from a different socio-cultural background, that of middle-class rural Greece, I was quite astonished that children did not share a buffet or a big plate with many cookies, thus eating as much as they liked and socializing, i.e. celebrating, the coming Christmas with the others. The arrangement of *individual portions* has a long history that can be traced back to Protestant religious habits and former East German practices. However, materialized in this arrangement were not only particular values and beliefs about what a (good) child is and what a (good) teacher is: the so-called *setting approach* in obesity prevention was also present.

The *setting approach* is based on the idea that if children are used to eating little and moving a lot in specifically designed settings, then they will maintain the healthy *habits* as adults. In this context, this particular kindergarten ran a program created by the AOK (Allgemeine Ortskrankenkasse, i.e. General Funds for the Local Ill), one of the main health insurance providers within the national health care system in Germany. It was designed to support the prevention of obesity in children by integrating such different interventions as modifications of playground architecture, increased emphasis on sports, the continuous provision of fruit and water at the kindergarten, and the circulation of information material about healthy nutrition. The teachers had been trained through workshops that complemented previous pedagogical training they had had in applying this approach.³

The question that I would like to pursue here is: who or what defined in this constellation how things were done? Children were for sure the less active agents. I video-recorded the process of eating and analyzed it: every child ate the cookie, no child expressed any complaint, asked for more cookies or food, or discussed anything that had to do with their morning activity or with the cookies themselves. Not even a sound like »mhm« or any particular facial expression was made. It seemed to me – comparing this eating session with other eating sessions from the same kindergarten as well as from other ones (cf. Kontopodis 2009b) – that children were not given any space or time for any other type of action than to eat this one cookie.

While it is clear that the teachers designed the setting, in a way the arrangement of things was so successful that it would have worked without the teachers'

presence, too. Children could not eat more cookies, since only one cookie per child was available and all other cookies were invisible. They also could not eat another child's cookies, since every child had a small plate in front of him/her and was definitely curious or hungry enough to start by eating this one cookie. Of course, the teacher's presence was needed to maintain silence and restrict the movement in the lunch room – but in a way the things themselves, i.e. the one cookie per one dish per one chair per child at the table, controlled the children's actions much more than the teacher could have directly done in such a little time (the total time available for this snack was 10-15 minutes). The things themselves did also more than the teachers or the children in the sense that they embodied a long history of values involved in the making of individual portions – not all of which the teacher was conscious about. In this way, the things shaped the teacher's action by rendering a few possibilities of acting self-evident, while rendering others as beyond imagination. The network of cookie + dish + chair + table materialized knowledge and did much more than the teacher or any child alone could do during eating.

Scene 2: Moritz Turns Out To Be The Main Agent

Following newly developed approaches in child research, during my research fieldwork I tried to combine the above-presented ethnography with activities where children were explicitly equal participants in constructing the research itself, such as theatre improvisation and photography by the children (Christensen/James 2008). In this context, I also led an activity in which the children were asked to perform how they eat in their everyday lives in the kindergarten and in other situations (theatre improvisation). This activity aimed to open more space for children to act in relation to existing eating rules and practices in the kindergarten. For this I used a similar material arrangement like the one described above – however, the improvisation took place on a theatre stage (thus in a different room), with plastic and metallic dishes to avoid accidents, given that the rules of movement were set by the children. Another significant difference was that no food was actually present: children played theatre *pretending* that they were eating, although in reality they were not. We had dishes, spoons, plastic knives, and cups available, but not food as such. I was filming, listening to the

children's requests and suggestions, and, if needed, giving some explanations – trying to influence the scenario as little as possible. No teachers were present.

For the purposes of the present argumentation I will focus on Moritz (pseudonym), a boy perceived by the teachers as the second »fattest« child in the class. Moritz took a chair and sat at a table, next to a few other children, while yet another child was playing the role of the teacher. Children played eating lunch. After the food was served (individual portions) and a ritual song was sung, everybody began eating. Very quickly Moritz became the center of attention: he performed that he finished his first portion and asked for a second. He also ate this and asked for thirds. After the pretended teacher served him a few more portions, he took the whole bowl of the food being served and pretended to put a huge quantity on his plate again and again, thus continuing to eat and eat. At some point he brought his plate up to the height of his head and pretended to be eating everything by letting the food go directly into his mouth. He ate a hundred portions, he said, and finished by covering his face with the plate and then uncovering it with his cheeks blown up with air – thus playing that he had become even fatter than the second fattest child of the class he usually was. The children sitting next to him mimetically followed his example and did the same. The other child who played the role of the teacher kept serving them with more food. Contradicting all norms around health, fitness, and slim appearance that the teachers have tried to impose, he played being proud of being fat, and moved pretending to have a big belly in front of him before finishing his show.

At this point, a conventional way to analyze this scene would be that Moritz actively engaged with being the center of attention for a while, and involved in personal sense-making as a process that subverted culturally available meanings. In play he performed a role that he would not be able or willing to play in real life. By playing eating excessively and becoming fat, still-undetermined modes of thinking and doing were expressed and tried out. This excess was also an »as-if-it-were-resistance« against the institutional power of the teachers who controlled the quantity of food intake during the daily lunch (cf. Kontopodis/Wulf/Fichtner 2011).

However, if we pay attention to the materials involved and the arrangement as a whole, then a network of things and persons acted so that Moritz engaged in doing things with words and with things (to paraphrase Austin 1975). Plastic

dishes + imaginative food + absent teachers + theatre stage in combination with the implicit understanding that I was a researcher (i.e. not a teacher or another adult controlling children) was an arrangement that enabled a very different action than the one described in the first scene. Thus, even if, at a first glance, Moritz appeared to be an *agent*, agency was also in this case distributed (not only spatially among all mentioned things, but also in time, in the sense that a lot had been set up in advance, during Moritz's absence).

Outlook: From Distributed Cognition To Distributed Agency

Instead of taking the one or the other theoretical position *a-priori*, I tried here to explain how concrete relational configurations enable particular forms of action while disabling others. I consider the above-presented examples and the movement from the one to the other (which was done not only in writing but also in practice by initiating the theatre-play) very helpful in this regard. In both cases close attention is paid to action. When I speak of action I refer to two interlinked aspects: a) material action, i.e. how things are set up in relation to other things, and b) semiotic action, i.e. how this setting up things reflects »theories« or »values« about childhood, pedagogies, obesity prevention, participatory methods etc. By means of material-semiotic analysis I propose a situated way to study agency and *agencies* in plural as extended or distributed over times and places – thus paying attention to other-than-human agents as well.

The two scenes briefly outlined above (children eating Christmas cookies in Berlin, Moritz playing the role of the »fat« child in theatre) do not involve any trendy or complicated technologies; they look like »normal« everyday life scenes; still they are shaped through scientific and technoscientific knowledge much more than it appears at a first glance. »Shaped« here means »done« with an emphasis on the material, technical and labor-related aspects of action – which is not thus limited to performance, interaction or communication. I paid attention to plates, cups, portions, *as well as* to understandings about health, childhood and education.

Not only *knowledge* is in this sense distributed and not *in* the one's or the other's »mind« – as we know from situated and distributed cognition approaches (Lave/Wenger 1991; Hutchins 1995) – but also *agency* is distributed, so that it is not always clear who or what in the end shaped action in the one or the other

way. Instead of looking either only to cognition, or only to things in terms of physics, chemistry, or biomedicine, I suggest that it is important to trace the *link* between the *material* and the *semiotic* as *enacted* in concrete ways each time people and things do something with each other. Tracing this link can lead to very different ways to reassemble the psychological – to paraphrase Bruno Latour (2005).

Psychology has always been one of the core sciences of the human. It has placed the human being at the center of the world and studied Man as if he (or she?) were a God – also in the sense of an abstract, non-corporeal being. Here, however, we are confronted with arrangements in which there is no possibility of studying humans without studying everything else around them – which goes together with the impossibility of controlling, evaluating, measuring or (pre-)defining everything. In this sense, as Günter Gebauer & Christoph Wulf (2009) write echoing Michel Foucault: not only God but also Man is dead.

Given the death of Man, the question arises what is then going to happen with psychology. Annemarie Mol has recently begun studying subjectivity in terms of *food-eating*. A food-eater is a person who is not a universal *subject* but situated in concrete material-semiotic arrangements. Mol emphasizes eating as a way to take seriously the material or corporeal dimensions of action and moves beyond the deadends of modern Cartesian epistemologies in which psychological research is often imprisoned (Mol 2008; Mol/Mesman 1996). »I eat, therefore I am«, writes Mol and suggests advancing ethnography by exploring what and how people *do* (as well as what and how they eat) instead of what they *think* (not the *ethno-* but the *praxis*, thus this method is called *praxiography*, cf. Mol 2002, 2008). The abstract Man is dead but all different bodies are literally *alive* – and these need much more attention than what psychology has so far paid to them.

Psychology should therefore begin a friendly and engaged dialogue with its neighboring social sciences as well as become more and more ethnographic in the sense outlined above. Especially if ethnography is extended to document the connections between the actants (Latour 1987, 2005) and the interdependencies of semiotic and material action (cf. Haraway 1997), it offers a privileged access to questions regarding the role that things play in children's and, more generally, in people's everyday lives.

In this frame, psychology could profit significantly from the focus on material-semiotic action and distributed agencies. Although this article is brief, it

manifests how fruitful this focus can be. It is clear to me, however, that a lot of work must still be done to conceptualize human bodies and other things in material-semiotic ways, for example by investigating aesthetic, sensual, or moral aspects of eating arrangements (cf. Roe 2006). I hope, however, that the analysis presented here will inspire further material-semiotic research in psychology – as well as open possibilities and venues for cross-disciplinary work.

References

- Austin, John Langshaw (1975): *How to do things with words*. Oxford (Clarendon).
- Callon, Michel (1980): Struggles and negotiations to define what is problematic and what is not. The socio-logic of translation. In: Knorr, Karin D.; Krohn, Roger & Whitley, Richard (Eds.): *The social process of scientific investigation*. *Sociology of sciences*. Dordrecht (Reidel), p. 197–221.
- Christensen, Pia & James, Allison (2008): *Research with children. Perspectives and practices*. London (Falmer).
- Gebauer, Gunther & Wulf, Christoph (2009): After the »Death of Man«. From philosophical anthropology to historical anthropology. *IRIS – European Journal of Philosophy and Public Debate* 1, 171–186.
- Haraway, Donna (1997): *Modest_Witness@Second_Millennium. Female-Man@_Meets_OncoMouse™*. New York (Routledge).
- Hutchins, Edwin (1995): *Cognition in the wild*. Cambridge (MIT Press).
- Kontopodis, Michalis (2009a): Documents' memories. Enacting pasts and futures at the school for individual learning-in-practice. *Memory Studies* 2(1), 11–26.
- Kontopodis, Michalis (2009b): Obesity politics. A comparison of two Berlin Kindergartens with the same obesity prevention program (short film: 12'). Berlin, Germany.
- Kontopodis, Michalis (2011): Biomedicine, psychology and the Kindergarten. Children at risk and emerging knowledge practices. *Sport, Education and Society*. Published online ahead of print, URL: <http://www.tandfonline.com/doi/abs/10.1080/13573322.2011.605115> (date of access: 30.01.2012).

- Kontopodis, Michalis; Niewöhner, Jörg & Beck, Stefan (2011): Investigating emerging biomedical practices: An introduction to the Special Issue. *Science, Technology & Human Values* 36(5), 599–615.
- Kontopodis, Michalis; Wulf, Christoph & Fichtner, Bernd (2011): Children, culture and education. A dialogue between Cultural Psychology and Historical Anthropology. In: Kontopodis, Michalis; Wulf, Christoph & Fichtner, Bernd (Eds.): *Children, development and education. Cultural, historical, anthropological perspectives*. Dordrecht (Springer), p. 1–24.
- Latour, Bruno (1987). *Science in action. How to follow scientists and engineers through society*. Cambridge (Harvard University Press).
- Latour, Bruno (1996): On interobjectivity. *Mind, Culture, and Activity* 3(4), 228–245.
- Latour, Bruno (2005): *Reassembling the social. An Introduction to Actor-Network-Theory*. Oxford (Oxford University Press).
- Lave, Jean & Wenger, Etienne. (1991): *Situated learning. Legitimate peripheral participation*. Cambridge (Cambridge University Press).
- Law, John (2004): *After method: Mess in social science research*. London (Routledge).
- Law, John & Mol, Annemarie (2002): *Complexities: social studies of knowledge practices*. Durham (Duke University Press).
- Madarász, Jeannette (2010): Prävention von Herz-Kreislauf-Erkrankungen in Deutschland. Der Risikofaktor Übergewicht. In: Heintze, Christoph (Ed.): *Adipositas und Public Health. Rahmenbedingungen, interdisziplinäre Zugänge und Perspektiven für erfolgreiche Präventionsstrategien*. Weinheim (Juventa).
- Middleton, David & Brown, Steve (2005): *The social psychology of experience. Studies in remembering and forgetting*. Thousand Oaks (Sage).
- Miettinen, Reijo (1999): The riddle of things. Activity Theory and Actor-Network Theory as approaches to studying innovations. *Mind, Culture, and Activity* 6(3), 170–195.
- Mol, Annemarie (2002): *The body multiple. Ontology in medical practice*. Durham (Duke University Press).
- Mol, Annemarie (2008): I eat an apple. On theorizing subjectivities. *Subjectivity* 22, 28–37.

- Mol, Annemarie & Mesman, Jessica (1996): Neonatal food and the politics of theory. Some questions of method. *Social Studies of Science* 26, 419–444.
- Niewöhner, Jörg; Döring, Martin; Kontopodis, Michalis; Madarász, Jeannette & Heintze, Christoph (2011): Cardiovascular disease and obesity prevention in Germany. An investigation into a heterogeneous engineering project. *Science, Technology & Human Values* 36(5), 723–751.
- Roe, Emma (2006): Material connectivity, the immaterial and the aesthetic of eating practices. An argument for how genetically modified foodstuff becomes inedible. *Environment and Planning A* 38(3), 465–481.
- Schraube, Ernst & Chimirri, Niklas (2012): Editorial. Intersubjektivität und Technik mit Kindern erforschen. *Journal für Psychologie* 20(1). URL: <http://www.journal-fuer-psychologie.de/jfp-1-2012-01.html> (date of access: 14.03.2012).
- Sørensen, Estrid (2009): *The materiality of learning: technology and knowledge in educational practice*. New York (Cambridge University Press).
- Wolfe, Cary (2010): *What is posthumanism?* Minnesota (University of Minnesota Press).

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Endnotes

- 1 For purposes of general comparison, I also studied another kindergarten in former East Berlin (Friedrichshain) and a third one in the former West (part of the district of Wedding), as well as carried out a series of interviews. I also engaged in participatory observation in preschools in quite diverse neighborhoods and kindergartens in New York, USA. The main period of my fieldwork was five months. My research materials consisted of field notes; audiotapes or videotapes of conversations between teachers, of teachers and children, of teachers with me, between children, and of children with me;

information materials from the kindergarten addressed to children or to their parents; photos made by me and by the children; videotapes of theatre improvisation and other interactions between me and the children; videotapes of eating situations in the kindergartens; interviews I conducted with parents or teachers; and other materials. My study was part of a broader research project financed by the German Ministry of Education and Research that aimed to open a dialogue between fields as diverse as sociology, the anthropology of Europe, the history of medicine, general medicine, and arts and educational psychology (cf. Niewöhner/Döring/Kontopodis/Madarász/Heintze 2011). Although the context-related information is complex, I note here that child day-care in Germany is available from the age of six months. Kindergarten usually runs from the ages of three to six, after which children start primary school. A strong East/West difference in day-care infrastructure is observable, with the former East offering a much better network of early infancy settings. Most kindergartens are public – while parents who send their children to private kindergartens receive financial support from the state.

- 2 My access to all kindergartens/preschools was relatively uncomplicated because I was a university researcher (which implies high status), and at the same time had experience and interest in working with children (which was important in terms of practicability). However, some other kindergartens rejected my research application because of the extra workload it would have implied. In all kindergartens I asked parents to sign an informed consent form, and I followed German laws and general ethical principles of child research.
- 3 I could give further information and discuss public health, prevention, and childhood politics in Germany in general – as well as specifically in this kindergarten – but this is not my aim here. For more details on public health and the prevention of obesity in Germany, see Madarász 2010; Niewöhner et al. 2011. For details on biopedagogies and the related interventions and policies on childhood, see Kontopodis 2011.

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