

THE NOTION OF CHILDREN'S PERSPECTIVES

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In this paper, I discuss methodological concerns relating to the notion of children's perspectives. My starting points are that children are social actors with their own ways of constructing meaning and interpreting their world, and second, that meaning is what children ascribe to their actions in the field of school mathematics learning. Meaning in this sense of the word is taken as a key notion in constituting and exploring children's perspectives. Insights into this meaning can be gained from adopting a life story approach to research that invites children to tell from their perspective. The paper ends with a methodological self reflection.

INTRODUCTION

The inclusion agenda officially manifested in the Salamanca Statement (UNESCO, 1994) invites schools - and mathematics education - to move the focus from the shortcomings of individual students to the structures, attitudes, social and pedagogical practices that hinder students' participation in the school and learning community (Booth, Ainscow, Baltzer, & Tetler, 2004). This agenda calls for a systemic reconceptualisation of low achievement in mathematics (and other school subjects) and of defective learning as a manifestation of imbalances in the system (see Lange, forthcoming). According to Magne (2001), most research in special needs education in mathematics, however, assumes either a content deviation model or a behaviour deviation model. In either case, the low achieving student is seen as deviating from a norm, that of the standard curriculum. Only a few studies deal with the complexity of the problem by considering the multiple factors involved in the creation of learning difficulties. Furthermore, children's subjectivity and experience of being in trouble with mathematics is seldom taken as a key source of insight.

Recent sociological and anthropological research in childhood generally recognizes children as actors in their own lives and not just objects of socialization (James, Jenks, & Prout, 1997; Kampmann, 2000). In their capacity as social actors, children have meaningful and interesting knowledge and experience. Their experiences and stories are as significant and valuable as those of adults are.

Children's or students' perspectives and other linguistic variations have become common terms in recent mathematics education research literature (e.g. Young-Loveridge, Sharma, Taylor, & Hawera Ngarewa, 2005). However, the notion is mostly used in an everyday sense and generally not treated as a theoretical construct. This is surprising given that ethnographic research has a long tradition for studying what the world is like for people who are different from the researcher. Discussions of methodological issues and pitfalls in this enterprise are an integral part of the tradition (Reed-Danahay, 2005), but that does not seem to be the case in mathematics

education research. Almost twenty years ago, Eisenhart (1988) pointed to the ethnographic research tradition as a valuable source of inspiration for mathematics education research because it requires researchers to scrutinise their own views and assumptions and investigate instead of taking for granted the intersubjective meanings that might constitute schools, classrooms, teaching practices, the arrangements in time and space etc.

An ethnographic, whole life approach, capable of capturing the complexity of affective issues in mathematics education, is also what McLeod (1994) called for in a review on research on affect:

They [Ivey, 1994; Ivey & Williams, 1994; Walen, 1994; Villiams & Baxter, 1993] suggest a new approach to affective issues – one that emphasizes the student as an individual with a comprehensive belief system, or world view. ... They suggest that students' affective reactions to mathematics occur within a larger framework of how students make sense of their world in general. ... Thus the students' views of mathematics can't be considered in isolation but must be analyzed in the context of an integrated approach that considers all the beliefs and motivating forces that influence the student. (McLeod, 1994, p. 644)

These approaches to methodology resonate with my current research work. In my ongoing PhD project, I focus on children's perspectives on learning difficulties in mathematics and explore how mathematics and learning it is positioned in children's life and world view; in McLeod's words, 'within the larger framework of how students make sense of their world in general'.

My notion of *children's perspectives* so far (see Lange, forthcoming), comprises *children's voices*, *experiences* and *meaning ascriptions* as constituents, and an aspiration of *contextualizing* and *theorizing* these. In this paper, I want to explore the notion further and consider how this affects methodology in regard to my PhD research. My argument shall be that the core of children's perspectives is the meaning they ascribe to the actions that they undertake when learning (or not learning) school mathematics. The argument rest on a paradigmatic choice that claims that meaning of tasks takes priority over the meaning of concepts (see Skovsmose, 2005b). Further, children's perspective being an analytical construct raises the question of the perspective in which I, the researcher, look at children's perspectives; I discuss this briefly in the end of the paper.

CHILDREN'S PERSPECTIVES

The etymological root of perspective, *spicere* from Latin, means *to look*. Central to the different meanings of *perspective* is the arrangement of objects (physical or mental) to represent their relative interrelations when 'seen' from a certain *point of view*. *Perspective* presupposes and indirectly acknowledges that there are different ways of looking at the same phenomena. Each of the different actors at school, teachers, students, parents, school leaders and authorities have their perspective on

school matters and develops knowledge from their different perspectives. This may be illustrated with an example of teachers' perspective. Højlund (2002, p. 155ff) found that in her interviews teachers stereotype children as asocial and egoistic, and generally characterise them by insufficiencies: they lack respect, manners, social sense and discipline. This picture of children is obviously neither complete nor neutral, but is derived from teachers' perspective. The function of teachers is to teach, and this determines their professional relations to children whom they see as students and as part of a class. Their definition is functional and relational and as such contains its own logic and rationality. Compared to the teacher, a child 'looks' at school matters from a different *point of view*, that is in a different perspective that may contain phenomena invisible in a teacher's perspective or differently interrelated.

A child's perspective is how the child 'looks' at 'the world'. As seeing is not a one-to-one imprint of 'the world' on the retina, but an active interpretation of the sensory impulses on part of the brain, a child's perspective is an active making sense of and ascribing meaning to – in this case – mathematics learning. That is, not only the cognitive or conceptual meaning the child ascribes to mathematical concepts but more important the meaning of teaching and learning of school mathematics in the child's life and worldview, and the meaning the child ascribes to actual and potential learning acts or other acts in the school mathematics field. Schools are socio-political settings. Hence, in order to grasp children's meaning ascriptions I need a theoretical framework that links them to the socio-political context of mathematics learning. Such a framework is the object of the next section.

Foreground and background

Ole Skovsmose connects meaning, (mathematics) learning and action by a cluster of interrelated notions: foreground, background, dispositions, intentions, meaning, action and reflection (Skovsmose, 1994; 2005a; 2005b). The main features in the network of notions are described briefly in the next few paragraphs.

The notion of *foreground* refers to

a person's interpretation of his or her learning possibilities and 'life' opportunities, in relation to what the socio-political context seems to make acceptable for and available to the person. Thus the foreground is not any simple factual given to the person; rather, it is a personally interpreted experience of future possibilities within the social and political frame within which the person acts. (Alrø, Skovsmose, & Valero, in press)

Similarly, the *background* of a person is

the person's previous experiences given his or her involvement with the cultural and socio-political context. ... [W]e consider background to be a dynamic construction in which the person is constantly giving meaning to previous experiences, some of which may have a structural character given by the person's positioning in social structures. (Alrø et al., in press)

Taken together foreground and background make up the person's *dispositions*, which "embody propensities that become manifest in actions, choices, priorities, perspectives, and practices" (Skovsmose, 2005a, p. 7). A person's dispositions are not always homogeneous and in fact can be contradictory as the person may conceptualise different foregrounds and backgrounds at different times and situations.

In order to understand a person's actions we need to consider his or her *intentions*. Hence, intentionality is taken to be a defining element of action, thereby separating action from mere activity. Intentions emerge from a person's dispositions, that is his or her background and foreground. Some forms of learning are seen as *action*, and so we can speak of intentional learning acts. Students can be invited into situations where they can be involved in processes of learning as action, but it cannot be forced upon them. In school, not all forms of learning are intentional learning acts; learning also results from forced activity, and unconscious learning is occurring. (Skovsmose, 2005a)

Meaning is an integrated aspect of acting, and something that is produced and constructed. Disposition, foreground and background, are resources for the production of meaning. All sorts of intentions emerge in children's actions in school mathematics teaching and learning situations and a variety of meanings are constructed. A child might want to please the teacher, sit next to the right person, finish tasks in time, avoid homework, be happy to solve the task, and want to play football. If children are not invited to engage in meaningful learning acts the field is not void of intentions and meanings, but left open to all sorts of other meaning productions, for instance 'underground intentions' (Alrø & Skovsmose, 2004). Thus, a child's interpretation of his or her previous experiences, of learning possibilities and 'life' opportunities, their availability and acceptability in the given socio-political context, are key resources of meaning production and hence key aspects of the child's perspective.

Looking with children

One may look *at* or look *with* children, or at least try to put oneself in their place, try to see with their eyes. Understanding children's perspectives, the logic of their meaning constructions, means looking into their foregrounds and backgrounds as major sources of information. Talking with children in interviews aimed at exploring how they make sense of and ascribe meaning to mathematics and mathematics education seems to be a way of looking with them. In this, I have two main sources of inspiration. First, life history research (Goodson & Sikes, 2001; Goodson, 2005) in which the (adult) informant ideally only is given the prompt: "Tell me about your life". The interviewer interrupts as little as possible and only with clarifying questions, maintaining a curious, open minded, and non-interpreting state of mind, thus letting the informant's story unfold as 'uncontaminated' as possible by the interviewer's perspective. My informants are 10 to 12 years old; hence, the second source of inspiration is researchers with experience in conducting interviews with

children. Doverborg and Pramling Samuelsson (2000) have interviewed children from the age of three about their thoughts. Andenæs (1991) has conducted “way-of-life-interviews” with 4-5 year old children by interviewing them on locations relevant to the themes of the interview, for example their home. Researchers have found it fruitful to support the interviewing of young children with drawings, pictures, film, or stories (Kampmann, 2000). This research suggests that it is quite possible to interview children about their thoughts and meaning making and have them tell their stories. According to Andenæs there is no principal difference in doing qualitative interviews with children and adults; the challenges are the same although more acute with children: “When interviewing children, you have to put even more effort and care in the contract, in establishing a common focus of the conversation, and in motivating and create optimal conditions for the interviewee.” (Andenæs, 1991, p. 290; my translation)

It follows that the interviews should have an open, loosely structured character and take place in an atmosphere of genuine interest in order to support and stimulate children in unfolding their stories. The interview prompts and questions should be initiating, circular, supporting, and clarifying, and explore the children’s ‘world view’, learning trajectories, and connections, patterns and meaning making related to school, teaching, learning, mathematics, leisure, friends, mates, interests, etc.

An Example

Children have insights and points of view, which the other actors of the school system do not have. Quite often, their perspective is significantly different from that of adult professionals. It may for example contain a logic that differs from a rational, didactical perspective. The following extracts from an interview with two boys provide an example.

David and Dennis are 10 and 11 years old, friends and in fourth grade. At the time of the interview, the children in this grade were grouped in their mathematics classes according to level of achievement as perceived by the teachers. David is not quite aware of this criterion, but Dennis is. The extract begins with their reflections on this and continues with the story of why they are in the same group and how they managed to obtain that. [1]

- | | | |
|-------|--------|---|
| 1 | David | actually, I think that the groups are given out [i.e. formed] from those who are best, I don't know ... |
| 2 | Dennis | they are |
| 3 | David | I think it is Ann [teacher], she takes the best, I think ... |
| 4 | Dennis | that is why I have gone up; started to be in the other [group] |
| (...) | | |
| 5 | Dennis | we used to have been together always |
| 6 | David | yeah |
| 7 | Dennis | and then I was going to go down |
| 8 | David | (?) |

Working Group 2

- 9 Dennis and then I made me good again because we were just chatting occasionally ...
- 10 Int and then you made – do you say that you made yourself good again?
- 11 Dennis yes, then I did my ...
- 12 Int how did you do it?
- 13 David then he did his best not to go down
- 14 Dennis then I did it again - not to go - stay there in that group, and then I went up in his [group] again
- 15 Int well, okay, how, what did you do to go to that group again?
- 16 David tried to do himself better
- 17 Dennis (?) mathematics and everything

In my interpretation, Dennis displays a strong disposition for autonomy or being in control. For instance, he explains earlier in the interview that it was his choice to repeat a class: “Once, I was fighting a lot in school, but that was because they tease me every day and therefore I did not bother to go in that class and then I repeated a class and came into his [David’s] class” In the extract, he is completely aware of the ground rules of the game, that is the criterion for forming the groups (2). He is the one who decides in which group he will be. Originally he was placed in the low set (4, 7) but then he made himself better (9, 14, 17). David supports and supplements his story (13, 16). The reason they give is friendship: they have always been together (5, 6) and want to be so; their friendship is expressed in David’s confirmation, support and taking over (6, 13, 16). It is background and foreground because it was a valuable previous experience that they want to continue into the future. They also tell a story of identity, which reflects their interpretation or perception of the socio-political context, their background: they belong to the *best* group (1-3) which consist of the *good* and *better* (9, 16). These categories are explicitly embedded in a hierarchical order expressed as *up* and *down* (4, 7, 13, 14); you are *up* if you are *best*. Alternatively, the grouping might have been conceived as a means to facilitate learning of mathematics, and thus reflecting intentions of learning mathematics on part of the children, but that possibility seems absent from their considerations.

A little later in the interview, I tried to investigate their relation to this hierarchy:

- 18 Int is it cool to be in the best group, or
- 19 David Yes, it ...
- 20 Dennis I don’t think so!
- 21 David I think it is cool because I know ...
- 22 Dennis I don’t think so!
- 23 David that I am one of the best
- 24 Int mm
- 25 Dennis I don’t think it is cool, rather cool
- 26 Int why don’t you think so?

27 Dennis because then you get more homework than they [the other group] do

Being good at mathematics has a high social valuation, and this is reflected in the children's background in two different ways. David appreciates the social status of being in the best group (19, 20) and thinks that he rightly deserves it (23). Dennis on the other hand, strongly denies that it is cool to be with the best (20, 22, 25) because he dislikes the consequence of more homework (27). This may be seen as another example of his strong valuation of autonomy in that homework may interfere with or even infringe on the social life in his free time. This interpretation is supported in a later part of the interview, where Dennis explains why practicing the multiplication tables is (the only?) good mathematics homework: you can do the tables in your head while you ride your bike from your home to your friend's home. However, the social status of belonging to the top end of the hierarchy that he expressed earlier (4, 7, 14) is a mixed blessing to him. In the conflict between social status and autonomy, Dennis seems to make a conscious compromise: he works hard enough to maintain the status mathematics provide (and stay with David as well) but no more. The social valuation of mathematics is subjectively interpreted as background and foreground, and come into play in the different dispositions of David and Dennis to engage in learning mathematics. Whereas David's need for recognition goes hand in hand with the social valuation of mathematics and adds positively to his disposition for learning mathematics, Dennis' disposition shows a conflict between status and autonomy which impacts on his engagement with learning mathematics.

The example suggests that these two children interweave the meaning of mathematics education into a fabric of friendship, belonging, expression and construction of identity, and the social practice of everyday life. In the extracts as well as in the rest of the interview, learning intentions and meaning constructions have their basis in their lives as children, their background and foreground, and are seemingly not related to mathematics as such. Their perspectives are very different from that of the curriculum. However, it would be possible for the teacher to use this information when trying to engage students in meaningful mathematics education.

SEEING PERSPECTIVES FROM PERSPECTIVES

Children are not a homogeneous group, children's foregrounds and backgrounds are different, their interpretations of the socio-political context are fluctuating, discontinuous and contradictory, their intentions and meaning constructions likewise. Hence, there is not one child perspective; *the* child perspective does not exist.

As well, a child's perspective is not a 'thing', an empirical entity that one may for example take a picture of; it is an analytical construction of the researcher. Informants do not have privileged access to the truth about their own world. The researcher's analytical account is of another order than that of the children's experiential knowledge.

However, children's perspectives as objects of the researcher's gaze, are seen from what perspective? I cannot reflect on my perspective without stepping out of it and look at it from a different point of view. The question then becomes more introspective as I consider the perspective from which I look at the perspective from which I look at children's perspectives. (This chain of perspectives on perspectives continues – we have a principally infinite regress.)

Giving voice or silencing

My PhD project may be seen as an attempt to “give voice” to an exposed group, children in difficulties with learning mathematics. However, in an endeavour of this type, one may silence in effect the voices if they are not linked to a theoretical understanding of their social and cultural context. Goodson writes:

A particular problem ... is posed by those genres which ... have sought to sponsor new voices – the world of ‘stories’, ‘narratives’ and ‘lives’. ... [A]s currently constructed these genres tend to lead us away from context and theorizing, away from the conceptualization of power.

... In the dialectical development of theories of contextualities, the possibility exists to link our ‘stories’, ‘narratives’ and ‘lives’ to wider patterns of structuration and social organization. So the focus on theories of context is, in fact, an attempt to answer the critique that listening to lives and narrating them valorizes the subjectivity of the powerless individual. In the act of ostensible ‘giving voice’, we may be ‘silencing’ in another way, silencing because, in fact, we teachers and researchers have given up the concern to ‘theorize’ context. (Goodson, 2003, p. 5)

The background-foreground ‘model’ incorporates a research interest, that of emphasizing the socio-political nature of mathematics education and learning. Hence, this choice of perspective on children's perspectives serves my attempt to avoid silencing the voices of children, because it allows theorising children's meaning constructions and agency, their perspectives, in a wider socio-political context.

That is my – present – perspective on children's perspectives.

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NOTES

1 In Denmark, children are not streamed in primary and lower secondary school. Recent legislation has allowed the formation of groups across classes and year groups for limited periods of time.

The interview was conducted in an early phase of the project when I was trying out interviewing children, and not intended to become part of my empirical material. Hence, the informants do not belong to my primary target group, children being in difficulties with mathematics. I have translated the extracts and normalized the language a little though still trying to maintain the characteristics of children's language.

In the transcript “...” marks interruption, “(...)” omission, and “(?)” short unintelligible passages.

REFERENCES

- Alrø, H. and Skovsmose, O.: 2004, *Dialogue and learning in mathematics education: Intention, reflection, critique*, Boston, Kluwer Academic Publishers
- Alrø, H., Skovsmose, O., & Valero, P.: in press, 'Inter-viewing foregrounds', in M.César & K. Kumpulainen (eds.), *Social interactions in multicultural settings*, EARLI Books.
- Andenæs, A.: 1991, 'Fra undersøkelseobjekt til medforsker? Livsformsintervju med 4-5-åringer', *Nordisk psykologi* 43 (4), 274-292.
- Booth, T., Ainscow, M., Baltzer, K., and Tetler, S.: 2004, *Inkluderingshåndbogen*, Kbh., Danmarks Pædagogiske Universitet
- Doverborg, E. and Pramling Samuelsson, I.: 2000, *Att förstå barns tankar: Metodik för barnintervjuer*, 3. ed., Stockholm, Liber
- Eisenhart, M. A.: 1988, 'The ethnographic research tradition and mathematics education research', *Journal for Research in Mathematics Education* 19 (2), 99-114.
- Goodson, I. F.: 2003, *Professional knowledge, professional lives. Studies in education and change*, Maidenhead, Open University Press
- Goodson, I. F.: 2005, 'Lærende liv', in R.Ådlandsvik (ed.), *Læring gjennom livsløpet*, [Oslo], Universitetsforlaget, pp. 77-100.
- Goodson, I. F. and Sikes, P. J.: 2001, *Life history research in educational settings*, Buckingham, Open University
- Højlund, S.: 2002, *Barndomskonstruksjoner. På feltarbejde i skole, SFO og på sygehus*, [Kbh.], Gyldendal Uddannelse
- James, A., Jenks, C., and Prout, A.: 1997, *Theorizing childhood*, Cambridge, Polity Press

- Kampmann, J.: 2000, 'Børn som informanter og børneperspektiv', in P.Schultz Jørgensen & J. Kampmann (eds.), *Børn som informanter*, Kbh. Børnerådet, pp. 23-53.
- Lange, T.: forthcoming, 'Students' perspectives on learning difficulties in mathematics' in L. Ø. Johansen (ed.), *Proceedings of the 3rd Nordic Research Conference on Special Needs Education in Mathematics*,
- Magne, O.: 2001, *Literature on special educational needs in mathematics. A bibliography with some comments*, Malmö, Department of Educational and Psychological Research, School of Education, Malmö University
- McLeod, D. B.: 1994, 'Research on affect and mathematics learning in JRME: 1970 to the present', *Journal for Research in Mathematics Education* 25, 637-647.
- Reed-Danahay, D.: 2005, *Locating Bourdieu*, Bloomington, Indiana University Press
- Skovsmose, O.: 1994, *Towards a philosophy of critical mathematics education*, Dordrecht, Kluwer Academic Publishers
- Skovsmose, O.: 2005a, 'Foreground and politics of learning obstacles', *For the Learning of Mathematics* 25 (1), 4-10.
- Skovsmose, O.: 2005b, 'Meaning in mathematics education', in J.Kilpatrick, C. Hoyles, & O. Skovsmose (eds.), *Meaning in mathematics education*, New York , Springer Science, pp. 83-100.
- UNESCO: 1994, *The Salamanca statement and framework for action on special needs education*.
http://www.unesco.org/education/information/nfsunesco/pdf/SALAMA_E.PDF
[On-line]. Retrieved 10-5-2006
- Young-Loveridge, J., Sharma, S., Taylor, M., & Hawera Ngarewa: 2005, *Students' perspective on the nature of mathematics. Findings from the New Zealand Numeracy Development Projects 2005* [On-line]. Available: http://www.nzmaths.co.nz/Numeracy/References/Comp05/comp05_young-loveridge_etal.pdf. Retrieved 17-8-2006