



HELSINGIN YLIOPISTO
HELSINGFORS UNIVERSITET
UNIVERSITY OF HELSINKI

Keeping it together: Emic resources for cross-situational coherence

Fritjof Sahlström





Question

- How has learning and change been addressed within CA, and what are some of the constraints and possibilities of this work?
- Would it be a) of interest, and b) possible to argue learning/change as an activity it as a “CA doing”, and what are some of the challenges and possibilities in doing so?



Learning and change

- Jean Lave: (1993:5-6) there is no such thing as “learning” sui generis, but only changing participation in the culturally designed settings of everyday life. Or, to put it the other way around, participation in everyday life may be thought of as a process of changing understanding in practice, that is, as learning.
- Enfield & Levinson: (2006, p. 1):At the heart of the uniquely human way of life is our peculiarly intense, mentally mediated and highly structured way of interacting with one another. [...] This mode of cooperative, mentally mediated interaction enables the accumulation of cultural capital and historical mergence of cultures.
- Sfard: (1998, p. 6) To put it differently, learning a subject is now conceived of as a process of becoming a member of a certain community. This entails, above all, the ability to communicate in the language of this community and act according to its particular norms.



Conversation Analysis: Social interaction in focus

- Several strands of contemporary theorizing (most notably those associated with the names of Bourdieu and Habermas) have sought to put language, communication, and “practice” in a position of comparable theoretical “gravity”; still, none has yet provided a clear depiction and exemplar of **how the prima facie, observable embodiment of sociality – action, activity, and conduct in interaction – as effectuated through the deployment of language and the body can be put at the center of theorizing about the social and can be grounded and elaborated in detailed, empirical analysis of that conduct.** Schegloff (1996: 162)



Learning and the education of attention

The process of learning by guided rediscovery is most aptly conveyed by the notion of showing. **To show something to someone is to cause it to be made present for that person, so that he or she can apprehend it directly, whether by looking, listening, or feeling.** Here, the role of the tutor is to set up situations in which the novice is afforded the possibility of such unmediated experience. Placed within a situation of this kind, the novice is instructed to attend particularly to this or that aspect of what can be seen, touched, or heard, so as to get the 'feel' of it for him- or herself. Learning, in this sense, is tantamount to an 'education of attention'. (Ingold, 2001: 141-142)

Relying on ostensive-referential demonstrations of the relevant aspects of the opaque skills, communicative knowledge transfer could alleviate the learnability problem by having **the knowledgeable conspecific actively guide the novice through selectively manifesting 'for' the learner the relevant information to be acquired and generalized.** Thus, we propose that the mechanism of natural pedagogy is ostensive communication, which incorporates evolved interpretive biases that allow and foster the transmission of generic and culturally shared knowledge to others (Csibra & Gergely, 2006, 2009).



Describing prior work on CA and learning

- Understanding interaction as basis for understanding learning but not focused on learning as such (eg Mehan 1979; Käätä 2010)
- Studying longitudinal change in a certain CA feature - often repair - in one participant's interaction over time (eg. Hellermann, 2008), or longitudinal change in a certain CA feature within a certain content domain in one participant's interaction over time (eg. Martin, 2004)
- Studying learning as content-integrated doing, constituted by certain oriented-to aspects (longitudinality, epistemic stance, epistemic asymmetries) (eg. Sahlström, 2011)



1. Understanding interaction as basis for arguing in relation to learning

- Traditional CA in educational settings
- Learning (or other possible aspect of interest) usually discussed in section on theory and in discussion, but not in the actual analysis
- Includes both older and recent work (Mehan 1979; Sahlström; 1999; Käätä 2010)



2. Longitudinal change

- Studying longitudinal change in a certain CA feature - often repair - in one participant's interaction, commonly in one setting (eg. Hellermann, 2008; Wootton, 1997)
- Studying longitudinal change in a certain CA feature within a certain content domain in one participant's interaction over time, in one setting (eg. Martin, 2004; Martin & Sahlström, accepted; Slotte-Lüttge, Pörn & Sahlström, accepted)
- In many cases relying on repair for establishing change



An example: participation changes as learning, in terms of repair changes

(Martin, 2004; Martin & Sahlström, 2010)

Medal No	Repair organisation	Date & tape number
First phase		
Medal 1	OI + OR	011023 - 1
Second phase		
Medal 2	OI + OR	011024 - 2
Medal 3	OI + SR	011204 - 8
Medal 4	OI + SR	↓
Medal 5	OI + OR	011204 - 8
Medal 6	OI + OR	↓
Medal 7	OI + SR	020117 - 12
Medal 8	OI + OR	↓
Medal 9	OI + SR	↓
Medal 10	OI + OR	↓
Medal 11	OI + OR/SR	020122 - 13
Medal 12	OI + OR/SR	↓
Medal 13	OI + OR/SR	↓
Third phase		
Medal 14	OI + SR	020122 - 13
Medal 15	OI + SR	↓
Medal 16	OI + SR	↓
Medal 17	OI + SR	020206 - 14
Medal 18	OI + SR	↓
Medal 19	OI + SR	↓
Fourth phase		
Medal 20	SI + SR	020212 - 14
Medal 21	SI + SR	↓
Medal 22	OI + OR/SR	↓
Medal 23	SI + SR	020319 - 16
Medal 24	SI + SR	↓
Medal 25	OI + SR	020204 - 17
Medal 26	SI + SR	↓
Medal 27	SI + SR	↓
Medal 28	OI + SR	↓
Medal 29	SI + SR	↓
Medal 30	OI + SR	↓
Medal 31	SI + SR	↓
Medal 32	SI + SR	020507 - 20
Medal 33	SI + SR	↓
Medal 34	OI + SR	↓
Medal 35	OI + SR	↓
Medal 36	SI + SR	↓
Medal 37	SI + SR	↓
Medal 38	OI + SR	020530 - 21
Medal 39	OI + SR	↓
Medal 40	SI + SR	↓
Medal 41	OI + SR	020820 - 22



Language acquisition research

- Following on and building on changed understandings of second language use
- Work focusing longitudinal changes in uses of interactional practices
- Successful and rapidly growing (Hellermann, Cekaite, Piirainen-Marsh & Tainio, Slotte-Lüttge - and many others)

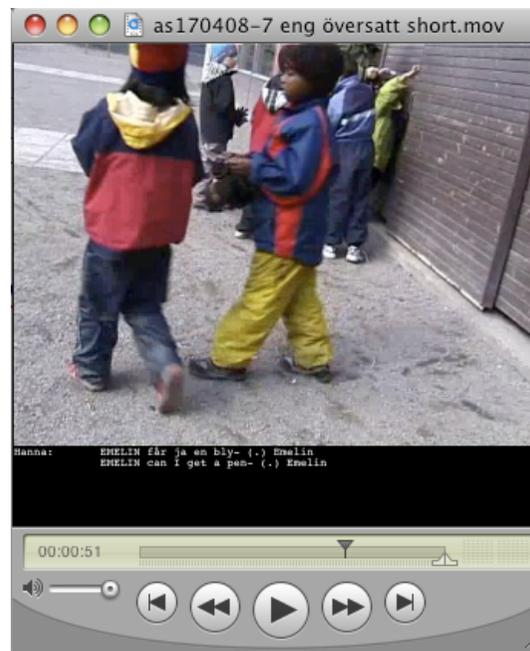


3. Learning as social action

- Argument for approach based in regular, basic CA notions of emic perspective and focus on action
- An argument from other research on human sociality: Humans have evolved complex and specialized cognitive resources - that we call “pedagogy” - that form a dedicated communicative system in which the participants are inclined to teach and learn new and relevant cultural information to (and from) conspecifics” (Gergely & Csibra, 2006).



Emic learning trajectories





	CA studying classroom interaction	CA studying longitudinal change	CA studying learning as action in itself
<i>Examples</i>	Mehan (1979); Kääntä (2010)	Wootton (1997), Martin (2004)	Lee (2010); Melander, (2009); Melander & Sahlström (2010)
Individual-social	Social	Individual (social)	Social (individual)
Form-content	Form	Merged (SLA), selection criterion ("the medal, "tähti")	Integration
Product-process	Process (possible relationship generally not topicalized)	Product (analytically), process (participants)	Process (product, for participants)
Change	Not addressed, not always clear	In focus, addressed, topicalized	As doing, understanding in development
Applicability beyond CA	Wide	Wide	Limited
Etic-emic	Emic	Etic (emic)	Emic
Contribution to CA	Cumulative addition	Longitudinality	Suggesting expansion
Empirical anchor	Setting	Participant/Content	Participant

Setting-centered work

- Situated interaction within site (classroom, family) in focus
- Individual actors not foregrounded
- Longitudinal change not foregrounded
- Radically social “lamination” view of learning possible (but not generally taken up)



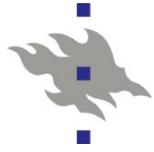
Content and/or practice-centered work

- Content and/or practice(s) foregrounded (Ekström, Lymer)
- Situated interaction in relation to focused content/practice within multiple sites in focus
- Longitudinal change in individual content and/or practice possible to foreground (but mostly not done)

Participant-centered work

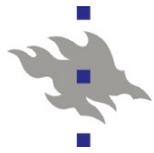
- Individual participant(s) foregrounded
- Situated interaction of participant within multiple sites (classroom, family) in focus
- Longitudinal change in individual and content and/or practice foregrounded
- Emic orientation proposed as suggestion for finding learning
- The role of the anchoring individual not properly understood





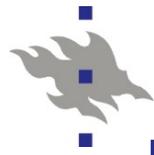
1. Trajectories of epistemic topicalization

2. Differences in epistemic topicalization

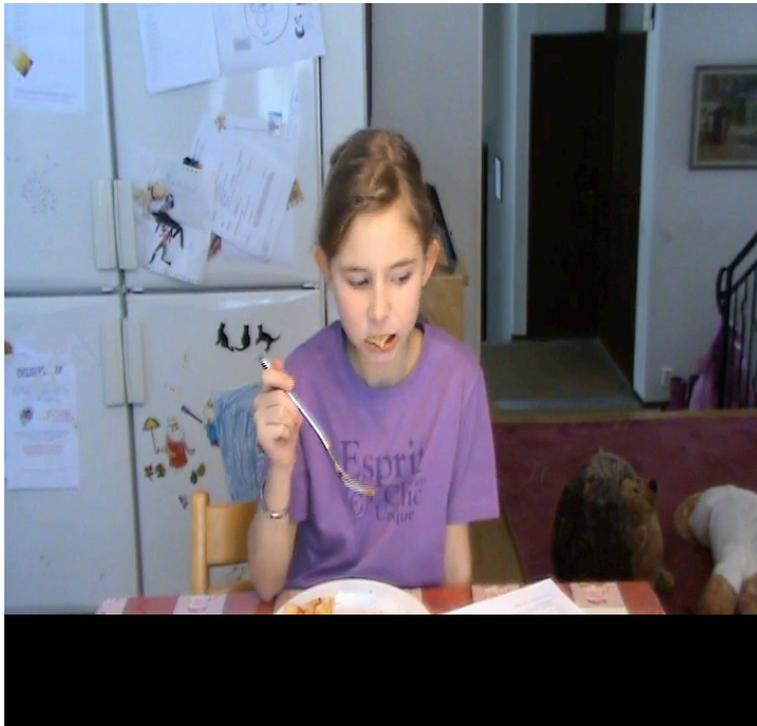


Epistemic topicalization: inside the classroom





Epistemic topicalization in the home



Emelie: tur-ke-y (1.5) hu säger man de
tur-ke-y how do you say that

Mamma: turkey

Emelie: tu:rr-key

Mamma: turkey

Emelie: tu:rrk-key

Mamma: no ei. mut ajattel(ka) aika hassuu että se on
PRT no. but think it is quite funny that it is
suomeks Turkki. no toisaalta (.)
in Finnish Turkey. but on the other hand (.)
turkey (.) tarkoittaa myöski kalkkuna (1.0) aika
turkey (.) also means turkey quite
hullua
strange

Pappa: kalkon.
turkey.

Emelie: hu ser en kalkon ut
what does a turkey look like

Pappa: ganska fula fåglar tycker ja
quite ugly birds I think

Emelie: [mamma tycker att-]
[mom thinks that-]

Pappa: [hu e amerikanska]fåglar då
[what are american] birds like then

Emelie: mamma tycker att dom e vackra
mom thinks they are beautiful

Mamma: nne on aika haus- ainakin vitsikkään näköisiä
they are at least quite funny looking

Emelie: man får int säga att dom int e [s-]
you can't say they are not [s-]

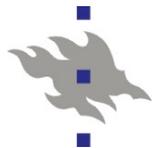
Pappa: [nå nej]
[well no]

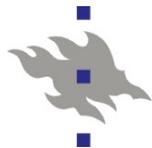
Mamma: kaikki eläimet on sen näköisiä kun niitten
all animals look the way
tavallaan kuulukin olla
should look

Emelie: e kalkonen en fåg(h)el
is the turkey a bird

Pappa: jo
yes

Emelie: ai
oh





Problem formulation

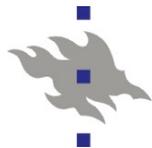
Pojke 1: tänkt ja så dä dom hade bättre geografiska sen då (.)
I thought like they had better geographic then (.)
Pojke 1: lokation | (.) eller vänt nu lokationer (.) | (ohb)lokationer
location | (.) or wait now locations (.) | (inau)locations
Daniela: | ((skratt)) | ((skratt))
| ((laughter))

Daniela: hö(h)d(h)u va e lokation
listen what is location
Pojke1: de ett ord (.) eller e de
it is a word (.) or is it
Daniela: ja men va betyder he (.)
yes but what does it mean

Daniela: lokation
location
Pojke 1: lokation plats
location place

Claims and elaboration

Pojke 1: e de e de | e de ett ord
is it is | it a word
Daniela: | lokation nå no kan no: hända men de låter
| location well it can be but it sounds
konstit| i mitt huvve de
strange|in my head it
Pojke 1: | geografisk lokation
| geographic location
Daniela: näää lo- lo-
noo lo- lo-
Pojke 2: ja e övertygad om att de e de där senare (ohb)
I am convinced it is the latter
Pojke 1: han sa han sa att de funka
he said he said that it works
Daniela: lokation



Epistemic conclusion

- Pojke 1: lokets tåg|ets
the locomo|tive's the train's
- Daniela: |nä för att si: då man börjar läsa (.)
|no because look when one begins to read
- Daniela: leta så kommer de så där öh lokation på svenska va e de på svenska
search then there is uh location in Swedish what it is in Swedish
så där (.) location men de no: de säger man ju att de lokaliserats
like that (.) location but it is one can say it has been localised
men int tydligen lokation
but obviously not location

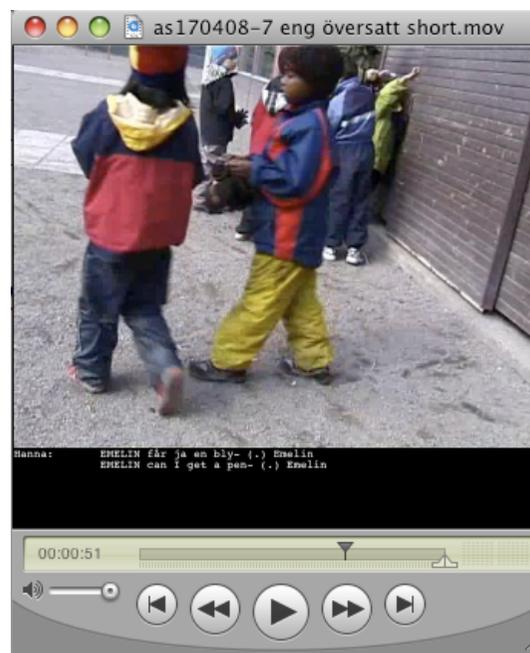


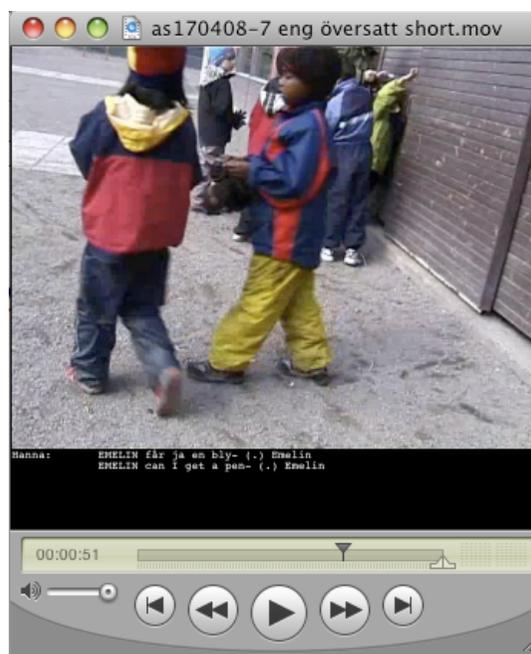
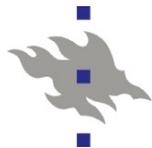
Epistemic topicalization trajectories in interaction on content problems

- Initiated by talk (so far in our analysis) on epistemic stance to content
- Followed up in different ways:
 - Not knowing → knowing right answer (student-student interaction)
 - Not knowing → knowing how to find answer (teacher-student interaction)
 - Not knowing → being told in general terms how to find the answer (teacher-student)
 - Not knowing → not knowing in specified way (teacher-student)
 - Not knowing → student complaint, no intention of wanting to knowing (student-student, teacher-student)



Extended trajectories of epistemic topicalization





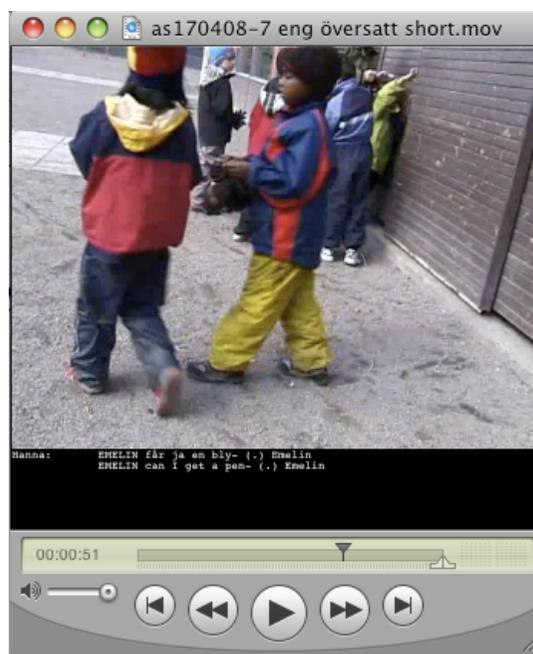
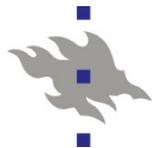


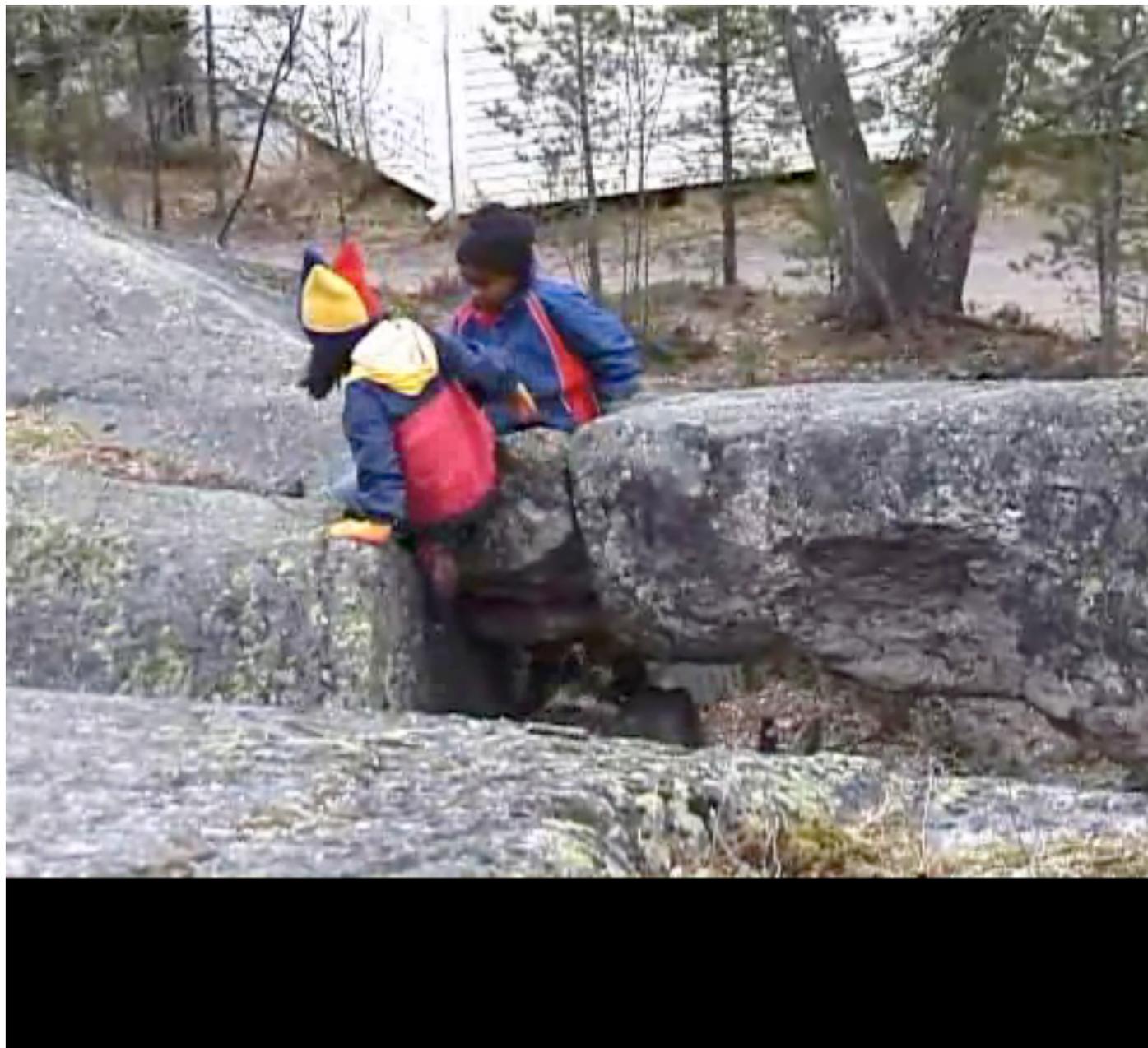
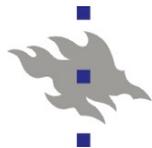
Transcript 1. *Re-introducing the English paper.*

Explicit longitudinal orientation

Epistemic stance

- 1 Hanna: ja ha:r den hä engelskalappen.
I have here this English note
2 (1.2)
- 3 Hanna: ja kommer int ihÅ:g va va tie å åtta.
I don't remember what was ten and eight
- 4 Sara: tie å åtta.
ten and eight
5 (1.0) ((they unfold the paper))
- 6 Sara: tie å åtta e eight och (.) de e ten.
ten and eight is eight and (.) that is ten
- 7 Hanna: va e de dä då. (.) nie.
what is that then (.) nine.
- 8 Sara: va hh?
what?







Negotiation about
oriented-to activity

Explicit longitudinal orientation

Epistemic topicalization

Explicit longitudinal orientation

Transkript 5. *Counting in the woods.*

1 Sara: har du bly:ertspenna me.
did you bring a pencil.

2 Hanna: (nä)
(no)

3 Sara: har du din engelskapapper.
have you got your English paper.

4 Hanna: ja.
yes.

5 (2.4)

6 Sara: du kan räkna nu.
you can count now

7 (0.5)

8 Sara: du kan nu räkn- försöka nu räkna utan de.
you can now coun- try to now count without it.

9 (0.2)

10 Sara: du kan läsa.
you can read

11 Hanna: nej du får läsa. fö ja säger efter okej
no you can read because I say after okay

12 (.) sådär som (0.7) som (.) Marina sa. (0.2)
(.) the way as (0.7) as (.) Marina said. (0.2)

13 ([])

14 Sara: [alltså de där ga- när ga:tan gick sönder.
[that one where st- when the street broke

15 Hanna: ((brings out the paper)) ja så kan du nu gör de
yes then can you now do this

16 här att vi räknar också samma sak.
here that we count also the same

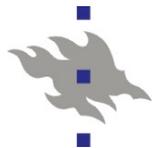
17 Sara: °(okah)°
ok

18 (2.8)



For discussion

- The analysis of epistemic topicalization and other interactional resources deployed in the analyzed materials
 - Provides evidence for
 - cross-situational relevance at empirical level
 - coherence and change as emic accomplishments
 - instructional practices as co-constructed social phenomena
 - Questions
 - static conceptions of epistemic authority in instruction
 - conceptions of classroom as primary space for learning and instruction
 - Asks for
 - further work on how practices of learning and instruction are constructed and recognized as such by participants
 - further theorizing of longitudinal anchors within CA-based learning research



Some literature

- Enfield, N. J., & Levinson, S. C. (2006). *Roots of human sociality. Culture, cognition and interaction*. Oxford, England: Berg
- Cekaite, A. (2006). *Getting started. Children's participation and language learning in an L2 classroom*. Linköping: Linköping University.
- Chaiklin, S. and Lave, J. (1993) (eds.), *Understanding practice: Perspectives on activity and context*. Cambridge University Press.
- Emanuelsson, Jonas & Sahlström, Fritjof (2008). The price of participation. Teacher Control versus Student Participation in Classroom Interaction. *Scandinavian Journal of Educational Research*, 52(2), 205-223.
- Goodwin, Charles (2000). Action and Embodiment within Situated Interaction. *Journal of Pragmatics* 32, 1489-1522.
- Goodwin, Charles (2006). Human Sociality as Mutual Orientation in a Rich Interactive Environment: Multimodal Utterances and Pointing in Aphasia. In Nick J. Enfield & Stephen C. Levinson (Eds.), *Roots of Human Sociality. Culture, Cognition and Interaction* (pp. 97-125). Oxford, NY: Berg Publishers.
- Hummelstedt, Ida; Sahlström, Fritjof; Forsman, L., Pörn, Mikaela & Slotte-Lüttge, Anna (2008). Datansamling och inledande datahantering, FLIS-projektet våren 2008. FLIS-rapport 1: 2008. Retrieved 3.6.2009: <http://www.abo.fi/pf/flis>.
- Kärkkäinen, Elise (2006). Stance Taking in Conversation: From Subjectivity to Intersubjectivity. *Text & Talk* 26(6), 699-731.
- Kääntä, L. (2010) Teacher turn-allocation and repair practices in classroom interaction: a multisemiotic perspective. Jyväskylä studies in humanities.
- Lave, Jean (1993). The Practice of Learning. In Seth Chaiklin & Jean Lave (Eds.), *Understanding Practice. Perspectives on Activity and Context*. Cambridge University Press, Cambridge, p. 3-32.
- Lave, Jean & Wenger, Etienne (1991). *Situated Learning. Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.
- Lee, Yo-An (2010). Learning in the contingency of talk-in-interaction. *Text & Talk* 30-4, pp. 403-422.
- Martin, Cathrin, 2004. *From other to self. On Learning as Interactional Change*. Acta Universitatis Upsaliensis No 107, Uppsala. (Diss.)
- Martin, Cathrin (2009). The Relevance of Situational Context in Studying Learning as Changing Participation. *Scandinavian Journal of Educational Research* 53(2), 133-149.
- Martin, Cathrin & Sahlström, Fritjof (accepted). Learning as Longitudinal Interactional Change. From Other-repair to Self-repair in Physiotherapy Treatment. *Discourse Processes*.
- Melander, Helen (2009). *Trajectories of Learning. Embodied Interaction in Change*. Uppsala Studies in Education No 124. Uppsala: Acta Universitatis Upsaliensis (Diss.)
- Melander, Helen & Sahlström, Fritjof (2008). In Tow of the Blue Whale. Learning as Interactional Changes in Topical Orientation. *Journal of Pragmatics* 41, 1519-1537.
- Melander, Helen & Sahlström, Fritjof (2009). Learning to Fly – The Progressive Development of Situation Awareness. *Scandinavian Journal of Educational Research*, 53(2), 151-168.
- Melander, Helen & Sahlström, Fritjof (manuscript). *Lärande som samtalsanalytisk aktivitet [Learning as an activity within Conversation Analysis]*.
- Nishizaka, Aug (2006) What to learn: The Embodied Structure of the Environment. *Research on Language and Social Interaction*, 39(2), 119-154.
- Ochs, E., Schegloff, E., & Thompson, S. (1996) (Eds.) *Interaction and grammar*. Cambridge: Cambridge University Press.
- Sacks, H., Schegloff, E. A., & Jefferson, G. (1974). A simplest systematics for the organization of turn-taking for conversation. *Language*, 50, 696-735.
- Sahlström, F., Hummelstedt, I., Forsman, L., Pörn, M. Slotte-Lüttge, A. (accepted) Samma innehåll – olika sammanhang: mikro-longitudinellt lärande i sjuåringars vardag. *Språk och interaktion*.
- Sahlström, Fritjof, 1999. Up the Hill Backwards. On Interactional Constraints and Affordances for Equity-Constitution in the Classrooms of the Swedish Comprehensive School. Acta Universitatis Upsaliensis No 85, Uppsala. (Diss.)
- Sahlström, Fritjof, 2002. The Interactional Organization of Hand Raising in Classroom Interaction. *Journal of Classroom Interaction* 37(2), 47-55.
- Schegloff, Emanuel A. (1996). Confirming Allusions: Toward an Empirical Account of Action. *The American Journal of Sociology* (102), 161-216.
- Sfard, Anna (1998). On Two Metaphors for Learning and the Dangers of Choosing Just One. *Educational Researcher* 27(2), 4-13.
- Sfard, A. & Lave, I. (2005). Why cannot children see as the same what grown-ups cannot see as different? Early numerical thinking revisited. *Cognition and Instruction*, 23(2), 237 - 309.
- Slotte-Lüttge, Anna, 2005. "Ja vet int va de heter på svenska." *Interaktion mellan tvåspråkiga elever och deras lärare i en enspråkig klassrumsdiskurs*. [“I don't know how to say it in Swedish.” Interaction Between Bilingual Students and their Teachers in a Monolingual Classroom Discourse.] Åbo Akademi University Press, Åbo. (Diss.)
- Slotte-Lüttge, Pörn & Sahlström (accepted). Learning how to be a tähti: A case study of language development in everyday situations of a seven-year-old multilingual Finnish child. *International Journal of Bilingualism*
- Wootton, A. (1997). *Interaction and the Development of Mind*. Cambridge: Cambridge University Press.