

To boldly proceed

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Who has the knowledge if not the *Primary Knower*? - Using *exchange structure analysis* to cast light on particular pedagogic practices in teaching Danish as a Second Language and History

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Abstract

This paper reports on findings from a project researching Danish as a Second Language (DSL). While official pedagogic discourse (Bernstein, 2000) is available in curriculum guidelines, the historically grounded relative autonomy of schools means that the actual pedagogic discourse of DSL varies in terms of teachers' competencies. A deeply rooted progressivist approach to schooling combined with a more recent focus on national testing correlate with a Ministerial recommendation that DSL be taught embedded in the school's other subjects (Undervisningsministeriet, 2005). This paper focuses on the pedagogic practices of one case of DSL embedded in a fifth grade History unit, taught in a Danish public school with 85% bilingual students. *Exchange structure analysis* (Martin, 1992; Martin & Rose, 2007) makes visible certain patterns of classroom discourse. With focus on the *K1-move*, which according to the theory is the only obligatory move in a knowledge exchange, analysis of the collected data shows, interestingly, that this move is often ambiguous or missing, which raises questions of a more general pedagogic nature, conceptualized here by the *knower code* from *Legitimation Code Theory* (Maton, 2000, forthcoming).

1 Introduction – What Are We Going To Learn Today?

Children in a fifth grade class gather to start a new History topic; as they sit down, they are talking and joking with each other and the three teachers in the room. This school's fifth grade is made up of 30 children divided into two teams, sharing five teachers who work in groups and individually depending on the subjects and the units being taught. As such, this class is very similar to most Danish public school classrooms. What sets it apart is that it is in a school where the majority of the children are classified as 'bilingual'¹.

Evidence of the so-called *fourth grade slump* (Chall, Jacobs, & Baldwin, 1990; Gitz-Johansen, 2006) experienced by many second language students and increasing linguistic diversity of students' backgrounds presents challenges to the Danish public school and has led to the development the relatively new school subject, Danish as a Second Language (DSL)².

1.1 DSL in the S-School – Background and Data

The S-School, where this data is gathered, is a K-9 public school servicing an area outside of Copenhagen where the majority of the population has an ethnic minority background, generally with a fairly low socio-economic status and often referred to as "second generation immigrants". Schools like the S-School have been highly politicized and discussed in the media for the past decades, as they and the areas they service are often seen as a cause for concern: they tend to have poor results, many students have trouble while in school, do not

¹ The Ministry of Education terms *bilingual* children as those who speak a language other than Danish at home and start learning Danish when exposed to Danish society and public institutions such as day care or school.

² DSL appeared as a recognized school subject with official ministerial guidelines for the first time in 1995.

choose secondary educations and even drop out early (Undervisningsministeriet, 2011). The validity of these concerns can be debated in other fora, but repeating them here gives a picture of the concern the general population and policy makers share over schools like the S-School. Because of the high concentration of bilingual students, the school-board chose to prioritise DSL by hiring a school principal who, in turn, hired new teachers, many of whom have the available DSL minor. As a result, the S-School sees itself as a kind of flagship for DSL. At the time of observation (2009), all of the grade-teams had at least one DSL-teacher and a DSL-coordinator for the entire school.

1.2 Evicted - An Interdisciplinary, Multimedia History and DSL Unit

The findings of this project are taken from observations of a History unit taught by three teachers: Bonny (DSL-coordinator), Adam (History), and Sarah (Danish and completing an in-service DSL-minor at the time). Of the unit's six 90-min. lessons, all except the fifth were videoed in order to capture teacher-student conversations. All recordings have been extensively annotated, with several phases chosen for transcription and subsequent analysis.

The focus of this History unit was Denmark at the turn of the previous century. To this end, Bonny chose an on-line multi-media material called *Sat Ud (Evicted)*. The publishers claim this material is well-suited for teaching 'bilingual' students because of its interdisciplinary approach, while also building on visual media and making use of IT (Alinea, 2007). The materials present students with an image of the famous Danish painting, *Sat Ud(1892)* by Erik Henningsen. By listening to a narrated story, focusing on different areas of the painting, and answering listening-comprehension type questions, students are meant to gain insight into what life for a working class family in Copenhagen was like during the late 1800s/early 1900s.

Throughout the unit, students worked in pairs at a laptop computer, working through the story and completing the exercises. Most lessons started and ended with a teacher-led whole-class discussion functioning as a recap of what students had encountered in the materials so far. The data presented in this article is from such a recap session.

2 Theory of pedagogical discourse

According to Bernstein (2000), distribution of knowledge within the school system is differentiated, based on a distributive principle by which different social groups are recipients of different knowledge structures (pedagogic discourse). Certain knowledge structures are seen as institutionally privileged and with more powerful possibilities for success than less privileged ones. Classroom discourse and practices, therefore, regulate student consciousnesses, shaping students into different pedagogic subjects (Bernstein, 1990; Christie & Martin, 2007) with varying access to and chances for educational success. Within this theoretical framework, linguistic analysis of classroom talk has the potential to bring forth teachers' both implicit and explicit evaluations of students' oral and written texts, enabling discussion of the type of knowledge-knower structures catered to in the observed pedagogical discourse (Maton, 2010).³

³ Due to the constraints of this paper, the theory section offers only a brief account of relevant aspects of ESA and LCT. The reader is directed to Dreyfus (2006); Hunt (1991); Martin (1992); Martin and Rose (2007b) and Maton (2000, forthcoming) for extended accounts of ESA and LCT, respectively.

2.1 ‘Delayed’ and ‘Primary’ Knower Moves – Exchange Structure

Exchange Structure Analysis (ESA) has significant advantages over other discourse analytic approaches in that the model is based on a comprehensive, systemic language model making it possible to describe and quantify discourse patterns at different strata and with varying levels of detail; secondly, conversations are understood as a way of doing social life and seen as enacting and constructing dimensions of social identity and interpersonal relations (Eggs & Slade, 2005). ESA focuses on the interpersonal dimension of discourse and therefore on the social identities speakers take up or allow each other, making visible the power relations between participants.

ESA describes the negotiation of meaning construction in spoken language by distinguishing between what is negotiated: *initiating/responding to information/action being offered/demanded* (Martin & Rose, 2007). This approach builds on work by (Sinclair & Coulthard, 1975) who found a pattern in pedagogic discourse dubbed IRF (initiation, response, feedback). In ESA, moves are classified focusing on their organization with respect to each other, bringing the analysis to the level of discourse semantics (Martin, 1992). At this level, *exchanges* are seen as the basic unit of social interaction (Dreyfus, 2006; Martin, 1992; Ventola, 1987) and are made up of *moves*, which follow an orbital structure with a single nucleus (the K1) and satellites⁴. The structure of the knowledge exchange potential can be illustrated as follows (where the parentheses represent optional moves, D means ‘delayed’, ^ means ‘followed by’ and f denotes a follow-up move): ((Dk1) ^ K2) ^ K1 ^ (K2f ^ (K1f)).

Exchanges starting with the delayed primary knower move (Dk1) will be the focus for the linguistic analyses in this paper. These exchanges are initiated by the teacher in situations where she has the authority to demand students present knowledge for evaluation (Dreyfus, 2006), i.e. she delays giving information, posing a question to which she knows the answer, so students can answer in a K2, which then can be evaluated and potentially expanded in the vital K1 (Martin 2006, Martin & Rose 2007a).

The discourse analytic approach of ESA interacts well with the more macroscopic perspective of Legitimation Code Theory allowing linguistic analysis to inform a broader sociological perspective on the pedagogy being enacted.

2.2 Knowledge and Knowers – Legitimation Code Theory

Legitimation Code Theory (LCT) (Maton, forthcoming) extends and expands upon Bernstein’s theory of pedagogic codes (1996, 2000). Within LCT, the notion of *specialization codes of legitimation*, which differentiates between epistemic relations between knowledge and its proclaimed object of study, and social relations between knowledge and its author or subject, is useful to understanding the underlying sociological implications of the pedagogy being enacted in the discourse observed. Of the four specialization codes described by LCT, the *knower code*, in particular, lends a plausible explanation as to why the teacher structures her exchanges as she does. A knower code is characterized as exhibiting relatively weak classification and framing of epistemic relations (ER-), while its social relations exhibit relatively stronger classification and framing (SR+) (*ibid.*). In other words, a teacher enacting a knower code focuses more on the students and their way of being rather than the knowledge structure during a unit of study.

⁴ Though beyond the scope of this paper, exchanges can take longer in reaching resolution, as the *synoptic* moves (above) can be interrupted with *dynamic* (*tracking* or *challenging*) moves, see Martin (1992), Martin & Rose (2007).

3 Where's the Knowledge? - Applying ESA to the data

The example chosen for analysis here is exemplary of a pattern of talk exhibited by all the teachers throughout the data, where the obligatory K1 in a Dk1-exchange is either ambiguous or missing. In this example, the teacher, Bonny, is leading the class discussion at the end of the unit's 2nd lesson, summing up students' activities. In the discussion, she picks up on one of the exercises most students had trouble with, in which they were asked to use the word *evicted* in a sentence. Bonny starts by asking, "What is the next thing you are asked to do?" One of the students answers inaudibly. Presumably repeating or reformulating the student's answer, Bonny answers, "You have to find out what evicted means", thus bringing the class' attention to the field at hand in this, the first exchange of the phase, and focuses their attention on the meaning of the word *evicted*. She continues⁵:

2	Bonny	[pointing at stud2] Did you find out what evicted means?	Dk1
	Stud. 2	Yes, uhm, they were evicted because they couldn't pay their rent?	K2
	Bonny	Is that what the word evicted means?	clrq
	students	[calling out] Thrown out.	K2
			(missing K1)
3	Bonny	[looking at Stud. 2]...	Dk1:nv
	Stud. 2	Yees, uhmm. I don't know.	K2
	Bonny	Nooo? [look at camera, smiling]	K1
4	Bonny	And that is it.. [looking around at students] Were you asked to explain what it was that was happening on the painting ... or were you asked to explain what the word evicted means?	Dk1
	Stud. 3	What the word evicted means.	K2
	Stud. 4	It means, uhm, evicted, for example that you're evicted from your house, so, or, they (get) thrown out of the house, or	K2
	Bonny	[small nod] yes?	K1
5	Bonny	[points at Stud5] ...	Dk1
	Stud. 5	it means that you are thrown out of the house	K2
	Bonny	Evicted. Thrown out?	clrq
			(missing K1)
6	Stud. 6	If you're in a group, then you can also just be evicted	K2
	Bonny	yes? If you're in a group, very good, then you can also be evicted.	K1
7	Bonny	How can that happen?	Dk1
	Stud. 6	if you do something wrong, or something?	K2
	Bonny	yes?	clrq
	Stud. 3	or if there isn't enough room	K2
	Bonny	it can also just be a problem with room	K1
	Stud. 1	Or you haven't uhm not paid your rent	K2
	Bonny	Or you haven't paid your rent.	K1f
8	Bonny	Yes? [pointing to Stud7] ...What have you learned today?	Dk1
	Stud. 7	Uhm .. [looking at her paper, smiling uncomfortably] what evicted means?	K2
	Bonny	You learned what evicted means, yes?	K1
9	Bonny	Yees? [looking around at the students]	

At this point Bonny changes the topic to pursue "what have you learned today" in a round-robin format, thus changing the field and marking an end to the phase⁶.

3.1 Missed teaching opportunities in the K1-moves

Of the 9 exchanges above, 8 are initiated by Bonny with a Dk1, where she asks the students a question she already knows the answer to in, presumably, an attempt to focus students'

⁵ The transcription has been divided into exchanges (leftmost column) with moves analysed in terms of ESA (rightmost column). *Transcription key: Dk1=delayed primary knower, K2=secondary knower, K1=primary knower, K1f=primary knower follow-up, :nv=non-verbal move, clrq=clarification request (a dynamic, tracking move).*

⁶ Arguably, the shift occurs in exchange 8, where Bonny reformulates her question, but because of stud7's response, this and the following exchanges were included in this phase.

attention to the field (the meaning of the word *evicted*) and to assess their understanding. Two of these exchanges (2 & 5) are missing a K1 and therefore missing an opportunity for the teacher to give the students the knowledge she is asking them to demonstrate. In both cases, she initiates a new exchange with a new Dk1 instead. Of the K1's present, Bonny does not elaborate on or explicitly evaluate the meanings being negotiated, sending mixed signals with her body language and intonation.

In four of the exchanges (3, 4, 6, 8) Bonny's intonation in her K1's seems more like a question than feedback while physically nodding/smiling (signalling approval). As a result, her K1's are unclear, on the one hand accepting students' K2's, while also suggesting there might be more to the answer given. This could be seen as a way of implicitly asking students to expand their K2's. Her starting the following exchanges with new Dk1's seems to support this interpretation.

Additionally, Bonny offers imprecise feedback in her K1's: in the 6th exchange, she accepts student 6's suggestion that *evicted* means the same as being excluded. Although perhaps semantically related in a common-sense understanding⁷, her K1 does not provide the detail necessary to make clear how they are related. The same can be said of her K1 in exchange 7, where she accepts student 3's K2 of being evicted due to limited space. By not elaborating⁸ on students' contributions, her simplification equates eviction to social exclusion or to a result of limited space. Her K1's, therefore, do not bridge to the more abstract and reflective understandings students must access and master in order to achieve educational success. Interestingly, student 1's K2 in exchange 7 is arguably the best definition of *evicted* offered so far, but Bonny also fails to highlight this K2 as being more precise than the others, simply repeating it in her follow-up (K1f) move.

Allowing the three definitions to stand as equally correct without elaboration and combined with the mixed signals in body language and intonation results in several missed teaching opportunities, presumably leaving students unclear on what *evicted* really means.

4 Learning a knower code

Linguistic analysis using ESA lends a perspective on the pedagogic discourse, which initially seems to suggest unfocused teaching: the K1-moves made by the teacher, the person who has the authority to establish the knowledge being taught, are unclear. Nodding and smiling, asking different students to participate, and allowing three varying definitions of *evicted* as equally correct suggest there is more to the picture than what ESA alone can reveal. Perhaps, more subtly, the teacher's strategies are a reflection of her understanding of what learning is and, therefore, of the specialization code present in this classroom.

ESA shows that the teacher's input lacks refinement and direction, thus neglecting to focus on expanding students' knowledge-base and understanding of what the word *evicted* means. As such, the epistemic relations displayed are quite weak; at the same time, the social relations play a significantly more important role in that the participants partake in a, for them, common and recognisable pattern of interaction where the teacher asks a question to which she already knows the answer and students readily offer their guesses. Traditionally, this type of pedagogic interaction is used to check student knowledge, but in this case, the interaction seems to serve a different purpose: to condition students to the type of interaction valued in the classroom setting, while the knowledge and language needed is deprioritised.

⁷ Both eviction and social exclusion involve undesired outcomes: i.e. exclusion from the group/home.

⁸ See e.g. Rose (2011), Martin (2006), Martin & Rose (2007a) for how elaboration moves can extend knowledge.

The result is a *knower code*, where it would seem students are expected to teach themselves, and where the ideal knower is (already) Danish. The students in this study are thus left floundering from an epistemic and (second) language perspective with hardly a chance of being seen as legitimate within the school context.

Despite the insights offered by the linguistic analysis using ESA, the findings in this paper clearly point to the need for further, complementary sociological analysis using LCT to shed light on the underlying pedagogical issues at stake in such classrooms as the one observed here.

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