



HAL
open science

Reconstruction of teachers' professional vision concerning important aspects of classroom interaction

Anna-Marietha Vogler

► **To cite this version:**

Anna-Marietha Vogler. Reconstruction of teachers' professional vision concerning important aspects of classroom interaction. CERME 9 - Ninth Congress of the European Society for Research in Mathematics Education, Charles University in Prague, Faculty of Education; ERME, Feb 2015, Prague, Czech Republic. pp.1510-1516. hal-01287793

HAL Id: hal-01287793

<https://hal.science/hal-01287793>

Submitted on 14 Mar 2016

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Reconstruction of teachers' professional vision concerning important aspects of classroom interaction

Anna-Marietha Vogler

TU Dortmund University, Dortmund, Germany, anna.vogler@math.uni-dortmund.de

Participation in classroom interactions gives students the opportunity to learn subject-specific topics and to acquire discourse competences. Hence, there is a multitude of research concerning arrangements which enable learners to successfully participate. But what counts as an adequate contribution, enabling students to successfully participate in mathematical classroom interactions and, especially, what counts from the teachers' perspective? Based on the fact that the teachers' perspective on adequacy of considerations in interactions highly influences the teachers' acting and support in the classroom, the study INTERPASS investigates the teachers' perspective within video stimulated group discussions. One of the identified motives of the teachers' perspectives is presented in detail in the following.

Keywords: Group discussion, professional vision, participation in classroom interactions, documentary method.

INTRODUCTION

Acquisition of mathematical knowledge takes place in classroom interactions and through the opportunity to participate in the process of negotiation of meaning involved (Cobb & Yackel, 1998; Sfard, 2008). To be able to participate, content-specific comprehension and linguistic abilities of students as well as the teachers' efficiency in producing interactive scopes for participation are important.

On the one hand, based on a constructivist interactionist view, a lot of research has been done to empirically examine different aspects of influence on opportunities to participate by analysing classroom interactions. On the other hand, teacher education

programmes have been created to establish eligible acting repertoires of teachers to foster interactive support. The so-called 'mistake-handling' concerning students' contributions thereby plays an important role in creating these programmes (Heinze, 2005). Two examples of professional demands on teachers on the basis of these acting repertoires are (1) to provide explicit feedback on the adequacy of students' contributions and (2) to form discursive competences. But, also ideas of students should be embedded in the interactive process in the mathematics classroom to foster participation. More or less successful teaching experiments often serve as examples of the implementation of professional demands into classroom interactions. This form of training is mostly based on the idea that one prototypical conceptual situation can be established in the classroom situation. Hence, most of the time the perspective of protagonists on such more or less supportive interactions was not conceptually considered in detail and realisation in every day classroom failed (Prediger, Quasthoff, Vogler, & Heller, 2015).

Furthermore, Sherin (2007) describes that the teachers' perspective and especially their conceptions and perceptions concerning linguistic and content-specific aspects of classroom interactions are strongly related to the way they give support. Thus, the teachers' expectations of students' contributions provide an insight into the teacher's supportive behaviour and their way of establishing opportunities to participate. But what counts as an adequate contribution for teachers in mathematics? What do teachers define as aspects of successful classroom interactions?

To answer these questions I will draw upon the constructs 'selective intention' and 'knowledge-based

reasoning' developed by Sherin (2007) to investigate conceptions and perceptions of teachers empirically.

In this paper, I therefore analyse thematic motives of negotiation processes within video-stimulated group discussions of teachers. Here, Sherin's approach allows me to focus on recurrent motives of teachers concerning supportive or non-supportive interactions shown in the videos. What kind of linguistic, content-specific and interactive aspects of the shown classroom situations do they partake? Pursuant to the analysis, possible insights into the teachers' perspective on what counts as a successful interaction are delivered. Furthermore, corresponding to the presented empirical data I present one of the major negotiation themes and pick up the question, whether there are differences amongst the eligible repertoires of action between interactionally relieved or stressed teachers.

PARTICIPATION IN CLASSROOM INTERACTIONS

The theoretical principle for the following explanation is a constructivist view on learning as considered in cultural historical elaborations by Sfard (2008) and interactionist articles referring to approaches of Cobb and Bauersfeld (1995).

Participation in mathematics classroom interaction gives students the opportunity to learn linguistic, content-specific and interactive aspects of the discourse. However, to participate in these interactions puts great demands on students, because negotiation processes of mathematical meaning have their own alternating dynamic (Krummheuer 2011). To participate in classroom interaction, students have to interpret what topic is negotiated as well as how and when an adequate contribution can be presented. Thereby, mathematical meanings and linguistic demands of the discourse can be perceived and interpreted differently by all participants, students and teachers, depending on their definitions of the situation. Students' ability to comprehend the ongoing interactive process and its demands as well as the competence to produce matching contributions within the classroom interplay are important for participating and thus for learning. If students are not able to produce these matches, they can be excluded from the classroom discussion over time (Jablonka & Gellert, 2011). But who decides and controls what counts as an adequate contribution? Different stud-

ies have shown that in most classroom interactions the teacher is central to this controlling process (Lee, 2007). "Teachers' verbal utterances trigger, encourage, discourage, 'delete' students' verbal contributions and allocate evaluations accordingly" (Prediger et al., in press). These evaluations and feedbacks give accessory advice for expectations concerning content-related conceptions and conventions that are substantial for the specific discourse (O'Connor & Michaels, 1993). However, research on classroom interaction shows that mostly the 'rescuing' of an interactive fluency or a communicative order is more relevant than progress in the development of content-related aspects of the communication (for description of the characteristic funnel pattern: Bauersfeld, 1995). The phenomenon is justified by the assumption that teachers, stressed by the pressure to act in time in classroom interaction (henceforth: 'interactionally stressed teachers'), have to react on students' considerations in time and have to spontaneously manage the negotiation of meaning towards the content-related goals of learning and the communicative order within the polyadic interaction. The way in which teachers take up learners' contributions is crucial for their opportunity to participate in classroom interaction and to learn both mathematical and discursive competences.

TEACHERS' PROFESSIONAL VISIONS

A lot of classroom studies have described how the support of teachers enables students to participate, and what kind of support is particularly conducive for learning and participation. Some of the studies also give advice on how to fulfil certain conditions to help students to participate. Nevertheless, teachers' enacted strategies often do not match these demands in spite of different professional development programmes. An explanation of the mismatch between requested acting repertoires of teachers and everyday classroom interactions (of course) could be the pressure affecting teachers to act in time. Anyhow, there is a lack of comprehensive teachers' perspective regarding considerations about the improvement of classroom support. Relating to this, Sherin (2007) pointed out that every teacher has a professional vision, meaning the way she or he makes sense of issues happening in the classroom and that is shared in the professional community of teachers. This professional vision influences the way teacher act and also support in the classroom. For teacher training programmes it is necessary to conceptually comprise these perspectives

of teachers and to improve the teacher trainings. But how can the teachers' professional visions towards the support in classroom interactions be observed?

To this end Sherin (2007) reconstructed the teachers' professional visions on classroom interactions in so-called 'video clubs' over time. She proposes to distinguish analytically between the process of 'selective attention' (of aspects from classroom interactions) and 'knowledge-based reasoning' wherein teachers link their perceptions with own experiences and knowledge. Especially the selective attention is taken into account in this paper to reconstruct recurrent motives of teachers in such discussions. These motives represent specific pattern of perception, evaluation, and interpretation. Hence, through these motives it should be possible to draw conclusions from the teachers' active repertoires of acting that are characteristic for them. Concerning the selective attention, Sherin (2007) observes that in the first meetings of the video clubs, when all participants were stimulated by videos for the first time, teachers exclusively focused on pedagogical aspects of the contributions of the other teacher. The students' acting was for the first time mentioned in the third meeting. Therefore, I will also pick up in details the process of knowledge-based reasoning in the exemplary analysis.

RESEARCH DESIGN AND EMPIRICAL DATA

The study presented in this paper is part of the larger project *INTERPASS*, an interdisciplinary study of linguists and mathematics educators, being led by Uta Quasthoff and Susanne Prediger at TU Dortmund University. The study combines a classroom video study and group discussions of mathematics and German teachers while they are relieved from any pressure of classroom action. Within the classroom video study 10x12 mathematics and language lessons (each 45–60 min.) in five grade five classes were recorded during the first inquiry. By means of comprehensive sequential analysis five sequences were selected for the group discussions.

The following three comparative categories were selected: 'lessons of mathematics and German', 'matches and divergences in micro-cultural practice' and 'German native speakers and speakers of German as a second language'. Also, only sequences showing emergences of subject-specific matches and divergences, i.e. sequences containing the formerly introduced

structure and are therefore particularly substantial for the process of socialization in the discourse, were selected. The group discussions are based on video presentations of different sequences of interaction lasting an average of two minutes. To create the possibility of a detailed discussion based on the video data, the sequences were additionally transliterated and shown at the end of each unit of interaction via beamer. This paper focuses on group discussions with teachers. Four discussions with five to ten teachers, each lasting 1.5–2.5 hours, were recorded. The group discussions, based on this paradigmatic analysis, were held with German and mathematics teachers at different German secondary schools (Gymnasien). Each group only met once. After a short introductory round, the teachers were asked to observe a video of a short interactive sequence and to comment on it. This was the only impulse for the group discussions.

METHODICAL APPROACH FOR DATA ANALYSIS

The focus of analysis is exclusively limited to video clips from mathematics classrooms. In order to analyse the teachers' selective attention, parts of coherent negotiation processes concerning thematic motives of the teachers within the group discussion were identified. According to this, there is a short overview over all relevant categories of motives the teachers mentioned in their discussion. To select these parts of the group discussion, the methodical approach of the documentary method of Bohnsack (2009) is applied. The first step of this analysis is to organise the transcribed video material in interactional units, which are interpretatively described in categories. These categories are developed with respect to the content interpreted from the ongoing process of negotiation within the group discussion. Based on the sequential interpretation of 'turns' within these interactional units the negotiation of meaning, respectively the thematic development, is reconstructed. Therefore, (1) the categories describe the topics of all negotiated taken-as-shared themes, respectively all motives of the teachers. After the development of these *descriptive* (sub-) categories they are (2) summed up to the following seven main categories from the discussion of the teachers: participation aspects, acting and turn aspects, classroom management, teaching aspects, social aspects, aspects of professional identity, and subject specific aspects.

In the following sections, I will summarise aspects from the categorisation and present a detailed interpretation of a scene that is exemplary for two topics discussed, delivering first insight into teachers' motives.

ANALYSES OF TEACHERS' PROFESSIONAL VISIONS

A discussion between five teachers is analysed: two German teachers (Mrs. Nachbar, Mrs. Fuchs-Focke) and three mathematics teachers (Mr. Neumann, Mrs. Jacobi, and Mr. Klein) from different German Gymnasiums in urban areas. Background for the discussion in the following scene is the video "Explaining the procedure of rounding" from a mathematics classroom interaction on how to round 63 to 60 (see Prediger & Erath, 2014, for a more extensive transcript and analysis of the episode), wherein one teacher (Mr. Maler), a male student (Kostas) and a female student (Katja) in grade five interact. After the teacher had asked for a solution of rounding 63 to the nearest tens, the boy Kostas answered: "And then ... when you ... take away three and write down a zero, well ... you could do it now but actually it is wrong, you have to round down and wr ... write down the number closer to zero". Kostas describes the rounding rule based on the basic concept of geometrical representation of proximity and distance for a particular tenner on the number line by his answer. Thereby he marked that rounding is not only changing the last number to zero, but even more: one has to identify whether the last number is closer to the previous or subsequent tenner. But also Katja gives a solution: "You round down with zero, one, two, three, four and with five, six, seven, eight, nine, you, ... you round up". She termed the mathematical concept. While the teacher Mr. Maler does not evaluate Kostas' utterances positively, he comments on Katja's considerations with the phrase "Did everybody get that?"

In the group discussion presented below, the two mathematics teachers Mr. Neumann and Mr. Klein discuss the explanation of Kostas. Flashpoint for the discussion was the difference between the reaction of the teacher to Kostas' and Katja's contributions. Mr. Klein pointed out that Katja gave a "perfectly clear" answer.

1 Mr. Klein: Well, he did not name the rule. She has defined exactly...

2 What happens with each digit? When? This actually is the criterion.
 3 When to round up or down he said eventually in the last sentence?
 4 Closer number to zero. Well, he probably meant...
 5 Because sixty-three is closer to sixty? Could you now...
 6 This is highly interpreted. But...
 7 Mr. Neumann: Yes sixty. Or seventy. Right?
 8 Mr. Klein: Yes sixty or...
 9 Mr. Neumann: The question is...
 10 Why does he always have the same seventy...
 11 Because sixty is the closer number.
 12 Mr. Klein: That is a bit the... What is behind? Without being just the dull rule?
 13 But that is difficult already! Also, to understand something at this
 14 sound level. What he meant and...it was not really phrased clearly.
 15 But...
 16 Mr. Neumann: Now it is too... Because the five solution is not there.
 17 That is important.
 18 Mr. Klein: Well, anyways it was not clear.
 19 Because he was not even counting the digits...
 20 Mr. Neumann: Yes. Closer number to zero.
 21 Mr. Klein: Logically... You can say...
 22 Mr. Neumann: It is certainly more general now he has to well count the
 23 numbers, right?
 24 Mr. Klein: Yes, exactly.
 25 Mr. Neumann: That is already...
 26 There is already an achievement.
 27 Mr. Klein: Well, probably he tried to think it through!
 28 Without possible understanding... Maybe ...
 29 Mr. Neumann: But he has not phrased it by a rule, right?
 30 Well, that is what is missing... and that is...
 31 Mr. Klein: Exactly!
 32 Mr. Neumann: But basically they hear...
 33 And Kostas has not given it to him.
 34 Mrs. Fuchs-Focke: Now it is named...
 35 Fuchs-Focke: Wonderful.

ASPECTS OF THE RECONSTRUCTION OF THE INTERACTION PROCESS

Acting and turn aspects (with emphasis on students' concepts)

After 30 minutes of discussion, the teachers explicitly deal with the content of Kostas' solution for the first time. At this point of time, the presented sequence starts. Mr. Klein describes the central idea of the geometrical representation (proximity and distance on the mental number line) on which Kostas' answer is based for the first time (line 4–5). Mr. Klein and Mr. Neumann both highlight several positive aspects of Kostas' solution concerning his mental number line. These aspects are: creativity (“without being just the dull rule” – line 12), universal validity (“it is certainly general” – line 22) and cognitive performance of finding a solution (“There is already an achievement. Well, probably he tried to think it through!” – line 26–27). But also Katja's answer to the teacher's question is regarded to be sophisticated. Mrs. Fuchs-Focke gives a particularly positive evaluation of Katja's contribution in the last sentence (line 34–35), when she refers to Katja terming the rule discussed in the previous scene. Also Mr. Klein refers to this answer as “defined exactly” in his first sentence (line 1). The descriptive (sub-)category in this interactional unit can be summed up as ‘rating of students' contributions within classroom discussion’. Thus, the category for the analysed sequence is marked as ‘acting and turn aspects’.

Teaching aspects

Already in previous scenes, not being covered in this paper, the aspects of the teacher's acting concerning the didactical goal of the lesson are very prominent. The five teachers broadly discuss Mr. Maler's goal of the lesson and his methods to reach this goal. During the presented interaction several aspects of the students' utterances are named. The teacher Mr. Klein refers to the missing match between initiation of the teacher and Kostas' answer: Kostas does not phrase a rule (which is demanded by the teacher) (line 29–30). Also Mr. Neumann agrees with this negative evaluation of Kostas' answer (line 31). He names the high degree of the implicitness of Kostas' solution as reason for the teacher's evaluation (line 13–14). Although the student's contribution is evaluated positively towards aspects of subject-specific content, both teachers put the quality of the contents of the students' statements in another perspective as it is not matching the inter-

preted goals of Mr. Maler. In this case, the loudness within the classroom (as a additional context caused problem) (line 14), the absence of a solving strategy in case of the five (as a content regarding problem) (line 16) and the lack of comprehension are identified as a communicative problem of the student's statement, letting the rejection of Kostas' statement seem to be ‘reasonable’. The subcategory that is found here is described by the phrase: ‘description and rating of teachers' acting concerning didactical goals of the lesson’. Concerning the utterances of Kostas, the teachers share the opinion that it is legitimate to reject the solution because of a mismatch regarding the didactical goals of the teacher Mr. Maler. They agree that a rule is required to complete the lesson's goal. Therefore, the category ‘teaching aspects’ can be summed up.

Acting and turn aspects (with emphasis on comparison of students' contributions)

Mr. Neumann's contributions at the end of the scene completed the process of comparing both students' utterances and the teacher's reaction to them (line 29–30 and 33). All three teachers agree on the crucial reason for Mr. Maler to reject Kostas' statement in the process of classroom interaction. The absence of a rule description is more important than the high quality of Kostas' described concept. They argue for the rejection of Kostas' contribution with his lack of linguistic standard. Mr. Klein, for example, points out that Kostas' solution is not phrased clearly (line 14). The teachers discuss that Katja's rule is the appropriate answer to the given task of justifying the solution 60. Furthermore, the way she presents it can be seen as a socially accepted practice of the rounding rule. In line with that, Kostas' solution is not accepted because his answer does not fit into the interactive fluency to reach the goal of the lesson. Therefore, the rejection of Kostas' solution is legitimated several times by the teachers referring to Mr. Maler's need to reach educational goals. The high degree of implicitness of the rejection Mr. Maler shows in the video is not mentioned within this short discussion. But while Mr. Neumann interprets Mr. Maler's rejection another time, he positively remarks that the teacher avoids face-threatening reactions towards Kostas. Besides the negotiation about the contributions of the students Katja and Kostas, also the comparison of both students' considerations result in the category for the analysed sequence as “acting and turning aspects”. The interactive process is not mentioned in the presented sequence.

Reconstructed professional visions

The reconstructed aspects of the discussion process show that two major motives of teachers' selective attention can be identified: namely (1) keeping track of teachers' goals (Prediger et al., in press) and (2) rating of students' considerations. Concerning the first motive, the group-discussion teachers interpret easily that the favoured reaction of Mr. Maler is to give just positive evaluation on contributions that match lesson goals (for details, see Prediger & Erath, 2014). For these teachers the alignment of feedback with goals of lessons is a natural process of classroom interaction as well as legitimation for reaching educational goals. In comparison to the reactions given by the discussion group towards the different contributions of Katja and Kostas, it can be assumed that the saving of the fluency of the interactional process in classroom interplay is one of the major demands. Both Katja's and Kostas' utterances could be the starting point to develop a description for the rule for rounding. Nevertheless, the teacher only pays little attention to Kostas' solution, even though it is possible to evolve the rounding rule by his geometrical approach. The problem for students to achieve a high degree of discourse competence to manage the demands of an accepted participation in mathematical classroom is not mentioned within the discussion. These findings are confirmed by other scenes and through the clusters of recurrent combinations of (sub-) categories. Hence, aspects of legitimation are mostly motives that are mentioned while teachers discuss methodical aspects.

CONCLUSION

With this short insight into a complex group discussion it becomes evident that some non-supportive findings from classroom studies, like the implicitness of demands for presentation and content, are also judged as adequate from the teachers' perspective. However, there is a gap between the normative professional demands, which result from research on classroom interactions, and the professional visions of teachers (for details, see Prediger et al., in press). Especially motive (1) is of particular importance for teachers. While the teachers discuss pedagogical motives in detail, the content specific quality of students' utterances is picked up for the first time after 30 minutes of the discussion. This phenomenon could also be confirmed (with few exceptions) in other reconstructions of interaction units in different group discussions. These findings confirm results from

Sherin (2007). Participants from Sherin's research as well as the teachers in our first video-stimulated group discussion of classroom interaction focus on the pedagogical behaviour of the videotaped teacher. In future, these qualitative findings shall be triangulated by quantitative analyses of the categories of the interaction units.

Despite the presented motives of the discussion group, it is remarkable that there is no stress on the interactive process and the negotiation of mathematical meaning. Considerations of the students' statements are only given in form of their matching with regard to the didactic ambitions of the teacher. From that perspective, the *interactionist* demand for support, enabling students to participate in classroom interactions, can be seen as contrary to the motives reconstructed here. Therefore, the process of negotiation of meaning, giving particular attention to learners' ideas, is opposed to the focus of keeping track of the teachers' goals. Also, the lack of Mr. Maler's acting to not provide explicit feedback on the adequacy of the contribution is not mentioned in our discussion group. Although the feedback is an important turn within the structure of the process of the negotiation of meaning, it seems to be adequate to the teachers that this turn is absent in the case of the interaction between Kostas and Mr. Maler.

Comparing the results from this illustrated analysis with reconstructions from research in classroom interactions, one can assume that also *interactionally relieved* teachers prioritise actions that are contradictory to normative professional demands. This is an unexpected result for research on group discussions. One consequence of this finding is to adjust approaches of teacher training programmes. Hence, the teachers' perspective on classroom interactions and supportive situations should be integrated into the process of forming professional demands and eligible acting repertoires. The inclusion of empirically based approaches concerning teachers' motives makes it thus possible to mention also meaningful motives of teachers instead of substituting them through the idea of one prototypical conceptual situation or new techniques.

ACKNOWLEDGEMENT

The research project INTERPASS ("Interactive procedures of establishing matches and divergences for linguistic and micro-cultural practices") is funded by

the German ministry BMBF (grant 01JC1112) under the guidance of Susanne Prediger and Uta Quasthoff. I thank them, Kirstin Erath and Vivien Heller for the collaboration.

REFERENCES

- Bauersfeld, H. (1995). "Language games" in the mathematics classroom: their function and their effects. In P. Cobb & H. Bauersfeld (Eds.), *The emergence of mathematical meaning. Interaction in classroom cultures* (pp. 230–271). Hillsdale, NJ: Lawrence Erlbaum.
- Bohnsack, R. (2009). The interpretation of pictures and the documentary method. *Historical Social Research-Historische Sozialforschung*, 34(2), 296–321.
- Cobb, P., & Bauersfeld, H. (Eds.). (1995). *The emergence of mathematical meaning: Interaction in classroom cultures*. Hillsdale, NJ: Lawrence Erlbaum.
- Cobb, P., & Yackel, E. (1998). A constructivist perspective on the culture of the mathematics classroom. In F. Seeger, J. Voigt, & U. Waschescio (Eds.), *The culture of the mathematics classroom* (pp. 158–190). Cambridge, MA: Cambridge University Press.
- Heinze, A. (2005). Mistake-handling activities in the mathematics classroom. In H. Chick & J. L. Vincent (Eds.), *Proceedings of the 29th Conference of the International Group for the Psychology of Mathematics Education* (Vol. 4, pp. 105–112). Melbourne, Australia: PME.
- Jablonka, E., & Gellert, U. (2011). Equity concerns about mathematical modelling. In B. Atweh, M. Graven, W. Secada, & P. Valero (Eds.), *Mapping equity and quality in mathematics education* (pp. 223–236). Dordrecht, Netherlands: Springer.
- Krummheuer, G. (2011). Representation of the notion "learning-as-participation" in everyday situations of mathematics classes. *ZDM—Mathematics Education*, 43(1–2), 81–90.
- Lee, J.-A. (2007). Third turn position in teacher talk: contingency and the work of teaching. *Journal of Pragmatics*, 39, 180–206.
- O'Connor, M. C., & Michaels, S. (1993). Aligning academic task and participation status through revoicing: analysis of a classroom discourse strategy. *Anthropology & Education Quarterly*, 24(4), 318–335.
- Prediger, S., & Erath, K. (2014). Content or interaction or both? Synthesizing two German traditions in a video study on learning to explain. *Eurasian Journal of Mathematics, Science & Technology Education*, 10, 313–327.
- Prediger, S., Quasthoff, U., Vogler, A.-M., & Heller, V. (2015). How to Elaborate What Teachers Should Learn? Five Steps for Content Specification of Professional Development Programs, Exemplified By "Moves Supporting Participation in Classroom Discussions". *Journal für Mathematik-Didaktik*, 36(2), 233–257.
- Sfard, A. (2008). *Thinking as communicating. Human development, the growth of discourses, and mathematizing*. Cambridge, UK: Cambridge University Press.
- Sherin, M. G. (2007). The development of teachers' professional vision in video clubs. In R. Goldman, R. Pea, B. Barron, & S. J. Derry (Eds.), *Video research in the learning sciences* (pp. 383–395). Mahwah, NJ: Lawrence Erlbaum.

ENDNOTE

1. In the transcribed sequence stressed words or appointments are coded in bold letters. All specialities of the spoken language (mistakes, grammar, etc.) are mentioned in the translation of the transcribed sequence.