Homework in a bi-national family: The mobilisation of others in resolving language-related epistemic issues

Tim Roberts*

Department of Language, Literature and Intercultural Studies, Karlstad University, Karlstad, Sweden

ARTICLE INFO

ABSTRACT

This study adopts a conversation analytic approach to present a close analysis of the sequential organisation of a parent-child homework activity in a Swedish-English bi-national family. Families formed within migration contexts are increasingly common in an ever-globalised world, but current research has not fully investigated how parent-child homework practices are affected by parents who possess differing levels of expertise in the societal language. This article examines a number of episodes where the progressivity of a homework activity is halted due to language-related epistemic issues. More specifically, these halts in progressivity are caused due to the homework tasks being written in Swedish in combination with the English mother's lack of language expertise in Swedish. The episodes exemplify how these epistemic deadlocks are resolved through the mobilisation of a more knowledgeable party, the Swedish father, who orients to translation as a trouble resolution tool which facilitates epistemic progression and the progressivity of the homework activity.

1. Introduction

Families with parents from different sociocultural and linguistic backgrounds are ever more common in an increasingly globalised world (Li, 2012). Sweden in particular provides an apt context for inquiry into such families. Official statistics show that nearly 800,000 people who reside in Sweden have one foreign-born parent and one Swedish-born parent (Statistiska Centralbyrån, SCB, 2020), and it can therefore be deduced that bi-national[1] households are rather common in Sweden. Migrant parents in these families potentially face a number of complex linguistic, cultural, and educational challenges while raising children. Such challenges may include the understanding of school documentation, the recognition of cultural expectations, and difficulties in participating actively in parent-teacher meetings or other school activities. These challenges mediate opportunities for learning and participating in societal activities. The focus of this study is on homework, a recurring event where such aspects may coalesce. Homework is not regulated by the Swedish national curriculum, but past research has shown that teachers on the whole believe in the efficacy of homework as a means of consolidating and reinforcing knowledge (Gu and Kristoffersson, 2015), and homework is often set from the first year of compulsory school (Sayers, Petersson, Rosenqvist, and Andrews, 2021). Although policy documents in Sweden do not mandate that parents or other caregivers are to assist with their children's homework, there is "an *implicit* Swedish policy that parents should be involved in homework" (Forsberg, 2007: 1578), and helping with homework has long been seen as an "undisputable parental duty" in Sweden (Karlsson, Hallsén, and Svahn, 2019: 129). In order for parents to help with their child's homework, societal language knowledge as well as subject-specific and sociocultural knowledge is usually required. However, in bi-national families, knowledge from these different epistemic domains is not necessarily possessed in full by both parents. Few studies have thus far been undertaken into how such factors may affect parent-child homework practices from an interactional perspective.

This article adopts a conversation analytic approach (Sacks, Schegloff, and Jefferson, 1974; Sidnell and Stivers, 2012) to closely analyse the sequential organisation of a parent-child homework activity in a Swedish-English bi-national family. Conversation analytic investigations are emic in nature; the analyst seeks to investigate that which is made publicly available to co-participants in an interaction and does not impose exogenous theories onto the data, but rather attempts to describe and uncover the sequential trajectories of talk-in-interaction as they unfold for participants

---

* Corresponding author
  E-mail address: tim.roberts@kau.se

[1] See Van Mol and De Valk (2018) for discussion on adopting 'bi-national' to describe such families in a European context.

themselves. This approach has much potential for exemplifying and understanding complex language practices in situ in multilingual families (Aberu Fernandes, 2019; Bonacina-Pugh, 2012). Using participant-recorded video data, and drawing upon work on *epistemics in interaction* (Heritage, 2012a,b), I aim to show how varying degrees of language expertise amongst participants are manifested and oriented to, and how these can lead to halts in the progressivity of the activity. I further aim to analyse how participants resolve such halts in progressivity through the mobilisation of contextual resources, such as more knowledgeable participants, which I view as an enactment of *epistemic progression* (Gardner, 2007). Finally, I aim to highlight how such mobilisations are context-sensitive and *situation designed*[2] actions that can only be understood in connection with the larger activity trajectory (Betz, Taleghani-Nikazm, and Golato, 2020).

The subsequent sections turn firstly to a discussion on how homework activities require participants to access several different epistemic domains, and how migrant parents in particular may lack access to domains associated with language. This is followed by an examination of *epistemics in interaction*, and how situation designed mobilisations of others in order to overcome epistemic issues are intimately connected to the ability of co-participants to monitor the local *epistemic ecology* (Goodwin, 2013) in relation to larger action trajectories.

2. Families and homework in migration settings

In order for a parent to successfully participate in, monitor, or assess a child's homework, the parent must be able to decipher what is required from the homework task. This is typically not problematic, especially not with primary school aged children, as most parents can be expected to understand these tasks due to their own educational and sociocultural background. However, this is not necessarily the case with migrant parents. Even if these parents are sufficiently knowledgeable about the subject of the homework in question, this does not confer the linguistic knowledge required in order to understand written instructions in homework tasks. This may then lead to a lack of understanding on the part of the parent due to an inability to connect linguistic forms to known entities, concepts, or notions (Allwood and Abelar, 1984: 2). A limited linguistic repertoire may also lead to parents being unable to fully help with other types of homework. For instance, children are often asked to read to a parent as homework, and the parent may need to assist with the pronunciation of written items or with the explanation of unknown words. A lack of language skill can severely impede the ability of the parent to assist in these cases. A number of questions relating to equality in education can be raised here, even if such questions are not necessarily unique to families from diverse linguistic backgrounds. As homework makes up a significant part of a child's education, those with parents who adeptly navigate child-parent homework activities could possibly gain a meaningful educational advantage (for a meta-analysis of research on the topic see Patall, Cooper, and Robinson, 2008). Therefore, studies of how homework activities in bilingual families are organised are timely for increasing the understanding of how parental linguistic abilities may ultimately affect their children's academic performance.

Children in migrant families may actually be more proficient in certain linguistic domains than their parents owing to migratory and educational circumstances. It is equally true that there may be differences in language expertise between the parents

themselves (Hosoda, 2006). These conditions lead to an interaction order whereby family members orient to the established understanding that each individual has a different level of access to the linguistic domains in question (Heritage 2012a). As relates to homework, participants must access knowledge from these linguistic domains as well as from multiple other epistemic domains (Stivers and Rossano, 2010) related to the content of the homework task itself. Knowledge within these domains will not be equally distributed amongst co-participants, but typically manifests as an epistemic asymmetry in which the child is less knowledgeable than the parent, especially in the case of younger children. However, as will be seen from the data presented, parent-child homework activities in families where at least one parent has a migration background can reveal epistemic asymmetries in which the parent becomes the unknowing participant. In order to analyse how such epistemic issues affect homework practices in such families, the present study draws heavily upon work on *epistemics in interaction*, which is now turned to.

3. Epistemics in interaction

This article draws on current work on epistemics-in-interaction, a growing area of research which adopts interactional approaches to investigate the "knowledge claims that interactants assert, contest and defend in and through turns-at-talk and sequences of interaction" (Heritage, 2012a,b,c: 370). Particularly relevant to this study is Heritage's conceptualisation of epistemic status, which plots an interactant's relative and relational epistemic access to a domain on a gradient between a knowledgeable position (K+) and a less knowledgeable position (K-) (Heritage, 2012a,b,c). There exists a close relationship between an interactant's epistemic status and their enacted epistemic stance. Epistemic stance refers to the moment-by-moment expressions used by interactants which convey their knowing or unknowing statuses in relation to a proposition. Taking an epistemic stance further marks attitudes to knowledge and how such knowledge has been appropriated (Stivers, Mondada, and Steensig, 2011). Prototypical stance markers in English include 'I think' and 'I don't know' (Kärkkäinen, 2003), but epistemic stance can be conveyed in a myriad of ways. Consider, for instance, the difference between 'who were you talking to?' and 'you were talking to Steve, weren't you'? Heritage (2008) argues that the form of the first question supposes that the speaker is in an unknowing position (K-) as relates to the inquired person, while in the second question, the speaker is presenting a stance in which they strongly believe that they know the identity of the inquired person and are only seeking confirmation. In addition to purely lexical and morphosyntactic turn design features, epistemic stance can be displayed through prosody (Couper-Kuhlen, 2012) and through embodied displays (Drew and Kendrick, 2018; Heller, 2021).

Although epistemic status and epistemic stance are closely linked, there can be an incongruence between the two. Epistemic incongruence has been described as "the moments of failures to accommodate the knowing/unknowing statuses with observable K+/- displays of epistemic positions" (Balaman and Sert, 2017a: 8). In a study on collaborative task accomplishment in educational settings, Balaman and Sert (2017a) showed that epistemic incongruence often leads to the disruption of progressivity. Epistemics plays a key role in such settings, where "knowledge and learning are of paramount concern" (Musk, 2021: 107). Past research has investigated how teachers use epistemic status checks to investigate pupils' current state of knowledge (Sert, 2013), how pupils make use of the local epistemic ecology to solve emergent problems in collaborative tasks (Goodwin, 2013; Melander, 2012), and how 'possible knowers' may be mobilised to resolve epistemic deadlocks (Jakonen, 2014). Each of these studies can be seen as as

---

[2] *Situation design* has been defined as "the ways in which interactants' local, moment-by-moment choices of grammatical format reflexively organize larger (ordered) courses of action in interaction." (Betz, Taleghani-Nikazm, and Golato, 2020: 3)

investigations into epistemic progression, which are interactional moves that serve to reduce the gaps between interactants' epistemic disparities (Balaman and Sert, 2017b; Gardner, 2007). Other work has focused on epistemics specifically in collaborative homework activities Svahn and Melander Bowden (2021). analysed how homework tutors and tutees collaboratively establish what the tutee's problem is and how interactants orient to artefacts, such as notepads and textbooks, as key epistemic resources used for determining problems. Similar research highlights how interactants work together to establish various shared points of reference, and how presentations of solutions to homework tasks are interactionally established (Melander Bowden and Svahn, 2020).

4. The mobilisation of others

Mobilisation refers to interactional moves which lead participants to join, assist, or help others in a course of action (Betz, Taleghani-Nikazm, and Golato, 2020: 1). In other words, mobilisations result in the recruitment (Kendrick and Drew, 2016) of co-participants to assist the speaker in some way, and lead to "getting things done" (Aronsson and Cekaite, 2007). Mobilisations may be explicit or implicit, and the understanding of an action as a call for mobilisation is closely linked to participants' understanding and involvement in the ongoing activity (Sorjonen, Raevaara, and Couper-Kuhlen, 2017). Implicit mobilisations, when a participant becomes mobilised without an explicit request, may in particular be closely linked to a participant's ability to monitor the state of the local epistemic ecology, "the dynamics of the relationship between knowing and unknowing participants" (Melander, 2012: 246). An implicit mobilisation, resulting in the self-selection of an interactant, may arise from the understanding that a co-participant is displaying K- status, and thus is interpreted as being in need of assistance. Equally relevant here is the concept of epistemic primacy, which refers to the relative rights an individual has to a domain of knowledge, and whether they can be held accountable and responsible for such knowledge (Stivers, Mondada, and Steensig, 2011). An interpretation of an action as a request for mobilisation may be contingent on an interactants' understanding of whether they are perceived as having epistemic primacy: whether they can be held accountable for knowing how to provide appropriate assistance, and ultimately when they should offer that assistance.

Homework can be regarded as an activity with established objectives, i.e., to be appropriately completed, which drives the interaction and leads to distinct activity-oriented talk (Usatch, 2000) and "activity-specific rules of inference" (Levinson, 1979: 393). Mobilisations within this activity are therefore organised in relation to the larger activity trajectory; they are situation designed. Situation design further emphasises how cooperation, contribution, or assistance is offered in the most economical ways (Betz, Taleghani-Nikazm, and Golato, 2020: 3). Mobilisations may also be dependent upon participants' implicit ability to recognise routinised patterns associated with the activity, and in turn understand what is expected from them when such patterns occur (Chazal, 2020).

The contribution of this study lies in advancing current knowledge on how bi-national, bilingual family dynamics combine with epistemic issues in interaction in novel ways which influence how the ongoing activity progresses. In particular, the study addresses how mobilisations in relation to a bilingual parent-child homework activity are dependent upon the local epistemic ecology, the extended local context, as well as the larger activity trajectory, and how these are intimately connected with co-participants' linguistic abilities. More generally, the study aims to contribute new knowledge on how differing levels of societal language proficiency amongst parents affects their ability to assist with their children's homework, and discusses the wider educational implications of this.

5. Data and method

The data analysed here is drawn from a corpus of video recordings of Swedish-English bi-national families living in Sweden. After an initial questionnaire on family language practices (reported in Roberts, 2021), those who consented were sent cameras and asked to self-record instances of their everyday lives. The families were given minimal instructions as to what to film in an attempt to keep the data as naturalistic as possible, but a number of families recorded homework activities featuring parents and children. This is not surprising because, as discussed, parent-child homework activities are a typical feature in the lives of Swedish families with school-aged children (Wingard and Forsberg, 2009).

The present study focuses on a 36-minute-long parent-child homework activity. Three single-cases within this longer activity are presented. Although the cases in this study show a similar action trajectory, namely that one participant is mobilised, they should not be considered as part of a larger collection. A single-case analysis does not attempt to discover a new practice (Waring, 2009: 801), but instead uses a conversation analytic approach to exemplify the intricacies of an activity (Schegloff, 1987; Hutchby and Wooffitt, 1998), and allows for the development of a more comprehensive understanding of an existing phenomenon within its extended local context (Waring, 2009; Raymond and Heritage, 2006); the scope and goal of this work is to understand and explore the situatedness of the activity and how epistemics is managed in this specific, locally situated and locally managed context. For a discussion on the significance and relevance of single-cases in interaction studies, see Schegloff (1987).

The activity in question is conducted at the kitchen table and the primary participants are an English-born mother, Emma, and her two children, Francesca (age 7) and Bianca (age 9). Bianca was born in England, while Francesca was born in Sweden. However, they have both only attended school in Sweden. The homework tasks are written in Swedish, while the primary language spoken between family members is English.[3] Throughout this homework activity, Emma enacts the dual role of taskmaster (Wingard and Forsberg, 2009: 1591) and mutual apprentice (Pontecorvo, Fasulo, and Sterponi, 2001). She can be seen as the party who initiates and guides the overall interaction; yet, she can also be seen as a collaborator or a co-constructor of the homework tasks. The activity examined shares similarities with Walsh's (2006: 70) 'material mode' of classroom interaction, where "the interaction is organised exclusively around the material". The material in this case is the book in which the homework tasks are located.

The activity examined can be divided into two sections. First comes Francesca's homework, and when it is completed, Emma invites Bianca to come and do her homework. Within this homework activity, three episodes take place in which an epistemic impasse occurs between Emma and the child currently in focus. These episodes lead to the mobilisation of Andreas, the Swedish-born father in this family. It is these episodes which constitute the primary data for the present paper, and which are analysed with a conversation analytic approach. The location of these three episodes in relation to the larger activity is indicated in Fig. 1.

The data was initially transcribed following the Jefferson Transcription System (2004) (see also Appendix 1). The transcript was then developed to incorporate multimodal elements in line with multimodal transcription principles (partly adapted from Mondada, 2013). Images have further been integrated into the transcript. The transcripts presented represent two minutes and

---

[3] Analysis of this family's language policy indicates that when Emma is present, family members primarily speak English. However, if Emma is not present, family members typically speak Swedish.
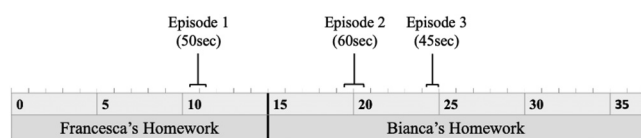
Fig. 1. Activity timeline.

thirty-five seconds of video footage. The following section now turns to the sequential analyses of the data.

6. Analysis

6.1. Episode 1 – Father mobilised by mother to solve language issue

The first episode involves a read-aloud homework exercise from a book aimed at first year pupils in Sweden (age 6 to 7). The homework task was to read several pages of this book to an adult.

The story involves a girl, Asta, who discovers a treasure map. The relevant pages from the book can be seen in Fig. 2, which shows that this book is multimodal in nature as it draws upon written language as well as drawings and symbols. An illustration of the treasure map is seen at the top of the right page.

The child, Francesca, has been reading the text aloud to her mother, Emma. Francesca is a novice reader whose approach to reading combines orthographical decoding, the holistic recognising of written word forms, with phonological recoding, the translation of words letter by letter into phonemic representations (Knoepke, Richter, Isberner, Naumann, and Neeb, 2014). Excerpt 1 begins as Francesca reaches the word *balansträsk* at the bottom of the left page of Fig. 2. *Balansträsk* is a compound noun in Swedish consisting of the lexemes *balans* (balance) and *träsk* (swamp). It is a constructed place name with the approximate meaning of a swamp that requires balance for crossing. Its relevance to the story is as an obstacle that one must traverse in order to reach the treasure indicated on the map.

Excerpt 1

```
 1  FRANCESCA  "b (.) a::l::::: (0.4) den"
 2             (0.4)
 3  EMMA       balənsträ:k what does that mean?
 4  FRANCESCA  bala:ns:täk.
               ((6 lines omitted))
11  EMMA       what does balənsträ:k mean?
12             (1.5)
13  FRANCESCA  Hh +there's balansträ [°sk°. ]
14                 +points at image
15  EMMA                            >[wh   ]at's that<?
16             (0.3)
17  FRANCESCA  ▲+↑↑THAT!
18               +points at image
19               ▲Emma's gaze shifts to Francesca
```


Figure 3

```
20             ▲ (0.4)
21             ▲ Emma's gaze shifts to the book
22  EMMA       well what is it?
23             (0.5)
24  FRANCESCA  it's like a pond.
25             (0.5)
26  EMMA       it's like a what?
27             (.)
28  FRANCESCA  °pond°.=
29  EMMA       =pond (.) >°okay yeah°<.
30             ▲(1.5)
31             ▲Emma looks towards Andreas off screen
```

```
32  EMMA       balənsträ:k (.) what's that?
33             (2.0)
34  ANDREAS    i can't hear what you're saying,
35             (.)
36             [balans- ]
37  FRANCESCA  [balans  ]trä:(.)°sk°,
38             (0.5)
39             +↑that!
40             +points at image
41             (0.3)
42             balansträ°sk°.
43             (0.2)
44  ANDREAS    ah it's a name,
45             (1.9)
46             ▲<balancing swamp>.
47             ▲Emma shakes head and opens mouth
```


Figure 4

```
48             (0.2)
49             yea it's it's the name of a place.
50             (0.5)
51  EMMA       °right°.
52             (1.4)
53  FRANCESCA  balansträsk.
```

Fig. 2. A reading exercise from the year 1 Swedish book 'Den magiska kulan' (The Magic Marble; Wänblad, 2011: 46–7). Image reproduced with the publisher's permission.

Line 1 shows Francesca's attempt to read the word *balansträsk* through phonological recoding, which indicates an unfamiliarity with the word (Jorm and Share, 1983). *Balansträsk* as an emergent source of trouble is further indicated through her extended articulation a::l::::: and the three pauses in lines 1 and 2. Emma then repeats the trouble source with her own variation on the pronunciation, balən strä:k, and asks what does that mean? (line 3). Throughout this homework activity as a whole, Emma often asks *wh*-questions like this as known-answer questions (Heritage 2012a), which are common in pedagogical interactions (Rusk, Sahlström, and Pörn, 2017: 55), and in this data set are responded to with either (i) a display of knowledge from the epistemic domain of the homework, or (ii) an English translation. 'What does x mean?' questions employed in this way have also been described as an 'explicit knowledge check' (Helmer, 2020). In this extract, however, the question turns out *not* to be a known-answer question, as will become apparent in the subsequent trajectory.

Following a brief side sequence where one of the other children in this family interrupts the activity (lines 5–10), Emma continues to enquire about this lexical item with what does balən strä:k mean? (line 11). Similar question-answer sequences in the data show that Francesca typically responds with an English translation of the item in question. However, in this case, after a 1.5 second pause, projecting trouble, Francesca makes a hearable aspiration Hh, points to the image at the top right of the treasure map (Fig. 2), and states there's balansträ°sk° (line 13). Here Francesca demonstrates her visual literacy knowledge (Arizpe and Styles, 2003) and connects the word *balansträsk* to the image. Emma's overlapping >what's that<? (line 15) shows that Francesca's answer was deemed insufficient, and that

Emma is pursuing a different response. Francesca's response to the >what's that<? question involves her deliberately pointing at the image again (Fig. 3) and uttering THAT!, with increased volume, emphasis, and a 'dramatic' pitch contour. When considered in relation to Francesca's previous turns, this prosodic delivery is clearly marked and signals Francesca's negative affective stance; Francesca's response can be seen as nonconforming and expresses resistance to the constraints imposed by her mother (Raymond, 2006: 124). Emma, however, only minimally attends to Francesca's utterance (lines 19–21), and continues her questioning in line 22 by asking well what is it?, recycling the question word what for a fourth time, and indicating her non-acceptance of Francesca's responses as legitimate answers to her questions. The well preface further signals that the previous turn was somehow insufficient (Heritage, 2015: 89).

The deadlock in this episode is finally broken between lines 24 and 29. In her turn in line 24, Francesca offers it's like a pond as a definition for *balansträsk*. Emma asks for a clarification in line 26, an other-initiated repair done with a partial repeat of the trouble source plus a question word (Schegloff, Jefferson, and Sacks, 1977: 368). Francesca completes the repair with °pond°. This is ultimately accepted as an appropriate answer by Emma in line 29, as she immediately responds with p ond (.) >°okay yeah°<. Lines 3 to 29 exemplify the context-sensitive hierarchy of epistemic domains within this bilingual homework setting. At no point does Emma explicitly specify that the answer she expects should be given in a particular language or format, but this analysis shows that the preferred display of knowledge here comes from the domain of 'English'. A multimodal display of knowledge combining an embodied action with the domain of semiotic visual literacy was treated as insufficient (lines 13 and 17), and other than

the lexical item in focus, at no point did Francesca even attempt to offer an explanation using resources associated with the domain of 'Swedish'. The categorisation of these three different domains is emic in nature; it can be seen that these categories are interactionally salient to the participants themselves. 'Swedish' as a separate domain from 'English' is indicated by participants' treatment of the lexical items at play, and the design of their responses. Within this family, the named languages of 'English' and 'Swedish' are oriented to as clearly defined systems, which is not necessarily the case in many bilingual families. I argue that these named languages can be conceptualised as epistemic domains in their own right. The lexical, phonological, and morphosyntactic features of each language constitute that epistemic domain. A further epistemic domain concerns the relationship between the languages. This translingual domain relates to the knowledge of how the languages map onto each other (for instance, how to translate lexical items between domains), as well as the metalinguistic awareness of how the systems conform or differ.

Despite the apparent resolution of this inquiry, lines 31 and 32 show that Emma is seeking further clarification on the meaning of 'balansträsk'. It is clear from lines 3 to 29 that Emma regarded `pond` as a more acceptable answer than pointing at an image, but here with `balənsträ:k (.) what's that?` (line 32), Emma summons Andreas, the father in this family, who was not physically present before this moment, and recruits him for further elaboration on the meaning of 'balansträsk'. With this mobilisation, Emma orients to Andreas as being in a relative K+ position above Francesca and herself, and expresses a perceived epistemic asymmetry (Hayano, 2012: 396–400; Stivers and Rossano, 2010). The `balənstrā:k (.) what's that?` turn directed at Andreas (line 33) also retrospectively shows that Emma's questions in lines 3, 11, 15, and 22 were not simply known-answer questions.

Andreas' response to Emma's question is `i can't hear what you're saying` (line 34). The candidate hearing `balans-` (line 36) shows that he has at least heard part of the utterance. A preference for framing problems of understanding as hearing problems has previously been reported by Svennevig (2008: 345), but in this case it is not possible to determine if this was a legitimate hearing problem or a lack of understanding on Andreas' part. Either way Andreas' turn functions as a repair initiation. It is not Emma, though, who complies and produces the repair, but rather Francesca (line 37). Francesca's difficulty with the pronunciation of the lexical item is evidenced by an elongated vowel, by her pause following the elongation, and by a noticeably quieter delivery of the last syllable in `balanstrā:(.)°sk°`. Her turn does not occasion a response from Andreas, and after a pause of 0.5 seconds, Francesca resorts to pointing at the image and exclaiming <u>that!</u> This delivery is not as explicitly marked as the <u>THAT!</u> in line 17, but it is still prosodically marked compared to the surrounding utterances. It cannot be seen if Andreas orients to Francesca's utterance in a non-vocal way as he is standing out of the view of the camera. Francesca produces the lexical item again in line 42, this time without a pause between syllables. Andreas' response (line 44) begins with a turn-initial `ah`, which

may indicate that his epistemic state has changed from being in a K- to a K+ position in relation to the content of the question he is being asked, or rather may be a way to claim recognition. In the rest of his turn, he explains that `it's a name` (i.e. a proper noun), and after a 1.9 second pause, he gives `<balancing swamp>` as that name (line 46), a rather literal word-for-word translation. Andreas' description of *balansträsk* as a name suggests that he does not view this as an established, typical word. After further clarifying that it is the name of a `place` in line 49, Emma accepts his display of knowledge with `°right°` (line 51). Although the display of knowledge is verbally accepted, the noticeably low volume of this turn, along with Emma's facial expression and movement (Fig. 4) suggests a lack of recognition, or even a slight negative assessment that this word occurs in the book. Nevertheless, this brings the project to an end, and after Francesca produces `balansträsk` once more, this time without any markers of disfluency, the reading activity continues.

This episode is driven by the unknowing positions of Francesca and Emma as relates to the meaning of *balansträsk*. Francesca's unknowing position is projected initially through her trouble with producing *balansträsk*, suggesting unfamiliarity with the word. Emma's inquiry into the meaning of *balansträsk* may initially seem to be driven by pedagogical motives, but it is revealed as the episode develops that equally important is Emma's own unknowing status regarding the meaning of the word. Emma is the driving force in this episode as she continues asking questions until she seems to have exhausted all possible options for clarification. Emma mobilises Andreas' assistance after rejecting Francesca's displays of knowledge. Andreas' mobilisation is therefore situation designed by Emma in order to maintain epistemic progression in relation to the larger activity trajectory.

6.2. Episode 2 – Father becomes mobilised due to the local epistemic ecology and his implicit understanding of the larger action trajectory

The second episode takes place approximately ten minutes after the first. At this point, Francesca has finished her homework, and her sister, Bianca (9), is invited to come to sit at the table with her homework instead. On the day of these recordings, all of Bianca's homework was related to mathematics. The episode examined centres around the exercise seen in Fig. 5.

The text instructs the reader to 'dra streck mellan uttryck, bild och kvot' (draw lines between the expression, image and quotient). The expressions are the fractions on the left of the Fig., the images are the rectangles with dots inside them in the centre, and the quotients are the whole numbers on the right of the page. Excerpt 2 begins after the previous homework exercise was completed. Directly preceding this episode, Emma was momentarily discussing something with Andreas, asking him to turn off something. The reorientation to the task is signalled by Bianca in line 1 where she attempts to bring Emma's attention back to the task with `now it's this one`.

Excerpt 2[45]

```
 1  BIANCA    now it's ◊this one,
 2                      ◊points at exercise
 3            i don't understand this one.
 4  EMMA      okay yea (.) you- ">dra stec-<" you-
 5            what does it mean? read it out.
 6  BIANCA    ehm um um h um
 7  EMMA      "dra stre:ck   [me:llan utt]rɪck⁴ bild
 8  BIANCA                   [mellan utt-]
 9  EMMA      och (.) kvɒt̲"⁵ what does that mean?=
10  BIANCA    =kvot i don't know i can't (.)
11            i don't £know£=
12  ANDREAS   =kvot◊▲
13                 ◊▲Emma and Bianca look
14                   towards Andreas off screen
15            hhh=
16  BIANCA    =can ya (.) say it in  ◊£english£?
17                                   ◊puts hand to mouth
```


Figure 6

```
18            i don't know it.=
19  ANDREAS   =which one are we lookin at?=
20  BIANCA    ◊that one=
21            ◊points at exercise
22  EMMA      ="dra stre:ck me:l-
23            [me:llan uttrɪck (.) bild och (.) kvɒt"]
24  BIANCA    ["mellan uttryck  o  bild (0.2)   kvot"] kvot
25  ANDREAS   ((unintelligible)) (kvot there).
26  EMMA      a kvɒt ◊▲that's a fraction?
27                  ◊▲Emma and Bianca look at Andreas
28  ANDREAS   yeah:.
29            (0.4)
30  EMMA      draw a line between,
31            (0.8)
32            to- (.) draw a line to the ones
33            where it works out (.) yeah?
34            (0.3)
35  BIANCA    ◊or?=
36            ◊looks at Andreas
37  ANDREAS   =<expression, image, and fraction.>
```

---

[4] Emma produces the second vowel in uttryck as /ɪ/. Bianca and Andreas produce it as /ʏ:/.

[5] Emma produces the vowel in kvot as /ɒ/. Bianca and Andreas produce it approximately as /ʉ:/.

```
38              (2.0)
39 EMMA         oh right so you want   ▲to-,
40                                     ▲points at expressions
```


Figure 7

```
41              and then the ▲answer?
42                            ▲points at numbers on
42                             the right of the page
43 ANDREAS      yeah.
44 EMMA         alright okay that's good.
45              (0.2)
46 EMMA         so let's try the first one,
47              let's count them up,
                ((continued))
```

A lack of understanding of this piece of homework is indicated initially in line 3, i don't understand this one. This episode differs from the previous in that this time it is the child who willingly assumes K- status, and consequently positions Emma as the more knowing party. In the previous episode, Francesca does not present herself initially as being in a K- position. Emma signals her shift to the current interaction through a transitional okay (Beach, 1993), followed by yea, and then a number of rapid self-initiated self-repairs. Emma begins with you and then starts to hastily read the instruction herself ''>dra stec-<'' (line 4), but ultimately aborts the reading after the second word. She then says you again, but abandons the turn and rephrases to what does it mean? This is asked despite Bianca's claim of non-understanding from the previous turn. Nev-

ertheless, Bianca is not given the chance to respond, with Emma immediately requesting Bianca to read it out instead (line 5). Progressivity halts in Bianca's next turn ehm um um h um, which consists only of delaying productions (Kitzinger, 2013: 239). Emma's response to this turn is to read out the instruction herself (line 7 and 9). Bianca also begins to read the instruction, leading to a choral production (Lerner, 2002) of *mellan* (between) in line 8, but ultimately abandons the reading, leaving Emma to read out the rest by herself. Emma then asks what does that mean? projecting a translation into English as a response. A direct translation as the preferred response for an explanation request has also been found in foreign language classroom settings (Sert, 2015: 122). The same issue may be addressed here as in the first episode: is this a known-answer question functioning as a pedagogical device or a
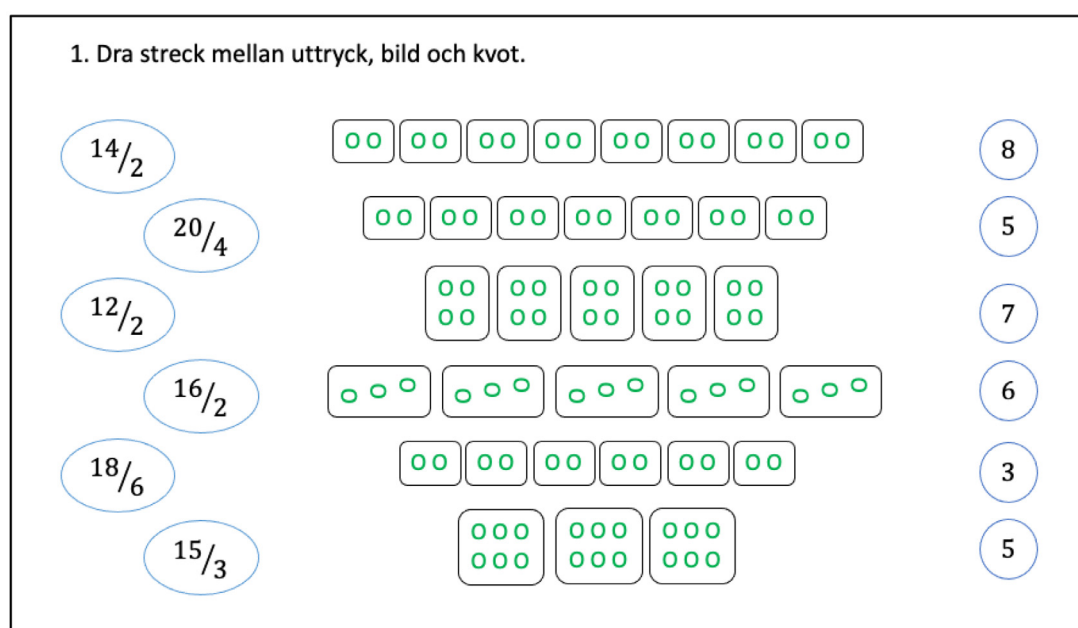

Fig. 5. Mathematics exercise from 'Mera Favorit matematik 3A' (More Favourite mathematics 3A; Asikainen, Nyrhinen, Rokka, and Vehmas, 2018). The 3A refers to school year 3. The figure is a representation of the original exercise.

genuine information seeking question? Markers of disfluency such as elongated vowels, a pause before *kvot* (quotient), and the deliberate production of *och* (and), which is usually reduced to *o* when unstressed in Swedish, suggest that at this stage it may be an information seeking question due to Emma's unknowing state in relation to the meaning of the lexical item *kvot*.

Bianca reaffirms her own K- status through her claim of insufficient knowledge (Sert and Walsh, 2013) in lines 10 and 11 `kvot i don't know i can't (.) i don't £know£`. This turn can be regarded as the initiation of a word search sequence (Siegel, 2016). Her indication that *kvot* in particular is a trouble source is indexed through her turn-initial repetition of `kvot` from the immediate prior turn. Repetition indicating a lack of understanding was also seen in Excerpt 1 (lines 3 and 4), where Francesca initially repeats *balansträsk*. Bianca's turn ends with the final word delivered with smiley voice, which suggests an affective dimension to the turn. Laughter and smiling within pedagogical settings often function as devices for managing trouble (Petitjean and González-Martinez, 2015), and may specifically be used to manage trouble occasioned by epistemic issues (Sert and Jacknick, 2015) Melander Bowden (2019). highlights the synergistic role that a turn explicitly combining an affective plus an epistemic dimension can have on the unfolding organisation of actions. It is perhaps not surprising then that immediately following this affective display, Andreas enters the conversation from off screen by repeating `kvot` himself (line 12), followed by an audible aspiration (line 15). Andreas' insertion into this episode differs from Excerpt 1 in that here Andreas self-selects to take the turn. Previously, Andreas was explicitly selected through Emma's directed gaze and summons (Sacks, Schegloff and Jefferson, 1974; Lerner, 2003). His intervention here is contingent on his monitoring of the local epistemic ecology and his understanding that a participant displaying K- status within this context is in need of assistance or contribution. It is the local epistemic ecology which mobilises Andreas rather than an explicit call for intervention by one of the interactants.

In the next turn, Bianca turns to Andreas and asks `can ya (.) say it in £english£?` (line 16), which has been observed to work as an 'explicit search marker' in conversation analytic literature on word searches (Brouwer, 2003), followed by `i don't know it` (line 18). Bianca is observably orienting to English as the language through which she might be able to solve the impasse in this episode. Lines 19 to 24 feature a side sequence in which Andreas asks for the identification of which task in the book they are currently working on, followed by Bianca and Emma indicating which task it is, firstly through pointing (line 21), and then through a further reading of the task instructions. Following a primarily inaudible turn from Andreas (line 25), which presumably contains some kind of clarification, Emma offers her candidate understanding for confirmation from Andreas with `a kvot, that's a fraction?` (line 26). Andreas confirms this with `yeah:` (line 28). Although Emma verbally takes over from Bianca from line 26, Bianca's involvement in this word search sequence is maintained through her gaze (line 27). In this episode, as well as the first, Andreas is always oriented to as having epistemic authority in relation to matters of language. In this case, though, this is an inaccurate translation. The word 'kvot' in this exercise relates to the 'answer' (the quotient) of the fraction, the result of dividing the two numbers. This mistranslation is however not oriented to as such in this episode and was not made relevant to the interactants in situ.

Following a short pause, Emma begins to translate the instruction herself. In line 30 she gives `draw a line between` as a translation of *dra streck mellan*. This is an accurate translation from Swedish, but her uncertainty is nevertheless indicated by the following 0.8 second pause (line 31), after which she reformulates the translation as `to- (.) draw a line to the ones where it works out` and then seeks confirmation from Andreas through the turn-final tag question `yeah?` The translation is not a literal Swedish-English translation: it can be seen as an approximation of the meaning of the task. After a 0.3 second pause, Bianca gazes at Andreas and produces a question of her own `or?` (line 35). The pause before Bianca's `or?` may be an orientation to her turn being dispreferred as she is challenging Emma's translation. With these confirmation seeking questions, Emma and Bianca are again downgrading their epistemic status and orienting to an epistemic asymmetry with Andreas as the knowing participant (Heritage, 2012b: 24). Andreas does not confirm that Emma's translation was accurate, but rather slowly and deliberately states `<expression, image, and fraction.>` He therefore translates *uttryck* as 'expression', *bild* as 'image', and, incorrectly once again, *kvot* as 'fraction'.

A two second pause is broken by Emma's *oh* prefaced turn (line 39). The interaction from lines 30 to 39 can be seen as a question → answer → comment sequence in which Emma's third-turn *oh* functions as a token of understanding (Koole, 2010: 192). Emma then demonstrates her understanding of the task through her own display of visual literacy knowledge (cf. Francesca's display in Episode 1) by combining instances of talk with pointing actions (lines 39–42, see also Fig. 7). First, she says `right so you want to,` which leads to her pointing at the expressions in the book (those on the left of Fig. 5), followed by `and then the answer?` which is accompanied by a point to the whole numbers in the book (those on the right of Fig. 5). Andreas, assuming a knowing position again, confirms with `yeah` (line 43) that this was an adequate understanding of the task at hand. In line 44, Emma signals that she is now done with this episode and begins to reassume her role as the knowing participant as the homework activity continues.

Andreas' mobilisation in this episode is attributable to his monitoring of the ongoing conversation and his orientation to both Emma and Bianca as having assumed K- status in the local epistemic ecology. His mobilisation is situation designed in relation to the larger action trajectory and his orientation towards epistemic progression in the activity is enacted with this mobilisation even though he was a peripheral Fig. before this point. If mobilisations or recruitments are considered as a continuum "with one end point comprising self-initiated explicit solicitation of assistance (requests), and with the other end point encompassing other-initiated volunteering of assistance without its explicitly being asked for (offers)" (Betz, Taleghani-Nikazm, and Golato, 2020: 2; Drew and Kendrick, 2018) then this mobilisation lies towards the 'offer' end of the continuum.

6.3. Episode 3 – Father recruited by child to solve epistemic issue

Upon the completion of the task discussed in Episode 2, Emma and Bianca move on to the next task in the same book. Fig. 8 shows this task, which instructs the reader to 'Dra streck mellan uttryck och kvot. Måla kvoten i samma färg som uttrycket'. (Draw lines between the expression and the quotient. Paint the quotient in the same colour as the expression). 'Måla' is a verb which has the literal meaning of 'paint' in English, as in 'paint a wall', but in this context, 'måla' would be more idiomatically translated to 'colour in'. 'Färg' also has the meaning of 'colour', but it is a noun, as in 'the colour red'.

Excerpt 3[6]

```
 1  EMMA      right,=
 2  BIANCA    =next one.
 3  EMMA      right, read it out then.
 4  BIANCA    "dra streck mellan uttryck o kvot".
 5            (0.5)
 6            eh it's the same thing=
 7  EMMA      =same thing, draw a line
 8            [between the fraction and   ] the answer.
 9  BIANCA    ["måla kvoten i samma färg-"]
10  EMMA      "måla kvoten i samma fär/g/⁶ som ut:trɪck:et."
11            ◊▲(.)
12            ◊▲Emma and Bianca turn their gaze to each other
13            >what's that mean?<
14            ◊▲ (2.5)
15            ◊▲ Bianca and Emma maintain mutual gaze for 2.5s
16  BIANCA    ◊(0.3) pa↑ppa:=
17            ◊looks toward Andreas
18  EMMA      =colour the fraction in the
19            same,
20            (2.2)
21            .h colour the fraction
22            in the same colour,
23            (2.3)
24  ANDREAS   where are we ▲here?
25                            ▲Emma gestures towards task
```

Figure 9

```
26  EMMA      "måla kvoten i samma fär/g/ som ut:trɪck:et."
27            (1.0)
28  ANDREAS   .h paint the fraction in the same colour
29            as the expression.
30  EMMA      ooh (.) right.
31  ANDREAS   or is it-, °don't know°.
32  EMMA      so four divided by two is what?
            ((continued))
```

The orientation to the new homework task is signalled through the turn-initial `right` (line 1) by Emma. This `right` proposes moving out of the previous task and into the one seen in this excerpt (Gardner, 2007: 336). Bianca also shows an orientation to this task through her turn in line 2, `next one`. In line 3, Emma reuses `read it out`, the same sequence-initiating action seen in Excerpt 2. Bianca obliges by reading out the first sentence of the instructions (line 4). Following a brief pause, Bianca indicates that this task is `the same thing` as the previous one, which Emma confirms with the turn-initial repetition of `same thing`, followed by a candidate proposal of her understanding in English, `draw a line between the fraction and the answer`. The ability to scaffold and apply their knowledge from the previous task leads to a much faster display of understanding here than in Episode 2.

The second sentence in the task instruction is shown to be less straightforward to understand. Bianca and Emma begin to read the sentence aloud (lines 9 and 10), but Bianca drops out of the overlap. Emma then reads out the rest of the sentence herself.

In line 13, Emma again turns to the 'what does x mean' formulation, but this time with a contracted variation, `what's that mean?` Emma's question displays a K- stance. Emma and Bianca then maintain mutual gaze with an ensuing silence for 2.5 seconds (line 14). This silence indicates trouble and also situates Bianca in a K- position as a response is not forthcoming. As a normative preference for answer over non-answer responses to questions exists in interaction, one would typically expect a response that accounts for the lack of an answer rather than an extended silence here (Hayano, 2012: 404). This was observed by Bianca in Episode 2 where she responds to a question with a claim of insufficient knowledge 'I don't know'. The silence is broken by Bianca looking off screen and summoning Andreas with `pa↑ppa:` (dad) (line 16), who is not present at the table. The summons functions as a mobilisation for Andreas to come and assist with the translation. Bianca consequently assumes K- status and situates Andreas as having K+ status. Bianca also indirectly orients to Emma as being an unknowing participant within this translingual domain as Emma is not asked to offer a translation, and it can therefore be seen that Bianca does not treat Emma's `what's that mean?` as a known answer question. Again, as in the previous episodes, Andreas is oriented to as having a relative epistemic advantage, while

---

[6] Emma produces the final consonant in färg as /g/. Bianca produces it as /j/.

2. Dra streck mellan uttryck och kvot.
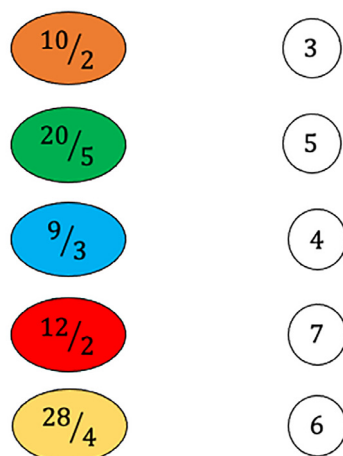   Måla kvoten i samma färg som uttrycket.

Fig. 8. A second mathematics exercise from 'Mera Favorit matematik A3' (Asikainen, Nyrhinen, Rokka, and Vehmas, 2018). The Fig. is a representation of the original exercise.

Emma is oriented to as having a relative epistemic disadvantage in this *territory of information* (Kamio, 1997).

From lines 18 to 22, Emma attempts to translate 'måla kvoten i samma färg som uttrycket' into English. Her initial attempt (lines 18 and 19) is a translation of 'måla kvoten i samma' as `colour the fraction in the same`, which is followed by a 2.2 second pause. This incomplete utterance indicates that the next word, 'färg' (colour, noun), is a source of trouble for Emma. After the pause, Emma produces an audible aspiration and then offers `colour the fraction in the same colour` as the translation (lines 21 and 22), which is again followed by a longer pause (line 23). During these pauses, Emma's gaze remains focused on the book. The hesitation expressed by Emma here, her halt in the production of the turn, is perhaps caused due to her translation of both 'måla' and 'färg' to 'colour' leading to the somewhat unusual English formulation of 'colour the fraction in the same colour'.

By line 24, Andreas is physically present, having responded to the summons. Despite not being explicitly asked to do anything, he identifies that his mobilisation is situation designed in relation to helping with the epistemic progression of this task. He orients to the task through asking `where are we here?` (line 24), while moving his hand towards the book (line 24). He thus orients to help as normal and predictable in this situation, presumably due to the shared interactional histories of the participants. Emma's response turn is designed to signal to Andreas which task it is through pointing (Fig. 9) as well as by verbally repeating the problem sentence, `måla kvоten i samma fär/g/ som ut:trіck:et` (line 26). Andreas interprets this as a translation request and obliges with `paint the fraction in the same colour as the expression` (lines 28 and 29). Andreas' turn here reveals his implicit understanding of the state of the local epistemic ecology. He is not commanded to give a translation through imperative syntax (e.g., 'translate this'), nor is he asked to give a translation through interrogative syntax (e.g., 'can you translate what x means?'). Andreas' offer of a translation can be viewed as an economical way to offer his assistance in this context (Betz, Taleghani-Nikazm, and Golato, 2020: 3); translation is an interactionally efficient and straightforward way of solving these epistemic issues. Andreas' translation is ultimately accepted by Emma, `ooh (.) right` (line 30), which then in line

32 leads to her resuming the role as 'taskmaster' of the child's homework (Wingard and Forsberg, 2009: 1591). Andreas' utterance in line 31, which reflexively indicates that his translation may not in fact be accurate is disattended to by both Emma and Bianca. The inaccuracy of the translation has no bearing on the ability of Emma and Bianca to satisfactorily complete the homework task. Andreas plays no further role in this homework activity after this point.

Again, this episode is driven by the unknowing positions of Bianca and Emma. They are specifically unknowing in relation to the goal of the task, as well as unknowing in how the task instructions can be translated into English. What differs in this episode compared with the previous two, however, is that it is the child who recruits the father's assistance. When Bianca presents a K-stance, she does not attempt to seek clarification from Emma, but instead she summons Andreas. Bianca therefore orients to Emma as an unknowing participant in the local epistemic ecology. Once Andreas has been summoned, he immediately orients to assisting with the task, despite not being explicitly asked to do so. Through Andreas' observable actions, he displays his orientation to the co-participants as having lower linguistic abilities in this specific domain than himself. He orients to an English translation as the trouble resolution device in all non-understanding matters, whether explicitly formulated in terms of a non-understanding related to language or a non-understanding in general.

7. Discussion and conclusion

The present study has explored how a Swedish-English bi-national, bilingual family collaboratively overcome language-related epistemic issues in a Swedish-language homework activity through the mobilisation of a more knowledgeable party. Three episodes were presented in which the L1 Swedish speaking father was mobilised and ultimately successfully assisted in the homework activity. In Episode 1, the father's assistance was explicitly mobilised by the L1 English speaking mother. In Episode 2, the father entered the interaction through his self-selection. In Episode 3, the father was explicitly recruited by one of the children in the family. Although each mobilisation was initiated by a different participant, each of these moves was situation designed in relation to the larger activity trajectory (Betz, Taleghani-Nikazm, and Golato, 2020), and they were all dependent upon participants' understanding of the local epistemic ecology in relation to language expertise and the homework task as a whole.

Within this collaborative homework activity, participant roles are clearly defined. The mother is oriented to as the manager of the activity, who has the initial authority to ask questions relating to the tasks, who further takes it on herself to understand the tasks at hand, and who ultimately decides when a side-sequence can be concluded. She is oriented to as a knowing participant in all epistemic domains other than those specifically relating to the Swedish language. She is positioned as having the knowledge which relates to the content of the homework, as well as the knowledge of how to help complete the homework. The father orients to the mother's status as a knowing participant in all domains but Swedish, which is indicated through him not attempting to offer any assistance beyond providing translations. He does not participate in the interactional establishment of completing the homework tasks (Melander Bowden and Svahn, 2020); he provides the translation and gives the rights back to the mother to continue with the activity. The father's role is therefore equally well defined. He is oriented to as an expert in matters relating to language. He is more than a 'possible knower' (Jakonen, 2014) as relates to this domain; rather, he is positioned as a 'definite knower' who can be held accountable for such knowledge (Stivers, Mondada, and Steensig, 2011). He is ascribed epistemic primacy, and treated as 'know-

ing' best (Musk, 2021: 124). Hosoda (2006) showed that L1 speakers are typically oriented to as language experts, while L2 speakers portray themselves as 'novices' in interactions where confirmation about a language-related matter is concerned. Here, it is seen that the father's expertise goes beyond the fact that he is an L1 Swedish speaker. His expert position is contingent on his knowledge of Swedish, English, and most importantly for the data presented here, the relationship between the two languages. The children in this study are also L1 Swedish speakers, and indeed, L1 English speakers, but they display a limited ability in translating between the two in these episodes and are therefore not oriented to as experts in the same way Canagarajah (2013: 7) writes that historical conceptualisations of bi-/multilingualism conceive of the relationship between languages as additive, that is that languages are layered on top of each other within the multilingual individual in separate cognitive compartments. This has also been described as "separate bilingualism" by Creese and Blackledge (2011). I argue that the observations regarding the father's role in the present study are better conceptualised within a translingual paradigm (Canagarajah, 2013). His expertise in translation is contingent on his competence within a translingual domain which draws upon his integrated linguistic proficiency.

The analyses reveal that there are several different layers of progressivity at play within this activity. An overarching level of progressivity exists in relation to the completion of the activity as a whole. All of the talk is oriented towards this level of progressivity. However, for progress of the overall activity to occur, various troubles emerging within the activity and during the accomplishment of the activity must first be resolved. Progressing with a homework activity is first of all contingent on understanding the task at hand. As Goodwin (2013: 19) mentions, co-participants must understand the activity that is being cooperatively pursued, as well as the distribution of knowledge in relation to that activity. It is only through awareness of co-participants' current state of knowledge in relation to the activity that progression can take place. In order to establish what co-participants currently know, explicit epistemic status checks were employed (as in Sert, 2013), but equally, co-participants publicly announced their unknowing position through requests for information and requests for confirmation (as in Balaman and Sert, 2017a). The analyses also show that co-participants established the state of the local epistemic ecology through their understanding of extended silences as indications of a K- position (Melander Bowden and Svahn, 2020: 17).

The response mobilising features employed by participants in this study correspond with those proposed by Stivers and Rossano, (2010): interrogative lexico-morphosyntax, interrogative prosody, recipient directed speaker gaze, and recipient-tilted epistemic asymmetry. The example in which the father offers his assistance without an explicit request is particularly linked with an understood epistemic asymmetry. The father's epistemic expertise, and thus his 'domain of responsibility', relates to matters of language, while the mother's relates to matters of homework (Stivers and Rossano, 2010: 15; Stivers, Mondada, and Steensig, 2011). It is through co-participants' implicit knowledge of who has the epistemic primacy within each domain that the sequences are driven. Also seen were examples in which a response from a more knowledgeable participant was mobilised through declarative syntax, namely, a repetition of the Swedish language instructions of the homework task. This turn design is constructed as a "vehicle for action" (Schegloff, 1995). That action being the request of an English translation from a more knowledgeable party. Within this bilingual family setting where it is understood that family members have different levels of language expertise, offering a translation in this context can be seen as a normative obligation and the translation can be considered a type-fitted response to the initial action (Stivers and Rossano, 2010: 5). This study has focused on the translation of homework tasks, but it should be noted that similar translation and interpretation practices are a pervasive feature of everyday social life in asymmetrically bilingual families (Ghandchi, 2021). Investigating these activities further leads to a greater understanding of how migrants deal with some of the challenges they face in their new, unfamiliar environments.

The motivation for a translation being given is primarily due to the mother's insufficient repertoire in Swedish. What should be noted, however, is that she is perfectly capable of navigating a number of homework exercises which were not included here. Although the specific homework tasks analysed in this study were aimed at primary school aged children, the language used in them is not simplistic or constructed from everyday Swedish vocabulary. 'Balansträsk' is a particularly unusual word, while 'uttryck' and 'kvot' are rather technical mathematical terms. In this family, and on this particular day, the father, with his more comprehensive understanding of Swedish, could be called upon in order to assist with the activity. This highlights one of the challenges for migrant parents in Sweden and shows that even obtaining language skills which allow for the assistance of homework with young children can be problematic.

The present study has focused on the Swedish context, but with increased migration and globalisation, such issues are likely to be prevalent in the homes of many families with migration backgrounds worldwide. Much research on parental involvement in homework, particularly from a Swedish perspective, has aimed to understand and remedy unequal opportunities amongst children and parents alike (Karlsson, Hallsén, and Svahn, 2019: 129). This article has exemplified that if policy makers wish to investigate such inequalities closer, then the linguistic abilities of parents in migratory contexts must be at the forefront of their investigations. However, the findings further exemplify that in order to fully understand how homework activities are collaboratively undertaken within asymmetrically bilingual families, linguistic abilities alone do not explain everything. A complete analysis of these activities must consider language in relation to larger activity trajectories, to the unfolding epistemic ecology, and to family dynamics more generally. By employing a conversation analytic approach, and in particular through in depth single-case analyses, an understanding can be built of how migrant parents and their children interactionally traverse homework activities, which can ultimately contribute towards educational recommendations and solutions at a local and international level.

Appendix 1. Transcript conventions (adapted from Jefferson, 2004 and Hutchby, 2019)

(0.5) Numbers in brackets indicate a gap timed in tenths of a second.

(.) A 'micropause' of less than one tenth of a second.

= 'Latching' or absolute contiguity between utterances.

[] Square brackets between adjacent lines of concurrent speech indicate the points of onset and cessation of overlapping talk.

(()) Transcriber's comments.

.hhh h's preceded by a dot are used to represent audible inward breathing. The more h's, the longer the breath. hhhh h's with no preceding dot are used in the same way to represent outward breathing. stre:::tch Colons indicate the stretching of a sound at the preceding lexical item. The more colons the greater the extent of the stretching. wor- A dash indicates a sudden cut-off of the word being uttered.

., ? A full stop indicates a falling tone; commas indicate fall-rise or rise-fall (i.e., a 'continuing' tone); question marks indicate a marked rising tone.

↑ ↓ Upward and downward arrows are used to mark an overall rise or fall in pitch.

CAPITALS Capitals mark a section of speech markedly louder than that surrounding it. <u>underline</u> Additional emphasis.

° ° Degree signs are used to indicate that the talk between them is noticeably quieter than surrounding talk.

< > Outward chevrons are used to indicate that the talk between them is noticeably slower than surrounding talk.

> < Inner chevrons are used to indicate that the talk between them is noticeably quicker than surrounding talk.

" " Speech marks indicate that something is being read aloud.

▲+◇ These symbols mark the point at which an embodied action begins. Each symbol represents the actions of one individual: Emma (▲), Francesca (+), and Bianca (◇).

References

Abreu Fernandes, O. (2019). Language workout in bilingual mother-child interaction: A case study of heritage language practices in Russian-Swedish family talk. *Journal of Pragmatics, 140*, 88–99.

Arizpe, E., & Styles, M. (2003). *Children reading pictures*. London: RoutledgeFalmer.

Aronsson, K., & Cekaite, A. (2007). Getting things done in family life. Directive trajectories and moral order. In *Proceedings of the Paper presented at the 10th International Pragmatics Conference, Helsinki*.

Asikainen, K., Nyrhinen, K., Rokka, P., & Vehmas, P. (2018). *Mera Favorit matematik 3A*. Stockholm: Studentlitteratur.

Balaman, U., & Sert, O. (2017a). Development of L2 interactional resources for online collaborative task accomplishment. *Computer Assisted Language Learning, 7*, 601–630.

Balaman, U., & Sert, O. (2017b). The coordination of online L2 interaction and orientations to task interface for epistemic progression. *Journal of Pragmatics, 115*, 115–129.

Beach, W. A. (1993). Transitional regularities for casual 'okay' usages. *Journal of Pragmatics, 19*, 325–352.

Betz, E., Taleghani-Nikazm, C., & Golato, P. (2020). Mobilizing others: An introduction. In C. Taleghani-Nikazm, E. Betz, & P. Golato (Eds.), *Mobilizing others: Grammar and lexis within larger activities* (pp. 1–18). Amsterdam: John Benjamins.

Bonacina-Pugh, F. (2012). Researching "practiced language policies": Insights from conversation analysis. *Language Policy, 11*(3), 213–234.

Brouwer, C. E. (2003). Word searches in NNS-NS interaction: Opportunities for language learning? *The Modern Language Journal, 87*(4), 534–545.

Canagarajah, S. (2013). *Translingual practice: Global englishes and cosmopolitan relations*. London: Routledge.

Chazal, K. (2020). Multimodal mechanisms for mobilizing students to give pre-structured responses in French L2 classroom interaction. In C. Taleghani-Nikazm, E. Betz, & P. Golato (Eds.), *Mobilizing others: Grammar and lexis within larger activities* (pp. 175–202). Amsterdam: John Benjamins.

Couper-Kuhlen, E. (2012). Some truths and untruths about final intonation in conversational questions. In J. P. de Ruiter (Ed.), *Questions: formal, functional and interactional perspectives* (pp. 123–145). Cambridge: Cambridge University Press.

Creese, A., & Blackledge, A. (2011). Separate and flexible bilingualism in complementary schools: Multiple language practices in interrelationship. *Journal of Pragmatics, 43*, 1196–1208.

Drew, P., & Kendrick, K. H. (2018). Searching for trouble: Recruiting assistance through embodied action. *Social Interaction: Video-Based Studies of Human Sociality, 1*(1).

Forsberg, L. (2007). Homework as serious family business: power and subjectivity in negotiations about school assignments. *British Journal of Sociology of Education, 28*, 209–222.

Gardner, R. (2007). The right connections: Acknowledging epistemic progression in talk. *Language in Society, 36*(3), 319–341.

Ghandchi, N. (2021). We explain": Interaction and becoming a family in migration. *Proceedings of the* Working Papers in Urban Languages and Literacies, WP286.

Goodwin, C. (2013). The co-operative, transformative organization of human action and knowledge. *Journal of Pragmatics, 46*(1), 8–23.

Gu, L., & Kristoffersson, M. (2015). Swedish lower secondary school teachers' perceptions and experiences regarding homework. *Universal Journal of Educational Research, 3*(4), 269–305.

Hayano, K. (2012). Question design in conversation. In J. Sidnell, & T Stivers (Eds.), *The handbook of conversation analysis* (pp. 395–414). Oxford: Wiley-Blackwell.

Heller, V. (2021). Embodied displays of "doing thinking." Epistemic and interactive functions of thinking displays in children's argumentative activities. *Frontiers in Psychology, 12*, Article 636671.

Helmer, H. (2020). How do speakers define the meaning of expressions? The case of German x heißt y ("x means y"). *Discourse Processes, 3*, 278–299.

Heritage, J. (2008). Conversation analysis as social theory. In B. S. Turner (Ed.), *The new Blackwell companion to social theory* (pp. 320–330). Oxford: Blackwell.

Heritage, J. (2012a). The epistemic engine: Sequence organization and territories of knowledge. *Research on Language and Social Interaction, 45*(1), 30–52.

Heritage, J. (2012b). Epistemics in action: Action formation and territories of knowledge. *Research on Language and Social Interaction, 45*(1), 1–29.

Heritage, J. (2012c). Epistemics in conversation. In J. Sidnell, & T. Stivers (Eds.), *The handbook of conversation analysis* (pp. 370–394). Oxford: Wiley-Blackwell.

Heritage, J. (2015). Well-prefaced turns in English conversation: A conversation analytic perspective. *Journal of Pragmatics, 88*, 88–104.

Hosoda, Y. (2006). Repair and relevance of differential language expertise in second language conversations. *Applied Linguistics, 27*(1), 25–50.

Hutchby, I. (2019). *Methods: Conversation analysis*. SAGE Research Methods Foundations.

Hutchby, I., & Wooffitt, R. (1998). *Conversation analysis. principles, practices and applications*. Cambridge: Polity Press.

Jakonen, T. (2014). Building bridges - how secondary school pupils bring their informal learning experiences into a content and language integrated (CLIL) classroom. *APPLES: Journal of Applied Language Studies, 8*(1), 7–28.

Jefferson, G. (2004). Glossary of transcript symbols with an introduction. In G. Lerner (Ed.), *Conversation Analysis: Studies from the First Generation* (pp. 13–31). Amsterdam: John Benjamins.

Jorm, A. F., & Share, D. L. (1983). Phonological recoding and reading acquisition. *Applied Psycholinguistics, 4*(2), 103–147.

Karlsson, M., Hallsén, S., & Svahn, J. (2019). Sweden: Parental involvement in Sweden exemplified through national policy on homework support. In A. Paseka, & D. Byrne (Eds.), *Parental involvement across European education systems: critical perspectives* (pp. 120–132). London: Routledge.

Kamio, A. (1997). *Territory of information*. Amsterdam: John Benjamins.

Kendrick, K. H., & Drew, P. (2016). Recruitment: Offers, requests, and the organization of assistance in interaction. *Research on Language and Social Interaction, 49*(1), 1–19.

Kitzinger, C. (2013). Repair. In J. Sidnell, & T. Stivers (Eds.), *The handbook of conversation analysis* (pp. 229–256). Oxford: Wiley-Blackwell.

Knoepke, J., Richter, T., Isberner, M., Naumann, J., & Neeb, Y. (2014). Phonological recoding, orthographic decoding, and comprehension skills during reading acquisition. *Zeitschrift für Erziehungswissenschaft, 17*, 447–471.

Koole, T. (2010). Displays of epistemic access: Student responses to teacher explanations. *Research on Language and Social Interaction, 43*(2), 183–209.

Kärkkäinen, E. (2003). *Epistemic stance in english conversation*. Amsterdam: John Benjamins.

Lerner, G. H. (2002). Turn-sharing: the choral co-production of talk-in-interaction. In C. E. Ford, B. A. Fox, & S. A. Thompson (Eds.), *The language of turn and sequence* (pp. 225–257). New York: Oxford University Press.

Lerner, G. H. (2003). Selecting next speaker: The context-sensitive operation of a context-free organization. *Language in Society, 32*(2), 177–201.

Li, W. (2012). Language policy and practice in multilingual, transnational families and beyond. *Journal of Multilingual and Multicultural Development, 33*(1), 1–2.

Melander, H. (2012). Transformations of knowledge within a peer group. Knowing and learning in interaction. *Learning, Culture and Social Interaction, 1*(3–4), 232–248.

Melander Bowden, H. (2019). Problem-solving in collaborative game design practices: epistemic stance, affect, and engagement. *Learning, Media and Technology, 44*(2), 124–143.

Melander Bowden, H., & Svahn, J. (2020). Collaborative work on an online platform in video-mediated homework support. *Social Interaction: Video-Based Studies of Human Sociality, 3*(3).

Mondada, L. (2013). *Conventions for Multimodal Transcription*. https://mainly.sciencesconf.org/conference/mainly/pages/Mondada2013_conv_multimodality_copie.pdf.

Musk, N. (2021). How do you spell that?": Doing spelling in computer-assisted collaborative writing. In S. Kunitz, N. Markee, & O. Sert (Eds.), *Classroom-based conversation analytic research* (pp. 103–131). Cham: Springer.

Patall, E. A., Cooper, H., & Robinson, J. C. (2008). Parent involvement in homework: A research synthesis. *Review of Educational Research, 78*(4), 1039–1101.

Petitjean, C., & Gonzalez-Martinez, E. (2015). Laughing and smiling to manage trouble in French-language classroom interaction. *Classroom Discourse, 6*(2), 89–106.

Pontecorvo, C., Fasulo, A., & Sterponi, L. (2001). Mutual apprentices: The making of parenthood and childhood in family dinner conversations. *Human Development, 44*(6), 340–361.

Raymond, G. (2006). Questions at work: Yes/no type interrogatives in institutional contexts. In P. Drew, G. Raymond, & D. Weinberg (Eds.), *Talk and Interaction in Social Research Methods* (pp. 115–134). London: Sage.

Raymond, G., & Heritage, J. (2006). The epistemics of social relations: Owning grandchildren. *Language in Society, 35*, 677–705.

Roberts, T. (2021). The social underpinnings of language practices in Swedish-English families. *Nordic Journal of English Studies, 20*(1), 155–193.

Rusk, F., Sahlström, F., & Pörn, M. (2017). Initiating and carrying out L2 instruction by asking known-answer questions: Incongruent interrogative practices in bi- and multilingual peer interaction. *Linguistics and Education, 38*, 55–67.

Sacks, H., Schegloff, E. A., & Jefferson, G. (1974). A simplest systematics for the organization of turn taking in conversation. *Language, 50*, 696–735.

Sayers, J., Petersson, J., Rosenqvist, E., & Andrews, P. (2021). Swedish parents' perspectives on homework: manifestations of principled pragmatism. *Education Inquiry* In press.

Schegloff, E. A. (1987). Analyzing single episodes of interaction: An exercise in conversation analysis. *Social Psychology Quarterly, 50*(2), 101–114.

Schegloff, E. A. (1995). Discourse as an interactional achievement III: The omnirelevance of action. *Research on Language and Social Interaction, 28*(3), 185–211.

Schegloff, E. A., Jefferson, G., & Sacks, H. (1977). The preference for self-correction in the organization of repair in conversation. *Language, 53*, 361–382.

Sert, O. (2013). Epistemic status check" as an interactional phenomenon in instructed learning settings. *Journal of Pragmatics, 45*(1), 13–28.

Sert, O. (2015). *Social Interaction and L2 Classroom Discourse*. Edinburgh: Edinburgh University Press.

Sert, O., & Jacknick, C. M. (2015). Student smiles and the negotiation of epistemics in L2 classrooms. *Journal of Pragmatics, 77*, 97–112.

Sert, O., & Walsh, S. (2013). The interactional management of claims of insufficient knowledge in English language classrooms. *Language and Education, 27*(6), 542–565.

Sidnell, J., & Stivers, T. (2012). *The Handbook of conversation analysis*. Oxford: Wiley-Blackwell.

Siegel, A. (2016). Longitudinal development of word search sequences in English as a lingua franca interactions. *Doctoral Thesis*. Newcastle University.

Sorjonen, M.-L., Raevaara, L., & Couper-Kuhlen, E. (2017). Imperative turns at talk: An introduction. In M.-L. Sorjonen, L. Raevaara, & E. Couper-Kuhlen (Eds.), *Imperative Turns at Talk: The Design of Directives in Action* (pp. 1–26). Amsterdam: John Benjamins.

Stivers, T., & Rossano, F. (2010). Mobilizing response. *Research on Language and Social Interaction, 43*(1), 3–31.

Statistiska Centralbyrån, SCB. (2020). *Statistics Sweden*. www.scb.se.

Stivers, T., Mondada, L., & Steensig, J. (2011). Knowledge, morality and affiliation in social interaction. In T. Stivers, L. Mondada, & J. Steensig (Eds.), *The morality of knowledge in conversation* (pp. 3–24). Cambridge: Cambridge University Press.

Svahn, J., & Bowden, H. Melander (2021). Interactional and epistemic challenges in students' help-seeking in sessions of mathematical homework support: presenting the problem. *Classroom Discourse, 12*(3), 193–213.

Svennevig, J. (2008). Trying the easiest solution first in other-initation of repair. *Journal of Pragmatics, 40*(2), 333–348.

Usatch, E. P. (2000). *Doctoral Thesis*. University of Southern Illinois.

Van Mol, C., & de Valk, A. G. (2018). European movers' language use patterns at home: A case-study of European bi-national families in the Netherlands. *European Societies, 20*(4), 665–689.

Walsh, S. (2006). *Investigating classroom discourse*. New York: Routledge.

Waring, H. Z. (2009). Moving out of IRF (Initiation-Response-Feedback): A single case analysis. *Language Learning, 59*, 796–824.

Wingard, L., & Forsberg, L. (2009). Parent involvement in children's homework in American and Swedish dual-earner families. *Journal of Pragmatics, 41*(8), 1576–1595.

Wänblad, M. (2011). *ABC-klubben åk 1 Den magiska kulan Läsebok A*. Stockholm: Natur&Kultur.