Chapter 10

Multimodal Conversation Analysis as a Method for Studying Second Language Use and Learning in Naturally Occurring Interaction

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Abstract

Conversation analytical research on second language use and learning (CA-SLA) understands second language learning as a socially displayed process, made visible through a variety of linguistic and embodied actions. Detailed analysis of these actions requires good-quality video data from interactions relevant in learners' life-worlds. The sound and visual quality of videos as well as the positioning of the camera with regard to the participants in the interactions delimit what the analyst can observe and analyze and are therefore important factors in constructing the reliability of research (Mondada, 2013; Peräkylä, 2004). Moreover, choices made in transcribing and presenting data extracts are crucial in terms of research validity for CA and consequential for the analysis. This chapter introduces some basic principles of multimodal conversation analysis (CA) as a research method when applied to analyzing second language use and learning from the multimodal perspective. It discusses how to collect, transcribe, and analyze multimodal data from everyday interactions.

Key words: conversation analysis, multimodality, gesture, second language (L2), interaction

Introduction

Conversation analysis (CA) is a research method that is used to study how social order is achieved in everyday life at the level of interaction (Kasper & Wagner, 2011). In studying the achievement of social order, it describes and analyses the interactional practices though which participants in interaction formulate and understand social actions. CA has its roots in sociological research conducted especially in the US in the 1960's (Maynard, 2013). In its early days, CA was a rather marginal qualitative research area but became more popular in the 1970s (Sidnell, 2010; Maynard, 2013). Today, CA methods are widely used in universities throughout the world in various disciplines, such as sociology, linguistics, communication, and education (Stivers & Sidnell, 2013).

In second language acquisition research (SLA), CA has gained more prominence since the 'social turn' in the 1990s in humanities and social sciences (Block, 1996). Even though interaction and the linguistic input that language learners receive has always been a central interest in SLA research (Douglas Fir Group, 2016; Long, 1996, 2007; Mackey, 2007), the social turn brought along a more profound emphasis on social interaction as the key element in second language learning (Eskildsen & Majlesi, 2018; Eskildsen et al., 2019; Firth & Wagner 1997, 2007). In addition, it highlighted the importance of broadening the SLA research database to include interactions from everyday language contexts and the use of analytical methods that are aware of the contextual features of language use and sensitive toward language users' own orientations in interaction (e.g., Firth & Wagner, 1997, 2007; Markee, 1994). Since the social turn, conversation analytic research on topics relevant to SLA has increased. This research area is often referred to with the abbreviation 'CA-SLA' (e.g., Hellermann et al., 2019).

During the last two decades, conversation analytical research has developed along with the rapid advancements in video technologies that enable detailed analyses of the multimodal aspects of social interaction (Heath et al., 2010; Mondada, 2013, 2014a, 2016). The role of bodily and material resources, such as hand gestures, gaze, body movements, facial expressions, and relevant objects for meaning making in L2 interactions is attracting more and more attention (Greer, 2019; Kasper & Burch, 2016, Lilja & Piirainen-Marsh, 2019b). This chapter introduces some basic principles of multimodal conversation analysis as a research method when applied to analyzing second language use and learning.

Theoretical Background

The Basic Methodological Principles of CA

The field of Conversation Analysis was founded in the collaboration of Emanuel Schegloff, Harvey Sacks, and Gail Jefferson (Sidnell, 2010; Stivers & Sidnell, 2013) who were interested in finding out how social order is accomplished in interaction. CA developed in dialogue with other research areas interested in social life, human action, and language use (for the theoretical foundations, see Maynard, 2013). As a methodology, CA has some unique features that are connected to its theoretical foundations. The most basic and central of these is the idea that language use and interaction are not chaotic but rather ordered at all levels – even in the tiniest details of lexical choices, prosodic features, or facial expressions, for example. This orderliness is possible because of the shared methods and practices through which interactants implement social actions and to which they attend in interaction (Stivers & Sidnell, 2013). The aim of the CA research is to uncover, analyze, and describe these practices and to discover the "previously unknown regularities of human interaction" (Sidnell 2013, p. 77).

CA studies focus on different kinds of interactional phenomena. Sometimes the focus is on the formulation of social actions, such as requests, directives, or certain types of questions (see e.g., Drew & Couper-Kuhlen, 2014). The focus can also be on the interactional use of some specific lexical items. For example, a recent research project investigated the interactional uses of the lexical item "okay" across different languages and interactional settings (see Betz et al., 2021). The interactional practices typical in certain contexts, such as language classrooms (Sert, 2015), may also be the focus of analysis. In addition, studies may focus on the interactional use of gestures or other embodied behaviors. For example, the role of gestures in signaling troubles in hearing or understanding preceding talk (e.g., Kendrick, 2015; Mortensen, 2016; Oloff, 2018; Seo & Koshik, 2010) or in finding a word (e.g., Hauser, 2019; Streeck, 2009b) has reached quite a lot of attention.

The goal of analyzing the social orderliness of mundane everyday life has some important methodological consequences for conversation analytic research practice. Most notably, as the goal is to understand everyday practices, the data for analysis is acquired from everyday interaction by video-recording interactions. The focus on the accomplishment of social order is the characteristic of CA that distinguishes its methodological approach from many other research methodologies that are used to analyze language use and learning. The analysis is based on the idea of *next-turn proof procedure*: it focuses on scrutinizing how the participants treat each other's contributions, i.e., what kind of interpretation a turn exhibits of its prior turn and what kind of expectation it creates for the next turn (Heritage, 1984). Importantly, the analytic mentality of CA entails the idea that nothing cannot be *a priori* regarded as irrelevant for action formation. Rather, anything can in principle be turned into a resource for social action by the participants (Heritage, 1984). This analytic mentality has many important consequences for how

interactions are recorded, transcribed, and analyzed. It also has consequences for the understanding and defining of some central notions, such as the notions of multimodality and learning.

Multimodality and Multimodal Gestalts

Multimodality is a term used in different ways in different disciplines. In CA, it is commonly used to refer to the different resources used by participants to accomplish social actions. Resources can be verbal, such as words, phrases, and clauses, or embodied, such as gestures, gaze, and movement. Also material resources may be relevant for meaning making (Nevile et al., 2014). In its early days, CA research was mainly focused on verbal resources as the data for research typically came from audio recordings (Sacks, 1992). Along with the "embodied turn" (Nevile, 2015) video recordings have become more common as data for conversation analytical research (Mondada, 2013).

In interaction, different verbal and embodied resources are usually combined to accomplish recognizable actions. Because of this, CA studies analyze the use of different resources in relation to each other from a holistic perspective. For example, hand gestures are often connected to the material environment of the interaction and produced in relation to the objects relevant in the situation. While cooking, for example, we may be searching for a ladle to stir the soup we are preparing and make our search public to our co-participants by gesturing the stirring action above the soup pot. Goodwin (2007) was one of the first researchers to show how hand gestures achieve their meaning intertwined with other bodily, vocal, and verbal resources. He demonstrated how gestures are a "parasitic phenomenon" (Goodwin, 2007, p. 198) that can't be adequately analyzed isolated from other interactional resources and launched the term "environmentally coupled gestures" to refer to gestures that cannot be understood without taking

into account the structures of the environment to which they are connected (see also Enfield, 2009; Mondada, 2014b, 2016, 2018; Streeck, 2009a). He also showed that for gestures in interaction, participants' shared embodied participation framework is crucial. A participation framework refers to the participants' visual and cognitive attention towards each other and to the structures made relevant in the physical surroundings (Goodwin, 2000, 2007). For gestures to work in meaning making, participants need to attend to them and monitor and secure the recipient's gaze (see Streeck, 2009a). Because of this, it is important to analyze the use of gestures in relation to their context of use, including participants' gaze direction and body positions in relation to each other.

Following Goodwin (2007), Mondada (2014b) has emphasized the importance of taking into account different multimodal resources in their ecologies in analyzing interaction and the accomplishment of social actions. She uses the term *Multimodal Gestalt* to refer to the intertwinement of gestures, other bodily resources, materials, movement, and verbal resources. I will exemplify the idea of multimodal Gestalts with Extract 1a. The extract is presented here as a multimodal transcript that has been prepared according to the conventions for multimodal transcription developed by Mondada (n.d.), and as a cartoon representation (see Laurier, 2014). In the extract, two second language users of Finnish, Ralf and Alan, are constructing a wood shelter. The interaction has been video-recorded in a vocational school for adult learners as part of a research project that analyzed how second language learning happens at the same time as the students are acquiring the manual skills needed in construction work.

In the extract, the main activity is observably the building work. However, to progress with the building work, the participants also need to use language. Ralf, who is standing on a ladder, needs to recruit the assistance of Alan and to request the tools that are needed to proceed

with the work. In the beginning of the extract, Alan hands some screws to Ralf and makes a

comment about them (line 1, picture 1). Ralf agrees with Alan (line 3) and produces a turn that is

treated as a request by Alan (line 5). This turn is the focus here.

The pictures in the cartoon representation of the sequence are screenshots from the video

recording of the interaction. The exact moments when the screen shots were extracted are

marked in the transcription with the # sign that is visible both on the speech line and in the line

below it. In addition, the participant's embodied behavior is described in the transcript below the

speech line, and its beginning is marked with a special character (see below for the conventions

used).

Extract 1a

```
+ Ralf's gaze
* Ralf's embodied conduct
Ø Alan's embodied conduct


01 ALA    Ø+tämä ruuvi om parempi*#
              this screw is better
          Øwalks towards RAL, stops and hands the screws to him
    ral   ->+gaze towards ALA->
    ral                          *stretches arm towards ALA->
    fig                           #Pic1

02          (.)

03 RAL    .hhh kyllä*
                yes
                  ->*takes a screw ->

04          (~1.0)* (~3.0)
    ral           ->*turns towards the roof truss,
                    raises hands and moves screws
                    from RH to LH on the angle iron->

05 RAL    #Ømissä on: (.) Ø# *    #
              where is
                            ->* pulls index finger towards himself->
    ala    Øtwo steps backØsteps toward shelter floor->
           #Pic2           #Pic3 #Pic4

06          Ø*(~2.0)
    ala   ->Ø walks towards shelter floor, then turns toward RAL->
    ral   -> *continues adjusting screws to angle iron ->
```

```
07 ALA    mikä nimi #
          what name
                    #Pic5
```

Insert Figure 1 here

Ralf's turn in line 5 begins verbally with the question word *'missä'* (where) and continues with the verb *'on'* (is). At this point he has his hands near the roof truss of the shelter construction, and he has just moved the screws from his right hand to the left. Linguistically, the turn is expected to continue with a noun verbalizing the name of the object Ralf is searching for (or a verbal description of this object). However, he does not continue the turn verbally but instead, produces a hand gesture: he pulls the index finger of his right hand as if shooting a pistol (see pictures 3 & 4 in the cartoon, line 5 in the transcript). In the transcript, the gesture is described below the speech line and the beginning of the main part of the gesture (its stroke) is indicated with the * icon. The gesture is performed at the position where his hands already are. While pulling the index finger, he also retracts his right arm a bit towards himself. This is observable in pictures 3 and 4 in the cartoon. Ralf gazes towards the gesture, which shows that he orients to the gesture as an important continuation of the verbal start of the turn (Streeck, 2009a). Had he turned his gaze to Alan at this point, his turn would have been more easily interpreted as a word search (see Goodwin & Goodwin, 1986 for a discussion on the use of gaze in word searches).

Ralf's depictive gesture does not have a lexical affiliate, a word that it would be clearly connected to, verbalized in the turn. The turn is thus a combination of a grammatically incomplete verbal beginning and a depictive gesture, the main part of which is timed to occur

after the verbal beginning of the turn. Together the verbal and gestural resources form a hybrid turn that is recognizable as accomplishing the social action of requesting (see also Keevallik, 2013; Kendon, 2004; Li, 2016; Olsher, 2004; Slama-Cazacu, 1976 for a discussion on similar ensembles of gestures and speech). The gesture becomes interpretable and recognizable in relation to the material context – it is thus not conventionalized in the sense that it would be recognized in any context. It is performed almost exactly in the position where the actual tool is also needed, near the angle iron that Ralf is attaching and is thus also environmentally-coupled (Goodwin, 2007).

The idea of *Multimodal Gestalt*s means that in the analysis of this particular gesture by Ralf, for example, we take into account not only the properties of the gesture (its timing in relation to speech, the gesture phases) but also other multimodal resources. In other words, we pay attention also to the language that is related to the gesture and frames it, to Ralf's body posture and gaze, and to the material ecology, i.e., the shelter construction and Ralf's body position in relation to it. In addition, the recipient's embodied actions are relevant for our analysis of action ascription.

Here we can observe that simultaneously with Ralf's gesture, Alan takes two steps backwards and starts then walking towards the shelter floor (the beginning of Alan's embodied behavior is marked with the character ∅). Most of the tools needed in the construction work are lying on the shelter floor. After having seen the whole sequence, we may retrospectively analyze that Alan's walking at this point already signals that he has not interpreted Ralf's question as an information seeking question about the whereabouts of a specific tool merely but rather as a request to hand him something. His walking towards the shelter floor is thus a preparation for the relevant next action.

Learning as Social Activity

CA research considers language learning to be an observable phenomenon and focuses on those aspects of learning that are observable and analyzable through detailed attention to the participants' sense-making practices. This means that language learning is not necessarily separable from the accomplishment of other social actions. Instead, it happens simultaneously or as part of them. Studies of everyday interactions in out-of-classroom environments have provided empirical insight into the practices that participants deploy to establish spaces for learning (Eskildsen & Theodórsdóttir, 2017), focus joint attention to language forms (Kasper & Burch, 2016; Lilja & Piirainen-Marsh, 2019a, b), solicit assistance from language experts (Brouwer, 2003; Kurhila, 2006; Lilja, 2014), and engage in sequences where new objects of learning are examined, clarified, explained, and co-constructed as learned or understood (see e.g., Greer, 2019; Kunitz & Jansson, 2021).

Extract 1 b shows how Ralf's and Alan's discussion continues and how they turn the focus of their attention to language for a moment. As Alan has taken a couple of steps toward the shelter floor to pick up the requested tool, he turns to Ralf and asks "*mikä nimi*" (what name) (see line 7, picture 5).

Extract 1b

```
07 ALA    mikä nimi #
          what name
                    #Pic 5

08 RAL:   en tiedä eh heh [heh he
          I don't know

09 ALA:                      [heii:Ø
                           ->Ø bends to shelter floor and
                             takes a drilling machine ->
          (.)

10 RAL:   eh ØHäh heh
           ->Øtakes steps towards RAL with the drilling machine ->
```

```
11          (.)

12 RAL:   tiedätkö mikä nimi Ø
          do you know what name
   ala                    -> Ø stops near RAL and
                             hands the drilling machine to Ralf
13          (.)

14 RAL:   >he?<

15 ALA:   ruuvi,
          screw

16 RAL:   +>ruuvikone<?
             screw machine
        ->+gaze to ALA

17 ALA:   ruuvikone
          screw machine

18 RAL:   ei oo *eh heh [heh
          no it is not
              ->*takes the machine from ALA and
                 turns towards the roof trusss ->

19 ALA:                  [Ø on
                           it is
                     -> Øtakes a few steps back and stops

20 RAL:   $ei he heh$

21          (~11 sek) RAL drills, ALA watches

22 ALA:   ruuvikone ja koneruuvi
          screw machine and machine screw

23          (1.0)+ (~8.0) ((RPO drills))
   ral:      ->+gazes towards ALA

24 RAL:   ei ole (.) mitä mitä sä haluat
          it is not what you want

25          (1.0)

26 ALA:   mutta tarvi- (.) tarvi oppia
          but needs to learn
```

The "what name" turn asks the name of the tool that Ralf has requested for without

verbalizing it. In this way, the question turns the participants' focus to language. As Ralf does

not know the name of the object (line 8), he returns the question to Alan (line 12), who starts to

suggest that the name for the object started with the word *ruuvi* (screw, line 15). Ralf does not

accept this suggestion, however (line 18). After a few more turns, Alan explicitly states that there

is a need to learn the words that refer to the tools they need (line 26). This kind of language-

focused activity can be analyzed as observable orientation to language learning even if here

Alan's original question is left without an answer that would have satisfied both parties. The

activity is nevertheless something that the participants initiate on their own and orient to through

their social actions (see Lilja & Tapaninen, 2019).

Interactional Competence

The definition of learning as situated activity is used by many scholars who are interested

in understanding how learning is accomplished as social action in different material ecologies of

naturally occurring interactions (e.g., Brouwer, 2003; Eskildsen & Theodórsdóttir, 2017; Kasper

& Wagner, 2014; Kasper & Burch, 2016; Lilja & Piirainen-Marsh, 2019a). However, such CA-

SLA research has also been criticized for not being able to show how language learning takes

place across situations and how something learned in one situation carries over to another

context (see e.g., Larsen-Freeman, 2004). This critique implies a conception of learning as a

phenomenon that happens over time and entails lasting changes in an individual's linguistic

behavior (see also Jakonen, 2018). Some CA-SLA studies have responded to this criticism by

longitudinal or cross-sectional research designs that enable the analysis of the development of

learner's language use practices over time. In these studies, the developments have been

analyzed as developing interactional competences. *Interactional competence* refers to language

user's ability to participate in formulating and responding to social actions in ways that are

recognizable and acceptable by others (Pekarek Doehler, 2019). The focus of longitudinal studies

may be, for example, on the development of methods for launching stories in interaction,

opening and closing conversations, or repairing trouble in understanding (see Pekarek Doehler &

Pochon Berger, 2015 for an overview of longitudinal studies on the development of interactional

competence).

Important Considerations

Conversation analytical research is based on naturally-occurring everyday interaction.

Therefore, the quality of the video recordings used as research data are of crucial importance for

the analysis. In planning and conducting a conversation analytical study, you should pay careful

attention to the data collection procedures to generate good quality data (Mondada, 2013). It is

also important to become acquainted with the distinctive analytical features of CA research and

be prepared to practice analytical skills (Sidnell, 2010, 2013).

Because conversation analytical studies are interested in the everyday social order,

material for research, i.e., video recordings, are collected from everyday interactions that are part

of the participants' everyday life and not organized by the researcher. It is often a challenge to

collect such data, and because of this, data collection needs to be planned carefully. The sound

and visual quality of videos as well as the positioning of the camera with regard to the

participants in the interactions delimit what the analyst can observe and analyze and are therefore

important factors in constructing the reliability of research (Mondada, 2013; Peräkylä, 2004).

After the data have been recorded, they need to be transcribed. Transcription is an

important prerequisite for analysis, and it involves a lot of consideration and choices that can be

consequential for the analysis. Because of this, it is important to get to know the transcription

conventions and to try understanding the theoretical principles guiding them. You should read

some central texts on conversation analytical transcription conventions (see e.g., Hepburn &

Bolden, 2017; Jefferson, 2004) and find a tutorial or a course guiding you through the

conventions and supporting you in practicing the use of transcription practices. It is important to note that the choices made in transcribing and presenting data extracts are crucial in terms of research validity as CA research is guided by the idea that transcripts should be as transparent as possible to allow readers to access and assess the observations made by the analyst.

Purpose of Study

Conversation analytical (CA) research is concerned with the members' (participants') competencies that underlie ordinary social activities. In other words, the interest is in discovering how participants design their social actions to be recognizable and accepted by others and how the social actions are attended to (Pekarek Doehler & Pochon-Berger, 2015). In studying second language learning in interaction from the CA perspective, the aim is to uncover how moments of learning arise and are oriented to in the midst of pursuing other activities in different interactional environments (Hellermann et al., 2019). Multimodal conversation analytical research aims to provide new understanding of how embodied, verbal, and material resources are used and combined to form recognizable social actions. In addition, the interest is in understanding how different resources work together and what their role is in language learning (see Eilola & Lilja, 2021).

Research questions

The analytical procedures of multimodal CA-SLA research differ from the ones used in many other SLA research methods in some important ways. First, the research process starts with data collection rather than with formulating very exact research questions. Of course, the data collection is guided by the researcher's interests but since the process is based on naturally occurring interactions, the actual research questions cannot be formulated in very specific terms in the beginning of the process because the researcher cannot know what will be observable in

the data. Therefore, the research questions and analytic foci can only be verbalized after careful analysis of the data. This is also observable in how conversation analytical articles are organized and written. Many times, you do not find research questions that would have been formulated as questions in CA articles. Instead, researchers verbalize their exact analytical focus and define what they will show in the papers. This verbalizing of the analytical focus is something that can only be done after careful analysis.

The following citations illustrate some typical ways of introducing the focus of research. All the citations are from a recent edited volume *Conversation Analytic Research on Learning-in-Action* (Hellermann et al., 2019), but their ways of presenting the focus of study are representative of CA-SLA studies more generally.

- "I will focus on changes in turn design with respect to assessments and topic initiation" (Nguyen 2019, p. 80).

- "The present longitudinal case study of an adult Korean shopkeeper's service encounters focuses on the process of the routinization of idiosyncratic multi word expressions as it occurs in a complex multimodal ecology of everyday L2 life (Kim 2019, p. 26)".

- "Our analytic focus is on word-searches as a type of self-initiated repair that has been documented to be frequent in L2 interactions. We document changes, over a period of 10 months, in an L2-speking au-pair's practices and grammatical resource for recruiting co-participants' assistance while searching for a word in dinner-table conversation with her host family and we discuss how this change both constitutes and reflects changing social relationships between the participants" (Pekarek Doehler & Berger 2019, p. 52).

- "The objective (of this study) is to examine episodes of interactional noticing related to language form that take place 'in the wild' (Hutchins 1995), such as mundane

conversation where neither speaker is pre-designated as a 'teacher' and the main purpose of the talk is not language learning per se" (Greer 2019, p. 136).

- "This chapter investigates how the teacher-assigned task is interpreted by different participants, how it is interactionally managed in actual encounters with service provider, and what kinds of occasions the task creates for learning-in-action as the participants move from the classroom to the real-life setting and back again" (Piirainen-Marsh & Lilja, 2019, p. 163).

In sum, the distinctive analytical procedures of conversation analytic research are reflected in the role of research questions which differ from in other types of qualitative research methods. In CA studies, the exact questions cannot be formulated prior to the analysis. Instead, the focus of the study is identified and defined during the analysis and can only be exactly verbalized after the analytical process.

Methods

This section provides you with some guidelines for designing a multimodal CA-SLA study.

Participants

When you browse through the sections in CA-SLA books and articles that introduce the data and methods for the research, you usually do not find very specific information about the participants. While the participants may be described on a general level, more important is usually the description of the data set and the collection of the sequences on which the analysis is based on. The aim of CA research to uncover the "regularities of human interaction" (Sidnell, 2013, p. 77). This means that studies should not focus on describing practices that are idiosyncratic to individual speakers but rather seek to discover regularities that are more general

and observable in the interactional behavior of various speakers. In an ideal research design, data are collected from different interactions so that the final dataset involves several different speakers in similar situations. In other words, if you collect data from dyadic interactions in service encounters, you should try to involve several different customers as well as several different clerks in the data set. It is not possible to say what the ideal number of different participants in the data set would be – it depends on the focus of your analysis.

Since the aim is to find orderliness in interaction, participants' individual contributions are not analyzed in relation to any background factors, such as their age, gender, or first language. Because of this, such factors are not decisive when recruiting participants to CA studies. In this regard, CA methods are quite different from many other methods used for researching language learning.

Materials

Multimodal CA research is profoundly motivated and guided by video-recorded data of naturally occurring interaction. Thus, there is no need for materials other than good quality video cameras and good sound equipment. The materials analyzed in research consist of the video recordings of naturally occurring interaction. Because of this, it is important to plan the recordings as carefully as possible, as explained below.

Procedures

Data collection should start with ethical considerations. It is important to reflect on where naturally occurring data can be recorded. Classrooms are one context in which second language use can be relatively easily recorded (see e.g., Kimura et al., 2018). Recording second language interactions outside language classrooms in other settings relevant for second language learners may be somewhat more complicated in terms of access and consent. You should familiarize

yourself with the laws and principles guiding the collection and use of videorecorded data for research in your country and university and acquire all the necessary consents before videorecording anything. Data management should be planned carefully before videorecording starts. Data management refers for example to considerations about where the data are safely stored and for how long, who has access to it, and what happens to the data after the research is finished. This information needs to be given to the participants also.

You should get acquainted with the interactional environment from which you will collect the data. Especially if the interactions to be recorded happen in a context that is new to you, it is worthwhile to observe the interactions for some time and get to know the environment. This helps in planning how to concretely organize the recordings.

Recordings are never transparent windows into interactions because all data are selective. Data are selective because already the positioning of the cameras delimits what is observable. How and where you position the camera(s) and how you record the sound will impact what kind of analysis is possible to conduct on the data (see Heath et al., 2010). CA researchers attempt to gather recordings that are as inclusive as possible. Inclusiveness refers to at least two important considerations. First, the relevant participation frameworks, or "interactively sustained configuration(s) of multiple participants" (Goodwin, 2000, p. 1518) should be observable in the video frame. The usual advice is that the camera angle should be kept as static as possible and unnecessary moving of the camera should be avoided (see Mondada, 2013, 2014b). The camera should thus not be moved nor zoomed from a speaking participant to another but rather kept in a position so that it captures all those involved in the interaction. Second, the recording should also cover the relevant material ecologies of the interaction involving the objects and artifacts the

participants possibly handle or orient to and the embodied participation frameworks formed by the participants in the setting.

As Mondada (2014b, p. 35) has pointed out, the camera angle presents a "proto analysis" of the interaction and of the resources considered important. Figures 2 and 3 exemplify different solutions in relation to this issue. They are screenshots from video recordings that have been produced in the same location in a cafe. In them, a client is either buying coffee or inquiring about something in relation to the products for sale. In Figure 2 the camera is zoomed rather close into the faces of the participants (the faces are blurred to secure the anonymity of the participants). The client is barely observable on the right side of the screen shot, and the material ecology of the café counter is almost totally missing. It is not possible to see what there is on the counter. This is unfortunate because in the interaction from which the screenshot stems, the client is inquiring about the available coffee selection. There are several coffee pots on the counter (see Figure 2), and the customer asks which of them contains the strongest coffee. In answering the question, the clerk points to one of the pots. This pointing gesture is only partly observable in the screen shot. The analysis would be more reliable if we could clearly also observe the materials that the participants orient to. (For a fuller analysis of this interaction, see Piirainen-Marsh & Lilja, 2019.)

Insert Figure 2 here

Figure 3 comes from the same café, but it has been recorded from the other side of the room and the camera is not zoomed as close to the participants as in Figure 2. The material ecology of the situation, including all the possibly relevant objects, is more readily observable to the analyst. However, this video could have been recorded a bit further away so that the gestures

and body positions of the client would have been available for observation for the whole duration of the interaction.

Insert Figure 3

While the aim of CA multimodal research is to collect as inclusive data as possible, the research interests of each individual researcher and research project also guide the recording practices. If you know from the onset that you are interested in the use of hand gestures, then you should position the cameras so that gestures are clearly observable. Many times, multiple cameras are needed to capture all the aspects needed for reliable analysis. A great example of how to use multiple cameras in multimodal research is the study by Peräkylä and Ruusuvuori (2006) focusing on facial expressions in storytelling. They recorded dyadic interactions with three cameras. The participants were sitting at a table eating lunch and talking. Two cameras were focused on the faces of the participants, i.e., one camera on each participant, to capture their facial expressions as adequately as possible. The third camera captured the participation framework (see Peräkylä & Ruusuvuori, 2006).

The pictures in the cartoon of Extract 1 showed how the construction site interactions were filmed. At times, the builders moved a lot and because of this, it was not possible to place the cameras on tripods. Instead, the researcher had to hold the camera and anticipate the moves of the participants. This sort of anticipation is not easy, and recording mobile interaction therefore has its own challenges (Heath et al., 2010). In construction work, the whole body is clearly important and as shown in Extract 1. Also the bodily movements may be important in indicating how a participant has analyzed a previous turn: Alan's walking showed that he had analyzed Ralf's turn as a request that required some concrete bodily actions from him.

The temporal unfolding of interaction is essential for the analysis. Because every contribution in interaction is analyzed in relation to what happened before and what comes next, there are no such moments in interaction that could be regarded as not significant for the organization of it. This means that in recording interactions, it is important to try to capture the interactions in their whole duration – preferably in one shot without stopping the camera during the interaction.

Transcription, Coding, and Identifying of Relevant Behavior

Transcripts are a textual representation of interaction: they help to 'freeze' the continuous flow of talk and render it analyzable. Even though transcripts are always selective and can therefore never be treated as the primary data for CA analysis, they are an essential tool that facilitate and support the process of analysis. Without transcripts, it would be impossible to uncover all the details of interaction. Another important function of transcripts is that they make it possible to present the analysis in publications. The analytical claims made in any CA research should be transparent in such a way that other researchers are able to observe the same phenomena with the help of the transcripts. The transparency and accuracy of transcripts is thus connected to the validity of CA research.

The conversation analytical transcription system was developed by Gail Jefferson (2004). This system is widely known and used. Central to it is the idea that the subtle features of the delivery of talk may be consequential for action formation and ascription. Therefore, the system includes ways to present how talk is produced. For example, overlaps, pauses, intonation, and pitch variation as well as the speed and tempo of speech are marked in addition to verbal language.

Insert Table 1 here

While the Jeffersonian transcription system for speech is widely known and conventionalized, ways to produce multimodal transcripts are not as established yet. Multimodal transcription conventions are, however, continuously developed, especially by Mondada (see Mondada, 2018, n.d.), and her conventions are already rather widely used in CA research. These conventions are based on the Jeffersonian transcription system and have also been influenced by other conventions for transcribing multimodal behavior, such as Kendon's (2004) system for transcribing the different phases of gestures and the Laban notation for movement (see Mondada, 2018). For more information on multimodal transcription, I encourage you to visit Mondada's webpages that include a tutorial for transcription.

The first fundamental issue in transcriptions concerns temporality. Paying attention to the detailed timing of actions is important in CA transcripts because the aim of the whole research enterprise is to uncover the regularities of interaction. This would be impossible if one could not analyze the temporal unfolding of verbal and embodied resources in relation to each other. Because verbal language unfolds linearly in time, it forms the basic line of written transcripts. Participants embodied conduct is indicated in relation to that in a line below the speech line. The speakers' embodied conduct is always presented first and the recipients' possibly relevant embodied conduct in the line below that.

The second fundamental issue concerns the shape of different embodied behaviors, for example, gestures, facial expressions, and movement. These are usually described in transcripts either in writing or by screen shots. You should avoid adding too much analysis to the transcripts. Because of this, the descriptions of embodied behaviors should be kept as objective as possible. The descriptions should be economic, i.e., as brief as possible, and easily

understandable. Because describing embodied behaviors is often challenging, it is helpful to include pictures or add videoclips to the transcripts when possible.

Like video-recordings, transcripts are always selective. As it is impossible to transcribe everything, you always have to decide what to include and what to leave out. The process of transcribing therefore includes decisions that may be consequential for the analysis. Because of this, it is useful to think of transcription as the first phase of the analysis. It is thus a very different process than for example the process of coding data into pre-existing categories to answer your research questions. Furthermore, even though transcribing is always selective, it should also be as systematic and as accurate as possible. Transcription is an essential skill for any researcher conducting conversation analytical research.

Data Analysis

The analytic process begins with observation. After the data have been collected, it is important to watch and observe them repeatedly. At this point, the process of observing the data should be as unrestricted as possible. The aim is to make observations about phenomena that are relevant in and for that particular data. However, such unmotivated looking is many times not possible because as researchers we have ideas and hypotheses based on previous research and necessarily have some interests that guide our observations.

An example on how to do the initial observation comes from a research project in which we focused on the role of depictive gestures in action formation and ascription. We first observed different kinds of second language interactions in which L2 users were involved in manual or physical activities (see Study Box). Because we were interested in the use of depictive gestures, we paid attention to their use in interaction while observing the data. Admittedly, our observations were also guided by previous research and by our understanding of how such

depictive gestures are usually positioned in relation to speech. We knew that there is a lot of evidence showing that such gestures are usually initiated – if not completely produced – before their lexical affiliates (Kendon, 2004; Schegloff, 1984). Because of this, we were excited to observe that in our data, depictive gestures were sometimes produced in turn-final positions and initiated not before their lexical affiliates but during or even after them.

Insert Study Box here.

After having made a first observation of something that is relevant for the interests of the research project, the interesting sequences should be transcribed and analyzed line by line to create a fuller understanding of them. After this, you need to continue observing the data and try to see if there are any other cases similar to the one that caught your interest in the first place. The goal is to make a collection of similar cases. In making the collection, you should first include all the cases that resemble the initial observation. In our own study on depictive gestures in turn-final positions, we quickly noticed that in our data turn-final depictive gestures were used in two different sequential positions: in turns that initiate action sequences (especially in directives, instructions and requests) and in responsive turns, especially in explanations. We decided to focus our first study on the turn-final depictive gestures taking place as part of initiating actions. We then made a new collection of 100 initiating actions in which the speaker used depictive gestures and found that in 29 cases the depictive gesture was positioned turn-finally. Our analysis was then based on this collection of 29 cases.

In making the collection you have to consider many things such as the sequential position of the focal resource (see Sidnell, 2010, 2013). The criteria for including or excluding cases in the collection is part of the analytic process. These criteria usually become clear in the process of working with the data and are empirically based.

In analyzing the cases in the collection, you should be able to see systematicity in the phenomenon. It is at this point where the analytic foci can be verbalized more exactly. On the basis of the collection, the focal phenomenon can then be analyzed in detail.

An important – and perhaps the most central aspect of CA analysis is related to the emic perspective. An emic perspective refers to the participants' own orientation in contrast to an etic perspective which refers to categories outside of data, for example to concepts and categories the researcher finds relevant. CA analysis should be based on the emic perspective. This means that the aim is to find regularities in how the participants treat each other's conduct and thereby construct mutual understanding and identities.

CA analysis is at its best a group endeavor, and data sessions, i.e., gatherings in which a group of researchers watch data extracts together and make observations about them, are an important part of the analytical practices of CA (see Stevanovic & Weiste, 2017). Data sessions also provide a possibility to learn from more experienced analysts. Today, data sessions are organized in many different universities and online. It is a good idea to find out whether there is group of CA researchers in your own university or to find a group of researchers online and join data sessions to improve your analytical skills.

Future Research Ideas

Conversation analysis is an appropriate research method for scholars who are interested in finding out how second language users participate in encounters relevant in their life-worlds and how language learning takes place as an observable and embodied activity in the contingencies of authentic interaction. The call for broadening the SLA database presented over 20 years ago is still valid today since analyses of the particularities of language learning in everyday contexts outside of language classrooms have only started to emerge in the last decade

(see Hellermann et al., 2019). In addition, our current understanding of language classrooms as interactional and multisemiotic learning and teaching spaces is more comprehensive than the understanding of the complexities of various everyday language use and learning contexts.

There is a special need for future studies that would adopt a holistic perspective on the embodied aspects of language use and learning to overcome the bias of analyzing "talking upper bodies" identified in multimodal CA. More concretely, research designs that would analyze the achievement of intersubjectivity in situations in which the body is central or in which the participants are engaged in physical activities would help us gain deeper understanding of the interconnectedness of movement, manual activities, embodiment, and language learning. In addition, there is also a clear need for future research analyzing the multimodal aspect of second language use and learning in different everyday contexts outside language classrooms, for example, in the homes and everyday language practices of multilingual families, in leisure activities, and in different kinds of service encounters that are an important part of the life-worlds of adult second language learners.

Multimodal conversation analytic research provides a unique theoretical and methodological framework for building an empirically based understanding of second language use and learning as situated social activity in interaction.

Recommended Reading

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