Personal experience narratives in three West African sign languages: the influence of time-depth, community size and social interaction

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Chapter 2 – Methodology

2.1 Introduction

The research in this thesis is based on original fieldwork conducted in three countries in Western Africa: Adamorobe (Ghana), Bouakako (Ivory Coast), and Bissau (Guinea-Bissau). In this chapter, I explain how I came about to study the topic of this study (§2.2), how the fieldwork was undertaken (§2.3), how the data was collected (§2.4) and which procedures were followed for the video annotation (§2.5).

This thesis is integrated into a larger research project led by Victoria Nyst, "From gesture to language", mainly focused on size and shape depictions by both hearing and deaf people in West Africa. I went for fieldwork in the first year of the project, in 2018. Initially, the plan was to collect data only in the villages of Adamorobe and Bouakako. Adamorobe was the first and the longest fieldwork (from September to November 2018) and Bouakako was shorter because they were very few (January 2019). Bissau happened, almost by 'accident', in between (December 2018), since I was accompanying Mariana Martins on her fieldwork on the local emerging sign language (LGG). It was then considered an added value to include data on the emerging LGG in the project's study.

Before focusing on the relevant aspects of the fieldwork, I first contextualise the choice for studying personal experience narrative. I discuss this here because such a choice came out as a consequence of the different methodological approaches to collecting data on size and shape depictions. The result was that participants – and myself – felt much more engaged with the spontaneous storytelling about personal experiences. Also, I saw a clear difference between the narratives told in the different settings which immediately sparked my keenest interest.

2.2 Note on how the study was chosen

Under the context of the larger research project "From gesture to language", the local team at Leiden University, in the Netherlands, including Victoria Nyst, Timothy Mac Hadjah and myself, decided on a set of five tasks. Although I collected data from all those tasks on the three research sites, I only used one of them for my study on narratives. I will nonetheless, present the five of them here and justify the choice for the one involving the production of spontaneous narratives about animal attacks.

The five different tasks, including existing and newly developed ones, aimed to collect as many size and shape signs as possible. For the first task, we developed a set of 3D objects and, for the second, pictures of objects of different sizes and shapes. We also

elicited narratives by using the Tweety and Sylvester cartoons fragments[13] (the third task) and two free topics directly related to their daily lives, one about fruit and vegetables (the fourth task) and another about experiences with dangerous animal encounters (the fifth task). Still, the first three tasks resulted in some strangeness from the signers since they were unfamiliar with that type of materials and corresponding tasks (but see Hadjah, forthcoming), which did not prevent them to do it all the same. On the first task, many of the deaf people had difficulty understanding the 'rules' of the 3D objects game, so we had to perform two or three rehearsal attempts so they could do it autonomously. This was the most challenging task in all three research sites. The third task concerning the Tweety and Sylvester video cartoons was challenging for the older deaf people in Adamarobe and all deaf people in Bouakako because they are not used to watching cartoons nor to the task of retelling them.

The last two tasks were developed in response to previously observed and documented unease in deaf rural signers with picture and video tasks (see Nyst 2015b). These tasks, involving spontaneous discourse, had prompts but not specific elicitation materials. The fourth activity was an interview about fruits and vegetables (also used in Nyst 2016 for gesture use in speakers of Anyi and Dutch), while the fifth activity—the activity that is the basis of this thesis—asks participants about **scary encounters with animals**. In these more spontaneous activities, we expected to observe the size and shape in descriptions of both fruit and vegetables and dangerous animals like snakes. Also, besides being asked about familiar topics, signers had no restrictions to talk about them. Their experiences with food items and dangerous animals were part of their daily lives as farmers and were often the subject of informal conversations, especially amongst the deaf in Adamorobe. I later became aware that this was also a popular topic among the Bissau-Guinean deaf people.

To elicit accessible narratives about food items, I referred to their experience as farmers by asking them: "What do you plant and crop on the farm?". Still, some of them asked me what I wanted to know precisely. I clarified that I had no experience with farming and would like to learn more about the whole process and the products they obtained from it. They then explained what they sowed and harvested and what the fruits and vegetables were like. In Bissau, because they were not farmers, I asked them instead to explain to me what different kinds of fruit looked like, such as bananas. However, these explanations were not actual narratives but descriptions of farming activities and food items.

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[13] The fragments used for elicitation are 'bowling ball', 'catapult', 'drainpipe', and 'swing' as created in a ready-use format by Sotaro Kita at the Max Planck Institute for Psycholinguistics, Nijmegen.

For the last activity, I asked the deaf participants: **"Have you ever encountered a dangerous animal like a snake?"**. I tried to pose an informal question to elicit personal experience narratives as naturalistically as possible. When socialising with the deaf people in the two villages and even in Bissau, I noticed that encounters with dangerous animals, especially snakes, in their farming incursions, were a recurrent topic. In Bissau, none of the participants was a farmer, but many harvested cashews in the forest, where they sometimes encountered snakes. Signers got engaged with these narratives, showing pleasure in telling a good and exciting story with a purpose. As part of their audience, they were aware of my attention and invited me into their own experiences by dramatising them.

When I collected the data from the three sites, all tasks followed similar procedures adjusted to the local contexts. Signers were called upon two at a time since the first task involved working in pairs. In the following tasks, always in the same order, from two to five, they responded individually and alternated so that the other could rest. Now and then, I would ask them if they wanted to stop, but they never did. Also, since the filming was not done in a closed space, sometimes, other people (deaf and hearing) would just stay there and watch, which ended up being important in the animal attack narratives by creating a real audience. The amount of data collected per day (and the days in which it occurred) depended on the group's daily occupations, but, on average, each pair took about one hour to respond to all five tasks.

At that time, I had not decided yet upon focusing only on the animal attack narratives. At the first fieldwork, in Adamorobe, when filming the narratives about animal encounters, I was surprised by how intensely most signers dramatised their experiences, making the story appealing to those of us watching them. At the second research site, in Bissau, I noticed that some of the narratives in LGG were also told in a very engaging manner. Therefore, at the last fieldwork site, in Bouakako, I was expecting similar productions. However, it was not the case. Although their stories were presented with a basic structure of beginning, middle and end, they were more straightforward and with little dramatisation. It was then, facing many questions arising at that point, that I became motivated to focus the study on the narratives of personal experience.

2.3 Fieldwork: Preparation and stay over

The research project led by Victoria Nyst began in early 2018. Fieldwork occurred later that year: Adamorobe, from September to November; Bissau, in December; and Bouakako in January 2019. Although the data collection in itself was undertaken in very similar ways, the whole experience preceding and during fieldwork was very different in the three sites.

This thesis builds on an existing network of hearing and deaf contacts, both local and abroad who have worked with these communities. For one, Victoria Nyst is well acquainted with Adamorobe, as is Annelies Kusters whom I knew before from the worldwide deaf community. Nyst's (2004, 2007a, 2007b, 2010, 2012, 2015b, 2016a, 2016b, 2018) and Kusters' (2012a, 2012b, 2012c, 2014a, 2014b, 2015a, 2015b) work, as well as their personal hints, were crucial to prepare for fieldwork. Bouakako was the place where I struggled the most for not having a solid supporting net. Although I hardly knew Angoua Jean-Jacques Tano at the time, his work (Tano 2016) and his local contacts were fundamental for me to move around in Ivory Coast. The fact that the village was geographically quite isolated and the few deaf people were not accustomed at all to outsiders did not ease the pave either. In contrast, I was very comfortable with the deaf people in Bissau and their whereabouts since I have been visiting the local deaf community since its early inception in 2005.

Thus, in Adamorobe and Bouakako, I worked with local contacts that had been introduced to me by previous researchers, while in Bissau I had well-established relationships. Communication varied widely depending on the local spoken and signed languages, but in all settings, I communicated directly with deaf members of the community in a contact version of their sign language. Finally, the means of compensation for participants was customised in each community, about the local economic and historical circumstances.

All three sites are located in West Africa, but quite far from each other (see map in Figure 1). Nonetheless, deaf villagers, in both Bouakako and Adamorobe, depend greatly on subsistence farming and know little more than what happens within their village boundaries, especially the Ivorian ones. Many urban deaf people in Bissau also harvest cashew during a certain period of the year, but it is not their main activity. Unlike the villagers, they are much centred in a school setting and very eager to know more about the outside world. Details about the three deaf communities and how they compare to each other are in Chapter 1.

Here I go into the exact location of the research sites and my logistic conditions, namely how I went from my lodging facilities to the research sites. I also explain how I communicated with the deaf and hearing people during fieldwork in Adamorobe, Bouakako and Bissau, referring to the various strategies and languages used. I describe how my involvement with each community occurred. In the end, I explain how were the deaf participants compensated for their participation.

2.3.1 Fieldwork in Adamorobe

The village of Adamorobe is located in Ghana, near Accra. Although its geographical proximity of about 40 kilometres (Nyst, 2007) from the city capital has favoured its growth, access by public transport is still scarce. To get there, you must drive by car or taxi or pick up a minibus to Oyibi and a taxi from there to Adamorobe.

I stayed in Aburi, from September to November 2018. The options from there to Adamorobe were going by minibus to Madina and then to Oyibi or by motor taxi through a terrible dirt road (Figure 21). In the first month, I went by motor taxi, but then I had an accident and started going by trotro (minibus) to Oyibi and then taxi.
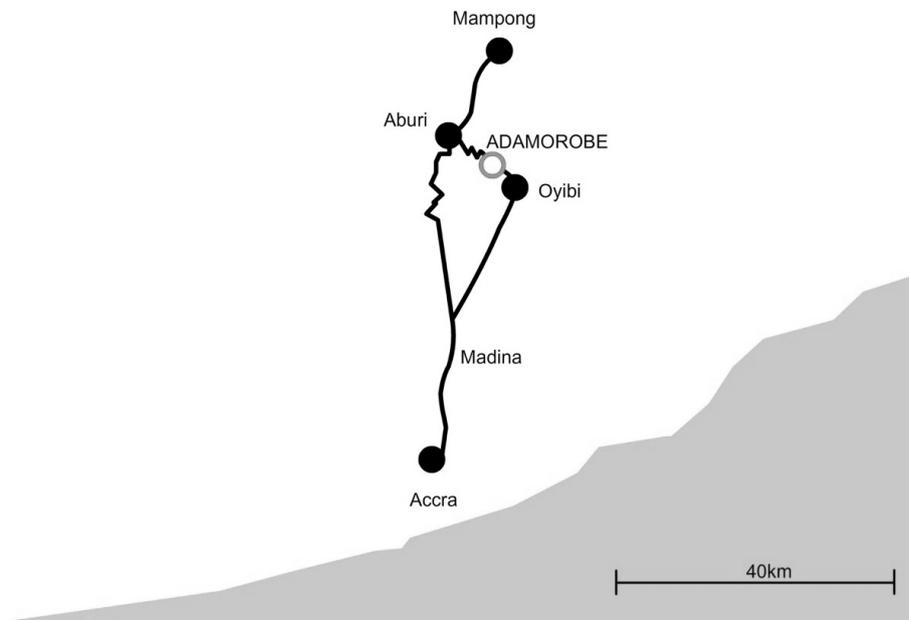

Figure 24. Location of Adamorobe, in Ghana

Preparation. Victoria Nyst and Annelies Kusters, through their work and experience with the local community, helped me in creating a foundation to enter Adamorobe. Since Victoria has been promoting the training and participation of local deaf assistants in the countries where she has had research projects, I was able to benefit in Ghana, from the valuable assistance on the ground of Marco Stanley Nyarko. Marco is a deaf teacher at Mampong school for the deaf, who was also teaching children from Adamorobe. At the time, he was doing his master's degree at Legon University and is

now pursuing a PhD at Leiden University. He had worked with the deaf community of Adamorobe before as the local lead researcher in the corpus project of language socialisation in deaf families in Ghana[14].

Communication. On my first visit to Adamorobe, Marco accompanied me. He first introduced me to James Appeadu, the local interpreter and a reference in the deaf community, who knew all the deaf people in the village. He had two deaf sisters who had both passed away. James had also been a research assistant in Nyst's PhD project, translating all the video recordings of AdaSL onto paper hardcopies.

James formally introduced me to the village chief, to whom I had to ask permission to do the research in the village. Marco (Figure 25) and I communicated in International Sign (IS), he then spoke in English to James, who translated to Akan for the village chief and back. A young deaf woman, Adwoa Agyiriwa (Figure 25), that was present at the formal introduction to the village chief, introduced me to the deaf community of Adamorobe on that first day by taking me to everyone's houses.
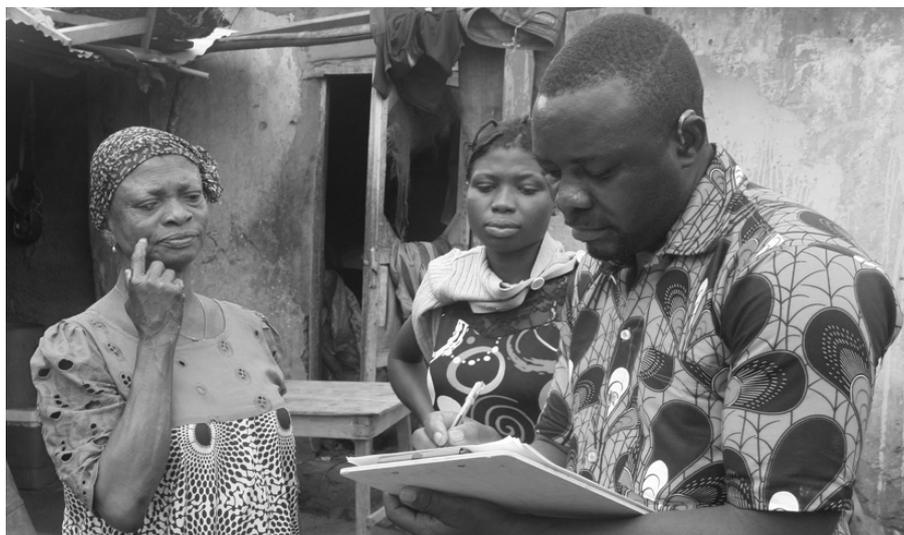

Figure 25. Marco Nyarko (man on the right) assisting me in the Adamorobe fieldwork and Agyiriwa Adwoa (first woman on the right)

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[14]https://www.universiteitleiden.nl/en/research/research-projects/humanities/language-socialization-in-deaf-families-in-africa

After that initial presentation, I went from Aburi to Adamorobe daily. In the beginning, Adwoa communicated with me in GSL but being in Adamorobe daily gradually enabled me to communicate in AdaSL with every deaf person in the village. As I mentioned in Chapter 1, there were two deaf groups in Adamorobe. A younger group, between 18 and 31 years of age, had access to school and had learned GSL, and an older group, older than 31, was considered more fluent in AdaSL (Kusters, 2019); see §1.3. for more details. The group of younger deaf people communicated with each other in GSL, which they had learned at the deaf school in Mampong, located about 20 kilometres from Adamorobe (see §1.3. for more details). Usually, when younger and older deaf people get together, everyone communicates in AdaSL (see §1.3.4 for description).

Involvement. I spent more time with the younger deaf people because they did not work and stayed in the village every day, while the older deaf people went to work on the farm. Three older deaf people did not go farming because they had health problems. I also socialised with them, alternating with the young deaf people.

The elders were around only on Thursdays and Sundays, and often also on Saturdays. For the deaf farmers, Thursday was the day to rest, and we all gathered in the shade of a big tree and chatted for hours. They would talk about various subjects such as their farm work, their previous cocoa experience and work in a building blocks factory. They also gossiped and spoke much about Victoria Nyst and Annelies Kusters with affection and respect.

Unfortunately, I could never join them for meals. As a vegetarian, I could not eat meat, fish or snails with them. I usually woke up early and had a big breakfast for the whole day without needing to eat another big meal. They were disappointed with me, so I said I could not eat their food because I would get "sick". They seemed to understand it better and stopped insisting. Since then, I would keep them company at mealtime in the morning without eating to talk.

In the beginning, they would leave their daily tasks to talk to me or even teach me their language. Little by little, they understood that they did not need to worry about me; they could do their chores, and I would still be there to help them when needed. I usually accompanied them in their chores, like washing clothes, bathing their children, and preparing food[15] (usually banku and kenkey), and we talked. At the end of the first month, I started taking my small video camera, and that is when I began planning the filming. They would also ask me to bring videos and printed photos the next time

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[15] Banku is mixed corn and cassava doughs fermented and cooked and then formed into balls before serving. Kenkey is white corn dough fermented and cooked. Both are traditional staple dishes of Ghana.

I return to Adamorobe. By then, they were very comfortable with me, and it was evident they were very used to the camera.

Even though I felt at first as invading their space, most deaf people treated me very well, offering me cassava and plantain on occasion. They appreciated that I was deaf, as they did with Kusters (2012c). She also felt welcomed in Adamorobe and acknowledges the fact that being deaf made it easier for the local deaf people to identify with her. Moreover, deaf people valued her because she did not leave immediately. Other researchers had gone there with cameras, filmed deaf people, paid them, and left. Besides the researchers, there are also hearing and deaf tourists who have heard about Adamorobe and, because it is near the capital, appear to take photographs, film them and then leave without donating anything. They were offended because they felt used and not cared about (Kusters, 2012a). Moreover, dissatisfied with this, the deaf from Adamorobe became more suspicious and withdrawn (Kusters, 2012c).

Compensation. Deaf people from Adamorobe got used to receiving donations from Andrew Foster's organisation every two weeks. Later, so did churches, NGOs and even individuals (Kusters, 2012c). For this reason, every time they welcome an outsider, they expect to receive donations. If they do not get it, they might even demand it.

Kusters explains that she would give presents and some money to those she had interviewed every two to three weeks. However, when they asked for more, she had to explain that she was only a student not earning any money and that the big school' in England had paid for her flight and camera.

In my case, on the first day that everyone got together since my arrival, which was on a Sunday, I prepared refreshments with cookies as a token of my appreciation. Afterwards, they did not ask me for anything, but when the filming was concluded, I paid each person for their participation. After the data collection, I continued to meet with them daily, but, by then, they kept asking me for more compensation. On the last day of the fieldwork, I brought gifts to all the deaf people in the village, such as oil, rice, Maggi cubes and soap.

After the fieldwork, I maintained contact with some of the deaf people in Adamorobe and, together with Victoria and Annelies, we supported them whenever possible in terms of educational and health critical needs. I saw them all again during summer school for African deaf Academics in August 2019.

Having concluded this first fieldwork in Adamorobe, I went next to Bissau to accompany Mariana Martins on her fieldwork for her PhD project on the emergence of the local sign language. However, I will hold here to the same order as the one

followed throughout this thesis. Thus, I will jump to the fieldwork site I undertook chronologically last: Bouakako.

2.3.2 Fieldwork in Bouakako

The village of Bouakako is located in the southwest of Ivory Coast. It is a tiny village that does not appear on Google Maps (Figure 26). It is one of the five villages in the municipality of Hiré, located about 6 km west of Hiré in a forest area (Tano, 2016). To go to Bouakako from Abidjan, we must go through Divo to Hiré, the closest village to Bouakako. We can go to Hiré from Abidjan by car or bus, about a four-hour drive (250 kilometres). Once in Hiré, there is no public transportation to Bouakako.

I stayed in Hiré in January 2019, where motor taxis are the most common way of transportation. However, in the beginning, it was difficult to find someone to accept taking me on the ten-minute ride from there to Bouakako because the route is challenging. Only after involving the local contacts, was I able to find a regular ride.
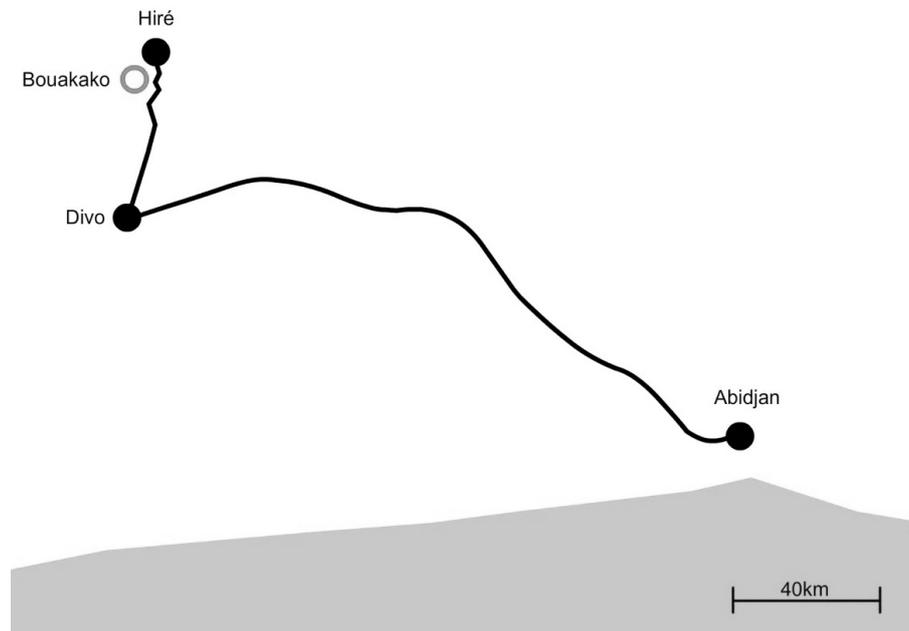

Figure 26. Location of Hiré, in Ivory Coast

Preparation. Victoria Nyst set me in contact with Angoua Jean-Jacques Tano who had done his doctoral thesis on the sign language of Bouakako (Tano 2016). He was

himself from Hiré. His father was still living there and was of great support in my fieldwork. Tano suggested that his colleague, Bruno Dibi, assist me. Bruno was a hearing master's student working on Langue des Signes de Côte d'Ivoire at Félix Houphouet Boigny University in Abidjan. He was also volunteering as an interpreter for a high school deaf student.

Communication. Bruno accompanied me during fieldwork, and our communication was always challenging because we did not share a sign or written language. We communicated either by pantomime and other gestures or by Google translating between English (mine) and French (his). Bruno mediated my communication with Tano's father during our mutual visits and with the village chief during the formal introduction, which was necessary to get permission for the research.

Having had previous experience with deaf people in different African countries, especially with those from Adamorobe and Guinea Bissau, I could quickly communicate directly with the deaf inhabitants of Bouakako without any help. However, on rare occasions, I did ask for confirmation of particular messages from the local interpreter, Kouassi Dadié, also mediated by Bruno (Figure 27), who accompanied me throughout the fieldwork.

Figure 27. Bruno Dibi (second man on the left) assisting me in the Bouakako fieldwork

Involvement. In Bouakako, deaf people welcomed me well and were surprised to learn I was deaf. They had never seen a deaf white person before. The family hearing

members explained that it was the first time a white person had come to the village. Both Bruno and some of the hearing people were constantly around, but, at some point, I asked them to let me spend time with the deaf without observers.

I immediately realised that they used some gestures that I had seen in Adamorobe. Thus, communicating directly with them was quite easy. In general, they were not very talkative, so I had to keep asking them questions. They showed me the whole process of cocoa sun drying, which was what occupied them the most at the time. I also spent some time with one of the deaf women who had recently had twins. In the end, they offered me cocoa fruit, sugar cane and plantain.

They showed me photographs they had with Angoua Jean-Jacques Tano and Victoria taken a few years earlier in Abidjan at a sign language conference. Then they asked me to bring the camera and take pictures of them and their families so that I would give them the printed photos the next time I returned to Bouakako. By then, I planned the data collection. During the filming, the people of Bouakako were quite comfortable as they had previously participated in Tano's research.

Compensation. On the first day, the oldest deaf man bought a five-litre palm wine to share with everybody as a celebration. In the following days, the same deaf man asked me to buy another one and share it with everyone. I gave them money, and the wine was shared with the deaf and some of the hearing who joined us.

In the end, they received several gifts, like rice, oil, and soap bags, as assumed luxuries. One of the deaf women who worked with me had recently had twins and received extra baby goods such as diapers, porridge, bath gel and cologne for herself. The gifts were distributed to all the deaf people and the local interpreter.

I now go back in time to describe how was the fieldwork in Bissau that had occurred the month before. As I said before, this was not initially planned within the bigger research project but ended up being a valuable asset.

2.3.3 Fieldwork in Bissau

The fieldwork in Guinea-Bissau was very different from the other two because the deaf community is based in the urban capital, Bissau, and I am very familiar with them. Here, deaf people gather in two main locations: (1) the older and bigger school for the deaf, called Escola Nacional de Surdos (ENS), which is on the city outskirts, and (2) the Mariposa school run by the deaf leader Amaré Soares in the city centre (see chapter 1 for more details).

The Bissau fieldwork occurred in December 2018, between the two villages fieldwork. I stayed in the city centre at walking distance from the Mariposa school (Figure 28). To the ENS, I would take the school's private bus from the old school for

the deaf (in the city centre) to the new location (Figure 23). During this very cheerful ten-kilometre ride, the bus would pick up several children on the way. Besides walking around to other meeting locations, we also used the minibus, locally called toka-toka, and the taxi.
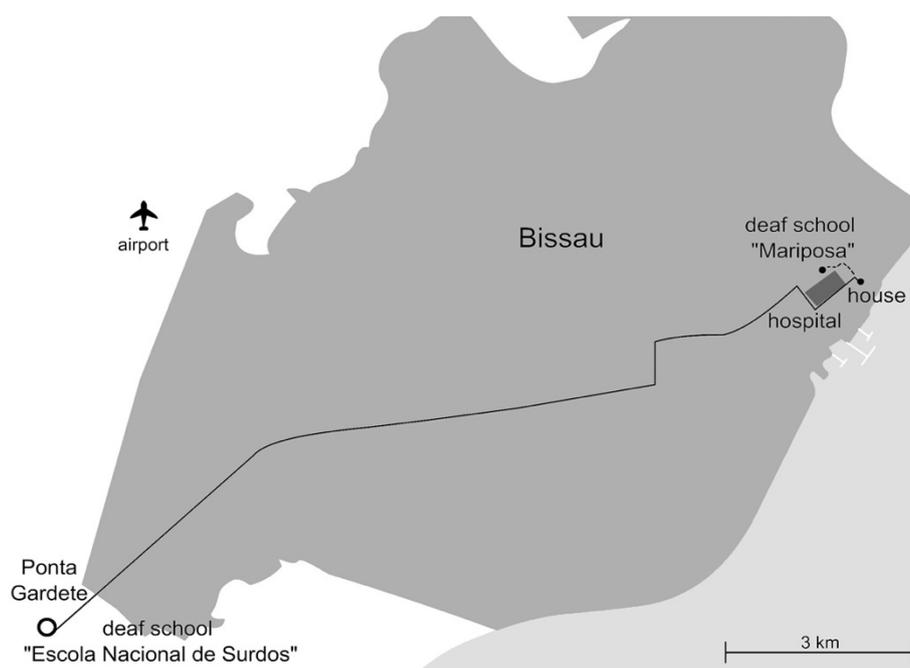
Figure 28. Locations of the deaf schools in Bissau, Guinea-Bissau

Preparation. In my previous visits, I had stayed in hotels (in 2005 and 2008) and, on one occasion (in 2006), in the residential home of blind and deaf children who had no family in the city. This time, in 2018, Mariana Martins (who was also doing her fieldwork on LGG for her PhD) and I stayed in a local accommodation near one of the deaf schools.

Communication. The first time I visited Bissau in 2005, Mariana Martins interpreted my interactions to and from Língua Gestual Portuguesa (LGP, Portuguese Sign Language) and Portuguese with the hearing people, mostly teachers, during training and meetings. To communicate with deaf children and adults, I first relied on gestures. Gradually, I learned the signs they were using, which would become LGG. In the beginning, I talked with Amaré Soares in written Portuguese. Then he went to Portugal and stayed with us for the first few months. We then communicated in LGP.

Even when he returned to Guinea-Bissau four years later, after training as a sign language teacher, we always based our communication on LGP.

With other deaf people, I tried to use LGG as much as possible. During the fieldwork in 2018, I did not rely on the support of a deaf assistant because I was already pretty at ease with the community. However, Amaré Soares was, as always, a valuable collaborator with the community around the Mariposa school and so were other deaf LGG instructors at the ENS.

Involvement. The deaf community in Bissau knew us well already, so it was easy to just be part of daily activities during our stay. We met deaf people mostly at the two schools in Bissau, football matches, and informal gatherings of both smaller and larger groups.

Compensation. After discussing the best way to compensate the deaf participants with the leaders at both schools, the recommendation was to invest in food since it was something that everybody could benefit from. Thus, students received lunches and every time we went out with smaller groups we would pay for food and drinks. I should note that there has been an ongoing collaboration with the deaf community over the years that includes the provision of different educational and technical materials as well as support in teacher training.

In the following section, I describe the most relevant aspects concerning the data collection, namely who the participants were in the three sites and how the data was collected.

2.4 Data collection: Participants and filming

After describing the context of each research site, I now turn to the portrayal of the deaf participants, how the filming went about and what is the final dataset. I first present the common issues to all three locations and then I discuss specificities for each site.

2.4.1 General overview of the data collection

The number of participants varied in the three sites. In Adamorobe, some had to be excluded for different reasons. In Bouakako there are only six deaf people. In Bissau, deaf people were chosen, broadly speaking, on age and gender criteria to match approximately the number of participants in the villages. Despite minor differences, all participants are adults. Importantly, data collection was undertaken as similarly as possible in the three sites, considering contextual idiosyncrasies.

I used two cameras in Adamorobe but quickly realised I did not need the two of them. Therefore, in Bouakako and Bissau, I only used one camera. The videos were always recorded on ScanDisk cards. In addition, the raw videos were downloaded to the computer on the same day of the filming session and recorded to two different memory disks as backups. After the fieldwork, all videos were converted to MP4 through Adobe Media Encoder.

Participants. The metadata of the participants at the three different locations is based on demographic survey questions prepared in advance at Leiden University. The questionnaire contains questions about personal information, such as the family, and educational and occupational background. Furthermore, it was prepared in English for Adamorobe, French for Bouakako and Portuguese for Bissau. These questions were asked to the deaf participants in the two villages by the assistants in the field – Marco in Adamorobe, and Bruno, in Bouakako – who filled in the data with the help of the local interpreters who also knew the participants well. In Bissau, I asked the questions to the deaf participants myself. The metadata was later processed in Excel and archived.

Overall, this survey data shows that deaf people in the villages are especially prone to hereditary deafness, while in Bissau, deafness is mainly acquired during early childhood. Also, deaf people in the villages are primarily farmers, while in Bissau, a little more than half of the participants are working students, and the remaining are non-working students. The characteristics of the participants of each country are detailed in the sections that follow. In Table 5, I summarise the number of deaf participants per gender and their age range. Here, I refer only to those whose personal experience narratives on animal attacks were analysed in this study.

Table 5. Summary of the deaf participants in Studies 1 through 4

		Adamorobe	Bouakako	Bissau
Participants	Men	4	4	8
	Women	11	2	8
	TOTAL	**15**	**6**	**16**
	Age	20 to 72	24 to 58	18 to 30

Dataset. The final dataset is comprised only of the narratives collected in the fifth task, as explained in the previous section (see §2.2). These personal experience narratives were prompted by the question **"Have you ever encountered a dangerous**

animal like a snake?", just like Labov & Waletzky had done in their interviews by asking, "Have you ever been in a situation of danger?" (see §3.2.2. for more details).

Narratives for AdaSL, LaSiBo and LGG were collected with that same method, i.e., the question asked was very similar, and the narratives were told face-to-face as well. Most of the population, although smaller, had not finished their schooling either. In addition, signed narratives can also be considered equivalent to 'oral' storytelling. Thus, because of the similarity of the topic in question and the type of population, L&W's model seemed to be the most suitable to test in this study. Based on personal experience narratives of life-or-death situations, the authors shaped their model of an internal structure divided into different parts, or components (Study 1), and containing specific enhancing devices (Studies 2, 3 and 4).

Deaf signers answered my question by narrating their personal experiences during fieldwork. With the camera beside me, I watched each signer attentively as they told their narratives. There was only one signer, in Adamorobe, that told two different stories. Once I identified this type of narrative as the focus of this thesis, I wanted to expand the set of data as much as possible. This led me to look at existing corpora for narratives about animal attacks. In the AdaSL Corpus, collected in 2000, I found three more.

To confirm if LaSiBo signers did not typically include size and shape depictions within their narratives, I asked Tano, as the local collaborator, to collect another round of narratives about animal attacks. I filmed four of the six signers and two of them told two different stories. In Bissau, all 16 signers produced one narrative each. Table 6 summarises the number of narratives collected per signer, referring to the corresponding sources. All narratives were analysed in the four studies, except for one in LaSiBo in Study

Table 6. Summary of the number of narratives per signer used in Studies 1 through 4

	Signers	Narratives	Sources	Narratives per study	
				1	2, 3, 4
AdaSL	#1 – 10 #11 #12, 13	#1 – 10 #11a,b #12, 13	Fieldwork 2018	14	14
	#14 #15	#14 #15a,b	Corpus 2000	3	3
Total	15	17 (35 min.)		17	17
LaSiBo	#3, 4 #1	#3, 4 #1a	Fieldwork 2019	6	6

	#2	#2a			
	#5	#5a			
	#6	#6a			
	#1	#1b,c	Fieldwork 2021 (by assistant)	5 (#5c was excluded)	6
	#2	#2b			
	#5	#5b,c			
	#6	#6b			
Total	**6**	**12** (19 min.)		**11**	**12**
LGG	#1 – 16	#1 – 16	Fieldwork 2018	16	16
Total	**16**	**16** (17 min.)		**16**	**16**
TOTAL	**37**	**45**			

After being selected as the final dataset for analysis, narratives produced by the signers were numbered according to the chronological order in which they were filmed. Those added later, in the cases of AdaSL and LaSiBo, come after the previously numbered list whether with a subsequent number if the signer was different (which is the case of AdaSL) or with letters. Throughout this thesis, the duration of the narrative is mentioned, and lines are indicated according to their number in the sequence of the storyline, whenever relevant.

In the next three subsections, I describe how the narratives were collected in the three research sites. I go through each one of them, mentioning who supported me in the field, who were the deaf participants and which data was selected for analysis.

2.4.2 Data collection in Adamorobe

During the 2018 fieldwork in Adamorobe, there were **33 deaf people** (ten men and 23 women) living in the village (see §1.3 for details on the deaf villagers). The filming was done entirely in James' house (see §2.4.1 for more details), who had put it at our disposal for that purpose. He also lent the required table and chairs to execute the tasks and made himself available by always being there.

Marco assisted me in the Saturday filming sessions. Kofi Arkoful, the deaf priest from Accra who held the Sunday mass, helped organise the filming sessions and fill out the personal data of the deaf people, such as names and dates of birth. Right after each filming session, I hand-annotated from AdaSL to English in a notebook and then the translations were reviewed by Agyiriwa Adwoa and Kofi Kumi Buckman, two deaf youngsters from Adamorobe. Adwoa was the only girl that had not become pregnant at the time and Buckman had just finished high school (he later proceeded to higher education). The following year, in August 2019, they both attended the Summer

School for African deaf academics organised by Leiden and Legon Universities, in Legon, Ghana. There, they met deaf academics from eleven African countries. The two of them were of great help in reviewing the translations, being, of course, paid for such collaboration.

Participants. I invited all deaf people to participate so they were free to choose whether they wanted or not to be part of the research project. In the end, there were 13 deaf adults (four men 11 women and, between 20 and 72 years of age) telling about their experiences with animal attacks. The disproportion in the number of men and women reflects the overall gender difference in the village of about 30% of men to 70 % of women. Some of the deaf villagers did not participate in the filming session at all. Others did respond to the remaining tasks – not included in this study – but did not experience an animal attack to tell about.

Dataset. As shown in Table 7, one of the signers filmed in the 2018 fieldwork told two narratives. Thus, at that moment, I had 14 narratives told by 13 signers. Besides these, I also searched for narratives about experiences with dangerous animals in the AdaSL corpus, collected in 2000 by Nyst (2015). Here, I found three more narratives by two different signers talking openly about animals and their dangers without being asked beforehand. In the end, I had a total of 17 narratives told by 15 signers.

Table 7 summarises the relevant information about the participants (name code, age, gender, deaf family members and occupation) and the data set (video file name and year of collection). Here, the high number of deaf people with deaf family members (13 of 15) becomes clear. Also, it is shown that, while older adults are farmers, the youngsters are unemployed (6 of 15). The narratives from the corpus were produced by signers that are not part of the narrative collection in the 2018 fieldwork, so the age of the one that says it corresponds to her age in 2000 when the videos were collected.

Table 7. Summary of metadata on participants and corresponding narratives in Adamorobe

signer	age	gender	deaf family members	occupation	narrative	date
ADA#01	22	F	none	unemployed	ADA_01	
ADA#02	72	F	parents and siblings	farmer	ADA_02	2018
ADA#03	20	F	parents	unemployed	ADA_03	
ADA#04	24	F	parents and siblings	unemployed	ADA_04	

ADA#05	34	F	father and siblings	unemployed	ADA_05	
ADA#06	28	F	parents and siblings	unemployed	ADA_06	
ADA#07	23	M	siblings	unemployed	ADA_07	
ADA#08	37	M	siblings	farmer	ADA_08	
ADA#09	49	F	siblings	farmer	ADA_09	
ADA#10	59	F	none	farmer	ADA_10	
ADA#11	47	F	parents and siblings	farmer	ADA_11a	
					ADA_11b	
ADA#12	51	F	parents and siblings	farmer	ADA_12	
ADA#13	43	M	siblings	farmer	ADA_13	
ADA#14	?	M	siblings	farmer	ADA_14	
ADA#15	50	F	siblings	farmer	ADA_15a	2000
					ADA_15b	

Having detailed the participants' profiles in Adamorobe and the narratives collected for AdaSL, I now turn to the other West African village.

2.4.3 Data collection in Bouakako

Bouakako is a relatively small village compared to Adamorobe. At the time of the fieldwork, in January 2019 there were only **six deaf inhabitants** (see §1.4. for more details on the deaf people from Bouakako).

During the fieldwork, Bruno Dibi assisted in the filming sessions and mediated communication whenever necessary. The villagers provided the tables and chairs. The footage was filmed outside, under the shade of a large tree. Afterwards, the videos were reviewed with Bruno, who translated them into French in a notebook.

Participants. In Bouakako, the six deaf people (four men and two women, between 24 to 58 years of age) were filmed in a single session. All of them told one narrative each. However, one of them was quite reluctant in the beginning. Of course, he was free to leave but chose to stay and watch his peers. After most had already told about

their experiences with animal encounters, I looked at him and asked if he wanted to tell his own story. Then he walked to the front of the camera and, seemingly at ease, told spontaneously about his experience with snakes.

Dataset. In Bouakako, six narratives were collected during my fieldwork in 2019. However, one of the accounts was rather descriptive than a time-ordered sequence of events and was, hence, excluded from Study 1.

As done for AdaSL, I also searched for narratives about experiences with animal attacks in the LaSiBo corpus, collected by Tano (2016), but I did not find any narrative of the sort. There were only dialogues with two or more deaf people about the danger of snakes and pythons.

Since I rarely found snake descriptions in the LaSiBo narratives, contrary to the other languages, I asked Tano, the local collaborator, to refilm the narratives. This was two years after my fieldwork, in 2021, during the pandemic[16]. On that occasion, signers were asked if snakes or any other animal had ever attacked them. Tano did the filming session on the same day, using the same methods as I did during my 2019 fieldwork. As a result, six other narratives told by four signers (two of them told two stories each) were added to the lot. There were only four signers, because, on that day, one of them was not in the village. The other deaf person was indeed filmed but he told his experiences by speaking the whole time. Presumably, this was because Tano, who asked the question, was a hearing person. The remaining two signers said they had never been attacked by an animal. In the end, I had 12 narratives told by six signers (two of them told two stories each, and two others told three stories each).

Table 8 provides a summary of the relevant information about the participants (name code, age, gender, deaf family members and occupation) and the data set (video file name and year of collection). It is shown here that they are all subsistence farmers. The signers' ages correspond to the age they had during the first collection in 2019.

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[16] I had planned doing this second visit to Bouakako myself, but the pandemic was an impediment. Since it was not possible to travel at the time because of COVID restrictions, I turned to Tano's support on the field.

Table 8. Summary of metadata on participants and corresponding narratives in Bouakako

signer	age	gender	deaf family members	occupation	narrative	date
LAS#01	24	F	sibling	farmer	LAS_01a	2019
					LAS_01b	2021
					LAS_01c	
LAS#02	48	M	sibling	farmer	LAS_02a	2019
					LAS_02b	2021
LAS#03	47	M	none	farmer	LAS_03	2019
LAS#04	37	M	sibling	farmer	LAS_04	
LAS#05	58	M	sibling	farmer	LAS_05a	2019
					LAS_05b	2021
					LAS_05c	
LAS#06	39	F	none	farmer	LAS_06a	2019
					LAS#06a	2021

After describing who the participants were in the two villages and the final datasets complemented by additional narratives from the corpus in AdaSL and from one more visit by the local collaborator in Bouakako, I detail next how the data collection occurred in the city of Bissau.

2.4.4 Data collection in Bissau

In Bissau, deaf people were filmed in the two schools. In that year, there were about 50 deaf students enrolled at the Mariposa school and 350 at the ENS. In each school, I had deaf assistants who I already knew from before this fieldwork: Amaré Soares at the Mariposa school and Marcos de Barros at the ENS, who had worked with us in the last LGG dictionary (see more details in Chapter 1). They helped me organize the filming sessions and the participants.

Both schools made a classroom available for the filming sessions which lasted for a few weekdays. In the end, I annotated the videos and when I had doubts, I clarified them with Amaré, not only during fieldwork but also afterwards from a distance.

Participants. Amaré and Marcos were free to pick the participants as they wished, there were no criteria, so the participant selection was quite random. Of course, this was not mandatory, so only the deaf students who wanted to be filmed volunteered. There were **34 participants, 20 adults and 14 children** (from 10 to 30 years old). For this study, only deaf adults were included because there were no children in the villages to compare them with.

Dataset. Each participant told one single story. Of the 20 narratives by deaf people older than 18 years of age, four were excluded because they were not experienced or witnessed by themselves. Everyone told a personal experience about an animal attack. Hence, in the end, I had 16 narratives told by eight men, aged 20 to 30, and eight women, aged 18 to 28.

Exceptionally, in Study 4 (in Chapter 6), when analysing the size and shape of the animals, I observed that LGG signers hardly used body-based depictions for size and shape, unlike the signers from the villages. Thus, to confirm if it was a generalised feature across signers, I looked at deaf children. I noticed then that they used it a lot on the body, contrasting with the adults. For that reason, I found it relevant to show this data only in this context.

Although the balance between genders in the two villages was not as successful as in Bissau, due to demographic factors, in the end, the number of narratives became quite even across the three sign languages. Of course, signers were telling more than one narrative in the villages, but these stories were always about different experiences. Finally, having set the number of participants and narratives in each sign language, the analytic procedures were defined.

In Table 9, the most relevant information about the participants (name code, age, gender, deaf family members and occupation) and the data set (video file name and year of collection) is summarised. Unlike the participants in the villages, deaf people in Bissau are all students, except for nine of them who also work. Also, only one has deaf siblings.

Table 9. Summary of metadata on participants and corresponding narratives in Bissau

signer	age	gender	deaf family members	occupation	narrative	date
LGG#01	25	M	partner	student / LGG teacher	LGG_01	
LGG#02	25	M	siblings	student / LGG teacher	LGG_02	
LGG#03	30	M	partner	student / fisherman	LGG_03	
LGG#04	23	M	partner	student / fisherman	LGG_04	
LGG#05	22	M	none	student / block builder	LGG_05	
LGG#06	23	M	none	student	LGG_06	
LGG#07	18	M	none	student	LGG_07	
LGG#08	23	M	partner	student	LGG_08	2019
LGG#09	27	F	none	student / LGG teacher	LGG_09	
LGG#10	20	F	partner	student	LGG_10	
LGG#11	21	F	none	student	LGG_11	
LGG#12	22	F	none	student / fruit seller	LGG_12	
LGG#13	22	F	none	student / fish seller	LGG_13	
LGG#14	23	F	partner	student / fish seller	LGG_14	
LGG#15	21	F	partner	student	LGG_15	
LGG#16	28	F	none	student	LGG_16	

This section detailed how were the participants and corresponding narratives selected in the three research sites for this study. Next, I explain which annotation and coding procedures were followed to prepare the narratives for the analyses in the four studies.

2.5 Annotation and coding

In the previous sections, I described how the fieldwork was undertaken and the data collected. Having decided to focus on the study of narratives about animal attacks, I

based the analysis on a well-tested model, the one by Labov & Waletzky (L&W). In addition, I look at selected narrative devices specific to the signed modality.

This resulted in four studies interconnected with each other. Study 1, in Chapter 3, focuses on narrative structure, testing if the collected narratives have all the components identified by L&W and a climax. Studies 2 to 4 analyse narrative devices typical to sign languages, which are supposed to enhance the story (corresponding to L&W's evaluation component). Study 2, in Chapter 4, focuses on signing perspectives, i.e., whether the signer tells the narrative on real or a reduced scale or both. Study 3, in Chapter 5, looks at shifts between roles or characters, including reported or (re)constructed dialogues. Finally, Study 4, in Chapter 6, analyses how the animals are depicted within the narrative. Keeping in mind that all four studies analyse the same narratives (there was only one account excluded from Study 1), I look for different information in each study. Thus, as shown in Table 10, Study 1 analyses divisions between content components; Study 2 looks for real and reduced scale signs; Study 3 focuses on the signer's roles; and, in Study 4, I analyse only signs referring to the size and shape of animals. In this last study, as mentioned in §2.3.3, I will also look at depictions produced by deaf children in Bissau.

Table 10. Overview of the four studies

Study			Analysis	Narratives	Chapter
1	Narrative structure		content	44	3
2	Narrative devices	Signing perspectives	signing scales	45	5
3		Role shifts and dialogues	signer's roles	45	6
4		Size and shape depictions	S&S signs	45(+17)	7

Before the analysis, the final video format in mp4 was named according to a filename protocol. This starts with the first three letters of the sign language: 'ADA' for AdaSL, 'LAS' for LaSiBo and 'LGG'. Then, I added the symbol '#' before the number of each signer, like 'ADA#01', 'LAS#01' and 'LGG#01'. For signers who had more than one narrative, I ordered them with lowercase letters – 'a', 'b' and 'c' – after the number. For instance, for the LaSiBo signer producing three narratives, the files were named 'LAS#01a', 'LAS#01b' and LAS#01c. Each narrative corresponds to a video file, except for one from the AdaSL corpus in which the signer tells two narratives in the same stretch of video. In this video, she tells several personal stories and two are

about animals, one about wasps and one about the lion (ADA#15a and b). Therefore, for the 45 narratives, there is a total of 44 mp4 video files.

All signed productions were then annotated and coded in ELAN, a standard program used in sign language linguistics (Crasborn & Sloetjes 2008), resulting in 44 annotated files for the 45 narratives. All files are archived in more than one location. The tiers created on ELAN to support the analysis were saved in an ELAN template. As shown in Table 11, some of the tiers are common to the four studies, while others are more specific to each study.

Table 11. Overview of ELAN tiers per study

Parent tiers ↳ Children tiers	Controlled vocabulary	Brief description	Study			
			1	2	3	4
Translation	text	Free translation	x	x	x	x
RH gloss LH gloss	text S&S: 'text'	Narrow translation	x	x	x	x
Eye gaze	- gaze on the audience - character's gaze	Identifies the narrator's role Identifies the character's role	x	x	x	x
	- gaze at the hands	Focuses on the description		x		x
Role	- narrator - overt constructed action (CA) - partially overt CA	Specifies the signer's role type	x	x	x	x
Character ↳ RH character ↳ LH character ↳ face ↳ body	text	Specifies who the character is in different articulators	x	x		
				x		
↳ gaze at referent		Identifies who or what the character is looking at		x	x	
Component	- abstract - orientation - complication - climax - resolution - coda	Identifies the structural components	x			x
Perspective	- real scale - multiple	Specifies the signing perspective		x		

	- simultaneous - reduced scale	type				
RH classifier	- entity - handling - body part	Specifies the classifier type in signing perspectives		x		
LH classifier						
Role shift	- lexical label - point-to-self - point-to-space - body shift - facial expression	Specifies the marker in the role shift			x	
Constructed dialogue	Dialogue: text Monologue: text	Duplicates translated quotations in dialogues and monologues			x	
RH S&S | LH S&S ↳ Handshape	- 1A – V6	Specifies handshape type in size and shape				x
↳ Iconic shape	- entity - handling - tracing - tracing+entity - tracing+handling	Specifies iconic shape type in size and shape				x
↳ Iconic size in space	- 2 hands - hand internal - hand+ground - hand+body - other	Specifies iconic size in space type in size and shape				x
↳ Iconic size in body	- 2 hands - hand internal - inherent delimitation	Specifies iconic size in body type in size and shape				x
↳ Iconic movement	- extent in shape - circumference shape - movement for focus	Specifies iconic movement in size and shape				x

↳ Mouth movement	- neutral - mouthing - iconic o shape - iconic puffed cheeks - iconic spread lips - iconic pursed lips - other	Specifies mouth movements type in size and shape				x

The analysis of the narratives proceeded per stage, following the order of the studies. However, before the specific analyses, I annotated the common tiers. In the following subsections, I detail these procedures, first the more wide-ranging and then the more specific per study.

2.5.1 Common tiers

Before analysing the narratives, all videos in AdaSL, LaSiBo and LGG were annotated by me after returning from fieldwork in ELAN. The annotations were all done in the same ELAN files per video file. I started with the gloss tiers and then made the translation tiers in English (see Appendix 1 for the complete translations). Then I annotated the tiers concerning the eye gaze, followed by the signer's roles and character specificities.

I did the **gloss** annotations in two tiers, one for the right hand (**RH gloss**) and the other for the left hand (**LH gloss**), whenever something else is signed simultaneously. I did the gloss – implying writing a word, in this case, in English, that "covers the most general meaning of the sign" (Crasborn et al. 2020, 7) – as close as possible to what was being signed. On the tier for the phrase-level **translations** into English, I tried to maintain the same proximity as what was originally signed.

Afterwards, I annotated the tier for the **eye gaze**. This was coded with three values (following Bahan & Supalla 1995): (1) gaze on the audience, (2) character's gaze and (3) gaze at the hands. The eye gaze to distinguish the signer's roles, whether as the narrator or a character, was annotated with the four studies in mind. However, the gaze at the hands was relevant mostly in Study 2 to identify the reduced scale perspective.

Next, I annotated the signer's role and identified the character involved in the narrative. I begin by distinguishing the **role** played by the signer, whether (1) as the narrator or (2) by an overt enactment of the character, or constructed actions. When the signer is embodying the character while giving explanations, then (3) the character embodiment is partially overt. This tier was very helpful in all four studies.

The **character** role identified the character being played. When there was more than one character or representation of the same character being conveyed by more than one articulator at the same time, it was further annotated in its children tiers: the right hand (**RH character**), the left hand (**LH character**), the face, the body and the gaze at the referent. In the hand, face and body tiers, I wrote who was being played. If more than one character were being played simultaneously, I added a number to the character according to the narrative's appearance order. In the tiers for the **face** and **body** I identified who the character being played was when the signer's hands are doing something else. It can be the case where the body (including the face) stands for one of the characters, while each hand plays two different characters. Such details on who the character was were especially useful in Studies 3 and 4.

Figure 29 exemplifies the use of these common tiers. Here, the LGG signer is telling that he climbed the tree to get cashew fruit, and the snake was above him when he saw it. In this snapshot of the annotated ELAN window, the RH gloss refers to the snake and the LH gloss to holding the tree's trunk.

Figure 29. Example of annotated common tiers: translation, right- and left-hand glosses, eye gaze, role and character (Narrative LGG_06)

Besides glosses for each hand, face and body, the character tier is also parent to the **eye gaze at referent** tier, referring to when the eye is directed at somewhere in space. In this tier, I identified who or what the character was looking at within the narrated

event. The character could be looking at another character (father, son, mother, daughter…), at an animal, a tree, a hole and so on. This tier was mainly useful in Study 3 to better describe character changes.

Focusing next on Study 1, I use, from the tiers described above, the ones referring to the translation, the gloss tiers for both hands and those indicating the signer's roles, whether as the narrator or as a character (eye gaze and role tiers).

2.5.2 Study 1: Narrative components

Besides the common tiers mentioned in the previous subsection (translation, gloss for both hands, eye gaze and role), this Study relies foremost on the component tier distinguishing the different structural parts of the narrative.

 The internal structure division of each narrative is determined in the **component** tier. This has six possible values: abstract, orientation, complication, climax, resolution and coda. Such values correspond to the five sequentially aligned narrative components defined by L&W's model. To these, I added the climax in the middle, between the complication and the resolution components (see Chapter 3 for more details). The structural components were divided according to specific content cues, as follows:

1. The abstract refers to a summary of the story before describing its setting.

2. The boundaries of the orientation are segmented according to the who, where, and when information. It can also include other details, such as what the main character was doing before the sequence of events started.

3. The complication starts with the action stirring the sequence of events and lasts until the moment immediately preceding the encounter with the dangerous animal.

4. The climax, i.e., the peak of the story, begins at the moment of the encounter with the animal and ends when the character reacts to it.

5. The resolution component concerns problem-solving, in this case about how the character dealt with the animal.

6. The last component, the coda, is identified as the moment when the signer leaves the event and returns to reality, by looking at the audience at the end of the narrative.

The narratives analysed this way and split into components can be fully seen in the Appendix.

Table 12. Example of the division into lines within each structural component (ADA_06 narrative)

Component	Lines
orientation	1. I stayed to pick up snails with my father.
Complication	2. I was looking for snails. 3. Amongst the leaves, 4. there was something big curled up 5. with its head moving.
Climax	6. I pointed at it. 7. What is it? Is it a rat? Ah! 8. The snake's head raised 9. and I saw it 10. and I was scared.
Resolution	11. I ran away. 12. I ran 13. and I arrived, 14. I was tired 15. and my heart was beating fast. 16. I was very tired.
Coda	17. Finished.

Besides getting a clear visualisation of how the narratives are structured differently based on the number of lines in each component, I also looked at the corresponding amount of time. I exported the components and the information on their time duration from ELAN to Microsoft Excel to do this. Such an analysis served mainly to depict the narratives as pyramid-shaped structures to get a more graphic picture of the proportional distribution of the internal components. In these graphs, I add a second dimension, using the Y-axis to reflect height as well as linear time, which draws from the concept of Freytag's pyramid and a dramatic narrative arc (see §3.2.1 for more details). Orientation and complication are depicted as the rising lines of the pyramid; the top line corresponding to the climax is flat at the peak, and the resolution is the falling line. Since the coda is not part of the narrative sequence of events, it is also laid on a horizontal line at the end. Figure 31 shows one pyramid in which the components are proportionally distributed as a prototypical example.
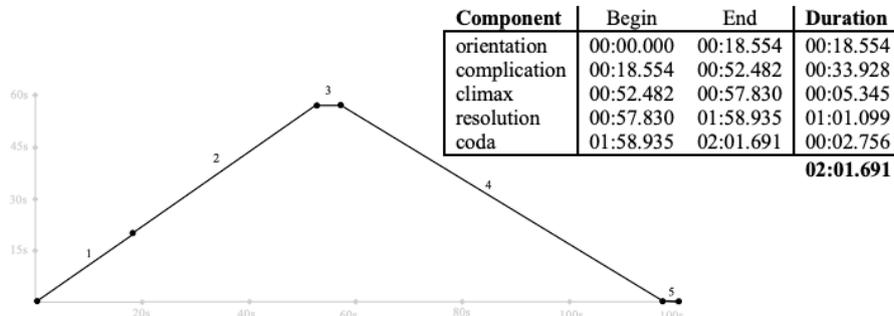
Component	Begin	End	Duration
orientation	00:00.000	00:18.554	00:18.554
complication	00:18.554	00:52.482	00:33.928
climax	00:52.482	00:57.830	00:05.345
resolution	00:57.830	01:58.935	01:01.099
coda	01:58.935	02:01.691	00:02.756
			02:01.691

Figure 31. Prototypical example of a time-aligned pyramid shape of a narrative (AdaSL narrative 07)

After describing how the internal structure is prepared for analysis, in terms of its different components, subdivided into translated text lines and time-aligned pyramid-shaped lines, I now turn to the studies on narrative devices. There are three studies on narrative devices. Study 2 focuses on signing perspectives, Study 3 on role shifts and dialogues, and Study 4 on the size and shape depictions of the animals. Each one of them, relying on specific tiers and coding protocols, is presented next.

2.5.3 Study 2: Signing perspectives

Similar to Study 1, Study 2 uses the common tiers for translation, glosses for both hands, role and eye gaze. In the latter, it is given, in this study, additional attention to the value of gaze at the hands. Moreover, I annotated the specific tiers for the character (in both hands, face and body), the classifiers (in both hands) and the perspectives.

Given that the distinction between signing perspectives is based mainly on whether the signer represents entities in real or reduced scale or both, I also rely on the identification of classifier types, following Perniss's (2007) criteria.

With the annotated common tiers in hand, I began by identifying, in the **perspective** tier, which value was being adopted by the signer: whether the real scale, multiple, simultaneous or the reduced scale perspective. Then I specified, in the **classifier** tiers for both hands (**RH classifier** and **LH classifier**), the classifier type, whether it was entity, handling or body part. This tier was determinant in setting apart life-sized from model-sized signing perspectives.

Figure 32 illustrates annotated tiers in Study 2, both the common ones (translation, glosses for both hands, eye gaze, role and character) and the specific ones concerning the perspective and the classifier (in both hands). It shows a particular moment in the

narrative where the signer produces multiple perspectives by demonstrating two characters at the same time. In this example, the character (representing himself in the past) is expressed by the signer's face, body and left hand. In the snapshot of the annotated ELAN window, he is acting as if climbing a tree, using his left hand to hold the tree trunk in real scale. At the same time, his right hand represents a snake as a body part classifier.
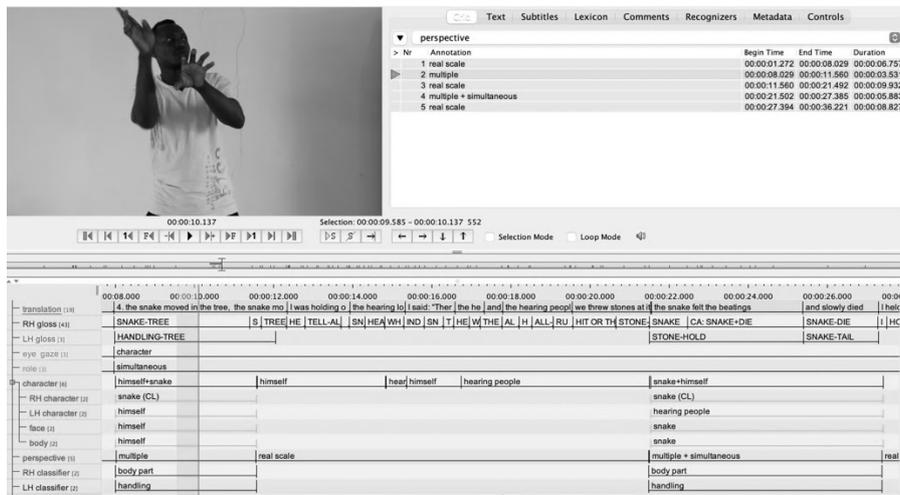

Figure 32. Example of annotated tiers for Study 2: common tiers and perspective and classifier tiers (LGG_03 narrative)

The annotations in the common tiers – translation, glosses (RH and LH), eye gaze and role – were used to confirm the signing perspective. In this sense, the eye gaze and the role tiers distinguished the narrator from the character. The eye gaze at hands was especially important in confirming the reduced scale. Finally, the character tiers (RH and LH, face, body and gaze at referent) were crucial to confirm the extent of the character embodiment, i.e., the number of articulators involved in constructed actions, which character was being embodied and in what way. The gaze at referent – parented by the character tier was used especially in telling apart characters involved in situations where more than one character was represented at the same time in multiple perspectives.

To provide a clearer idea of the proportional distribution of the signing perspectives in the narratives, I looked at the corresponding information on time duration. To do this I exported such information from ELAN to Microsoft Excel for each signing perspective and the character role, whether expressed by overt or partially overt constructed actions. In the end, I obtained the percentages corresponding to the

duration of each signing perspective concerning the total time of a narrative. In other words, if signers told narratives with different lengths, for instance, one very short and one very long, the percentage calculated for the main use of the real scale perspective would be similar in the end. After having identified the time for each perspective, I further divided the representation of characters in the real scale perspective alone, into overt and partially overt constructed actions. Finally, all percentages were added per language and additionally per gender in LGG.

After describing the annotation procedures in Study 2, I now turn to the annotations used in analysing role shifts and dialogues.

2.5.4 Study 3: Role shifts and dialogues

For Study 3, I analysed role shifts and (re)constructed dialogues, using the common tiers previously mentioned for translation, glosses for both hands, eye gaze, role and character. In addition, I used two more tiers specific to this study, one for role shift and another for constructed dialogue. Role shift refers to the transition between different characters. This may include, but not always, reported lines said by the characters in a constructed dialogue.

While the **eye gaze** and the **role** tiers flag character enactments, who was being enacted is identified in the **character** tier. Whenever two characters were being played in the narratives, I marked in the **role shift** tier the moment when the change between the characters involved in an interaction occurred and annotated which marker was used to signal the transition between characters. Similarly, in the **constructed dialogue** tier, I duplicated dialogues and monologues (or self-talks) from the translation tier.

Figure 33 shows a part of a narrative in AdaSL where the signer is telling that, as a boy, he put his arm in the hole and the snake was there. When his father sees him doing that, he tells him to get out of there and kills the snake when it comes out of the hole. Here, the signer reconstructs the dialogue between father and son, where the father scolds the son and explains the dangers and asks him not to put his arm in holes again. To illustrate this, the snapshot of the ELAN window shows how the translation of the dialogue was duplicated in the constructed dialogue tier. Besides doing a constructed dialogue, the signer does role shifts from father to son and son to father, which, in the corresponding ELAN tier is annotated at the moments when the shifts occur, indicating the marker produced in each shift.
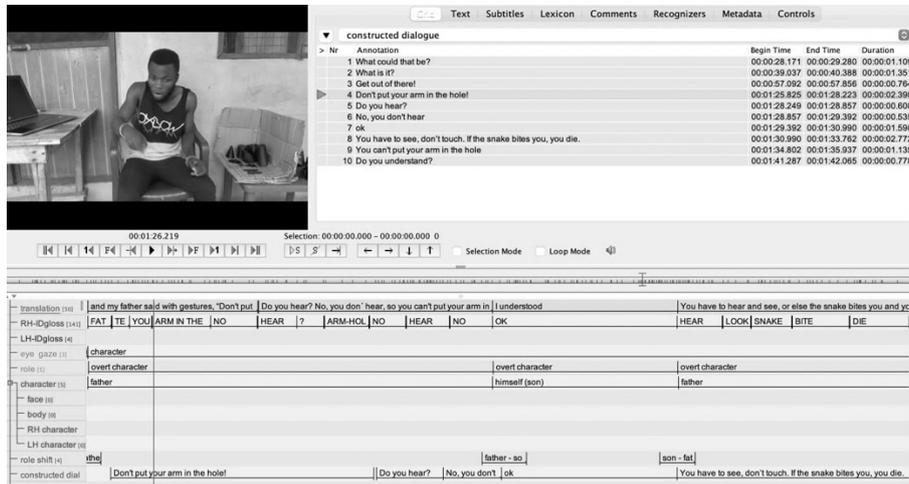
Figure 33. Example of annotated tiers for Study 3: common tiers and role shift and constructed dialogue tiers (ADA_07 narrative)

I have detailed here how role shifts and dialogues were annotated in their corresponding tiers, based on the characters previously identified in the common tiers. Next, I focus on the coding protocols used in the last study of this thesis about size and shape depictions of the animals encountered in the narratives.

2.5.5 Study 4: Animal depictions

Study 4 relies again on the common tiers for translation, glosses in both hands, eye gaze and role. Besides these, size and shape signs were annotated separately in each hand, concerning the type of handshape, iconic shape, iconic size in space and on the body, iconic movement and mouth movement. This study analyses only the size and shape signs that depict the animals encountered in the stories told by the signers in the three sign languages.

In this study, I based my annotation on a protocol developed by Victoria Nyst, Timothy Mac Hadjah, and myself. This schema for coding size and shape reflects more distinctions than previous schemas. It was used by Nyst to reveal differences in gestures in Africa and the Netherlands (Nyst 2016b) and has been improved over time. I used only part of the coding considered relevant for this study.

Since the meaning of the size and shape sign had been given in the **translation** tier, I indicated in the **gloss** tier all size and shape depictions by '**(S&S)**'. Then, for every signalled '(S&S)', I focused on the specific tiers for size and shape in both hands (**RH**

S&S and **LH S&S**). These have six children tiers each whose values specify iconic types for every size and shape sign: (1) handshape, (2) iconic shape, (3) iconic size in space, (4) iconic size in the body, (5) iconic movement and (6) mouth movement. Although the handshape and the mouth movement tiers give us phonological information, their values are analysed as part of the iconic depiction.

The options for annotating handshapes come from codes based on the Hamburg Notation System for sign languages (HamNoSys). However, instead of using the HamNoSys symbols, we used a table where we crossed letters horizontally and numbers vertically to identify the different handshapes. For example, a fist would be coded A1, as shown in Figure 34 below.

		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
		Selected fingers extended				Select fingers flattened				Selected fingers bent					Selected Fingers Hooked				Derivation Examples				
1	Fist																						
2	One finger																						
3	Two fingers nonspread																						
4	Two fingers spread																						
5	Flathand (Four Fingers nonspread)																						
6	Four fingers spread																						
	Thumb Opposition	Fingertip-Thumbtip Opposition w/ fingers rounded				Fingertip-Thumbtip Opposition w/ fingers flattened				Fingertip-Thumbtip Opposition w/ fingers straight	Fingertip-Thumbtip Opposition w/ hitchhiker's fingers	Fingertip-Thumb's Interphalangeal Joint Opposition	Fingertip-Thumb's Metacarpo-phalangeal Joint Opposition			Derivation Examples							
7	One Finger, others in fist position																						
8	Two Fingers (nonspread), others in fist position																						
9	Two Fingers (spread), others in fist position																						
10	Four Fingers (nonspread)																						
11	Four Fingers (spread)																						
12	One Finger, Others extended (spread)																						

Figure 34. Adaptation of the HamNoSys chart for handshapes (Hanke 2010[17]), with letters added horizontally and numbers vertically
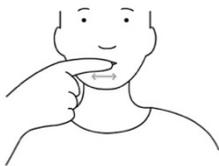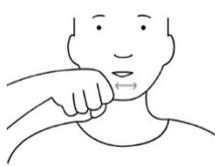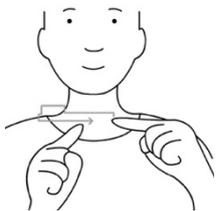
In the coding of iconicity, I follow Nyst's taxonomy of size and shape depictions in AdaSL (2016) further developed in the context of the larger research project on "Gesture to language" where this thesis is included. As mentioned above, the iconicity

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[17] Chart by Thomas Hanke (2010-06-10) Drawings by Heiko Zienert, Olga Jeziorski and Andreas Hanß (https://www.sign-lang.unihamburg.de/dgskorpus/files/inhalt_pdf/HamNoSys_Handshapes.pdf).

of size and shape depictions is analysed separately for shape, size (in space and the body) and movement.

For the annotation of **iconic shape,** there are five possible values: entity I, when the shape of the hand represents an object; handling (H), when the hand represents itself by manipulating an object; tracing (T), when the object's shape is drawn in the air usually by the index finger; and two combinations with tracing, tracing + entity (T+E) and tracing + handling (T+H). Table 13 shows an example for the first three codes without the combinations: 'toothbrush' as entity (the index finger represents the toothbrush), handling (the hand holds the toothbrush) and tracing (the toothbrush is drawn in the air).

Table 13. Examples of different annotation values in coding iconic shape for the concept of 'toothbrush'

tier	Iconic shape		
code	Entity (E)	Handling (H)	Tracing (T)
example			
	'toothbrush'		

The two combinations with tracing were added later because they appeared in the data while coding it. Besides simply drawing in the air a specific shape, tracing can also be combined with an entity (T+E) representation, as in Figure 35a. Here, the depiction of a long snake – glossed as LONG(SNAKE) in AdaSL – is produced with the index finger representing the snake as an entity while the linear extending movement traces its length in the air. Similarly, tracing can be combined with a handling handshape (T+H). In Figure 35b, the snake, instead of being depicted by an entity handshape, is represented by handling it. Also, in this LaSiBo example for the same concept, the length of the snake is represented, in the same way, by being traced in the air.
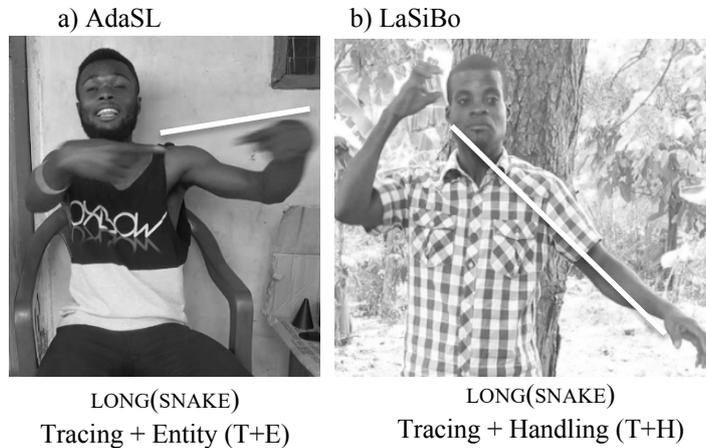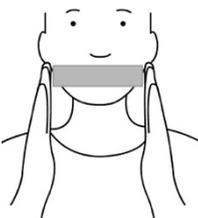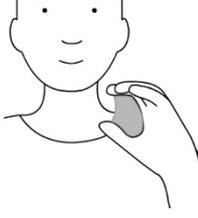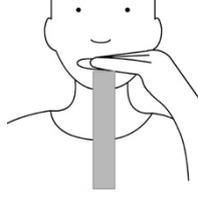
a) AdaSL   b) LaSiBo

LONG(SNAKE)   LONG(SNAKE)
Tracing + Entity (T+E)   Tracing + Handling (T+H)
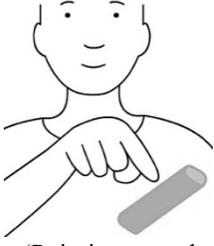
Figure 35. Examples of different annotation values in coding iconic shape for the concept 'long snake' combining tracing with entity (a) and tracing with handling (b)

For **iconic size**, there are two overall groups: one indicating size in space and the other indicating size on the body. For **size in space**, there are five types, shown in Table 14 with their codes in parentheses: size with two hands (S2); hand internal (SI), where the size is measured between the fingers; size depicted between the hand and the ground (SG); between the hand and the body (SB) and other (O), such as pointing to the real size. All values included in the size in space tier depict the object's size in space, even if the delimitation is marked by body parts.
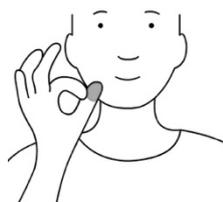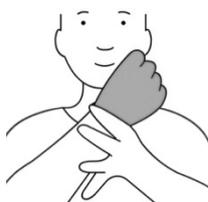
Table 14. Examples of different annotation values for iconic size in space

tier	Size in space		
code	with 2 hands (**S2**)	hand internal (**SI**)	hand and ground (**SG**)
example	The box is this SIZE	The ball is this SIZE	The boy is this SIZE

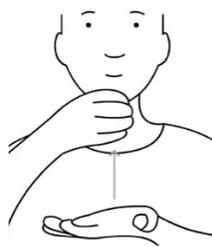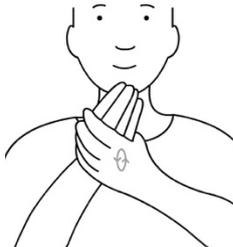| code	hand and body (**SB**)	other in size (**O**)
example	The swelling is this SIZE	(Pointing to real SIZE)

When the signer depicts the size directly on body parts, I annotated such a sign in the **size in the body** tier. Here, the size and shape depiction was assigned with one of three values, as shown in Table 15: size measured with two hands in a body part (B2); size delimited in hand internal (B1), like when one finger marks the size on another finger; and inherent delimitation of the size of body parts (BN), such as marking on the hand its size.

Table 15. Examples of different annotation values for iconic size in the body

tier	Size in the body		
code	with 2 hands (**B2**)	hand internal (**BI**)	inherent delimitation (**BN**)
example	The crown is this SIZE.	The nut is of this SIZE.	The tomato is this SIZE.

In addition to the tiers for iconic shape, iconic size in space and in the body, there is another tier focusing on movements that contribute to such iconic depictions. In the tier for **iconic movements**, I used three codes, as shown in Table 16: extent in shape (X), circumference shape, and movement for focus (F).

Table 16. Examples of different annotation values for iconic movements

tier	Iconic movement		
code	extent in shape (X)	circumference shape (CI)	movement for focus (F)
example	The glass is this HIGH.	The snake is this WIDE.	The snake's head is this SIZE.

Finally, the depictions of size and shape can be combined with different mouth patterns. In the **mouth movement** tier, there are codes for a neutral mouth, mouthing (corresponding to full or parts of spoken words), other mouth patterns and iconic mouth movements. Previous analyses of size and shape depictions in AdaSL and LaSiBo (c.f., Nyst 2007, for AdaSL, and Morgado & Nyst 2021, for AdaSL and LaSiBo) have identified four different iconic movements: [o] shaped mouth, puffed cheeks, spread lips, and pursed lips. These are used as values in the present analysis, as shown in Figure 36.

puffed cheeks   [o] shape mouth   spread lips   pursed lips

Figure 36. Examples of different annotation values for iconic mouth movements

Having described the taxonomic system used in the coding of size and shape depictions, I show next an example of the annotation on ELAN of two different ways of depicting a snake. In Figure 37a, the signer depicts the width of the snake by indicating an inherent delimitation of its size in the body with a movement for circumference shape combined with an o-shaped mouth pattern. In Figure 37b, the length of the snake is depicted by an entity handshape combined with tracing, i.e., with an extent in shape movement. Additionally, the signer presents spread lips.

Figure 37. Example of annotated tiers for Study 4: gloss tier and size and shape specific tiers (ADA_02 narrative)

The values coded for annotating size and shape depictions in ELAN in six different tiers for each hand cooccur with each other. In addition to the specific tiers, the signs describing the size and shape of the animals in the narratives were analysed in terms of who presented them and where they were presented. To check these aspects of the analysis in Study 4, I relied on the common tiers for eye gaze and role to understand if the animals were depicted by the narrator or the character. I also looked at the component tier to identify the moment within the narrative where the animal was described.

As thoroughly explained through the previous subsections, I used common tiers across the four studies. Apart from the content description in the translations and glosses

tiers, all studies used the distinction between the signer's roles of narrator and character made clear in the eye gaze and role tiers. Each study had then individual tiers aiming at a specific analysis. Study 1 focused on the tier delimitating the internal division of narrative components. Study 2 looked at the perspective and classifier tiers, as well as the details in the character tier on who the characters involved were. The latter was also very important for Study 3 in distinguishing role shifts and dialogues. These had, in addition, their specific tiers. Study 4 about the size and shape depictions of the animals in the narratives had a larger number of tiers to describe the exact type of depiction used.

To conclude, this chapter described the process undertaken before, during and after fieldwork. I described how I prepared for fieldwork and how it went about. Next, I explained who were the deaf participants in the three West African countries, how the filming was carried out and which data were collected. Finally, I detail how the narratives were set up for analysis through specific annotation and coding procedures in ELAN.

I now turn to the individual studies analysing the 45 selected narratives in the three sign languages, in four different studies. Study 1 focuses on the structure of the narratives, study 2 on the signing perspectives, Study 3 on specific narrative devices, namely on role shift and constructed dialogue, and Study 4 focuses on size and shape depictions.