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

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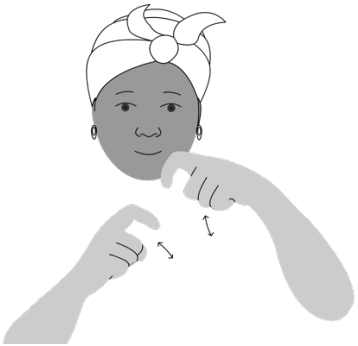
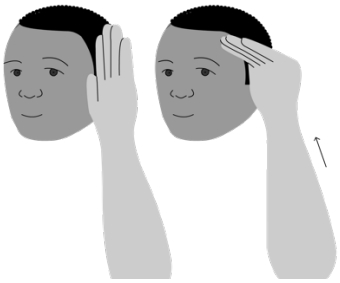
**PART I**

INTRODUCTION



Adamorobe (AdaSL)



Bouakako (LaSiBo)

Guinea-Bissau (LGG)

Bissau (LGG)

# Chapter 1 – Introduction

## 1.1 Introduction

*How you language is beautiful. Don´t let anyone tell you your languaging is wrong. Your languaging is the story of your life.*
(Jon Henner)

This thesis investigates personal experience narratives in three West African sign languages. Two of them are young, emerging languages of different population sizes and one is an older established language. This research describes and compares how signers structure their narratives and use devices to captivate the audience to show how narrative structures and devices develop in sign languages.

This is the first research to compare African sign languages with different backgrounds and also to study the narrative structure of micro-community sign languages. This study contributes to our understanding of the linguistic development of narratives by finding that the factor of social interaction appears to play an important role. The present research confirms that the basic ordering of information in a story is present immediately in language emergence as a human universal. Also, starting and finishing a story as a narrator and enacting the character in between seems to be quite straightforward. However, it has been demonstrated here that enhancing devices to turn a narrative compelling need to be learned by watching and telling stories.

Storytelling is a fundamental practice found in all human societies. Yet, specific storytelling traditions, topics and particular language constructions are expected to vary across groups. Thus, when considering languages in a different modality, how much of this universality will be found in sign language narratives? Another important aspect of storytelling is that it requires an experienced use of language since information about an event has to be presented to an audience in a clear, logical, and interesting way. The more a language user is skilled the more developed will be the potential ability to tell a captivating story. Also, the more a person is exposed to language use, and especially to storytelling, the more that ability will strengthen. To what extent do signers of small communities and emerging sign language structure their narratives and captivate their audiences through specific devices?

From the moment deaf people are part of a communicative community, they produce storylines with a beginning, middle and end, as much as hearing people do. However, when compared to spoken languages, the signed modality presents specific devices to enhance the narratives. For one, signers can express different signing perspectives.

They can embody a character using a real scale projection, and their bodies to switch between enacted characters, for instance during the (re)construction of a dialogue. They can also use their hands to display story elements on a reduced scale around their signing space. These narrative devices can occur spontaneously in everyday conversations to tell about personal experiences. Such stories are rich instruments for linguistic studies because they are not planned and can thus tell us about the real practices of these informal storytellers.

In this thesis, I compare personal experience narratives in three sign languages in West Africa to expand the crosslinguistic understanding of ways of structuring narratives and using narrative devices. By looking at languages with different sociolinguistic backgrounds, I can investigate whether and how various factors play a role in the use of different narrative devices and structures in storytelling. The present study focuses on two sign languages developed by small deaf groups in villages, Adamorobe Sign Language (AdaSL), Ghana, and Langue des Signes de Bouakako (LaSiBo), Ivory Coast. The first group is composed of 33 deaf people and the second of six. LaSiBo is a language around only 50 years old, while AdaSL is much older, with multiple deaf (and hearing) signing generations. The third sign language, Língua Gestual Guineense (LGG), emerged 20 years ago in a school setting in Bissau, Guinea-Bissau, and is currently used by more than 500 deaf people. In this way, the study of personal experience narratives in both old and young sign languages, told spontaneously by deaf signers of both small and large deaf communities, sheds light on the question of how community size and language age impact the emergence of narrative structure.

This thesis contains four studies based on a collection of personal experience narratives about encounters with dangerous animals in each of the three sign languages. The narratives were collected through original fieldwork done in those communities. This topic of animal encounters seems to be recurrent in deaf people's conversations at least in this part of the globe, as I had the opportunity to witness in informal gatherings in the field. The telling of life-threatening narratives has been studied especially by Labov & Waletzky (1967) and Labov (1972) who pioneered a model of the internal structure of personal experience narratives. Thus, I follow their methodology in analysing the internal structure of narratives (Study 1). These authors also stress the importance of particular narrative devices enhancing the story. These devices have modality-specific correspondences which this study focuses on, namely the use of signing perspectives (Study 2), role shift between characters and constructed dialogues (Study 3), and depictive strategies to describe the animal encountered (Study 4). From such an analysis, similar - more basic – features are expected to come to light. Moreover, specific devices will probably appear only in the languages that have developed them over time or through intense socialisation with a large number of interlocutors.

The book is organised in the following way. Here in **Chapter 1**, I begin by giving an overview of the sociolinguistic factors that characterise the sign languages studied in this thesis. I discuss the setting and size of deaf communities, the time depth of sign languages, and social interaction between signers. Then, I explain how the study was conceived and how it is organised. Finally, I describe the sociolinguistic profile of each one of the three sign languages. I start with Adamorobe Sign Language (AdaSL), then Langue des Signes de Bouakako (LaSiBo) and finally Língua Gestual Guineense (LGG).

**Chapter 2** details the methodology, including the procedures undertaken before, during and after the fieldwork, the participants, and the analysis. **Chapter 3** focuses on Study 1, on the internal structure of narratives of the three sign languages following Labov & Waletzky's (1967) model. The following chapters regard narrative devices that are used by the storyteller to keep the interlocutor(s) interested. **Chapter 4** relates Labov's (1972) evaluation component with the enhancing devices analysed in studies 2, 3 and 4. **Chapter 5** describes Study 2 about signing perspectives. **Chapter 6**, in Study 3, includes role shifts and constructed dialogues between characters. Finally, **Chapter 7** focuses on Study 4 about the animal depiction of size and shape, considering that the stories elicited are all about animal attacks. For each chapter describing a study, I present a literature review about the corresponding topic and the specific methods used in that study. Then, I provide quantitative summary results for all languages, and a descriptive analysis of the data in each of the three languages separately: AdaSL, LaSiBo and LGG. In the end, I discuss the results comparing the three sign languages and the literature review. **Chapter 8** concludes the whole study, synthesising the findings from each study and addressing the main research questions (see §1.3).

In this introductory chapter, I first address various factors mentioned often as being crucial in the development of sign languages in §1.2, starting with deaf community size (§1.2.1) since the three sign languages in this thesis are used by groups of different sizes: one with less than ten deaf people – a family sign language –, another with a little more than 30 – a village sign language – and a third one with half a thousand deaf people – a school-based sign language. The second part focuses on the time depth of sign languages (§1.2.2) since AdaSL is a relatively old sign language—possibly as old as 250 years—with multiple signing generations, LaSiBo is about 50 years, and the 20-year-old LGG is one of the youngest sign languages in the world. Afterwards, I discuss threats to language vitality related to both community size and language age (§1.2.3). Next, I explain the importance of social interaction in language development (§1.2.4) and the role of storytelling especially in deaf communities (§1.2.5).

Next, I explain how the study was conceived, what are the research questions and which studies will try to answer them (§1.3). The last three subsections provide a sociolinguistic profile of each one of the sign languages, starting with AdaSL (§1.4), then LaSiBo (1.5) and lastly, LGG (§1.6).

## 1.2 Overview of sociolinguistic factors distinguishing the sign languages in this study

The three sign languages in this research are linked to each other by at least one factor, whether the community size or the language age. All are from West Africa. Two are villages, thus with small deaf groups, and one is a school-based sizeable deaf community. Two are very young, and one is quite old. Adamorobe Sign Language (**AdaSL**) is old language by a few deaf people in a village in Ghana (Nyst 2007a). Langue des Signes de Bouakako (**LaSiBo**) corresponds to a family sign language used for almost 50 years by six deaf people in a village in Ivory Coast (Tano 2016). Língua Gestual Guineense (**LGG**) emerged 20 years ago in a school setting in Bissau, Guinea-Bissau, and is now used by around 500 deaf people (Martins & Morgado 2017). Adamorobe and Bouakako villages, in the bordering countries of Ghana and Ivory Coast, are about 700 km apart (see Figure 1). These two languages share several characteristics: cultural traits; their spoken languages belong to the same language family, and the cause of deafness is hereditary (Tano 2016). Guinea-Bissau – the smallest country in West Africa – is located further to the northwest. It shares with the other two countries some cultural traits, including local gestures that have come to be incorporated into their sign languages (Martins, forthcoming; Nyst 2010). Throughout the thesis, I present the data from these three language communities in the same order, by oldest-to-youngest age: (1) Adamorobe/AdaSL, (2) Bouakako/LaSiBo, (3) Bissau/LGG.

**Figure 1.** Map of the three language communities studied in this thesis: in the city of Bissau, Guinea-Bissau; in the village of Bouakako, in Ivory Coast; and in the village of Adamorobe, in Ghana

The differences between these three languages are summarized in Table 1, based on three factors that are explained in more detail later in this chapter: **number of deaf signers, time depth** (i.e., language age), and **social interaction**. I will treat the setting and number of signers in the same subsection since they are closely connected. In terms of their setting, AdaSL and LaSiBo are village sign languages, while LGG has emerged out of a deaf school setting and in an urban area. For the number of signers (signing community size), LaSiBo has only six deaf people, AdaSL has 33, and Bissau has a deaf community of an estimated 500 members. Deaf people have lived in Adamorobe presumably for 250 years; while the oldest deaf person in Bouakako is 58 (e.g., still the first generation); and in Bissau, the deaf gathered in a school only 20 years ago. Finally, in terms of social interaction, while AdaSL and LGG signers interact with each other daily, deaf people in Bouakako do not seem to seek each other out for socialising. After collecting the data and doing a preliminary analysis, I also got the impression that male and female signers in Bissau patterned differently in their narrative structures, which could be related to their social interaction practices (discussed further in §1.2.4). Therefore, in all of the studies, I also evaluated LGG signers in two separate groups based on gender.

**Table 1.** Summary of the main characteristics of the sign languages in the present study

| | setting | | number of deaf signers | | | time depth | | social interaction | |
|---|---|---|---|---|---|---|---|---|---|
| | village | school | < 10 | < 40 | > 400 | young | old | daily | occasional |
| AdaSL | ✓ | | | ✓ | | | ✓ | ✓ | |
| LaSiBo | ✓ | | ✓ | | | ✓ | | | ✓ |
| LGG | | ✓ | | | ✓ | ✓ | | ✓ | |

While other studies of village sign languages include hearing signers (Kisch 2012 for Al-Sayid Bedouin Sign Language; Ergin 2017 for Central Taurus Sign Language), the studies here do not include them. This is because, during fieldwork in the two villages and in Bissau, I found that only a few hearing people were fluent signers. Also, they only used sign language when communicating directly with the deaf, from whom they had learnt it, and only for short conversations. In §1.2.4, I discuss the social interaction of deaf people with each other and with the hearing in more detail.

### 1.2.1 Size of deaf communities & sign language emergence

Sign language communities are not all the same. They vary based on demographic factors, such as how large the community is, which is often related to the setting where it has emerged (e.g., Fenlon & Wilkinson 2015). The size of the community may have some influence on language development, as shown by the crosslinguistic study of three sign languages in Israel that, having emerged around the same time, the village with the smaller deaf population has the slowest language development (Stamp & Sandler 2021). In this thesis, the two sign languages developing in villages are used by much smaller communities than the one emerging in the educational setting in Bissau. This subsection describes the classification of deaf communities by size.

An estimated 70 million deaf people live in different types of deaf communities around the world[1] and use approximately 215 distinct sign languages[2] (Hammarström et al., 2023). These refer mainly to large communities that first gathered in educational contexts. Such contexts usually develop into **macro-communities**, whose sign languages tend to spread at the national level, as is the case of LGG. In different parts of the world, there are also 32 rural sign languages, used mainly by **micro-communities** (de Vos & Nyst 2018, 480), such as AdaSL and LaSiBo.

To this day, it is challenging to determine the precise size of deaf communities, especially macro-communities (Schembri 2010; Fenlon & Wilkinson 2015, 7). To define a deaf community, Woll and Ladd (2012, 160) observe that "they are broadly understood to consist of those deaf people who use sign language." In feeling excluded from society, deaf people tend to share their experiences and encounters with various barriers – social, financial, educational, etc. In this way, they develop a sense of community, creating alternative structures based on deafness, communication and mutual support (ibid., 162). When they come together, they "are able to develop an awareness, acceptance, and celebration of both individual and collective Deaf self" as if healing their "negative experiences" among peers. They accept themselves as deaf in the group. This is not possible if they are isolated from each other (ibid.).

The larger a specific sign language community is the more difficult it is to know its exact size (ibid., 160). For one, finding any census data with information on both deafness and signing habits is not straightforward. The comparative handbook edited by Jepsen and colleagues (2015) is a good example of such difficulty. It provides a list of about one hundred sign languages whose community sizes are reported to the Ethnologue (2015, 23). Nearly half of the language entries fail to show the estimated number of signers, as did the national sign language of Ghana, one of the countries in the present study. Other entries refer to a number of signers without specifying whether they also include hearing signers, as did Ethiopian Sign Language.

Typically, macro-community sign languages emerge within an educational context. However, there are exceptions. For example, the Langue des Signes du Mali emerged from a group of deaf men in Bamako, the city capital, to grow to an estimated population of 5000 deaf people (Nyst et al. 2012). Also, Hausa Sign Language spread through social contact outside of schools in vast urban and rural regions to include thousands of signers in a large region in northern Nigeria (Schmaling 2000). Again, deaf people in the rural Hausa area are estimated to be between 70.000 and five million. This number is much higher than some national sign languages, like the ones in Chad, West Africa, with 390 signers (Jepsen et al. 2015, 24). Thus, a distinction

[1] Data retrieved from the World Federation of the Deaf website (wfdeaf.org) on March 11 2023.
[2] Data retrieved from the Glottolog (glottolog.org) on March 11 2023.

between sign languages emerging within an educational context or outside of schools does not necessarily predict community size.

As far as we know from the existing studies on the origins of older sign languages, macro-communities developing outside schools are exceptions. Most commonly, national sign languages co-occur with others emerging in more isolated locations (Jepsen et al. 2015, 24–25). For example, the Ghanaian Sign Language coexists with the sign languages used in at least two villages identified as having deaf inhabitants: Adamorobe and Nanabin (Nyst, 2010). These are used by micro-communities, representing small-scale sign languages (Schembri 2010; Fenlon & Wilkinson 2012, 10), typically located in villages with a high incidence of hereditary deafness. In such 'minority' (Dikyuva 2012), 'indigenous' (Edward 2021), 'rural' (de Vos 2011), 'shared' (Kisch 2008) or 'village' sign languages (Nyst 2007), it is much easier to identify the number of actual signers. Micro-communities comprise language groups that may be as large as a little more than a hundred deaf people, such as the 130 deaf of the Al-Sayyid Bedouin people (Kisch 2012). Most of these village sign languages consist of a few dozen deaf people, like the group of 21 deaf people in the Central Taurus mountains in Turkey (Ergin 2020), the 24 people in the village of Ban Khor in Thailand (Nonaka 2012), or the 33 people in the village of Adamorobe, Ghana in the present study.

When the then 45 deaf people in the village of Adamorobe were first discovered by David and his team (1971) in Ghana, it was labelled a "deaf village" (see §1.4.2 for more details). Deaf villagers were using signs with each other and the hearing villagers. Then on Grand Cayman Island, Washabaugh (1981, 123) identified 18 deaf signers who hardly interacted with hearing people. Many other descriptions of such communities followed, from all over the world.

Micro-community sign languages also vary linguistically, showing unique characteristics compared to other sign languages. For instance, Kata Kolok, a sign language used in the village of Bengkala, Indonesia, presenting a high incidence of deafness for several generations (Marsaja 2008; de Vos 2012), has no grammatical system of directional verbs (de Vos 2012, 173). In turn, AdaSL appears to lack the use of entity classifiers in motion predicates (e.g., a handshape representing a person moving through space; Nyst 2007, 196; but see Chapter 5 for more details). However, both tend to use a large signing space (Marsaja 2008, 160; de Vos 2012, 268; Nyst 2007, 214).

There are also extremely small groups that tend to consist only of two or a few deaf people from the same family growing up communicating with each other. When they and possibly one or more hearing family members innovate a new communication system, this has typically been called **family homesigns**. Examples of these are the

three siblings in the village of Zinacantec, Mexico (Haviland 2020), and the six deaf relatives in the village of Berbey, Mali (Nyst 2012). Tano (2016, 31) also hypothesises that the six deaf people living in the village of Bouakako, in the Ivory Coast share a family sign language, LaSiBo, since they are connected by a consanguinity relationship (see §1.5 for more details). There is also the case of a wider extended family with many deaf members in Nanabin, Ghana, comprising 25 to 30 deaf members of the same family, using a local sign language among themselves which Nyst (2010, 7) labelled as a family sign language. Nyst (2010, 18) justifies such a label, rather than homesign, due to a large number of deaf family members and the fact that it has been developing and stabilising for three generations.

The names given by scholars to the sign languages used by deaf family members vary (see Table 2). They are commonly labelled 'family sign languages' (Nyst 2010, in Ghana; 2012, in Mali; Tano 2016, in Ivory Coast). They can also be designated as 'familylect' (Sandler et al. 2011, in Israel), 'deaf family small-scale sign language' (Dikyuva 2012, in Turkey) or 'family-based signed language' (Hou 2018, in Mexico). However, some authors are more cautious in designating such a communication system as a sign language. Haviland (2020, 396) argues that the six deaf members of the same family in the village of Zinacantec, in Mexico, use 'family homesign' instead because they only use it inside the family.

**Table 2.** Classification of deaf family signing systems

| Location | Deaf members | Time depth | Label | Author |
|---|---|---|---|---|
| Nanabin village, Ghana | 25–30 | 3 generations[1] | Family sign language[1] | Nyst 2010 [1] p. 18 |
| Berbey village, Mali | 6[2] | 3 generations at least[3] | Family sign language[4] | Nyst 2012 [2] p. 265; [3] p. 266; [4] p. 271 |
| Boukako village, Ivory Coast | **7**[5] | 50 years[6] in 2011 | Family sign language | Tano 2016 [5] p. 67; [6] p. 32 |
| Mardin village, Turkey | 14[7] | Since the 1930s (4 generations)[8] | Deaf family small-scale sign language[8] | Dikyuva 2012 [8] p.396; [9] p.395 |
| San Juan Quiahije Chatino village, Mexico | **11**[10] of 6 families | 2 generations[11] | Family-based signed language varieties[11] | Hou 2018 [10] p.574; [11] p.570 |

| | | | | |
|---|---|---|---|---|
| Zinacantec village, Mexico | 3[12] | 1 generation[13] | Family homesign[13] | Haviland 2020 [12] p.46; [13] p.35 |

All of these cases differing in cultural and geographic environments seem to have in common a high incidence of hereditary deafness. Some deaf people have access to school (e.g., in Adamorobe), while others do not (e.g., in Bouakako village [Tano 2016]). Some of these contexts still see children being born deaf (e.g., Hou 2016 for San Juan Quiahije Chatino village), while others watch their deaf population get older (e.g., Kusters 2015 for Adamorobe village) and disappear (e.g., Dikyuva 2012 for Mardin). Deaf people can marry each other in some places (e.g., Groce 1985 for Martha's Vineyard) but not all (e.g., Nyst 2007 for Adamorobe). Some areas are completely isolated (e.g., Omardeen 2022 for Providence Sign Language), while others are close to urban centres (e.g., e.g., de Vos 2012 for Bengkala). Some sign languages are constrained to one village (e.g., Meir et al. for Al-Sayyid Bedouin), while others are spread over two or more villages (e.g., Ergin 2017 for the Taurus Mountains).

In addition to deaf communities of different sizes, deaf people can be isolated within a hearing community with no other signers or deaf people. In such situations, deaf people, usually relying on a gestural system to communicate with the surrounding hearing people, are designated as **homesigners** (Coppola 2020). On this subject, Nyst (2015a) points out the importance of distinguishing between homesigns developed by children growing up without access to a deaf education and a deaf community, and those developed by scattered deaf people in rural settings where a gestural communication is used by most people rather than limited to the household.

The three sign languages that this thesis focuses on belong to different types. LGG, with a growing population of at least 500 deaf people and spreading from schools in the capital to the rest of the country, has likely attained the level of a macro-community. AdaSL is, in the true sense of the term, a village sign language used by 33 deaf villagers. LaSiBo is used by seven deaf people, although one is neither native nor fluent in LaSiBo. Despite the fact they are not closely related to each other, the LaSiBo sign system used by such a small group resembles more that of a family sign language as labelled by Tano (2016, 31). In the next subsection, I address another factor: the time depth of sign languages.

### 1.2.2 Time-depth of sign languages and sign language emergence

The previous subsection discussed the size of deaf communities, ranging from micro to macro-communities. Here I focus on another important difference between the world's sign languages: their age or time depth, especially those of micro-communities.

The focus of this thesis is on three sign languages: an older one used in the village of Adamorobe (AdaSL) and two younger ones, that of the village of Bouakako (LaSiBo) and the school-based one in Guinea-Bissau (LGG). This section looks at the time depth of each in this order; that is, from oldest to youngest. In the literature, the distinction is often made between established and emerging sign languages (e.g., Pyers & Senghas 2007).

Considering that a macro-community sign language emerges when a large number of deaf people come together, it is possible to identify the oldest sign language of this type from the establishment of the first school for the deaf in 1760, in Paris (Millet et al. 2015). After the Langue des Signes Française (LSF), which was brought to the USA, many other sign languages have followed all over the world. In Africa, the first school for the deaf was established in Cape Town in 1863, creating the conditions for the emergence of South African Sign Language (Aarons & Akach 1998, 7). With these time marks in mind, we become aware that AdaSL, supposedly existing since 1773 (Okyere & Addo 1994, 100, but see §1.4.2 for more details), might be almost as old as LSF. Also, in what concerns the establishment of a school for the deaf, the (strong) possibility that deaf people have been meeting and developing sign languages outside the educational context cannot be ruled out (e.g., Miles 2010, for deaf people at the Ottoman Court).

However, one has to consider that even established, older languages keep changing, as do the communities that speak or sign them. For instance, it may be the case where younger generations of deaf people, from not interacting as much with each other as the older generations used to, end up by losing specific features in sign languages (Woll & Ladd 2012 for British Sign Language). For instance, Pupponen and colleagues (2022) presented a study showing differences between younger and older deaf people in the use of constructed action (embodiment of characters) in Finnish Sign Language. They observe that older signers use constructed action practically without lexical signs, contrasting with younger ones who rather use it simultaneously with lexicon (see Chapter 5 for more details).

As opposed to older sign languages, there are new sign languages. In this line of thought, when do emerging sign languages stop being considered young? One-hundred-year-old sign languages seem to be still designated as young, as are the three sign languages of Israel: the school-based Israeli Sign Language and the village sign

languages of the Al-Sayyid Bedouin and Kufr Qassem (e.g., Stamp & Sandler 2021). Considering this threshold, AdaSL is twice their time depth and LaSiBo half of it.

So far, the most studied emerging school-based sign language is the one that arose in Nicaragua around 46 years ago (Coppola et al. 2019). In a context involving interactions within a large group, deaf children turned homesigns into Idioma de Senãs de Nicaragua (Nicaraguan Sign Language) within under two decades (Senghas & Coppola 2001). Few other macro-community sign languages have emerged since Idioma de Senãs de Nicaragua. Examples are the 20-year-old LGG and Tibetan Sign Language (Hofer 2017).

Scholars define the age of sign language in different ways. When possible, they pinpoint a specific original date, which is the case for most school-based sign languages. In relatively new sign languages, they may follow the age of the oldest deaf person (Tano 2016). Still, in older sign languages, the time depth is usually determined in generations (de Vos 2012). The problem is to reach a consensus on what a generation consists of. Some may consider kinship generations (Ergin et al. 2018) and others groups of age peers (Kisch 2012). Aside from their actual years, the time depth of sign languages has been typically referred to in the literature by **generations** in villages and **age groups** in school-based sign languages. However, to determine a more precise time depth, it has been suggested to set the number of 20 years for each generation (Kisch 2012, 96) and ten years for school age groups (Molly 2014, 102).

The ages of the three sign languages in this thesis have been determined in different ways, from historical records to interviews with the community. Early descriptions of AdaSL mention that deaf people have existed in the village since the beginning of its population (Frishberg 1987), which seems to have been established in 1773 (Okyere & Addo 1994), precisely 250 years ago, though there is no concrete evidence demonstrating the exact age of AdaSL (see §1.4.2 for more details). Following this assumption, Nyst points to six generations of deaf villagers, from parent to child (2007, 22). Currently, Adamorobe has two separate deaf groups: one composed of elders and another of schooled youngsters (Kusters 2019). The fact that the younger deaf people are now bilingual in AdaSL and Ghanaian Sign Language, as well as the ageing elder population, puts the local sign language at risk. This is aggravated by the fact that no more children are being born deaf. Although the elders have had several opportunities to learn Ghanaian Sign Language (GSL), and some are fluent, they keep faithfully using AdaSL. However, it does not seem likely that AdaSL will survive past the current generation of elder deaf signers. A similar scenario is found in another older village sign language: fewer and fewer children are being born in the village of

Bengkala, and some deaf move away, putting the Kata Kolok language at risk (Lutzenberger 2022, 42).

The time depth of the second language in this thesis, LaSiBo has been defined according to the age of the oldest deaf person in the village, who was 50 years old in 2011 (i.e., born in 1961; Tano 2016). However, considering that signed communication develops in systematic interactions between deaf people, it is probably more accurate to point to the period after his deaf sibling was born ten years later (presumably around 1971), who is the second oldest deaf person. Taking into account the time for the sibling to mature as an interlocutor, that would make LaSiBo less than 50 years old, as of this writing. These two deaf siblings may or may not have interacted daily, but the natural path of development would be to move on to more structured communication. Around the same time, a third person was born deaf in the village in another family where he is the only deaf person. Ten years later, three siblings born 14 years apart in another family became deaf at a young age (see §1.5.2 for more details). Having remarkable age differences, currently between 24 and 58 years old, they do not interact much with each other in everyday life (Tano 2016), which hardly enables the development of social networks between (age) peers (Kisch 2012, 98). Since none of the deaf people has been schooled, LaSiBo is not threatened by the national sign language. However, if no more deaf children are born in the village, LaSiBo will not likely survive after its last signer has disappeared.

Whether LaSiBo's time depth is determined according to the first deaf born in the village 58 years ago or by his deaf brother's birth ten years later, it is the youngest 'family sign language' described in West Africa, still in its first – and possibly only – generation. The other two family sign languages were identified in the villages of Berbey in Mali and Nanabin in Ghana (see Table 2). The former is used by a family of seven deaf members, while the latter includes 25 to 30 deaf people. Both have been used for over three generations.

The third language in this thesis, LGG, emerged in a school context in the city of Bissau in the school year of 2003/2004. It emerged out of local gestures and quickly evolved into a structured sign language mostly used by the growing deaf community in Bissau but also in other schools across the country (see §1.6 for more details). This is probably the youngest school-based macro-community sign language in the world that is emerging independently from foreign sign languages.

Out of the three sign languages studied here, LGG is the only one whose community continues to grow, contrasting with deaf micro-communities. The sign language of São Tomé and Principe islands, off the coast of West Africa, also emerged in the 21st century in a school context. While 20 deaf people gathered in a school in 2013 for the first time in São Tomé, another group of 15 deaf people was brought together outside the school in a Portuguese project to make a dictionary of that emerging sign language

(Língua Gestual de São Tomé e Príncipe, LGSTP, Carmo et al. 2014). However, according to deaf collaborators on the site, it has been strongly influenced by the Portuguese Sign Language (Língua Gestual Portuguesa, LGP) due to ongoing contact with LGP signers, which include many Jehovah's Witnesses. Thus, a potentially emerging autochthonous language used by a micro-community of around 100 deaf members has been gradually replaced by LGP.[3]

Looking now at the three sign languages in this study in terms of diachronic generations, we again face different scenarios. Although AdaSL signers themselves distinguish between youngsters and elders, for this study I consider all the villagers as a single group due to its small size, even though their ages ranged from 20 and 72. The age of LaSiBo signers similarly ranges between 24 and 58 years of age, but they will also be analysed as a single generation of signers (Tano 2016). In contrast to these other sign languages, the school-based LGG also includes young children who are learning the language; however, the focus in this thesis is only on the first generation of LGG signers, which includes young adults and teenagers. It seems that the first generation of signers was constituted according to the development of social networks between (age) peers (Kisch 2012, 98), while those still constrained solely to the school space represent a second younger generation (Martins, forthcoming). The big difference between the two groups is the access to linguistic models, which occurs in the younger generation. The study of emerging sign languages allows us to observe how linguistic structures develop in real-time, mainly if they are not influenced by macro-community sign languages (de Vos & Zeshan 2012, 8; Meir et al. 2012, 13; Jaraisy & Stamp 2022, 1).

Having examined the time depth of sign languages of both micro and macro deaf communities, I show in the following subsection how the vitality of sign languages can be prone to change, especially in micro-communities, such as AdaSL and LaSiBo.

### 1.2.3 Sign language vitality

Sign languages, especially those used by micro-communities, can be threatened because of decreasing deaf population. This may be caused by emigration, ageing due to no more babies being born deaf, and superimposition of a majority sign language (Webster & Safar 2020). This is happening to AdaSL and LaSiBo.

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[3] Information based on short fieldwork in São Tomé in 2014 of Mariana Martins and me and on testimonies of a deaf Santomean, who grew up in Portugal to have schooling and came back to the island and is working at the school for the deaf, as well as from two Portuguese deaf people who have spent time there.

The prevalence of deaf births in such settings is crucial to the survival of sign language. For instance, San Juan Quiahije Chatino Sign Language has been used for one to three generations (Hou 2016, 70), depending on the family (there are six families), of which some have children. Other factors are migration and schooling. For example, the family of 14 deaf people in Mardin, Turkey, has witnessed their younger members moving away to urban centres and turning to the macro-community sign language, leading to the extinction of their sign language. Also, in the fishing town of Miyakubo, on Oshima Island, Japan, sign language was shared by deaf and hearing people who worked together on fishing and seafood boats (Yano & Matsuoka 2018, 645–646). With time, the younger deaf islanders started leaving the island for educational or professional purposes, and new people came to the island with no sensitivity to the language of the deaf. As a result, this sign language is dying out.

All threats considered, language superimposition easily puts micro-community sign languages at risk of extinction (Jaraisy & Stamp 2022). This is the case of Alipur Sign Language, with a time depth of six generations, which has been superimposed by American Sign Language (Panda 2012, 356–357), and of Miyakubo Sign Language, used over three generations, replaced by Japanese Sign Language (Yano & Matsuoka 2018, 644–645). This is also happening to micro-community sign languages with less than 100 years, like Kufr Qassem Sign Language by Israeli Sign Language (Jaraisy & Stamp 2022, 17), Mardin Sign Language by Turkish Sign Language (Dikyuva 2012, 397–398), and Ban Khor Sign Language by Thai Sign Language (Nonaka 2004, 743). It is also the case where small-scale sign languages have already reached extinction, Konchri Sain by Jamaican Sign Language (Cumberbatch 2015, 201, 388, 556).

In sum, many of these sign languages are on the verge of extinction (Table 3), primarily due to fewer babies being born deaf and consequent ageing of the remaining population (e.g., Lutzenberger 2022 for Bengkala), emigration (e.g., Dikyuva 2012 for Mardin), schooling in urban centres (e.g., Yano & Matsuoka 2018 for Miyakubo) and superimposing of a majority sign language (e.g., Nonaka 2012 for Ban Khor). Of course, such factors may co-occur.

**Table 3.** Examples of three micro-community sign languages undergoing population decrease

| Sign Language | Number of deaf signers over the years | | |
|---|---|---|---|
| Providence SL | 20 (Washabaugh 1979) | 17 (Lattig et al. 2007) | 13 (Omardeen 2022) |
| AdaSL | 45 (David et al. 1971) | 38 (Nyst, 2007) | 33 (my fieldwork) |
| Kata Kolok | 47 (Winnata et al. 1995) | 38 (de Vos 2012b) | 31 (Lutzenberger 2022) |

Unfortunately, to my knowledge, there are no micro-communities studied as such that have had their populations increasing.

### 1.2.4 Social interaction between signers

In addition to community size and language age, a third factor that is hypothesized to be of significance is interaction dynamics between signers. For language to evolve, social interaction is a crucial component, and it is hypothesised that the more that people interact, the more language becomes structured (Senghas & Pyers 2005; Stamp & Sandler 2021). One of the key differences between deaf people in the AdaSL, LaSiBo and LGG language communities is that socialisation occurs in very different ways. Although I include detailed information about social interactions in the sociolinguistic profile of the three sign languages separately in three sections later in this chapter (§1.4, §1.5, §1.6), in this subsection I present a comparison of the social interaction of signers in several signing communities. In particular, I look at micro-communities that have interaction patterns similar to the sign languages in this study. I establish a parallelism between LaSiBo and Providence Island Sign Language since deaf signers seem to not have daily socialising habits with each other as a tight group. I also compare AdaSL with Kata Kolok in terms of interaction patterns. For larger deaf communities, I pay special attention to gender differences occurring not only in Bissau but also in Benin, Senegal, Mali and Nigeria.

The moments when deaf people come together and communicate by signs, they are developing language. Thus, the more they gather, the more the language develops. In macro-communities, deaf people are known to seek other deaf people apart from the hearing society. They feel the need to be in common spaces to socialize with each other (Lane et al. 1996; Woll & Ladd 2012). This is what is happening with the deaf community in Bissau. In contrast, in micro-communities, deaf people do not seem to

seek deaf spaces to be together, because they have access to communication with the surrounding hearing people from birth (de Vos 2012, 29). The 33 deaf villagers of Adamorobe do not have the habit of being together as a whole but rather in smaller mixed groups (see §1.4.4 for more details). The six LaSiBo signers meet each other often – also because their homes are very close to each other – but their interaction partners are hearing people, even if the communication with them is limited.

In the village of Adamorobe, the deaf have probably been around since the village was founded. However, their numbers have been decreasing over the years, at least since they have been counted, while the hearing population has been increasing. In the first description of the deaf villagers by David and his team (1971), there was one deaf person per 100 inhabitants. At this time, deaf people seemed well integrated for having similar occupations as their hearing peers and were equally lacking education. The communication between the deaf and the hearing, whether for play, work or social life, occurred using sign language (1971, 71).

More recently, Kusters, a deaf anthropologist, did ethnographic work in the village, describing deaf sociality in great detail. She observes how rare it is to see hearing people fluent in AdaSL. Due to the population growth, hearing villagers started accessing education and better job opportunities. In contrast, deaf people, mainly of older generations, did not have such opportunities. Unbalanced power relations developed thereafter as the deaf kept working in subsistence farming. The hearing also banned inter-deaf marriage, revealing a negative preconception towards deafness. Moreover, since the arrival of the deaf missionary Andrew Foster, the deaf started getting special attention by receiving church donations, which probably stirred up some envy amongst their hearing peers (see §1.4 for more details).

Nowadays, the 33 deaf AdaSL signers habitually gather informally in small groups, usually in deaf peoples' homes. On Sundays, they meet in a larger group for mass. The deaf priest comes from the capital to give sermons. In the past, they attended mass to receive donations, but as donations decreased, many started missing mass. In everyday life, when the deaf are together, hearing people rarely join them (ibid.). Apart from close family members and friends, very few hearing people are fluent in AdaSL. Therefore, most conversations between deaf and hearing people are limited to greetings, task assignments and short informative reports.

In Indonesia, there is a micro deaf village community like Adamorobe. The sign language that has developed in the village of Bengkala, Indonesia is called Kata Kolok. Of the 31 deaf villagers in Bengkala, a few are children, while in comparison, the youngest deaf person in Adamorobe was already 18 in 2018. In Bengkala, deaf children are supported to attend an inclusive school where they can use Kata Kolok (Lutzenberger 2022, 64), while in Adamorobe, the younger generation of deaf people had to stay in a boarding school without any financial support and where they did not

use AdaSL. In Bengkala, village activities are shared between deaf and hearing people, they are free to marry whomever they wish and the job opportunities are equal to the hearing people (de Vos 2012, 29). In contrast, there is a marriage ban between the deaf in Adamorobe and they are far from getting the same work opportunities as the hearing (see §1.4. for more details). Another difference from the situation in Adamorobe is that deaf Kata Kolok signers seek each other for social activities (de Vos 30). Lutzenberger observes that village life has been recently impacted by important factors, such as population increase and tourism resulting from growing popularity on social media (Moriaty 2020, 196; Lutzenberger 2022, 48). Deaf people try to make the most out of it by profiting from it. They do not demand donations from foreigners like the deaf in Adamorobe. Deaf villagers in Bengkala have contact with other sign languages such as Bahasa Isyarat Indonesia (Indonesian Sign Language, BISINDO) used by visitors. Deaf people, especially the younger ones, use their mobile phones to communicate with friends from outside the village and can move around in scooters. In Adamorobe, they remain dependent on subsistence farming and therefore are more limited.

The need to seek out deaf spaces is different for each deaf community. In Adamorobe, small groups of deaf villagers interact daily, mostly after work, in the common outdoor space from deaf people's homes. By contrast, in Bouakako, deaf villagers are not in the habit of getting together, not even siblings. At first, Tano (2016) gets the impression that the deaf are well integrated into the village's social life but then realises that, in reality, they are left out in many ways. Nonetheless, two hearing people interact often with the deaf. One is married to a deaf woman, and his best friend is a deaf man. The other hearing person lives and also works with a deaf man. Family members communicate with the deaf at a basic level, such as giving orders and assigning tasks.

A parallel community to compare with LaSiBo signers are deaf people in Providence Island, Columbia, in the Western Caribbean. Despite having existed on the island since the 1800s, deaf people there yet do not have the habit of gathering as a group, either, which may limit the structural development of their sign language (Washabaugh 1986, 180) They do not interact daily, perhaps because their ages range between 8 and 81 years old (according to the latest update), but more importantly, because they are spread across the island (Washabaugh 1986, 18). Although hearing people are paternalistic towards the deaf, Washabaugh (1986, 181) suggests that Providence Sign Language still developed out of the interactions that deaf people have with the hearing. However, Omardeen (2022, 35) found various levels of sign language fluency in hearing people, even if deaf people appear to sign more often with their hearing than deaf peers (ibid., 38). This might also be the case with LaSiBo.

In general, we find other situations in which contact with hearing people through gestures is important as the grounding for communication. Le Guen (2022, 4) suggests that local gestures often serve as a basis for communication between hearing and deaf people, which might easily be misinterpreted by outsiders for the type of communication being held; that is, people may interpret interactions with only shared community gestures as a sign language. Indeed, in an Indian village, in Brazil, where there was a deaf child, it was observed that all hearing people communicated with her with gestures (Ferreira-Brito 1984). However, changes over time concerning the proportion between hearing and deaf inhabitants should be taken into account as an important factor in distancing between the two groups. Lutzenberger stresses that how sign languages are shared in micro-communities should be looked at on a case-by-case basis (2022, 88). Indeed, I recall from my own experience that when I first arrived in Adamorobe, I did not see anyone signing, nor did Kusters (2012a, 2014). I had pictured the village in mind as a place where I would easily see people signing around but that was not the case, at least when I was there. Even when I was with deaf people only on a few occasions, I saw them interacting with the hearing. I also had the information that in Bouakako, there were at least two fluent hearing signers.

In contrast to the lack of gathering habits observed among the deaf people of Bouakako, larger groups of deaf people do tend to seek out shared spaces where they develop a sense of community. Tano (2016, 52) describes such informal gatherings at Abobo, a municipality near Abidjan, alongside formal deaf associations. In Bissau, Martins and I have found that deaf people interact with each other daily. They get together after work during the week. On Saturdays, they meet to play football or between the women. On Sundays, many of them gather alternately at the home of one of the deaf. Some deaf men work together, especially at the fishing harbour and in construction. We also observed that men interact more often than women since obligations usually constrain women at home or with their children. Despite the gender differences, LGG is increasingly structured and expanding nationwide (see §1.6.3. for more details).

In reflecting on how the interaction patterns in Bissau might be comparable to other deaf communities, I found several instances in the literature in which social patterns by gender are mentioned in deaf communities in Africa, as described below, but surprisingly these have not previously been considered as a whole. Further, previous research has not examined whether gender differences in interaction specifically affect sign language skills or linguistic content of signing, which this thesis does for the first time by describing differences in narrative structure and devices between deaf women and men in Bissau.

From his anthropological work in Benin, Mildner (2021) shows that the deaf community mirrors the differences in the social statuses between men and women. He

observes that deaf men lead more independent lives, while deaf women tend to live together to avoid early pregnancies and sexual abuse (2021, 68). In one of the deaf schools, when classes are over, girls help out in the canteen while the boys play, chat or rest (ibid., 69). Nonetheless, he observes meetings between men and women, like in a shop where a deaf woman works, that are looked down upon by the hearing people (ibid.).

Such gender separation impacting interaction patterns also occur among the Malian deaf people in Bamako, where they have developed sign language outside schools in the capital Bamako, Langue des Signes du Mali (LaSiMa). Here, meetings of deaf people mainly involve men who get together at someone's home or workplace at the end of the day to drink tea and talk (Nyst et al. 2012, 254). Nyst observes that LaSiMa was almost exclusively developed by regular interactions between deaf men (Nyst 2015a, 134) and she had difficulty finding women fluent in LaSiMa to document it (ibid., 137). As a consequence, the masculine character of the language is reflected in the type of lexicon of LaSiMa (Pinsonneault 1999).

In Nigeria, sign language has also emerged outside of school in the northern Kano state. There, deaf people built an interactive network from which developed the local sign language, Maganur Hannu (meaning the Language of the Hands), also known as Hausa Sign Language (Schmaling 2000). She observes that most deaf people use Maganur Hannu and regularly interact in specific places, mainly in the evening, constituting a very active community. It is not overtly stated that deaf men interact more than women. Still, Schmaling observed that one of the meeting places was a bicycle workshop where two deaf men worked. Another was a deaf man's house where deaf people usually got together on Sundays (ibid., 15). Although it is unclear if these gatherings involve mainly men, one can assume that deaf spaces that are men-centred will likely attract other men. Schmaling describes in her methodology that she worked mainly with deaf male informants and that, in outdoor locations, Hausa women (predominantly Muslim) are rarely visible (ibid., 50). Similarly, Orie (2013, 245) found groups of deaf people separated by gender in Akure, in southwestern Nigeria.

Similarly, Jirou (2008) describes a group of deaf people in the fishing city of Mbour in Senegal, who developed a sign language outside school. Although she does not specify the number of deaf people, she identifies a few dozen (ibid., 151). Even if apparently unaware of gender inequalities, she observes that deaf men gather around a tree in an open square where two own a shop for small repairs, such as basins and shoes. Jirou also mentions that two deaf men in this group, fishermen who work on the same boat, use a very rich signed lexicon, possibly because they interact a lot (ibid., 140). She then goes on to mention that deaf women have developed different lexical areas that revolve around the tasks they usually assume (ibid., 141).

A pattern emerges in various places in West Africa that – just like in Bissau (see §1.6.3) – deaf men are much more likely to gather together while deaf women do much less frequently or hardly at all. Men create deaf spaces where they talk about various topics such as major problems in the schools for the deaf, politics, work, and football, among others. They stay in these spaces for as long as they can. In Hausa, Nigeria, deaf people easily retell films they have seen on television (Schmaling 2000, 15). Such cinematic stories are one of the types of stories in deaf literature (Bahan 2006; Sutton-Spence 2021), which I will discuss in the next subsection.

Interacting is part of being human. When socialising among deaf peers, deaf people tend to share their personal experiences. These moments are crucial because they are often the only spaces where they can communicate freely without communication barriers (Lane et al. 1996; Bahan 2006; Holcomb 2012; Morgado 2011; Sutton-Spence 2020). It is also on these occasions that deaf literary products emerge in different types, such as poems, anecdotes and stories (Sutton-Spence & Kaneko 2017).

The interactions of deaf people in Africa are not well studied. Scholars have collected spontaneous and elicited stories in African sign languages to document and analyse them linguistically. Nyst (2007) compiled spontaneous narratives, myths, and bible stories in AdaSL (2007, 40). Those spontaneous narratives include personal experiences in daily life, work, school, or related to food, family, animals, death, or deafness (Morgado 2021). Kusters (2015) described conversations between deaf people in Adamorobe, mainly involving gossip, comments on relationships between deaf people and deaf and hearing, daily problems, past events, and beliefs, among others. During my fieldwork, they told me new stories, for instance, about snake attacks, in addition to topics previously collected by Nyst and Kusters (Morgado 2021, 86).

Through storytelling and other aesthetic and humorous signed productions, deaf people develop their sign languages, and deaf literature emerges (Lane et al. 1996; Morgado 2011; Sutton-Spence 2021). In the African continent, South African Sign Language literature is the most documented (Kaneko & Morgan, 2019; Morgan & Kaneko, 2017; Asmal & Kaneko, 2020; Baker, 2017). Other than these studies, there still needs to be a record of storytelling in African sign languages, whether imagined or from personal experiences, but evidence of the richness of this literature was observed at the Hands! Festival 2021[4] deaf people from Ghana, Ethiopia, Burundi, South Africa and Guinea-Bissau presented stories, poems and visual vernacular. Such literary productions have not been documented in micro-communities, except for Kata

[4] Online Festival organised by Leiden University during the pandemic: https://www.youtube.com/watch?v=F-iR1gLgHfw&t=6s

Kolok in Bali (de Vos 2012). The current research, therefore, adds to our understanding of what narratives look like in these places.

From this review of interaction dynamics in micro and macro deaf communities, I have shown that the social interaction of deaf people varies in different types of communities, and I lay the foundation for the idea that sign languages may develop according to the frequency with which deaf people interact, with greater interactions resulting in more complex and compelling stories. The next subsection briefly describes the deaf cultural habit of storytelling and their narrative types.

### 1.2.5 Storytelling in deaf communities

In the previous subsections, I discussed the size of deaf communities, the time depth of sign languages and interaction dynamics between deaf (and hearing) people. In sum, sign languages emerge if there are deaf people. The bigger the group, then the more it seems that deaf people interact and sign language will develop. During interactions, deaf people talk about various topics, often through the framework of storytelling.

Deaf communities around the world habitually tell stories such as narratives of personal experience (Bahan, 2006, Davidson 2017, Sutton-Spence 2021), but besides personal experiences, there are other types of stories in sign language, such as cinematic stories (imitation of parts of films such as action scenes involving shooting and car crashes, enhanced, for example, by being done in slow motion), translated works of folktales and original fiction (ibid., 28). Some of these stories have existed for a long time and have been told from generation to generation.

Stories are usually shared in deaf spaces such as schools, clubs, associations, sports, meetings, conferences etc. Anyone in the DEAF WORLD (as designated by Bahan 2006) can tell stories and share personal experiences, but not just anyone has the skills or the talent to do it and, thus, be considered a "smooth" signer (ibid., 24). Any narrative, such as a personal experience, can be told once or on many different occasions by the same signer and passed on to other signers from generation to generation (Bahan & Supalla 1995, Sutton-Spence 2021).

In both the oral and the signed tradition of storytelling, narratives are transmitted in face-to-face contexts, where there is a teller, a tale, and an audience (Bahan 2006, 25). Bahan (ibid., 29) suggests that narratives of personal experience are the most common narratives circulating in the deaf community, whether humorous or tragic. As a deaf signer, this conforms to my own experience. Personal stories are often told in everyday conversations. People can share their own or second-hand experiences with

family, friends or co-workers as a routine or in occasional meetings. Here, pleasant or terrifying personal experiences may be told as naturally as possible.

Personal experience narratives have been included in folklore literature, even if not traditional ones (Stahl 1977). Generally, a **narrative**, a story, or a tale can be real or fictional (Harmon 2012). Narratives are everywhere, in all societies, as far back as we know (Barthes 1975). The first narratives would have been circulated orally from generation to generation (Vansina 1985). They went on to various narrative forms, such as myths, legends, poems, folk tales, fantasy stories, fables, novels, biographies etc. (Stanzel 1984). Narratives can be transmitted in various ways besides orally, such as in writing, through images (comics, etc.), moving images over time (film, animation), and, of course, in signing (Traupman 1966). A narrative is when a person tells about a set of events in temporal order (Hühn & Sommer 2009). In every narrative, there is a narrator. When the narrator is introduced in the first person, they usually participate in the action as a character. When the narrator uses the third person to talk about other characters as an outsider or about the experiences of others, then it is said to be a vicarious narration. Narratives can be related to personal experiences in a prose format (without following a metrical layout).

Sutton Spence & Kaneko (2017) explain that telling stories, regardless of the kind of community, transmits linguistic and cultural heritage from one generation to the other. This also happens in the deaf community, where stories are told in sign language. Sutton-Spence defines personal experience narratives as those involving real people and events, including them in the broader category of **sign language folklore**.

It is known that sign language literature is developed by deaf people all over the world (Sutton-Spence 2021) as long as there is a space where they can be together and are thus able to communicate in sign language, such as in schools (Morgado 2011), villages with a higher incidence of deafness (Nyst 2007; Kusters 2015; Tano 2016) or even tea groups, as in Bamako, Mali (Nyst 2015). In the days when sign languages were forbidden in Europe (mainly between the rise of the oralist method in the late 19$^{th}$ century and the beginning of sign language studies in the 1970s), a large majority of deaf people attended boarding schools and communicated in sign language, away from the eyes of hearing supervisors. This way, they exchanged their life experiences, and the language became stronger (Morgado 2021). From there, the first stories (Lane et al. 1996), probably narratives of personal experience, were retold several times, being polished artistically. Over time they turned into poems, jokes, and other performing acts. Deaf people usually tell about their lives, the lack of accessibility, and their identity and pride; but they also produce stories unrelated to being deaf. This way, personal experience narratives appear to be part of sign language folklore literature, even if the narratives are not about deaf people. The fact that they are told in sign language makes it a literary object (Sutton-Spence 2010; Sutton-Spence &

Kaneko 2017). Nowadays, literary videos in various sign languages from around the world are shared on social networks and are easily found on the internet.

What about studies and documentation of folklore and literature from village sign languages worldwide, including the two villages in the current study? As mentioned, the only published research thus far on narratives in village sign languages is from de Vos (2012), who describes a rich tradition of storytelling in the Indonesia village of Bengkala where Kata Kolok signers tell stories of ghosts, magical villagers, and personal experiences such as accidents or about the Japanese invasion in the second world war (2012, 266). In these stories of personal experience, de Vos analysed the use of signing space (see Chapter 5).

Other than linguistic studies, some language resources contain narratives from village sign languages. Two corpora of village sign languages have been collected for linguistic, historical, anthropological and literature studies from Mali (Nyst et al. 2012) and Côte d'Ivoire (Tano 2014). Within these corpora can be found personal experience narratives.

For Adamorobe Sign Language (AdaSL) in particular, there is a sizeable corpus[5] that Nyst (2012) collected and which includes numerous life stories. Nyst used images of food, animals, customs and so on so that deaf signers had the freedom to express themselves about each item. For example, when telling about honey, a deaf woman ended up talking about how dangerous bees and wasps were. Another deaf person, when seeing the images of animals, started imitating them, telling about what they looked like and how they could be dangerous to people. Nyst also collected stories about the daily life in the village, where deaf people told what their jobs as farmers were like, what had been their most difficult experiences, gossip, fatalities, witchcraft or events in which they were harmed.

Other AdaSL stories in the corpus were more exceptional. For example, there were accounts of fatal experiences, such as the death of a baby crushed by a goat or a deaf man who stole palm wine. Stories involving the supernatural included the local belief in a deaf God, dwarves with feet pointing backwards living by the river, and the idea that whoever sees these dwarves will go deaf or have a deaf child.

Important community events in Adamorobe are referred to, as well. For example, the closure of the only school for the deaf that had existed in the village because a bad teacher beat them a lot. One day a deaf person went to school sick. Since the school provided food, she went to school to eat, but the teacher did not like it, so he hit her,

[5]https://archive.mpi.nl/tla/islandora/object/tla%3A1839_00_0000_0000_0016_8312_9

and, to defend herself, she hit him back. It seems that, after that, the whole group of deaf people got together and beat the teacher. As a consequence, the village chief decided to close the school. This event was historical and is still told of today. These reports are available in the corpus videos collected by Nyst (2012).

In the other village in this study, Bouakako, Tano filmed a few moments over the course of his research when the deaf in Bouakako came together at his invitation, which resulted in a small corpus of LaSiBo of around 20 hours (Tano 2014). They appear together in groups of two or three people and communicate only with each other. In these videos, the LaSiBo signers do not sign directly to the camera, as the AdaSL signers do. Sometimes, a hearing person who knew how to communicate with them would appear. The conversations were about everyday life, about bad and good things. For example, one of them says that a snake is good to eat because it gives strength, while the other does not agree.

For the current study about narrative structure and devices in AdaSL and LaSiBo, little was possible to use out these corpora. For LaSiBo, the videos are mostly back-and-forth dialogues between two or more people, where there are no complete narratives about an event due to constant interruptions. In the AdaSL corpus, however, there are three narratives about dangerous animal encounters that could be included in my study. One of the narratives involved a snake, another a swarm of bees and the third a lion, as will be described in §3.4. For LGG in Guinea Bissau, there is no publicly-archived corpus of LGG yet, but some of the videos taken during our previous fieldwork (mine and Mariana Martins), such as those of deaf people telling about their daily routines, do seem to show the seeds of sign language narratives emerging. These were not used as data in the current research but did inform my perceptions and intuitions about storytelling in this community. In the present research, I focus exclusively on personal experience narratives about animal attacks in the three languages, which required collecting new data. Narratives were collected in each community by me using the same method, i.e., face-to-face interviews, where I asked if they had ever encountered dangerous animals such as snakes (see Chapter 2).

This section summarises the notion of sign language folkloric literature, mentioning its possible origin in personal experience narratives. Whether they are polished over time to become literary art objects or are produced spontaneously at the moment, personal experience narratives can always be viewed as part of folkloric literature. It was also shown that there are several works on folkloric literature in macro sign language, but little or nothing in village sign languages. In the next section, I summarise the motivations for choosing the three sign languages, the conception of the four studies in this thesis, and the questions and hypotheses for each study.

### 1.3 Design of the study

The previous section focused on the typologies of deaf communities and their sign languages and the influence of community size, language time depth and interaction dynamics on language emergence. The present subsection summarises the study's design, explaining why the three sign languages were chosen, how the study is organised and on which questions and hypotheses the research is based.

This thesis studies three West African sign languages with different backgrounds or settings, community sizes, language time depth and interaction patterns. The research first focused on two village sign languages in the project From Gesture to Language:[6] Adamorobe Sign Language (AdaSL) in Ghana and Langue des Signes de Bouakako (LaSiBo) in Ivory Coast. This project aims at comparing West African sign languages and their gestural environments, with a special emphasis on the expression of size and shape. By comparing two sign languages of different ages, the project seeks to understand how gesture is conventionalised into linguistic elements.

Besides looking at the impact of **time depth** on the linguistic structure of micro-community sign languages, a third language, Língua Gestual Guineense (LGG) from the capital of Guinea-Bissau, was added later regarding the **size of the deaf community**. Of the sign languages in this study, the two used by micro-communities – AdaSL and LaSiBo – have developed in villages, while LGG emerged in a school setting at the hands of a macro-community. Although they have developed in different environments, the setting will not be considered a factor. I argue that the setting per se is not a determinative factor, at least in this study, because the interaction dynamics in a school-based community are strongly shaped by what happens outside school (as can be seen in culturally-based gender distinctions). I later introduced a third factor, **social interaction**, which should have both a cumulative effect over time (i.e., cumulative interactions) and also develop from frequent interaction exchanges with a variety of partners (i.e., density and variety of interactions). The variable factors distinguishing the three sign languages are shown in Table 1.

Several other factors that may play a role in shaping language emergence and development should also be mentioned. First, I will assume that deaf children have played some role in (re)structuring all three sign languages, but there is no evidence that this has affected each language differently at this stage of their development (though it certainly will in the future development of LGG). Schooling is another individual factor that is not necessarily dependent on the setting because deaf people

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[6] The project *From Gesture to Language* coordinated by Victoria Nyst was founded by the NWO Vidi project with a duration of five years, from 2017 to 2022.

in villages may also attend school. No differences between individual signers in the data were found on this basis, although there were not enough individuals to treat them as distinct groups to test such a factor. It should, nonetheless, be considered in future research. Other factors of potential relevance are the age of participants and gender. The age of participants was not considered because the deaf groups in the villages were too small and consisted only of adults to be analysed separately. Also, no differences based on age were found in the data. **Gender**, however, was added as a factor later after the initial results for LGG were reviewed, and differences in their narratives emerged. Upon further investigation, though, I found that male and female signers in the villages of Adamorobe and Bouakako did not show the same distinction as in Bissau, so those signers are not separated based on gender in the analyses.

The original research design of the Gesture to Language project involved data collection for five different tasks for analysing expressions of size and shape (see Chapter 2 for more details), with one of the tasks being the spontaneous personal experience narratives. For the goals of this thesis, I focus only on the narratives, leaving the other four for future studies.

The narratives of personal experience involve encounters with dangerous animals. These are the only data that I analyse in this thesis, which is comprised of four different studies. In Study 1, I analyse the internal structure of the narratives, in Study 2, I analyse the four perspectives (real scale, reduced scale, simultaneous and multiple) that the signers used during the narratives. In Study 3, I analyse the change from one character to another (role shift) and how they constructed dialogues (constructed dialogue) and finally, in Study 4, I analyse the depiction of the size and shape of the animals in the narratives.

For each language, I filmed deaf people telling a story. I annotated the videos in ELAN (Crasborn & Sloetjes 2008) according to the four studies and made a comparison in the three sign languages. I look at how the emerging languages construct their narratives as well as in the older village language.

I have found very little on structures of personal experience narratives in sign languages. Labov & Waletzky (1967) pioneered the model of the structure of personal experience narratives and I adopted this model for this thesis. There were very few studies that I found which followed the L&W model in sign languages (see Chapter 3 for more details).

In that model where it is going to be in all four studies. Study 1 I analysed the structure of the narratives of the three sign languages according to the L&W model (see Chapter 3 for more details). L&W also highlights the evaluation component which overlaps with the structure of the narratives. That component is treated in Studies 2, 3 and 4.

The thesis contains four studies that examine the differences and similarities in narrative structures and devices between the three sign languages, and then the thesis evaluates these differences based on the factors that distinguish the languages: setting, community size, language age and interaction patterns. This research is motivated by the following main research question.

(1) Main question: To what extent do community size, language age and frequency of social interactions impact the structure and narrative devices in storytelling?

Hypothesis: The more the deaf group socially interacts, the more chances deaf people will have to develop storytelling abilities, regardless of community size or language age. In this line of thought, AdaSL and LGG are expected to develop more than LaSiBo, and gender differences may appear in LGG (see Chapter 8 for discussion). Specifically, this means more enriched narrative structures and more elaborated use of linguistic devices.

Each study also has a central research question.

(2) Study 1: Structure of personal experience narratives

Research question 1.1: How do signers of the three sign languages structure their personal experience narratives?

Hypothesis: The more languages are developed, the more narratives will be structured according to what appear to be universal components (as represented by Labov & Waletzky's model). Hence, LaSiBo narratives and those by female LGG signers may not be as structured as the ones in the other two sign languages (see Chapter 3).

Research question 1.2: To what extent do signers of the three sign languages convey emotion in their personal experience narratives?

Hypothesis: The more socialisation habits signers have the more the narrative will be emotional, by including a climax (as represented by Freytag) and distinct narration roles. Hence, LaSiBo narratives and those by female LGG signers may not have a marked climax as the ones in the other two sign languages. (Chapter 3)

(3) Study 2: Signing perspectives in personal experience narratives

Research question 2: To what extent do signers of the three sign languages produce signing perspectives to enhance their narratives?

Hypothesis: Hypothesis: Signers naturally use constructed actions in the first person, unlike the reduced scale perspective. The reduced scale will probably have developed

over time and frequent socialisation and will, thus, not be found in LaSiBo (see Chapter 5).

(4) Study 3: Narrative devices in personal experience narratives

Research question 3: To what extent do signers of the three sign languages produce role shifts and constructed dialogues to enhance their narratives?

Hypothesis: Narrative devices may require time and regular social interactions to develop. Therefore, emerging sign languages with little socialisation between peers, i.e., LaSiBo, may still need to be able to shift between roles and construct dialogues (see Chapter 6).

(5) Study 4: Animal depictions
Research question 4: To what extent do signers of the three sign languages depict the animal's size and shape to enhance their narratives?
Hypothesis: Narrative devices may require time and regular social interactions to develop, I hypothesize that signers using only on a few occasions their young sign language with each other, like the ones from Bouakako, may still need to be able to clarify to the audience what the animal looks like to turn the story more interesting. (see Chapter 7).

Having described the study's conception for this thesis, I focus, in the next section, on the background of each one of the three sign languages at a time, to situate the historical, political, sociocultural, and even interpersonal context of the signers in each community because this has implications for the development of their respective languages.

## 1.4 Sociolinguistic profile: Adamorobe Sign Language

In this section, I describe the background of Adamorobe Sign Language (AdaSL) as one of the sign languages of the present study. I start with a description of the village (§1.4.1) and then of the deaf community (§1.4.2), their educational background and the effects of benevolence towards the deaf (§1.4.3), and their interaction habits (§1.4.4). Finally, I summarise previous studies on AdaSL and their relevance to sign linguistics and deaf studies (§1.4.5)

### 1.4.1 The village of Adamorobe

The village of Adamorobe (Figure 2) is located about 40 kilometres from Accra, the capital of Ghana, to the northeast (see map in Figure 1). It lies in a valley of the Akwapim mountains. According to Okyere and Addo (1994), the village was settled 250 years ago, in 1773. In the interviews with the villagers collected for her thesis, Nyst (2007, 22) collected folk stories about the reasons behind the village's establishment. One of these stories relates how a hunter came across this land and became impressed with the variety of hunting games and crops, especially pineapples. In the local language, Akan, medam m'aborob means "I depend on my pineapples", which gave its name to the village: Adamorobe, the land of pineapples.

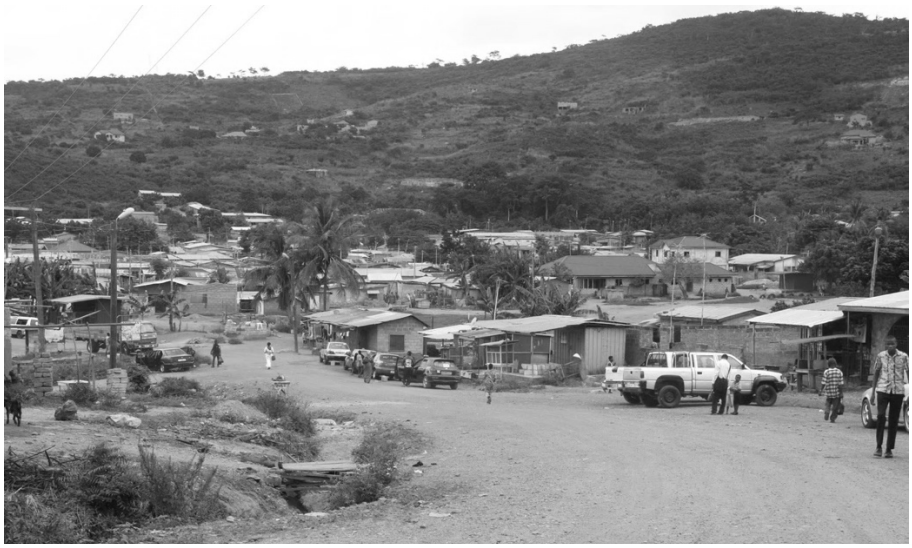


**Figure 2.** Main street leading to the village of Adamorobe

The people of Adamorobe are part of the Akan ethnic group, the most populous in Ghana, representing 45,6% of the population (Edward 2022, 70). They share with Akan customs, culture, religion (Nyst, 2007; Kusters, 2012a, 2012b, 2015), the existence of a local chief, and the spoken Akan dialect, the Akuapem Twi. Adamorobe has been growing over the years. The local religion is traditional Akan, practised in Ghana and the Ivory Coast, which has no houses of worship but is omnipresent amongst the Akan people (Kusters 2014, 473). In addition, Christianity is very present in the village and has also been practised by many Akan people since the beginning of the 20th century.

People live in single-room constructions, grouped by kinship, around an interior courtyard where they socialise and do their chores, such as cooking and washing clothes, in so-called compounds, as illustrated in Figure 3 (Kusters 2012a; 2012b; 2014; 2015a; 2015b). Since there are no plumbing or sewer systems, people get water from a communal pump.

**Figure 3.** Examples of activities occurring in the shared interior courtyard of different compounds: socialising (a), cooking (b), doing the laundry (c) and peeling corn (d)

Other than the compounds, which are made of bricks or mud, there are a few schools, churches, a small clinic, a market, hairdressers, stalls selling various goods (like household utensils, clothes, tools, food, and drinks), and workshops, such as carpentry. Because there is electricity in the village, most people have television at home, many have mobile phones, and some have smartphones with internet access, as observed by Kusters (2012b, 347) and my fieldwork.

The only public transportation is the taxi (Figure 4) that takes you through the main road to Oyibi, about three kilometres away (see map in Figure 24 of Chapter 2). In Oyibi, it is possible to find small buses (trotros) to different destinations, including the capital.

**Figure 4.** Taxi station in Adamorobe.

The village of Adamorobe is on the verge of becoming a small town (Kusters 2015b, 165). During my fieldwork, several houses were under construction, many from outsiders buying land there and building, due to its proximity to Accra. Although the main activity of the villagers is agriculture, many people work in the capital (Kusters 2015b, 165), and others work in a stone factory located on the main road to Oyibi.

In the next subsection, I address the cause of deafness in the village.

### 1.4.2 A deaf village

In the previous subsection, I gave a brief description of the village. Here, I look at the high incidence of deafness in Adamorobe.

It seems that there have been deaf people in Adamorobe "for as long as anyone remembers" (Frishberg 1987), "since time immemorial" (Kusters 2012b, 2768), but Okyere and Addo are the first to set a precise date for its onset:

Even though the hearing and deaf villagers have co-existed in this community since 1733, only a few hearing villagers can properly communicate with the deaf people in the deaf villagers' sign language. (1994, 100)

However, this time reference cannot be considered reliable since it appears as an end note in a chapter about deaf culture in Ghana, where the only mention of Adamorobe is made in relation to marriage rites. Thus, there should be caution in assessing AdaSL's time-depth. The fact is that there is no surviving direct evidence for how long a sign language has been in continual use in this village. Where genetic traits for deafness exist in a community, it is also possible that sign languages may have arisen and gone out of use previously. In this context, I can only say that AdaSL is an old sign language.

Hearing people in the village believe that deafness results from witchcraft, and several oral stories and myths tentatively explain its cause. Deaf people trust that their traditional god, Nyame, the world's creator, has chosen them. It is a general belief that one of the several small Akan gods, Termina, is deaf (Nyst 2007; Kusters 2014, 2015) and is also supposed to give deafness herself (Kusters 2014, 476). At the village level, there is a minor god, Ayisi, ruling Adamorobe, in addition to a deaf god of the village named Kiti, who seems to penalise couples who offend her by giving them deaf children (Amedofu et al. 1999, 12; Nyst 2007, 19). Furthermore, people believe there is a sacred stream near the village whose water they should not drink at the risk of becoming deaf (ibid.). In contrast to those who think being deaf is a punishment, others believe it is a gift since the deaf are strong and hardworking. This relates to the myth about the strong deaf man who was asked to breed deaf people as good farmers (Kusters 2012b, 2769). Deaf people themselves seem to look at their deafness with pride (ibid).

At first, the village was perceived by outsiders as a cursed village where deafness could be transmitted. It was not until 1961 that Sir Alexander Drummond came across Adamorobe and carried out a survey on the high rate of deafness, designating it as a deaf village (David et al. 1971). Later, another team led by David and colleagues (1971, 70–72) went back to the village to perform audiological examinations on deaf people, counted at that time as 45 out of a total of 405 villagers, according to the 1961 census (ibid.). After observing 20 deaf people, the medical team concluded that it should be genetic since they had been born deaf and deaf couples had deaf children while being physically healthy and showing normal cognitive and visual development. Also, even though deaf people had never developed speech, they had been transmitting a sign language across generations that seemed worth looking into.

In an attempt to prevent more children from being born deaf, the village chief forbade marriages between deaf people from 1975 onwards (Nyst 2007, 28; Kusters 2015, 36). Although it is difficult to ascertain the exact reason for the ban, it looks like the presence of doctors – David and his team – in the village had some influence. The fact is that, after the prohibition, deaf children of deaf parents kept being born, but there were gradually fewer and fewer. The last deaf child of deaf parents was already 18 years old during my fieldwork, which means he was born in 2000. His deaf parents told me they had been forbidden to be together because they had a deaf child. In 2018, they were still living together, even if not as a couple, since neither of them could afford another house.

After David and colleagues (1971), another medical team (Amedofu et al. 1999) went to Adamorobe to update the information on the type of deafness. Thirty years later, the deaf population in the village had reduced to 38 deaf people. The average age was 32,4 years old, indicating that the deaf population was getting older (Nyst, 2007, 22; Kusters 2019, 36). This new team examined 30 deaf people. It determined that the deaf gene had stabilised in the last 60 generations and was probably caused by matrilineal marriages between Akan clans (ibid.). A few years later, during Nyst's fieldwork in 2001, the deaf population had decreased to 35 deaf people.

At the same time, the hearing population was growing exponentially. From 405 villagers registered in the 1961 census, the number of inhabitants increased to 1356 in 2000 (Nyst 2007, 24). This population growth became more prominent around the 1990s due to migration waves in search of jobs in the capital and settling in Adamorobe, located on the outskirts of Accra (Kusters 2015a 27). During Kusters' (2012a 347) fieldwork in 2008-2009, the hearing population had increased to 3500 people, and so had the number of deaf people, at the time 41, due also to migration flows, with an average age of 38 years old. Later, another researcher, Edward (2021, 20), the first African linguist to study AdaSL in her fieldwork in 2016, counted 40 deaf people, including five children. Finally, during my fieldwork in 2018, there were 33 deaf adults; the average age had increased to 43 years old, and there were no deaf children (see Table 4). The youngest deaf person was 18 years old and was still attending the deaf school in Mampong (see the next section for more details). From 2018 until now, four deaf people have passed away, which brings it down to 29 deaf people. In addition, one deaf person that had moved to Accra returned to the village, which amounts to 30 deaf people currently living in the village. Concerning the hearing population of Adamorobe, the 2021 census was not completed to this day due to the pandemic, so it was impossible to know the updated number of inhabitants for the present description.

**Table 4.** The average age of deaf people in Adamorobe since 2000

| year | average age of deaf people |
|---|---|
| 2000 (Nyst) | 32 |
| 2008 (Kusters) | 38 |
| 2018 (Morgado) | 43 |

In the first descriptions of the village, deaf people represented 11% of the overall population, i.e., 45 deaf in 405 inhabitants, as mentioned above. David and colleagues (1971, 71) were impressed by the ease of communication between deaf and hearing people who played together as children and worked collaboratively as adults. In general, the hearing had a "sympathetic attitude" towards the deaf, who indeed appeared happy and enjoyed a quality of life similar to the hearing villagers. Kusters (2012a) observed that hearing and deaf shared tasks and worked together as farmers and night guards. For that reason, deaf villagers felt equal to their hearing peers. However, with the growth of the hearing population and the ban on deaf marriages to prevent children from being born deaf, the percentage of deaf people reduced from 11% to 1,1% in 2012 (Kusters 2012a, 347), significantly decreasing the number of hearing people who knew AdaSL. In addition, hearing people have become more and more educated, which has enhanced the inequalities.

### 1.4.3 Foster's heritage: education and welfare

The number of deaf villagers decreased over the years, overshadowed by the village's expansion. In addition, with fewer children born deaf, deaf people are becoming older on average. I now turn to their schooling and religious practices.

To discuss this topic, it is necessary to mention Andrew Jackson Foster, an American deaf missionary who founded 31 schools for the deaf in Africa. The first Mission School for the deaf was established in Accra in 1957 (Oteng, 1988; Nyst, 2010; Kusters, 2015). However, after a donation, it moved to Mampong, in the Akuapim mountains (Amoako 2019, 3; Edward & Akanlig-Pare, 64). Later, the government took control of the school, though Foster remained headmaster while searching for deaf children from town to town. Adamorobe was one of the places where he did his queries (Kusters 2015). There, Foster convinced the village chief that the deaf should learn to read and write, so he took fifteen deaf children to the Mampong school (Kusters 2015, 152). Still, within the following months, the deaf children quit school for different reasons, such as illness, death of parents, problems at school or fear (e.g.,

of a lion near the school[7]). As a rule, villagers did not like having their children sent away. Consequently, a team of teachers from Mampong school visited Adamorobe and, noting that the deaf children "presented social, educational and psychological differences" (Kusters 2015, 153), proposed to set up a deaf school in the village.

When Foster was in Adamorobe looking for deaf children to have schooling, he was also with deaf adults. He tried to teach them American Sign Language, and in return, he learnt AdaSL. He also taught them the Christian religion while frequently donating food, clothing and hygiene products (Kusters 2014, 476). He expected the deaf to follow the Christian religion in return for the donations, which continued through Foster's followers after he left. This became a habit for the deaf, who became accustomed to receiving donations to Mass (ibid.).

In 1974, the Ministry of Education founded a school with two small classrooms in Adamorobe. The teacher who was assigned to the school followed Foster's method: "a combination of lipreading, fingerspelling, speech training, and some (American) sign language (which was the language spread by Foster)" (Ibid, 154). Nevertheless, due to conflicts between the deaf students and the teacher, the village chief decided to close the school in 1980.

Besides founding Christian schools, Andrew Foster trained deaf Ghanaians to be pastors, establishing deaf Christian groups in Ghana and other African countries (Miles 2004, 542). Samuel Adjei was one of Foster's deaf followers, who, shortly after the school in Adamorobe closed, moved to Adamorobe from Accra. Besides preaching to deaf people, he promoted a course in literacy and numeracy to deaf adults, which lasted only for a few months because they lost interest.

At the same time, some deaf adults attended vocational courses organised by deaf associations, churches and other NGOs. On one occasion, the Ghana Society for the Deaf recruited ten deaf young adults from Adamorobe for tailoring, sewing and carpentry vocational training. However, they quit a short time afterwards. Besides going to Accra, the deaf also complained that they only got one meal a day and that the teacher was strict (ibid). The fact is that deaf people worked hard in farming and were generally tired and hungry afterwards when they still had to cook and do several other chores. Despite everything, some of the deaf learnt to write their names, the

[7] In this thesis, I will analyse 17 personal experience narratives in AdaSL. One of the younger signers tells about having witnessed a traumatising lion hunting. In her story, she comments that it was not safe to stay in Mampong because of the lions and that her grandmother had brought her back to Adamorobe because of that (see Narrative 17, in Chapters 5 and 6, for more details).

names of familiar places like Adamorobe and other nearby towns, and to count up to ten (Kusters 2015, 156–157).

During this time, deaf children had no access to education in Adamorobe. This changed with the arrival of Kofi Arkoful, a deaf priest of the Lutheran church, replacing Samuel in 1998. Concerned with their lack of education, he got support from his church to send the children to one of the deaf schools in Mampong. Thus, in 2000, the last ten deaf children of Adamorobe went to school in Mampong (Kusters 2014, 477).

Kofi Arkoful also took over the masses every Sunday. He preached in GSL, Signing Exact English with some signs of AdaSL (Kusters 2014, 477, and my observations). Kusters (2014, 479) notices that the deaf priest seemed to give more attention to the deaf men seated separately from the deaf women and the children when they were in the village for holidays. Deaf women did not usually pay attention; instead talked to each other or fell asleep (ibid.).

During my stay, mass was no longer held weekly but every two weeks. When I joined them, between 20 to 25 deaf people came. However, just as it happened with Kusters (2014), the deaf priest complained that they came in lesser numbers if we were not there. He also said that sometimes he only went once a month due to a lack of financial means to travel to Adamorobe since he lives in Accra. The mass was translated from GSL to AdaSL, on only one of the six masses I attended. The translation was done by one of the older deaf villagers when a group of hearing Americans who knew ASL visited the village. In the end, all the deaf people received donations.

During my fieldwork in 2018, eight of the ten deaf children that had gone to the residential school in Mampong were already aged between 20 and 32 years old and had returned to Adamorobe. The two others, the youngest, a boy and a girl, 18 and 19 years old, were on holiday in the village when I arrived for fieldwork in early September. By then, they no longer had their studies funded by the church. The girl has hearing parents and a deaf brother and was financially supported by her family to continue studying. The deaf boy has deaf parents and deaf sisters and receives individual support from outsiders to keep going to school.

Out of the eight deaf youngsters, six girls and two boys, who had returned to the village, some interrupted their studies, and the others concluded them. Part of the girls returned pregnant, and two youngsters only attended primary school. During my stay in Adamorobe, none of the girls were working, and only one of them had not gotten pregnant yet. The new mothers stayed at home looking after their children. One of the boys worked as a baker (later, he changed his profession to building construction). The other was at home waiting for his high school certificate and wanted to continue his studies. This deaf boy eventually got into Takoradi Technical University (about

250 kilometres from Adamorobe) to study Graphic Design. He was the first deaf person from Adamorobe to enter university.

Deaf people in Adamorobe have gradually grown apart into two different groups: the elders, the older deaf people in the village with no or little schooling, and the schooled youth, aged between 18 and 31 years old (Kusters 2019, 3). When socialising among themselves (and on the bible songs at mass), the deaf youngsters used Ghanaian Sign Language. However, they switched to AdaSL when communicating with the elders, their families and the villagers. As a rule, the elders were uncomfortable using GSL (see §1.4.4. for more details).

Older deaf people follow subsistence farming, while the younger ones are primarily unemployed despite having done vocational courses such as hairdressing, sewing, and catering. Several external supports, like churches and associations, have tried to invest in small businesses for the deaf (both elders and youngsters), but they all failed for various reasons. The older deaf people constantly return to subsistence farming, and the younger ones dream of leaving the village despite not having the means to do so. They confessed to me that, as the last deaf people in the village, they felt there was no future for them there. The only young deaf person who left the village was the one who went to the university. On his return, saying he finished the course but lacked the money to get the diploma, he remained unemployed.

After presenting the attempts to educate and convert the deaf villagers, initiated mainly by Foster, I next turn to the interaction between deaf people.

### 1.4.4 Social interaction in Adamorobe

So far, I have talked about the village of Adamorobe, the village life, the high incidence of deafness and characterised the deaf people, their educational background and daily routines. Now I focus on how they interact better to understand patterns of interaction in the village, since AdaSL has been in use much longer than in the other two languages in this research.

The first description of the interaction of deaf people in Adamorobe was by David and colleagues (1971, 71) in the context of their research on local deafness. They note that the deaf people seemed happy and communicated without problems with their hearing peers.

After returning from work, usually farming, deaf people bathe, cook and rest. Resting includes socialising with the people they live with (Nyst 2007, 28), both deaf and hearing. It is usual for large families, including siblings and their partners, to share a

compound arranged around an outdoor courtyard where people do their chores, as described in §1.4.1.

Outside the compounds, many hearing and deaf people greet each other and exchange brief dialogues. When deaf people communicate with each other, as shown in Figure 4a, they usually chat for longer than with hearing people (Kusters 2012a, 348; 2014, 471). They can gather in groups of three or more deaf people at once but rarely more than ten. During my stay, I arrived early every morning and greeted deaf villagers in their houses (not all, because some had left to work). One day I would stay longer at one of the houses and the next day at someone else's (see Figure 5b,c).

a. b.

c.

**Figure 5.** Examples of deaf people interacting in their homes.

Kusters (2015a, 93) also observed that deaf people interact with each other more than with hearing people when in the same compound. They use the term 'we are the same' for their families (including both deaf and hearing members) and their deaf peers. Kusters reports several episodes where the expression DEAF SAME was used by deaf people empathising with other deaf people for being equally deaf. They believe they should look after each other, as on the occasion when a group of deaf adults called a young deaf boy and told him god connected them because they were the same, they were deaf.

As a consequence, deaf spaces spontaneously set up by the deaf (Kusters 2014, 472) are rarely joined by the hearing since only some of them know how to communicate with the deaf (Okyere & Addo 1994, 100). As the village grows, fewer and fewer hearing people know AdaSL, resorting instead to traditional gestures to convey essential information. A few hearing people are fluent in AdaSL, usually close family or friends who have grown up with them or co-workers (Kusters 2012a, 348; 2014, 144). These hearing people sometimes join deaf gatherings but hardly stay for long. Otherwise, in hearing gatherings, if a deaf person joins in, hearing people do not switch to AdaSL, even if they know it. Therefore, deaf people complain about not being habitually included in hearing conversations.

On the other hand, hearing people also feel excluded when deaf communicate in AdaSL (Kusters 2014, 145). Deaf people know that hearing people are not fluent in AdaSL and do not communicate as much as they used to. In the past, the deaf and hearing had everyday chores and were more empathetic with each other. Nowadays, there are too many hearing people in proportion; many do not have deaf family members and are not sensitive to the deaf. Thus, conversations with the hearing become shorter and shorter and sometimes even reduced to only greetings (ibid., 146).

Out of the 41 deaf villagers, 28 had deaf parents and 26 had at least one deaf sibling (Kusters 2012a, 347), so deaf people can interact in AdaSL daily and throughout their lives. Kusters (2014, 468) uses the term '**deaf sociality**' to refer to the interaction and social relationship between deaf people. She argues that deaf people in Adamorobe feel their sign language is omnipresent since they can gather spontaneously in small groups of trusted friends to socialise, naturally creating a deaf space. This kind of socialising usually occurs at the end of the working day or in the mornings before farming, and in different places; at the same time, it can be at someone's house or in the middle of the street (see Figure 5).

Deaf people do not seek to gather in large groups. This only happens when they are visited by outsiders, such as by the priest giving the Sunday mass or by external researchers, which was my case in 2018, and also that of Edward (2021), Kusters (2015a) and Nyst (2007). During my stay, when I attended the Sunday mass, more deaf people than usual would join, as explained in §1.4.3.

On Thursdays, the resting day of the Akan religion, most villagers do not work. Instead, they go to nearby towns to sell or buy farming goods at the markets (Nyst 2007, 18). During my stay, I usually met with the elders and some of the youngsters (between 10 to 12 deaf people) on that day under the shade of a big tree (see Figure 6a). In general, deaf people in Adamorobe do not have the habit or interest of gathering in big groups. They seem to prefer staying home resting or chatting in small groups to chat and do their chores. Besides the big tree, the mass would be the larger

space where all the deaf villagers could be together, but they do not see it as an important gathering space since they are close to each other daily and free to socialise when they feel like it (Kusters 2014a, 467).

In other deaf communities – especially those that emerge in schools – deaf people need to be in the same space with their deaf peers to share their experiences, hardships, or achievements because at home there is usually no sign language. By contrast, "[i]n Adamorobe, both deaf sociality and sign language communication are already established. They do not need to be further cultivated in places such as the church. Also, the language used in the church is not fully accessible to them" (Kusters 2014, 481).

Even if not intentionally sought after, socialisation between deaf peers is also not avoided. For instance, at the house where the data for this study was collected, deaf participants stayed there for two or three more hours after it was finished to chat (Figure 6b). Also, on Sundays, they kept on chatting for a couple more hours after the mass (Figure 6c), mainly because I was there. If it were not for me, many would not have come.

a. b.

c.

**Figure 6.** Examples of spaces where the deaf interact: (a) under the shade of a big tree; (b) house where the data collection occurred; (c) in Mass

Deaf people in Adamorobe are not isolated within the village boundaries. Some have migrated to the village from somewhere else. Some have left Adamorobe and moved to other places, such as Accra or the cocoa farms in Nsawan (Nyst 2007, 27; Kusters 2015a, 102). Many of the deaf villagers have already interacted with deaf outsiders or attended vocational courses far away from the village, or participated in church-related events.

Furthermore, at least since Foster's arrival, deaf people have had contact with GSL. Foster taught GSL while learning AdaSL. Masses given in GSL were often translated into AdaSL (although they no longer do this now) since deaf people, especially the elders, had to try to understand GSL, as I have witnessed on two occasions.

Even though deaf people, especially elders, were confronted with GSL often, AdaSL was always maintained as their first language. Also, the younger generation, albeit having been schooled in GSL, promptly switched to AdaSL in the village mainly to communicate with the elders (Kusters 2014, 141).

The elders developed a basic knowledge of GSL from the Sunday masses, their numerous contacts with outsiders and their short experience at school (a few months at Mampong and a few years at the local school) (ibid.). The elders complained that deaf youth's use of GSL in front of them was a lack of respect for them and AdaSL. However, the elders sometimes use GSL signs when they need to say something that should not be understood by the hearing people (Kusters 2014, 147; 2019, 14).

Deaf people of Adamorobe are proud to be deaf and of their language. They believe that god made them deaf and that they have a life mission to be strong and good farmers. They have never considered their language inferior to GSL and are aware of outsiders' interest in and valuing their language (Kusters 2014, 153). However, Kusters mentioned that one of them once complained that people were going to the village to film them communicating in AdaSL and would leave without staying for some time. They were also surprised that outsiders were more interested in AdaSL than GSL.

In 2019, Leiden University organised the conference "Deaf and hearing children in a multilingual world" to present the work of African deaf researchers in Ghana, Ivory Coast, Kenya, Ethiopia and a few other African countries. Research assistants had filmed interactions between deaf parents and their young children, hearing and deaf, in which AdaSL was included. All deaf villagers (except one who had just had a baby) attended the Legon University conference. It was the first time all 32 deaf people left the village together. There they interacted with several deaf people from Ghana and deaf people from Ivory Coast, Mali, Guinea-Bissau, Nigeria, Kenya, Ethiopia, South Africa, Chad, Burundi and Burkina Faso. Although it was not the first international contact for some of them, it may have been the first such a big group of deaf African

academics from so many different countries got together. Some foreign deaf people attempted to interact with the deaf people of Adamorobe, who communicated back in a mixture of AdaSL and GSL signs. This also happened to me in my first few days in Adamorobe and to Kusters as well (2014, 152).

As soon as visitors (including researchers) are included in the conversations, we observe that the deaf share news that has been told by hearing family members and gossip. They talk about the village, illnesses, deaths, relationships, separations etc. (ibid. 2015a, 60). They also tell of their personal experiences with other people, with farming work, in dangerous situations such as animal attacks, witchcraft etc. Some spontaneous accounts collected by Nyst included good and bad memories, such as the death of a baby crushed by a goat or the closure of the deaf school in Adamorobe. On the latter subject, a deaf person tells about his experience with the conflict between students and the teacher leading to the school closure. In another situation, two deaf people are sitting under the shade of a big tree discussing a storm that had happened the night before (Figure 7a). Also, on one occasion, a group of deaf men are preparing kenkey (traditional food) and talking about different topics (Figure 7b) (Morgado 2021).

a. b.

Figure 7. Fragments of interactions, (a) referring to the moment when a big tree fell during a storm and (b) about different topics to the preparation of kenkey, a traditional dish (video frames from the AdaSL corpus, in Nyst 2012)

They are not in the habit of participating in recreational activities like football or traditional ceremonies. Kusters deduces that they prefer to avoid these activities so as not to get into trouble because of hearing people who have insulted the deaf (Kusters 2015a, 62). Because of past incidents, deaf people did not like some of the hearing who were ‘bad’ (ibid., 91) or spoke ill of them. Also, at village events, deaf people did not always have access to translation (Kusters 2014, 146).

Although no differences in AdaSL fluency were noted between men and women, distinctions are pronounced between age groups (Kusters 2015a, 62). Elders are proficient almost solely in AdaSL, and some can use basic GSL. The youngsters are bilingual in both AdaSL and GSL. They were resident students, going home only for holidays during their schooling time. Except for the deaf children of deaf parents, AdaSL got rusty for most of the other deaf students. However, when they finished school and returned to the village for good, they picked up AdaSL again.

In conclusion, deaf sociality, as described by Kusters (2014), is spontaneously present in the everyday lives of deaf people of Adamorobe and has probably been so for many generations. Even with several attempts to superimpose GSL, AdaSL has endured. Several generations of deaf people feel that their deaf peers are DEAF SAME. They feel pride in being deaf and in their language and do not feel isolated. However, the fact that the deaf population is ageing is real. The youngest deaf member was already 18 years old in 2018, and no more children have been born deaf since. Moreover, deaf youngsters dream of leaving Adamorobe as they feel there is no future there.

Here I focused on the context of language use by deaf people in Adamorobe, including interaction, sociocultural practices, and historical events. In the next section, I turn to what we know about the language of AdaSL itself.

### 1.4.5 Adamorobe Sign Language

Since it appears there have been deaf people in the village for a long time, a sign language likely emerged as the deaf interacted with each other and their hearing peers. To facilitate communication with the deaf, gestures used by the hearing villagers were integrated into Adamorobe Sign Language (AdaSL) (Nyst 2007, 115; Nyst 2010, 31; Kusters 2015, 63, 71, 209).

The first description of the language used by the deaf in Adamorobe was done by a medical team, who visited the village to examine the origin of deafness in 20 deaf people:

“The deaf indeed appeared happy and enjoyed a quality of life similar to the normally hearing villagers. Undoubtedly contributing to this adjustment of the deaf was their ability to communicate with one another using sign language. We were most impressed by this system of communication when conversation by this means was demonstrated to us. Critchley's (1963) previous description of the gestural system of the deaf is eminently fitting to these people in particular. The system is indeed graceful and pleasing to the eye and when attractive facial mimicry accompanies the gestures, the result is most eloquent. Gestures are executed at a very rapid rate so that one might

well believe that it is comprehended about three times as fast as spoken speech." (David et al. 1971, 71)

It was only later that Frishberg (1987, 78) designated the local sign language as Adamorobe Sign Language, describing it as a "traditional deaf sign language" with as much time as ASL (American Sign Language) or LSF (Langue des Signes Française – French Sign Language). She further explains that hearing relatives and neighbours "know, understand and use AdaSL" with the deaf. She was the first to film deaf people signing (Miles 2005). The videos have not been made public; neither have descriptions of them. However, she does mention that AdaSL has some fundamental and universal features, such as more basic handshapes and verb agreement also occurring in ASL, while revealing other idiosyncratic features. She also suggests that AdaSL seems to be based on "the gestural trade jargon used in markets throughout West Africa".

Nyst (2004, 2006, 2007a, 2007b, 2008, 2010, 2012, 2016, 2018, 2019) has published the most work on AdaSL, including a corpus, many by herself and some with colleagues comparing AdaSL with other sign languages (Nyst & Baker 2003; Nyst & Perniss 2004; Tano & Nyst 2018; Nyst et al. 2021). Nyst wrote a detailed thesis on AdaSL that describes (1) its **phonology**, (2) some **semantic fields** (colours, kinship, numbers, time and name signs), (3) expressions of **size and shape** and (4) expressions of **motion**. These last two topics were ground-breaking because the expression of size and shape is very unusual in AdaSL for being body-based (see Chapter 6 and Study 3 for details). Regarding the expression of motion, Nyst observed that space is primarily used in the **real scale perspective**, where the signer and his signing space are life-sized (see Chapter 5 for details). Otherwise, even though she notes that the **reduced scale perspective** seemed to be considered universal in sign languages (Nyst 2007a, 155–157), she did not find it in the AdaSL data. She claims that "AdaSL lacks a system of entity classifiers to express location and motion" (2007, 204) enabling signed productions in the reduced scale perspective. Although Morgan (2020, 66–67) also reports a reduced entity classifier system in Kenyan Sign Language, this was a surprising finding (e.g., Zwitserlood 2012, 158; de Vos 2012, 10, 17; Edward 2021) since it is quite common in other sign languages. The manipulation of model-sized entities (i.e., entity classifiers) in a reduced scale signing space has been identified in several sign languages such as ASL (Liddel 2003), Libras (Língua Brasileira de Sinais [Brazilian Sign Language]) (Sutton-Spence 2020) and DGS (Deutsche Gebärdensprache [German Sign Language]) (Perniss 2007).

Nyst and Kusters (2019, 8) observe that AdaSL includes signs that are derived from traditional Akan gestures used by hearing people in Ghana and the neighbouring countries. Besides incorporating conventional gestures, AdaSL has **mouthings** influenced by the spoken language, Twi (an Akan dialect). Hearing people say that

AdaSL is an Akan sign language (Kusters 2014, 150). Deaf people use **conventional gestures** to communicate with non-signing hearing people both in and outside Adamorobe (Ibid, 64).

Nyst collected videos for her thesis which were archived on a corpus (also explained in §1.2.5). These videos include interactions between deaf signers, in pairs or groups. Just to give some examples, it can be spontaneous conversations, like telling about a mouse (showing a real mouse) that had just been caught and they plan on how to make a cage for it. Other videos show a break from farming where they rest and talk in the courtyard of a house and some are individual videos in which they produce signs and stories elicited through illustrations.

AdaSL emerged as an isolate, without any other sign language influence. This is unlike GSL, which is strongly ASL-based, due in large part to the influence of Andrew Foster described above. Both sign languages have different lexicons, but because they have emerged within a common culture, they share many signs, especially for Ghanaian customs and food (but see Hadjah forthcoming).

Edward (2021) focused mainly on iconicity on lexical items, spatial representations, and simultaneous constructions. In her PhD thesis, she compared GSL and AdaSL and hearing gesturers from both urban and rural settings. She looked at lexical items in different semantic categories and compared the iconic strategies, concluding that they show an overall similarity in depicting preferences per semantic domain. Edward also compared the grammatical iconicity in the representation of location, motion and action in those two languages. Again, Edward (2021, 237) found many similarities, like both preferring the character-narrator and the narrator perspectives in the representation of motion and the character-narrator and the character in action events. As an important difference, she saw that GSL signers use much more entity classifiers than AdaSL's in the expression of motion and a preference of GSL signers for observer perspectives in action events. However, Edward (2021, 340) observes the use of entity classifiers in reduced scale, like the two upright indexes to depict the motion of two persons riding bikes towards each other, acknowledging that such use may have been influenced by GSL, or eventually by the elicitation material.

Previously, it has been observed that only some hearing people master AdaSL, such as family members, neighbours and friends of the deaf (cf. Frishberg 1987; Okyere & Addo 1994, 100; Nyst 2007, 29; and Kusters 2015a, 62). Kusters, as a deaf anthropologist, became a fluent user of AdaSL, after spending a total of ten months in the village, accompanying the deaf in their daily lives. When she arrived in the village, she was surprised to see no one communicating in sign language (Kusters 2014, 142). I had the same impression when I arrived. While going from house to house where deaf people lived, no one signed. Even within the compounds, when deaf

people were present, the hearing communicated only orally among themselves. As explained in the previous subsection, hearing people fluent in AdaSL only used it to communicate with the deaf in small conversations, give simple chores instructions, share news, and not much else. Kusters explains that AdaSL in Akan is called mumu kasa, which means 'deaf language', implying that AdaSL is meant for communication with and by the deaf. Thus, the hearing are likely to use it only to communicate with the deaf (Kusters 2014, 150) as a secondary language (Nyst 2007, 211), in a situation of 'contact signing' between the local signed and spoken languages (as defined by Valli & Lucas 2011, 192).

On the topic of **language attitudes**, Kusters interviewed deaf villagers to understand better how they saw AdaSL, which they described as HARD, with the sense of being more complex, robust, enjoyable and challenging to learn for those who do not know it (Kusters 2014, 139,151; 2019, 9). In comparison, even if they consider both languages, AdaSL and GSL, to have the same status, they characterise GSL as SOFT. They are proud of their language (Kusters 2014, 151), but they also value GSL and recognise its importance. They recognise that deaf youngsters have more access to the outside world for being bilingual (ibid., 151). Despite acknowledging some advantages of using GSL, such as helping them communicate with outsiders or saying something without being understood by the hearing villagers (ibid., 152), the elders know little about GSL. They disagree that it is used in Adamorobe (ibid.).

In terms of **language status**, Ghanaian deaf people, in general, consider AdaSL as a language of inferior status and not even a real language (ibid., 152–153). During both our fieldwork, Kusters' (2014, 153) and mine, we experienced several situations where Ghanaian deaf people did not understand our interest in the deaf people of Adamorobe. For instance, Arkoful, the deaf priest from Accra to preach Sunday masses in Adamorobe for the past 20 or so years (see §1.4.3 for details), makes no effort to communicate in AdaSL with the deaf villagers. He justified this by explaining that AdaSL was not an actual language and did not even have a status as GSL did. In another situation, there was a deaf man who was born and raised in Adamorobe, then moved to the capital and became a GSL teacher. One day when he was visiting the village, he saw me and started asking me questions in GSL. I was with a group of deaf people, mostly elders. After I explained what I was doing in the village, he was surprised and did not understand why I valued AdaSL. The elders got angry with him and sent him away. Then, one of them told me they did not like people using their language. Also, I encountered a few of the younger deaf people in the village who tended to communicate in GSL, and I had to ask them to use AdaSL while filming some of the tasks.

In conclusion, the published research on AdaSL describes various aspects of its linguistic content, as well as information about how AdaSL is viewed in the

community. About the research in this current study, the question is what types of narrative structure and devices are present in AdaSL storytelling? With enough communication partners (i.e., community size) and enough time/generations, it might be expected that narratives have become quite sophisticated. However, the community is still relatively small and hearing people are among the interlocutors, so perhaps those factors have constrained the development of the narrative structure. In this thesis, I posit that time depth could be one influencing factor on narrative structuring. We know that AdaSL is at least a few generations old and is potentially as old as the 250 year mark that coincides with the founding of the village, as suggested by Okyere & Addo (1994, 100). I sometimes refer to this age for convenience, to symbolise a long time of existence, but in truth the exact age of AdaSL may never be known."

As a final note, it has to be acknowledged that, since AdaSL signers had contact with Foster, they have been often exposed to ASL and then to GSL which may naturally have influenced AdaSL, even if indirectly. Such an influence certainly deserves to be investigated further but it goes beyond the scope of this thesis.

Having described AdaSL, the oldest and most thoroughly studied of the three West African sign languages, I now turn to LaSiBo.

## 1.5 Sociolinguistic profile: Langue des Signes de Bouakako

In this section, I focus on the background of Langue des Signes de Bouakako (LaSiBo). To contextualise LaSiBo within the present study, I start with a description of the village (§1.5.1) and then of the deaf community (§1.5.2) and their interaction habits (§1.5.3). Finally, I summarise previous studies on LaSiBo and their relevance to sign linguistics (§1.5.4).

### 1.5.1 The village of Bouakako

The village of Bouakako is located between Abdijan, about 250 kilometres to the southeast, and Yamoussoukro, the capital of Ivory Coast, 100 kilometres to the north (see map in Figure. 25 in Chapter 2). Bouakako does not appear on Google Maps, and one can hardly find information about it on the internet, except for what concerns LaSiBo. The village belongs to the municipality of Hiré (Figure 8), which is eight kilometres to the northeast of Bouakako. The city of Hiré has significantly expanded

because of job opportunities in two nearby gold mines. In 2014, Hiré had more than 50.000 people, and by 2021, it had grown to more than 78.000.

**Figure 8.** Bus station in the main street of Hiré

In comparison, Bouakako had 1.233 people in the 2014 Census. Updated records have yet to be available, but it seems irrefutable that the village has grown since.[8] The village lies on top of a hill in a forest area (Figure 9a) and is connected to the city by a beaten-ground road. The houses are made of bricks, adobe (Figure 9b) or metal sheets (Figure 9c), and many of them do not have electricity, although the village has it (Tano 2016, 59). Under the rule of a chief, most villagers farm, growing cocoa (whose season I witnessed during my fieldwork, as shown in Figure 9d), coffee, plantain, and cassava, among other crops. Although there is a small market for local trade in Bouakako, villagers usually go to Hiré three times a week to sell their crops. They go on foot, by bicycle, motorbike or car (ibid., 62). Besides farming, they engage in hunting and mining. In this region, people speak a Dida dialect, the Dida Mamini whose original people may have been historically related to the Ashanti, an Akan

[8] Personal observation by the assistant who worked with me and grew up in Hiré in February 2023.

ethnic group, in Ghana (Tano 2016, 61). Village children go to the only local primary school where they are taught in French, the official language of Ivory Coast (ibid., 59)

**Figure 9.** Pictures taken in Bouakako during fieldwork: (a) forest landscape surrounding the village, (b) adobe house, (c) metal sheet house, and (d) cocoa drying

As part of the Dida ethnolinguistic group, the villagers have their traditional religion. Tano (2016, 63) does not specify which religion they follow, but he explains that they worship deities. Christianity is also very present in the village (ibid.).

In the following subsection, I describe the deaf people in the village.

### 1.5.2 A deaf 'family'

Seven of the 1.233 inhabitants registered in the 2014 census were deaf, representing 0,6% of the population. Angoua Jean-Jacques Tano (2016; 2022), a hearing linguist from Hiré, was the first to examine these deaf people and their sign language. Tano learned from a friend in 2008 that a deaf person lived in Bouakako. Since he was

searching for linguistic models from different Ivorian deaf communities for a study, he set out to meet that deaf villager. When he got there, he realised that there were three deaf brothers. Through one of the brothers, Tano found four more deaf people living in the village (2016, 93). With support from a grant from the Endangered Language Documentation Programme, he returned to the village three years later, in 2011, to document one of the country's sign languages.

Tano analysed the ancestry of the deaf villagers and gathered that there were consanguineous relationships of different levels between them (ibid., 31). Altogether, there were deaf people in four families: those three brothers (two had been born hearing and became deaf at the age of 5 or 6) belonged to one family; in another family, there were two deaf brothers; and in two other families, there was only one deaf person each (all deaf members had hearing siblings).

The eldest deaf man was 50 in 2011, now (in 2019) he is 58, while his younger brother is now 48. In the other family of three brothers, the eldest is now 37, and the youngest, a deaf woman, is 24. The middle brother had been killed a few years before and was seemingly a bright and active person. The two deaf individuals without deaf siblings, a man and a woman, are now, respectively, 47 and 39 years old. The youngest deaf person in the village was born possibly in 1996. This makes her 27 years old now. Of the five deaf men and two deaf women (ibid., 67–68), only three got married, and these had hearing children. Thus, Tano (2016) hypothesises that the cause of deafness is genetic, although the villagers themselves attribute the deafness to them being cursed since witchcraft is very prominent in the village. Since a group of deaf adults (between 24 and 58 years of age) are related to different degrees of consanguinity (Tano 2016, 31), LaSiBo could be termed as a family sign language. Although there is nothing written about whether the Bouakako village had deaf people before this group, this cannot be known for sure.

Tano writes that LaSiBo emerged when the oldest deaf person in the village was supposedly born in 1961. However, as mentioned in §1.2.2, considering that sign language develops naturally amongst deaf peers, I would instead consider its time depth according to the age of his deaf brother, the second oldest deaf person in the village, ten years younger than him. With this in mind, it might be more realistic to say that LaSiBo emerged around 1970, when the two brothers may have begun communicating more systematically with signs. However, there is no documented record of whether the two brothers with a ten-year age difference had socialising habits in their childhoods. It is not very clear whether deaf people interact with each other and even less as a group. Tano explains that a few of them interact with another deaf peer in pairs (see next subsection for more details). Tano (2016, 73, 131, 165) labels it as an emerging family sign language, in its first generation. I will follow these designations, keeping in mind that it will probably not live beyond its deaf signers.

None of the six deaf people went to school and thus remained illiterate (ibid., 68), though, at the moment, Tano is putting together a project to teach the deaf group to read and write. They are all farmers, and, like the hearing people, they leave to work early in the morning and return in the evening.

The following subsection characterises the interaction of the deaf between each other and the hearing people.

### 1.5.3 Social interaction in Bouakako

Given the fact that the deaf people in the small village of Bouakako consist of one generation of a small number of signers (Tano 2016,131, 73, 165), how do they relate to their peers, both deaf and hearing? Tano suggests that, at first sight, the deaf seem well integrated into everyday life. However, only some people outside their close families know LaSiBo and instead, limit communication to basic gestures. LaSiBo is used by 15 hearing people (Tano 2016, 31–32), but only two are fluent enough to act as intermediaries – not to say interpreters – with the hearing (ibid., 78). This means that 0,5% of the population uses LaSiBo, both deaf and hearing.

Deaf people participate in village activities, festivals and ceremonies. However, Tano and his deaf assistants from Abidjan, who stayed in the village for five months and at other times for three weeks to a month, noticed that the socialisation was not quite as they first saw it. On the contrary, the deaf were pushed aside. For one, only hearing people were recruited to work in the gold mines, and, in other jobs, the deaf were not compensated as much as the hearing were. Although the villagers acknowledge the deaf as good farmers, they never involve them in conversations nor recognise their need to access information, such as in church. Consequently, deaf people cannot express themselves and give their opinion in discussions or meetings. Therefore, while deaf people participate in everyday activities, they feel isolated and tend to withdraw from the group (ibid., 69–70), showing that they are not fully integrated into village life.

There have been no marriages between deaf people since deafness has never been well accepted in the village. It is also considered shameful for a hearing person to marry a deaf person. The two hearing villagers who married deaf people are somewhat marginalised or ridiculed since some hearing still see deafness as a contagious disease. Deaf people who are unmarried find it challenging to get partners because of this kind of discrimination (ibid., 71–72).

Tano describes the socialisation habits of each deaf person (see Figure 10), observing that the conversations between them and their families were concise (ibid., 75). Four of the six deaf people have a preference for a hearing interlocutor who is a friend or a

family member, such as a sister or an aunt with whom they communicate in LaSiBo. He explains that these deaf people that have a hearing person as a preferred interlocutor work and/or live together, sharing daily tasks. For instance, one of the deaf women grew up with a hearing aunt, with whom she works in farming and at home. Also, the hearing husband of one of the deaf women had been long a close friend of one of the deaf men, which made him fluent in LaSiBo (ibid., 76), although in my fieldwork I saw them speaking while signing. That deaf man has a deaf sister with whom he does not live nor socialise daily. The only two deaf women interact with each other only occasionally (Tano 2016, 76 – 77). The other two deaf men do not seem to have a preferred interlocutor and one of them spends most of his time alone. All six deaf live near each other, crossing one another often but they do not share any tasks (ibid. 77 – 78). Tano further explains that the three of them visit each other regularly but are not close friends (ibid., 159). The brother and sister did not grow up in the same house. They had a brother who died recently. The two brothers grew up together while the sister went to live with her hearing aunt from the age of six (ibid., 155). It was not clear whether the other two deaf brothers socialise between each other and the remaining deaf villagers.

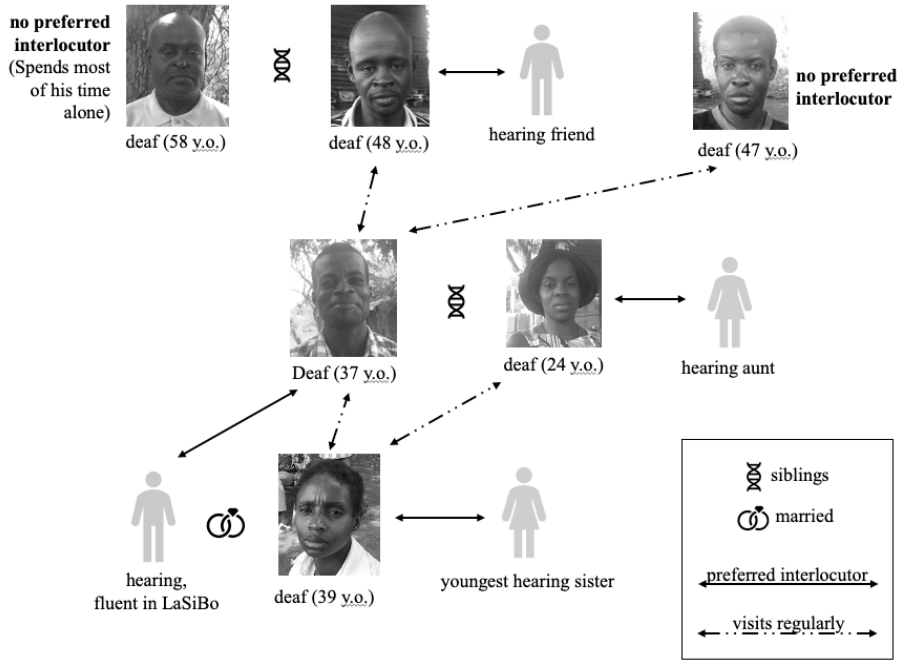



**Figure 10.** Interactions between signers in Bouakako

Despite their physical proximity within the village, it is not very clear how often they interact. Due to large age differences, siblings may have had little interaction during childhood and youth. I rarely saw them signing to one another. On one occasion, while we were all sitting together with a group of hearing people talking to each other, the deaf were silent. Some had their eyes on the floor, others on someone else, and they rarely signed. Meanwhile, the deaf person we were waiting for appeared and sat in a free seat next to another deaf man. He began by telling the deaf man sitting at his side what had just happened to him. He had seen a python being killed by people from another village. Then, he repeated the story to the rest of us. Oddly, the deaf group sitting with me watched the deaf man's story but did not seem interested and barely reacted. The hearing people there were more interested in the story than the deaf group. This type of lifeless interaction was typical throughout my stay[9], whereas, for instance, right on my very first day in Adamorobe, the deaf naturally interacted a lot with each other in front of me.

In another situation, we were all on the balcony of the house of the deaf woman married to one of the two hearing men fluent in LaSiBo. I brought with me a questionnaire for the deaf participants. The oldest deaf man took a paper, started 'reading' and then told me that reading was good and smart. He then pointed at the other deaf people and said they could not read, which was bad. They kept quiet, not reacting to that statement. They are all illiterate. This shows that they feel inferior to their hearing peers.

The deaf people in Bouakako do not have contact with other deaf. Tano's assistants were the first ones they met. After that, Tano presented his work on LaSiBo in Abidjan and invited the deaf villagers. I was the first white person to visit the village, which stirred quite a bit of confusion because, on top of that, I was deaf. It seemed that they believed that deafness only happened to them. They tried to communicate with me through gestures, which I felt were similar to those used in Ghana. They would point to their ear and gesture 'How come?' as if it was hard to believe. My hearing assistant explained that I came from the same university as Tano. They were confused that I could read and was a researcher like Tano. I naturally responded that I was deaf like

[9] Although this may feel like a strange behaviour from a group of deaf people, I have to relate it to my own personal experience as a deaf person. Before meeting deaf adults outside of school at the age of 16, my interactions with the deaf were limited to age peers. At that time (in the late 1980's beginning of the 1990's) we were often called as "monkeys" by the teachers for using signs. This made us feel ashamed of being deaf and many of us tended to avoid socialising with each other and seek hearing people instead. I believe that the deaf people in Bouakako may have a similar experience of being looked at as inferior.

the deaf villagers, pointing at them. During my short stay, only two deaf men socialised more with me. The others were quieter, even when I tried to pull them into the conversations.

Andrew Foster was also present in Ivory Coast but never in Bouakako (see §1.4.3 for details). Thus, when Tano and their deaf assistants visit Bouakako they avoid using the ASL variant of Ivory Coast (ASL-CI). Even the manual alphabet is known by only one deaf villager who can spell his name, as witnessed by Tano at a conference in Abidjan, where some deaf attendees tried to use it with the villagers with no success. (ibid., 74).

In sum, deaf people in Bouakako constitute a very small group that does not seem to be connected by any tight relationships. When they interact with each other, it occurs more likely within the same habitual pairs. Their most noticeable preference is for hearing interlocutors. Even though they are usually close to one hearing person, they feel isolated and are discriminated against in various situations. Such feelings of inferiority are not unusual in deaf people that are looked at as less able to do things than their hearing peers. Moreover, considering that deaf people's apparent 'inability' in such marginalising contexts is centred on the language, they may opt to avoid signing with each other. Nonetheless, LaSiBo is still used for basic conversations on daily topics, probably highly contextualised, at least between two signers at a time.

### 1.5.4 Langue des Signes de Bouakako

In the previous subsection, I described how deaf people in Bouakako typically interact with each other and their hearing peers, which is generally not very much. What do we know about the linguistic content of LaSiBo, and what can we say about the status of their language?

Tano's (2016) PhD research focused on LaSiBo's signs by semantic categories, such as kinship, colour, the number system, and time, just as Nyst (2007) had done for AdaSL. Tano compared the two sign languages, LaSiBo and AdaSL, especially regarding their differences in lexical structures developing over time (Tano 2016, 41). He concluded that having both languages evolve within a similar environment, spoken language, and culture (ibid., 326), they present similar language properties. For instance, their signing space is relatively large (ibid., 163), and they use whole-body movements (ibid., 167), such as moving the feet to sign WALK in both sign languages. At the same time, he found differences in the colour lexicon. In AdaSL, signers rely greatly on mouthing to distinguish colours, while, LaSiBo signers tend to indicate the colour directly in their immediate environment (ibid., 253). The only sign that appears to be conventionalising is rubbing the arm with the palm for light colours (ibid., 247, 253). In general, LaSiBo often resorts to indicating real things (ibid., 323). Tano also

observed that some of the LaSiBo signs were also used as gestures by the hearing, such as MAN and WOMAN, which are very productive in denoting kinship. Apart from these, TALL, SHORT, SAME, OLD or BIRTH are also used through polysemy (ibid., 207). Even though compounding may occur, single forms are more frequent (ibid. 217). While LaSiBo still exhibits much variation in these signs, AdaSL distinguishes between WOMAN and MOTHER (ibid., 327).

Tano concludes that AdaSL has a conventionalised lexicon in contrast to LaSiBo, as evidenced in colour designations. This may be due to the small number of signers. The fact that they all know each other facilitates their mutual understanding. When they create signs, they rely on shared knowledge. For instance, specifying kinship may be optional since everyone knows who they are (Tano 2016, 218).

Later, Tano and Nyst (2018) compared size and shape specifiers in LaSiBo, AdaSL and Anyi speakers' gestures (see Chapter 6 for details). They showed that all made use of the body to express size and shape. Moreover, LaSiBo signers and Anyi gesturers would rely on a larger signing space by using the leg and, especially gesturers, by pointing at objects in the immediate environment (see Chapter 7 for more details). In sum, descriptions of LaSiBo have thus far been carried out by Tano and colleagues, focusing mostly on the lexicon and size and shape depictions (Tano 2016; Tano & Nyst 2018; Tano 2022; Tano & Le Guen 2022). However, it is yet to be known how LaSiBo signers structure their narratives, which signing perspectives they use, and if they can shift between character roles or construct dialogues.

To conclude, the village of Bouakako has a small group of deaf inhabitants who have not been to school, and who do not seem to have frequent or lengthy conversations with other deaf people. Even their interactions with hearing people appear to be limited. Their sign language, LaSiBo, has some conventionalised signs (e.g., colours), but also a lot of lexical variation.

I now turn to the third sign language included in this study, the emerging sign language of Guinea Bissau: Língua Gestual Guineense (LGG).

## 1.6 Sociolinguistic profile: Língua Gestual Guineense

In this section, I describe the background of Língua Gestual Guineense (LGG) as one of the sign languages of this study. I present the city (§1.6.1) and explain how sign language emerged in an educational context (§1.6.2). Then, I describe the interaction dynamics of deaf people leading to the development of their sign language (§1.6.3). Finally, I summarise previous work on the linguistic structure of LGG (§1.6.4).

### 1.6.1 The city of Bissau

Guinea-Bissau is one of the smallest countries in Africa, located on the west coast. Ghana has an area of 238.000 km$^2$, and the Ivory Coast of 322.000 km$^2$. In comparison, Guinea-Bissau is only around 36.000 km$^2$, about nine times smaller than the other countries. The population of Guinea-Bissau is slightly over one million people, while Ghana has over 30 million and Ivory Coast 28 million.

Bissau is the country's capital. Its city and the surrounding region have 664.000 inhabitants[10] Bissau began as a village of hunters and farmers until the Portuguese colonisation in the seventeenth century when it became an important trade centre. Since its independence in 1973, Guinea-Bissau has endured severe political instability affecting the country's economy. There is a high mortality rate and a life expectancy of 64 years[10]. The city centre maintains the Portuguese colonial style (see Figure 11). It has historical monuments, a post office, a hospital, a cemetery, restaurants, cafes, pharmacies, banks, schools, supermarkets, and hotels.

**Figure 11.** National Heroes monument in the city centre of Bissau

[10] https://www.cia.gov/the-world-factbook/countries/guinea-bissau/#people-and-society

Around the city centre, there are large neighbourhoods – former villages – where most people live. The living conditions in these neighbourhoods are similar to the ones in the villages (Figure 12a). According to the 2008 Census – and also from my observations on the site (but see Martins forthcoming), houses are mainly of adobe or baked clay, and most do not have electricity or water. Houses typically shelter large families sleeping on mats in the same room. Houses usually do not have wooden doors but fabrics instead. The sewerage and rubbish systems are still precarious (Figure 12b), and most people fetch water from shared wells (Figure 12d). The outside bathroom is also shared. Generally, people cook with firewood or charcoal (Figure 12c). Also, even if television is still a luxury, many own mobile phones.

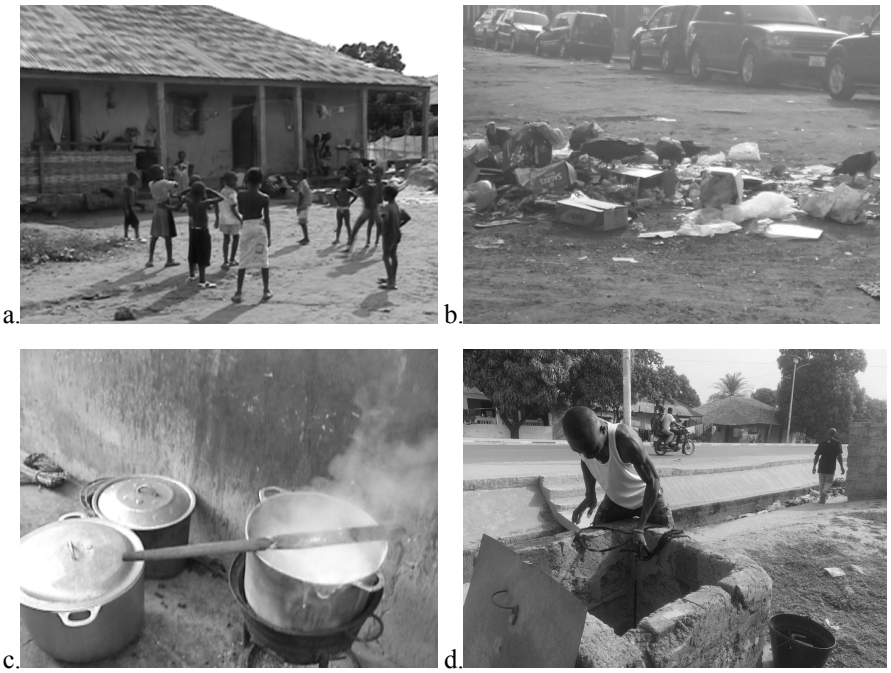



**Figure 12.** Example of a house made of baked clay (a), rubbish on the streets (b), coal-fired cooking pans (c) and a shared water well (d)

There are about 30 ethnic groups spread around the country. The most significant is the Fula, followed by the Balanta, the Mandinga, and the Papel. Each ethnic group has its language, cultural traditions and customs (Beech 2020). For example, the Fula and the Mandinga are more engaged in trade, but the former also do animal pastoralism, while the latter alternate trading with farming (Gomes 2018). Regarding

agriculture, the Papel people focus mainly on growing cashew (Fernando 2006). Ethnic groups use their languages as their primary language. Portuguese is the official language, spoken only by 27% of the population, but Guinea-Bissau Creole, called 'Kriol' or 'Guinensi' locally, is the lingua franca and is used by about 90% (Census 2008). Creole is the everyday language used in public spaces, on television, in political speeches and even in education, as the mainstream spoken communication (Filomena 2008).

### 1.6.2 The emergence of a school-based sign language

In the previous section, I introduced the country of Guinea-Bissau and its capital Bissau, which is where gatherings of deaf people were first documented. In this section, I describe the history of this language based on discussions with deaf and hearing people in Guinea-Bissau and on the direct experiences and observations of me and Mariana Martins.[11]

When we first went to Bissau in 2005, a group of deaf students had already been gathered in a school setting for two years when the language likely began to emerge. In 2003/2004, the school for the blind received 18 deaf children and youngsters (15 boys and three girls). The teachers had been trained to teach the blind and not the deaf. Thus, the president of the Association of the Blind, who was also the coordinator of this school, and his secretary visited the Portuguese Association of the Deaf (APS) in Lisbon in 2004 to ask for some guidance. APS gifted them with a Portuguese Sign Language (Língua Gestual Portuguesa, LGP) dictionary and a poster of the manual alphabet. By then, Mariana worked at APS as a hearing sign linguist, fluent in LGP, teaching deaf adults and deaf LGP instructors. I was coordinating the LGP department, as a deaf teacher, in the most prominent school for the deaf in Portugal.

To teach the deaf students, the hearing teachers tried to teach LGP in an 'unsmooth' way according to what they were learning from a paper dictionary they had brought from Portugal. In 2005, Mariana and I went to Guinea-Bissau to give a training course on deaf education to the teachers. When we arrived, the hearing teachers wanted to learn LGP to communicate with the deaf students. We explained that the LGP lexicon was strongly influenced by the cultural habits of the Portuguese deaf community and that it did not make sense to apply it locally. We stressed that seeing how the students communicated and learning from them was important. During the training, there was one deaf young man who had lost his hearing at the age of eight and was now studying at the university. His name was **Amaré Soares**. While Mariana gave part of the

[11] Mariana Martins' doctoral research at Leiden University focuses exclusively on the emergence of Língua Gestual Guineense (LGG) and some of its linguistic properties.

training in spoken Portuguese, I would sit next to Amaré and transmit the same contents in writing to him. At the same time, I would ask him questions about deaf people's situation.

On the spot during that visit, we filmed the deaf people as much as possible without thinking if the videos would be helpful in the future. When we became aware of the importance of what we were witnessing – the emergence of an autochthonous language, we started a video diary of our impressions. Besides the daily videos, we also kept written notes (including the conversations with Amaré) that will be used in this section. Over the years, we interviewed different people, namely hearing teachers and deaf adults, making short visits (between two to three weeks) to Bissau in the years 2005, 2006, 2008 and 2018 (Mariana also went in 2017 and 2022). After the pandemic, in 2022, Mariana returned to Bissau to further describe the deaf community and to gather documentation stating the exact number of deaf students that have been enrolled in the local schools for the deaf. I use her updated information in this description, as well.

Considering that Bissau is a small city and the surrounding neighbourhoods have a village-like life, it is natural to assume that deaf people have been living there among their hearing peers for a long time. For instance, in one of the neighbourhoods called Quelelé, where Amaré lives, there were, back in 2005, about 20 deaf people of different ages (the youngest was four years old, and most were young adults). At that time, an average of nine deaf people occasionally met there (see Figure 13). They were not from the same family and, as a rule, had lost their hearing after birth. Amaré told us that other neighbourhoods had small groups of deaf people as well and that they communicated in traditional Guinean gestures. At the time, he did not believe that that was a language. Nonetheless, the hearing people seem to easily use gestures to hold basic interactions with the deaf (see Martins forthcoming for more details on the gesture use).

There were also scattered deaf people in the capital, many unschooled. On one occasion, we went to the house of a deaf 16-year-old who had not been in the habit of meeting other deaf people. I tried to talk to him with some difficulty. However, his father said they communicated with gestures and that he was smart. Then he asked him to get the candlesticks that he did to show them to us. It was his work. He made candlesticks from cans and sold them. In the meantime, he started going to school and became more sociable. With this example, I hope to illustrate that 'isolated' deaf people led their lives within the hearing community as best as possible. However, only after the school was established did they begin to gather more regularly and in larger groups.

a. b.

**Figure 13.** Group of deaf neighbours in the Quelelé neighbourhood in 2005.

During our first visit to Bissau, we asked deaf students to join the training, although it was July, the school holidays. As they showed up, we saw them communicating in the playground, but when they entered the classroom where we all were, they greeted us with "Good morning teacher" in LGP. They had learned these signs from the LGP dictionary brought from Portugal. However, the signs were produced unnaturally, as if they were a set of detached frames. Once in the classroom, they 'recited' the LGP alphabet, whose poster hung on the wall. Then the teachers showed us the weekdays in LGP. We explained that signs for weekdays had been created according to the old weekly menu and weekend routines at the deaf boarding school (students used to eat meat on Mondays, fish on Tuesdays, spaghetti on Wednesdays, rice on Thursdays, codfish on Fridays, on Saturdays they went home and on Sunday they went to mass). They also used the signs for the months in LGP, which were again primarily based on Portuguese customs.

At the same time, by watching deaf people's informal interactions, we saw that they had their sign names, signs for animals, food, school material and so on. Since we were training the teachers in the morning, we gathered with the deaf children and youngsters in the afternoon to document their signs for various topics already in use. We used local schoolbooks illustrations to elicit discussion topics.

Signs that were not conventionalised were discussed within the group, and part of these discussions was filmed. For instance, to sign 'bath', most referred to washing their bodies by throwing water with their hands from a basin to their shoulders, while only a few used a shower. Also, for sweeping, most of them signed it with their hand as an entity replacing the shape of a small broom of straw sticks, while very few knew the longer broom. To sign 'plane', there was again a short discussion, where it was clear that a wider variant by stretching the two arms replacing the plane's wings coexisted with a single hand modelling a flying aircraft (Figure 14a).

As a result, we photographed a first set of 200 signs of the emerging LGG (Figure 14b). Then, we printed it as an informal short dictionary and handed it over to the school on the last training day in August 2005.

a.

b.

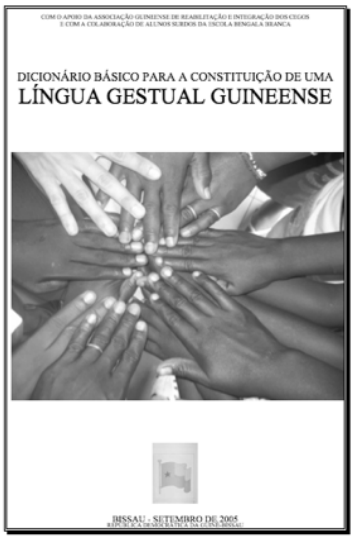


**Figure 14.** Sample of the first informal dictionary with 200 LGG signs (b) and a video frame of a discussion about the sign for 'plane', showing two variants, one produced with one hand (on the left) and the other with two stretched arms (on the right) (a)

The school administration showed the dictionary to public institutions asking for support to publish an LGG dictionary formally. Mariana Martins and I named the dictionary of LGG to claim its autochthonism from LGP (Portuguese Sign Language). It was not something that we thought about at the time. We were only aware of the

fact that they used ‘gestu’ in Creole to designate the signs used by the deaf (but see Martins, forthcoming, for more details). In this way, the deaf community and its language gained progressively more respect from the hearing community (see Martins, forthcoming for more details on the LGG dictionary collection).

In the following school year, 2005/2006, 84 deaf students (48 boys and 36 girls) enrolled, and the secretary of the blind association, José Augusto Lopes, established the **National School for the Deaf of Guinea Bissau (ENS)**, becoming its director. At the same time, the **Association of the Deaf of Guinea Bissau** was founded, and Amaré was elected its president.

At first, the ENS school, located in the city centre, had two classrooms (Figure 15a), but as the number of deaf students increased, they had to be distributed in three daily shifts. A few years later, the school director secured funding from the Portuguese Cooperation to build a boarding school for the deaf (Figure 15b) in Ponta Gardete, about 12 kilometres from the city centre (see map in Figure 26 in Chapter 2). In addition, he acquired the students’ transportation by bus to and from the new building of the ENS (Figure 15c).

Having realised the importance of learning LGG from deaf students, the teachers started using it to teach all school subjects: Portuguese, mathematics, history, drawing etc. In addition, a few teachers went to Lisbon for training periods of about three months at the school for the deaf and at the deaf association. They also understood the importance of the adult deaf model and began employing them as LGG instructors (Fig 15d).

a. b.

c. d.

**Figure 15.** First two classrooms of the National School for the Deaf in the city centre (a). Newly-build boarding school for the deaf in Ponta Gardete (b). School bus taking deaf students to and from school (c). Class taught by a deaf teacher (d)

Meanwhile, Amaré, the only deaf person with a complete educational degree during our first visit, attended a four-year course for sign language instructors at the Portuguese Association of the Deaf (2005 to 2009). He returned to Guinea-Bissau as soon as he finished the training, duly aware that he should avoid LGP influence at most, and went on to be the first adequately trained LGG teacher and a leader in the deaf community.

However, in 2013, Amaré clashed with José Augusto, the school director, and left the ENS, followed by several young deaf people (see Martins forthcoming for details on the deaf community separation). Two years later, Amaré received a small building with two classrooms in the city centre from the Ministry of Education, which was designated **Mariposa** (Figure 16a). The Mariposa school is currently running from the first to the tenth grade to deaf students only, as a day school. Amaré is the school director and teaches LGG, Portuguese and English (Figure 16b). Besides Amaré, the school has another deaf teacher and seven more hearing teachers.

Over these past few years, Mariposa has been financially supported by several sources, including donations from the Portuguese deaf community, to enlarge the school, such as acquiring bricks and zinc roofs. The students (young adults who study and work) have been building and rebuilding the Mariposa school (Figure 16c).

a. b.

c.

**Figure 16.** Front part of Mariposa School (a). Class of deaf students taught by Amaré (b). Deaf people building a new pavilion with two more classrooms in the back part of the school (c)

Since the ENS is a large school with good infrastructure and material conditions, the director had to acquiesce to the official educational policy of inclusion and open half of the school quarters to hearing students (in separate classes). Although the school has been running from kindergarten to high school, the boarding facilities have remained closed for lack of funding, so at present ENS is only operating as a day school. The transportation serves deaf students and their teachers, picking them up in specific locations starting at the old facilities in the city centre. Hearing students and the remaining teachers live in the area around the school.

Every year the number of deaf students in both schools increases (see Martins forthcoming for details on the deaf population). In the school year 2021/2022, the ENS had 501 deaf students (292 boys and 199 girls) and about 600 hearing students. In Mariposa, there were 97 deaf students (62 boys and 35 girls). More and more deaf people are finishing high school, and four deaf young men have attained the university level. One is Amaré, who re-enrolled in law school instead of economics. Two obtained their degrees as primary school teachers. The last one is studying civil engineering (ibid.). The enrolment numbers show that there are many more male

students than female students. According to local explanations, retaining girls longer (or permanently) at home is a cultural habit. Also, if girls become pregnant, they cannot continue their studies (ibid.). Thus, as a rule, deaf boys have had better access to education. However, in the country, there are a few more female than male inhabitants (1062,600 women and 1016,220 men according to The World Factbook). One can only suppose that the proportion might be similar in the deaf population of Bissau.

It is important to note that many deaf people remain to be counted apart from those enrolled at schools for the deaf, especially in Bissau. In addition, there are schools with deaf people in other cities that are threatened, to different degrees, by the imposition of LGP. One of them, in Ingoré, has missionary teachers that seem to teach LGP there with some mistakes. Despite the existence of LGG dictionaries, LGP appears to be used in other schools across the country where there are small groups of mainstream deaf students. To avoid such external influence, the Deaf Youth Centre, based in Bissau, has promoted meetings between deaf people to guarantee natural interactions in LGG and preserve it as the national language (Martins, forthcoming).

This overview of establishing the two leading schools for the deaf in Bissau is summarised here; for further details on deaf education in Guinea-Bissau, see Martins (forthcoming). The following subsection focuses on the interactive dynamics of deaf people in Bissau.

### 1.6.3 Social interaction in Bissau

In the previous subsection, I briefly explained how sign language has emerged in Bissau within the educational context since 2003. The number of deaf students, with more boys than girls, has been increasing. Here I now focus on how deaf people interact in their everyday life.

As mentioned in the previous subsection, during our first stay in 2005, deaf young people were already communicating in an emerging sign language at the school for the blind (Figure 17a). When we collected the first set of signs, deaf students discussed the signs from school books' illustrations in the textbooks. Along with the teachers in the school at that time, we observed as they debated which signs were better and why (Figure 17b).

With the establishment of the National School for Deaf (ENS) and the increase of deaf students, classes were organised in three daily shifts of about three hours each, starting in 2006. As a result, only the middle shift had contact with the first and the third shifts during the breaks. To improve contact opportunities between deaf students, Fridays were assigned with extracurricular activities such as games, drama, free play and

socialising (Figure 17c) and lunch for everybody (Figure 17d). As the ENS got more classrooms from the Ministry of Education and eventually moved to the new building in Ponta Gardete, daily shifts were reduced to two.

**Figure 17.** Deaf students at the school for the blind (a). Deaf people discussing which signs to choose for a first collection of LGG (b)—deaf students during extra-curricular activities (c) and lunchtime (d) on Fridays.

Over time, the first deaf students became schooled young adults, leading autonomous lives. Outside school, they kept meeting in groups, showing pride in their sign language. They gathered in open spaces to be seen using their language. During our fieldwork in 2018, Mariana and I went out one night with a large group of deaf people. Because we were so many, it took work to find a bar. In one of them, the owner said there was room in the back, but the deaf people refused. They justified it by saying they would not be seen in the back and that using sign language in plain sight was important. Thus, they made a point of showing that they existed by gathering in visible places. We eventually found a bar next to a busy street that became quickly filled by us. It is possible that Amaré, having lived in Portugal for four years, has influenced (even if only slightly) the pride of being deaf and having their sign language.

Given that Bissau has two (opposing) schools for the deaf, they have grown apart. Although a few deaf people moved between groups, they met in separate locations, organised different events and played football independently. In one group, football is played in a pavilion (Figure 18a) and the other group plays in a field (Figure 18b); and there is also a female team (Figure 18c). During football practices, other deaf people show up to socialise (Figure 18d).

a. b.

c. d.


**Figure 18.** Deaf people playing football in a pavilion (a) and in a field (b); the deaf female team (c); and deaf people socialising during the football practice (d)

Since the conflict between Amaré's group and the ENS board occurred, the Deaf Association of Guinea Bissau became led by the ENS administration. Consequently, the young deaf adults of the Mariposa school founded the **Deaf Youth Centre of Guinea Bissau (CJS)**. They then started organising various events, which included deaf people from other parts of the country, such as celebrating the World Day of the Deaf or free storytelling. Additionally, each school has deaf women's groups with weekly meetings, usually on Saturdays (Figure 19a,b). They gather to sew their clothes and organise 'fashion shows' (Figure 19c). Generally, women are responsible for preparing the meal for everybody, especially at Mariposa school (Figure 19d).

Since it has been under construction, deaf men do most of the work, and women prepare the food – they do the groceries, cook and clean everything afterwards. They usually eat separately as well.

**Figure 19.** Deaf women's group of ENS (a) and Mariposa school (b). Fashion show by the Mariposa women's group (c) and deaf women preparing everyone's meal at Mariposa school (d)

During school holidays, deaf young people and adults from both schools go to their respective school sites to socialise. ENS students gather at the former location in the city centre, where they maintained a classroom (see Fig. 15a and Fig. 19d). They usually go there twice a week during holidays and on Saturdays during school periods. The deaf group from Mariposa go there every day, including weekends and holidays. Here, they share everything, and everyone contributes according to their possibilities. Some of the adults studying there also work. Deaf fishermen bring fish to the shared meal, often the only meal of their day. In addition, schools are supported by the World Food Programme, which provides them with rice, constituting their typical meal: rice with fish.

What about interaction outside of school settings? In terms of work settings, most deaf men work in fishing and brickmaking, where they are also in large groups. Women usually work alone as street vendors or with hearing people. Thus, they usually get together only at school. Besides school and work settings, deaf young people in Bissau – usually over 17 years old, and primarily men – meet in smaller groups in fixed neighbourhood locations every night. Few deaf women attend these evening meetings because they have chores at home, their family does not allow them to, or they have small children to care for. Deaf people also meet on Saturdays to play football (each school on its schedule), as described above. On Sunday afternoons, they gather in a larger group outside someone's house. Each Sunday they meet in front of a different home to make neighbourhoods aware of the deaf people living there by showing them using LGG (Figure 20a,b). In such gatherings, they organise the order in which speakers address the audience and the topics discussed, ranging from free storytelling to politics, health issues or a particular problem. Even if more balanced, weekly gatherings are attended by more deaf men than women.

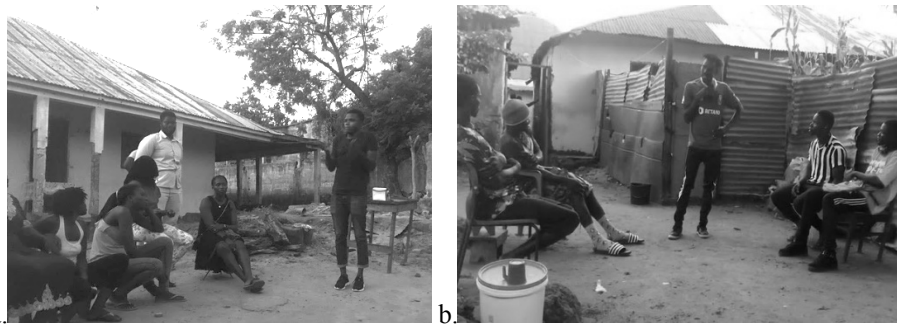


**Figure 20.** Sunday gatherings in front of a deaf person's house in two different neighbourhoods (a,b)

In terms of contacts outside of Bissau, most deaf people have a smartphone for social networking and do so mainly via WhatsApp and Facebook. In these posts, they write in Portuguese and Creole, but mainly they post videos in LGG. However, there has been minimal actual contact with foreign deaf people. Besides Amaré, who lived in Portugal for four years, seven other deaf people (six boys and one girl) – four from ENS and three from Mariposa – have spent time in Portugal for a few months in the context of the dictionary work with Mariana and I. Amaré has also been to international deaf meetings in Brazil and Ghana, and seven other deaf people from Bissau spent a few months in Portugal (one in 2006 and seven in 2017). One person

was also in Guinea Conakry for an international conference where he met other deaf Africans. In addition, the ENS has organised annual football matches between their team and a Senegalese deaf team in Senegal.

There is a Guinean deaf teacher who was born in Bissau but moved to Portugal at an early age. After he collaborated on the last LGG dictionary in 2017, he established a strong connection with the Guinean deaf community. In the last few years, he has visited Bissau two to three times a year during his school holidays and given different training courses related to the deaf community, such as human and women rights, deaf identity and other related topics. He has been communicating with the deaf in LGG. There have been no influences of other sign languages brought by outside entities to Bissau, although it has occurred in other cities in the country (see the next subsection for more details).

To sum up, mainly deaf men interact daily in LGG in both fixed (school, football and neighbourhoods) and mobile (deaf people's houses) deaf spaces. In general, deaf people in Bissau have become autonomous, determined and proud of themselves. The following subsection focuses on their language, LGG.

### 1.6.4 Língua Gestual Guineense

Having described the conditions in which sign language emerged in Bissau when deaf people gathered in school in 2003, it is essential to note that before the school was established, they were scattered, sometimes in small groups, in their neighbourhoods and they communicated by using traditional gestures.

At that time, they were generally considered helpless and thus put aside. They did not go to school or even have an identity card. This all changed when they started attending the school for the blind, and an informal dictionary with about 200 signs was printed in 2005. Because this first collection of signs had such an impact, we returned to Bissau the following year to produce a proper dictionary. In 2006, the language seemed more developed, perhaps because the number of deaf students had increased to 84 (48 boys and 36 girls). For instance, PENCIL was produced in the first dictionary (2005) as a compound of 'drawing' + 'tracing around the face' (Figure 21a). In the second dictionary in 2006, it was already reduced to a short tracing movement on the neck (Figure 21b). This means that the iconic motivation had become more opaque in only one year.

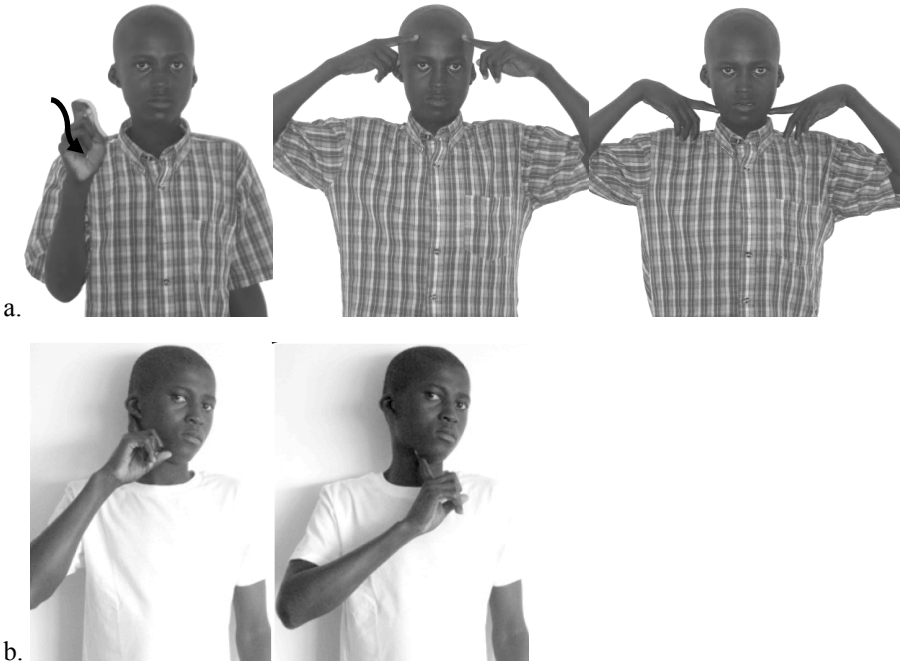


**Figure 21.** Sign for PENCIL in 2005 as a compound (a) and in 2006 as a more reduced form (b)

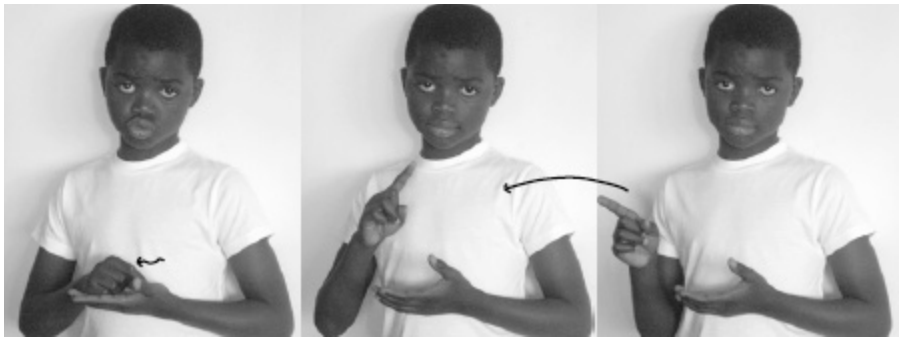
There was by then a sizeable autochthonous vocabulary, like the weekdays articulated by counting the fingers on the non-dominant hand (from MONDAY on the thumb to FRIDAY on the pinkie). However, SUNDAY refers to the cross sign on the forehead from the Christian Mass as in LGP, which does not correspond to the religion followed by the majority of the population (it is represented by 18.9% of the population). Most people are Muslim (46.1%) or follow traditional religions (30,6%)[12]. This second dictionary had an educational purpose, including bilingual exercises (LGG and Portuguese) for deaf students primarily. Although the collection of 500 signs was elicited from a large deaf group (mostly youngsters and adults) in 2006, it was not published until 2008.

We were again asked to update the dictionary in 2017, targeting now the overall population. Here, the collection involved the LGG instructors and comprised 1000 signs and short conversation samples. Linguistic evolution was evident at this time.

[12] The World Factbook 2023 in https://www.cia.gov/the-world-factbook/countries/guinea-bissau/#people-and-society

For instance, in 2008, SATURDAY was produced as a compound of 'school' + 'no' (Figure 22a) while, in 2017, the two components of the compound had blended into a single gesture (Figure 22b).

a.



b.

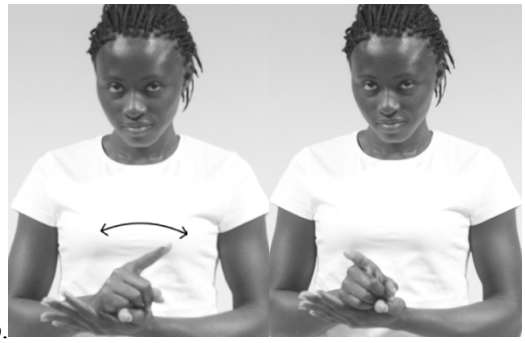


**Figure 22.** Sign for SATURDAY in 2008 as a compound (a) and in 2017 as a blended sign (b)

The size of the group and the frequency at which deaf people get together may be why LGG is rapidly developing. This is clear, for instance, when comparing LGG signers broadly extending their arms in the beginning and then gradually reducing the signing space, like in PLANE (Figure 14a) EVENING (Figures 23a and c) and JESUS CHRIST (Figures 23c and d).

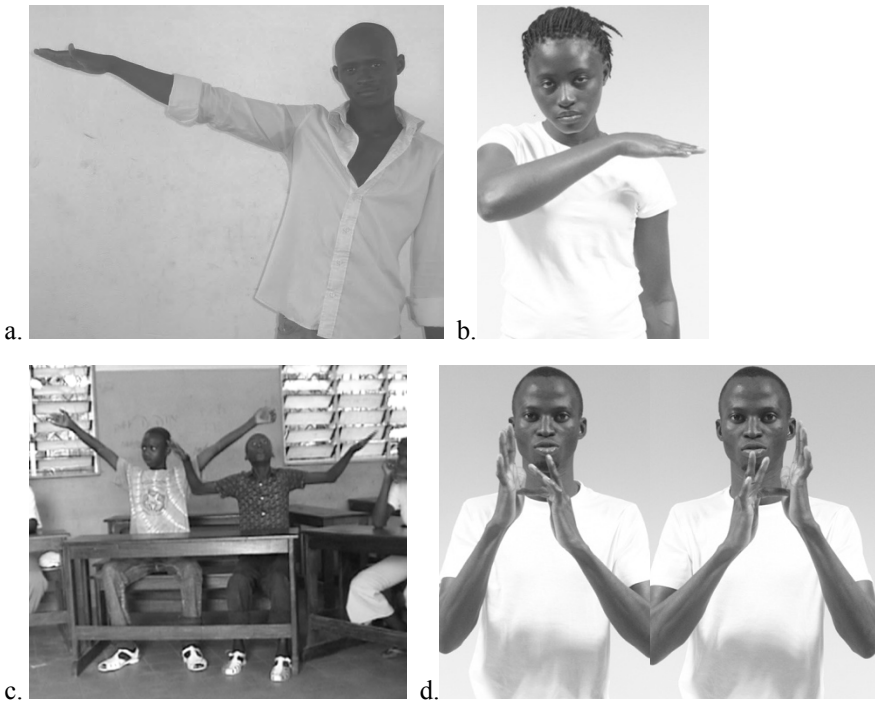


**Figure 23.** Signs reducing its signing space over time: EVENING in 2005 (a) and in 2017 (b) and JESUS CHRIST in 2006 (c) and in 2017 (d)

Other than the two dictionaries published in 2008 and 2017 (and the informal one created in 2005), Martins and I have briefly described the lexical change in LGG (Martins & Morgado 2016). In her current and ongoing doctoral work, Martins is analysing to what extent local gestures were the original input to LGG signs (Martins, Morgado and Nyst 2019; Martins, Soares e Barros, 2021; Martins forthcoming), and also describing the morphosyntax of how LGG signers organise human referents in transitive events; i.e., argument structure of LGG (Martins, Morgan and Nyst 2021; Martins forthcoming).

Since the beginning of LGG, signers have had different types of exposure to LGP and so I am aware that this may have influenced its emergence in some way, even if indirectly. Overall, my experience as a native deaf LGP signer have allowed me to state that over the many years in which I have witnessed the changes in LGG these are distinctly different languages. However, this will not be explored in the present study (but see Martins, forthcoming, for more details).

To conclude, the deaf community in Bissau and their language, LGG, has emerged and evolved relatively recently. It is characterised by relatively high population density, an urban environment and schooling, with frequent interactions between deaf signers (especially among deaf boys and men). The language itself seems to have developed quickly. Given this sociolinguistic environment, it is reasonable to expect that storytelling may have been able to develop quickly as well, but before this study, it was not known whether certain narrative structures and devices need multiple generations to develop (e.g., as in Adamorobe), or if just having many interactions would be sufficient.

## 1.7 Concluding remarks

In this chapter, I gave an overview of the literature on the sociolinguistic factors that distinguish the sign languages studied here from each other (§1.2), namely the size of the deaf community (§1.2.1), the time depth of the sign language (§1.2.2), sign language vitality (§1.2.3), interaction patterns (§1.2.4) and the importance of storytelling in deaf communities (§1.2.5). In the following section, I explained how the study was conceived and organised (§1.3). In the three subsequent sections, I described the sociolinguistic profile of each sign language, starting with AdaSL (§1.4), then LaSiBo (§1.5) and finally LGG (§1.6).

The three sign languages are different in the size of their communities: one has 33 deaf in the village of Adamorobe, Ghana (AdaSL), another is used by six deaf people (linked by consanguinity) in the village of Bouakako, Ivory Coast (LaSiBo), and the third has around 500 deaf signers centred in the city of Bissau, the capital of Guinea-Bissau (LGG). The time depth also differs between the three. Although the age of AdaSL at 250 years is an estimation, it is categorically older than LaSiBo at around 50 years and LGG at around 20 years. Together, they represent a necessary distinction in this thesis between a very old, a still young and a very recent sign language. Finally, the interactions patterns vary much between deaf signers: in Adamorobe, they socialise daily in smaller (age) groups, in Bouakako they only interact with each other occasionally, and in Bissau socialisation between the deaf members of the community occurs daily and for long hours and involving multiple interlocutors.

With such a diversity of factors driving language use, what impacts the most language change over time is expected to come to light. I observe eventual variations through the study of narrative structure and captivating devices used by signers. Will those factors influence the way narratives are internally organised? Will signers with distinct socialising experiences seek to involve the audience using similar strategies?

In the following chapter, I will describe the methodology of the four studies.