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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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Chapter 7 – STUDY 4 Narrative devices: Animal depictions

7.1 Introduction

In this chapter, I investigate a final narrative device in the personal experience narratives of the three sign languages collected in different West African sites. Considering that the narratives were elicited by the question "Have you ever encountered a dangerous animal?", it was expected that the animals would be a central aspect of the stories. Thus, Study 4 focuses on how the signers refer to the animals encountered. The more the animal is enhanced, in terms of how dangerous it looks, the more emotional intensity is conveyed to the audience, enabling them to relive the encounter in their imagination.

Animal depictions occur in the narratives because they were motivated by a prompt about encounters with frightening animals. Such depictions refer to the **size and shape** of the animals, i.e., to how big or small, how long or wide they are. To understand how much the narratives are enhanced in this study, I look at the depiction of the animal, as the point of their personal experiences. Such enhancement is measured in terms of the depiction's occurrence within the climax and the diversity of depicted features. To follow up on this, the analysis is organised into two levels. The first is focused on the context in which the animals are referred to within the narratives to verify how much they are entrenched in the most emotional part of the story. The other zooms in on the depiction types to check how varied they are in the three sign languages, AdaSL, LaSiBo and LGG.

The intentional captivation of the audience's attention corresponds to the evaluation component enriching the narrative as Labov (1972) described. As described in Chapter 4, certain evaluation types are expressed in the narrative devices of Studies 2 to 4 (see §4.4 for more details). The reference to the animals adding dramatic force to these narratives can be conveyed by three of those types: (1) external evaluation, when the narrator interrupts the narrative and addresses the audience to add comments or information; (2) evaluation by suspension of the action, when the narrator interrupts the sequence of events to emphasise the hero's antagonist in the story; and (3) embedding of evaluation, included in quotations told by characters within the storyline. In this way, the animal can be either simply portrayed by the narrator, in (1), or enhanced to the audience during the emotional part of the story, in (2). Otherwise, it can be presented by the embodied character while talking about it, in (3). Such techniques to describe the animal – which is the point of the accounts collected for this thesis – pull the audience into the encounter.

With those different possibilities in mind, Study 4 is related to the additional information transmitted within the narrator's role to the audience (in Study 1), and to

assessments about the animal conveyed through embedded quotations (in Study 3). The present analysis focuses only on the references to the animal that aim expressly at its intentional identification and depiction. Such references exclude representations of constructed actions involving the animal. In other words, the analysis does not consider instances where the animal is being held, partially represented by a body part classifier or fully embodied by the signer anthropomorphically while doing something in the real scale perspective (see §5.5.1 for more details). It also disregards the occurrences where the animal is represented approaching or attacking the character from multiple perspectives (see §5.5.2 for more details). Thus, the representations of the animal within constructed actions analysed in Study 2 are not included here.

In this chapter, I review what is already known about the representation of animals (in §7.2.1) and size and shape depictions (in §7.2.2) in the three sign languages, with special attention to differences between them and to what this may indicate about the signing communities. There is published work on this topic in both Adamorobe Sign Language (AdaSL) and Langue des Signes de Bouakako (LaSiBo), while such depictions in Língua Gestual Guineense (LGG) are yet to be explored. Next, I recall the research questions (in §7.3) and resume the methods for the analysis (in §7.4). The descriptive analysis starts with the contexts of the depiction (in §7.5.1) followed by the depictions of size (in §7.5.2) per language, first AdaSL, then LaSiBo and finally LGG. After the analysis, I present the synthesis of the results (in §7.6), a discussion relating the results to previous descriptions of the three sign languages (in §7.7) and end with a conclusion (in §7.8).

7.2 Background on animal depictions

The present background focuses only on previous descriptions of the three sign languages studied here: AdaSL, LaSiBo and LGG. It begins by reviewing the strategies used by signers in representing animals (in §7.2.1) and then zooms into the depictions of size and shape (in §7.2.2).

In sign languages, animals are often represented by being personified, i.e., by mapping on the signer's body corresponding body parts of the animal. In this study, I will keep designating this strategy **anthropomorphism**, as used in Study 2 on signing perspectives, especially when involving the embodiment of animals. In this type of animal representation, body parts of the animal usually rely on **tracing movements** on the signer's body or **entity handshapes**. When the shape of the hand represents the shape of a referent, I also keep designating it as an entity handshape as was the case in Study 2. Such entity handshapes may be used to represent the whole body of smaller animals as well.

Entity handshapes are especially useful to represent the size and shape of smaller animals or the body parts of larger ones. Otherwise, size dimensions, in particular, can be measured in the signing **space**, for instance between the hands, or on the **body**, like making use of the circular shape of a finger or an arm. In this study, I chose to group the depictions of size in different dimensions: **large and small**, **length**, **height** and **width**. The depiction of shape is addressed by anthropomorphic strategies or the use of entity handshapes, which are described in the following subsection.

7.2.1 Overview of animal representations

The representation of animals in both sign language and silent gestures seems to rely on similar strategies (Hwang et al. 2017). The most common is mapping parts of the animal's body on their corresponding parts of a person's body, as an **anthropomorphism** (Sutton-Spence 2021). A well-known example of such a personification strategy is representing a horned animal, with the index fingers on the sides of the person's head (Hochegger 1979, 32, for a gesture in Central Africa), to represent, for instance, a 'cow' (Richie et al. 2014, 186). Another strategy, especially for smaller animals, is mapping the size and shape of the animal on the shape of the hand and, if needed, of the arm, as in the two flat hands joined by the thumbs to represent the **entity** of a 'butterfly' (Ortega & Ozyurek 2020).

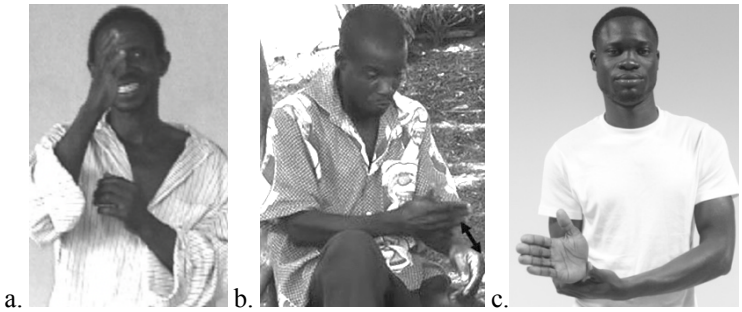
There are other ways of representing animals manually, that do not involve depicting their size and shape. These may relate animals to actions with which they are usually associated, like acting as if holding reins to refer to a horse (Hwang et al. 2017, 594) or reproducing a habitual action of the animal like stinging for an insect (Hochegger 1979, 156). Because they do not refer to the physical aspects of the animal, I will not further discuss these here.

Animal representations in AdaSL, LaSiBo and LGG

To show how animals can be represented in the three sign languages of this study, I use pictures of signs that have been published so far. The aim is to systematise different strategies for depicting animal features in these languages. I first show representations of animals with entity handshapes. Then, I present anthropomorphic ways of mapping body parts of the animal on the human body. The depiction of an animal's physicality may rely on entity – or other – handshapes on specific body locations, eventually combined with tracing movements.

Establishing correspondences between an animal's size and shape and a handshape is affordable mainly for smaller animals. These cases are designated as **entity**

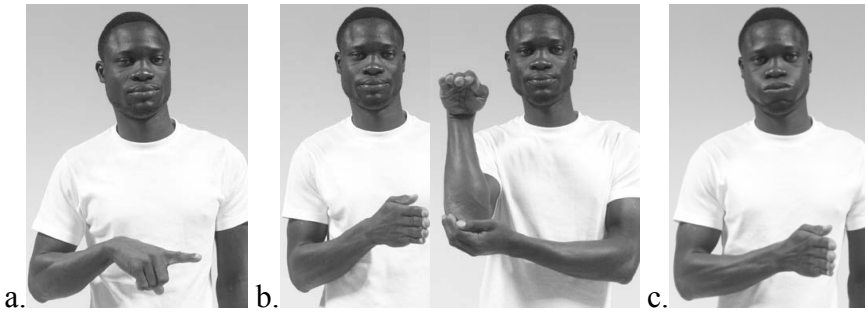
handshapes. This is illustrated with the sign for fish represented by a flat hand in the three languages, AdaSL (Figure 55a), LaSiBo (Figure 55bc) and LGG (Figure 55c).



a. FISH (AdaSL) b. FISH (LaSiBo) c. FISH (LGG)

Figure 55. Signs with entity handshapes for FISH in AdaSL (Nyst 2007) (a), LaSiBo (Tano & Nyst) (b), and LGG (Martins & Morgado 2017) (d)

An entity handshape can take different forms depending on the shape of the referent itself. For instance, a thin crawling animal, like a WORM, is likely to be represented by the index finger (Figure 56a), while a thicker one, such as a snake, is rather depicted by the hand and arm (Figure 56b). In these examples from LGG, a boa is distinguished from a smaller snake by being articulated together with an iconic mouth movement where the swollen cheeks indicate a big size (Figure 56c).



a. WORM b. SNAKE c. BOA (LGG)

Figure 56. Signs with entity handshapes for WORM (a), SNAKE (b) and BOA (c) in LGG (Martins & Morgado 2017)

Looking at anthropomorphic representations of animals, it is possible to observe that body parts of the animal can be mapped on the signer's body with entity handshapes. For instance, the index fingers stand for horns in OX in LGG (Figure 57a) and for trunk in ELEPHANT in LaSiBo (Figure 57d). In addition, a **tracing movement** can be added to the **entity handshape** to depict the size of the horns or the trunk. The index fingers can be combined with the tracing movement for COW in LGG (Figure 57b), and for ELEPHANT in AdaSL (Figure 57e), or with different entity handshapes, such as the fists for COW in AdaSL (Figure 57c) or with the whole arm for ELEPHANT in LGG (Figure 57f).

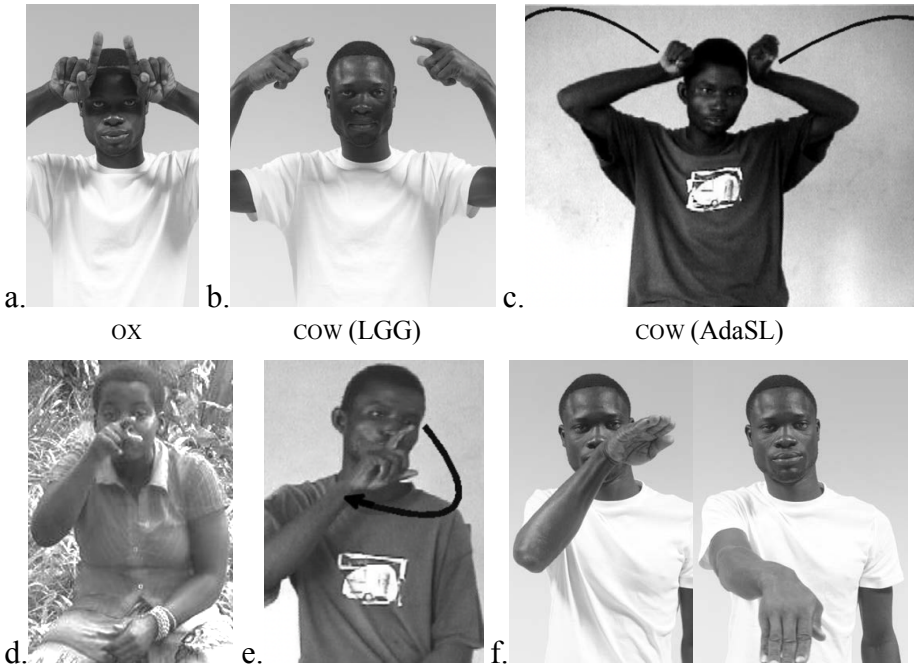


Figure 57. Signs with entity handshapes without movement for OX (a) in LGG and ELEPHANT in LaSiBo (d) and combined with tracing movements for COW in LGG (b) and in AdaSL (c) and for ELEPHANT in AdaSL (e) (Nyst 2007) and LGG (f) (Martins & Morgado 2017)

Tracing movements can also depict shapes on the body, like delineating big round eyes around the signer's eyes for OWL in LGG (Figure 58a). Otherwise, the signer can outline a shape in the neutral space, even if the starting location is on the body, like

drawing pointed years for WOLF in LGG (Figure 58b). In these examples, the index finger is only outlining a shape, it is not representing an entity.

a. OWL b. WOLF (LGG)

Figure 58. Signs with tracing movements for OWL on the body (a) and WOLF in the neutral space (b) in LGG (Martins & Morgado 2017)

In addition, Nyst observes a technique that seems unusual in other sign languages, which was also observed as a gesture in central Africa (Hochegger1979, 134, for 'pulling' the ears up to mean 'long ears'). Since it involves pulling, it uses **handling handshapes** combined with **tracing movements** in space. In the examples below, the signer holds his ears and virtually pulls them to represent a RAT (Figure 59a) and the nose forward to depict a long beak for TURKEY (Figure 59b) in AdaSL. In LGG, this strategy is also observed for RABBIT by pulling the teeth down and then the ears up (Figure 59c).

a. RAT b. TURKEY (AdaSL) c. RABBIT (LGG)

Figure 59. Signs with handling handshapes combined with tracing movements for RAT (a) and TURKEY (b) in AdaSL (Nyst 2007, 2016) and RABBIT in LGG (c) (Martins & Morgado 2017)

This analysis of signs to represent animals collected in previous works on the three sign languages is taken to be an indicator of the strategies that signers may use to express the size and shape of concrete entities. This thesis is the first attempt to pursue such a description in LGG through my analysis of how signers describe dangerous animals in personal experience narratives and what categories they use.

7.2.2 Overview of size depictions

Keeping the focus on the possibilities in describing animals, I will narrow down this overview to the notion of size. When referring to such a measurable magnitude, the two most general terms that come to mind are 'large' and 'small' – or 'big' and 'little', but it can also be looked at in terms of linear dimensions, such as length, height and width.

Such notions are so visually motivated that they are commonly depicted with the hands and the body, being often preceded in spoken languages by 'like this' (Cooperrider 2019, 183, 222-223). A **large** size is likely to be depicted between the two hands in space (e.g., Iverson et al. 2019, 4, for toddlers). A **small size** would instead rely on the fingertips (e.g., de Jorio 2000, 229-230, for the Neapolitan gesture).

The **height** can be measured by different handshapes between the hand and the ground (Brookes 2004, 201). Sometimes, gesturers express height differently based on humaneness. This distinction occurs in parts of Africa, where, for instance, using the palm down for animals and the bent palm up for people is observed (c.f., Kirby 1989, 12, for Ghana; Creider 1977 and 5, Claessen 1982, 175, for Kenya).

Contrasting with depicting size in the space for 'large' and height, gesture collections in different parts of Africa show that size depictions tend to be body-based when referring to length and width. In Kenya, hearing gesturers depict the **length** of a large fish between points at the end of the extended arm and the shoulder and delimited using the other hand (Claessen 1982, 173). Additionally, the size of a small fish is marked at the wrist with the other hand. Tano and Nyst (2018) found signers marking size on the shoulder of the same arm with the other hand, but not on the shoulder of the other arm as Claessen describes in Kenya. Similarly, in Central Africa, **width** is expressed by parts of the arm and leg (Hochegger 1979, 64). Specifying this dimension on the leg has also been observed in gesturers in Ghana (Hadjah, forthcoming) and in the Ivory Coast (Tano & Nyst 2018, 8). Such a preference for the use of body-based size depictions contrasts with gesturers of European origin (Nyst 2016, comparing Anyi and Dutch gesturers).

The fact that notions concerning size are so easily depicted in gestures by hearing people is likely to make them available to deaf people. Nyst demonstrated that size and shape depictions are used similarly by both deaf from Bouakako, Adamorobe and Bamako, in Mali, and hearing speakers of Bamanan, Anyi, Dida, and Akan (2018, 372-373). Nyst and Tano also compare the AdaSL and LaSiBo signs of size and shape with the gestures of Anyi speakers in the Ivory Coast, concluding that gesturers, unlike signers, point at elements in the environment to show size (2018, 16). Moreover, West African signers seem to use few space-based size and shape depictions, when compared to Western sign languages of European origin (Nyst 2018, comparing three West African sign languages and three sign languages of European origin). With this potential gestural base in mind, I focus next specifically on the depictions of size and shape that have already been described in the three sign languages studied in the present thesis.

Size and shape depictions in AdaSL, LaSiBo and LGG

There are already important descriptions of the depiction of size and shape in AdaSL and LaSiBo, undertaken by both Nyst and Tano. LGG has no such research done yet on this particular area, but, for the notions of size, the LGG dictionaries are used here whenever possible. In the present overview, considering the magnitudes needed to describe animals, especially snakes, I look foremost at the dimensions of size: large and small, length and width.

For AdaSL, the first description of size and shape specifiers is found in the thesis of Nyst (2007). The specifiers or depictions – I prefer the term 'depictions' in this study – of size and shape in LaSiBo were later described and compared with AdaSL (Nyst 2018; Tano & Nyst 2018). In a schema based on Nyst's work (2007, 2016a, 2018;

Nyst et al. 2021; Morgado & Nyst 2022), the expression of size as treated in this study is distinguished mainly by two features, whether they are (1) **space-based** or (2) **body-based**, as shown in Table 34. If the size is measured in space, it can be delimited horizontally for length – and large/small – (1a) between the hands and for height (1b) between the hand and the ground. When the affordances of the body are put to use for size depiction, the smaller the size the more the delimitation will be concentrated on the (2a and b) fingers. In opposition, larger sizes can be marked from the (2c) the hand all through (2d) the arm up to the shoulders.

In addition, tracing movements are crucial to (3a) extending the size of a shape, in both the space and (3b) the body, which can be expressed by (3c) entity or (3d) handling handshapes. The depiction of width can also be depicted (1a) in space between the hands or (1c) internally within the hand. Otherwise, it is marked in (2b–f) the body with one or both hands depending on the size, especially to delimit the width of a cylindrical shape together with (3 e–h) a circular movement around the body part. Here, it varies from smaller (2b and 3e) on the finger and (2c and 3f) the hand to larger on (2c and 3g) the arm or (2e and 3h) leg.

Table 34. Categories for size depiction (1) in space, (2) on the body and (3) with movement

	Size		**Large**	**Small**	**Length**	**Height**	**Width**
1.space-based	a) between the hands		x		x		x
	b) between the hand and the ground					x	
	c) internally within the hand			x			x
2.body-based	a) internally on the finger of the same hand			x			
	b) inherently with the hand on the finger, c) on the hand or d) on the arm		x	x x	x		x x x
	e) inherently with one or two hands on the leg f) or the body					x	x

					x		
3.movement	a) tracing for extension, in space and b) on the body, eventually with c) entity or d) handling handshapes				x		
	e) delineating a circumference on the finger, f) the hand, g) the arm or h) the leg						x

For the sake of simplification, I refer to size dimensions as distinguished mainly for being space or body-based and as being especially delimited by a tracing movement for length and a circular movement for width. The depiction of size can also be made conceptually, i.e., in terms of its relative or absolute dimensions. The **relative size** is understood as an abstract measure applicable to any object in relation to others. These are usually lexicalised and refer, for instance, to the general notions of 'large' and 'small', as shown in Figure 6 for the lexical signs for BIG (Figure 60a), which is space-based, and SMALL (Figure 60b), which is body-based.

a. b.

Figure 60. Signs to refer relative sizes for (a) BIG, as space-based, and (b) SMALL, as body-based in AdaSL (Nyst 2007)

Since there was no previous analysis of size and shape depictions in LGG, I used the LGG dictionary (Martins & Morgado 2017) as a dataset of lexicalised signs to provide corresponding examples for relative sizes as found in this language. There are four signs of relative size in LGG, namely BIG (Figure 60a), SMALL (Figure 60b) and two variants for LITTLE (Figures 61c and d). The first two are space-based (Figures 61 a and b), while the other two are body-based (Figures 61c and d). The signs for BIG (Figure 61a) and LITTLE2 (Figure 61d) are similar to the corresponding AdaSL signs in Figure 60.

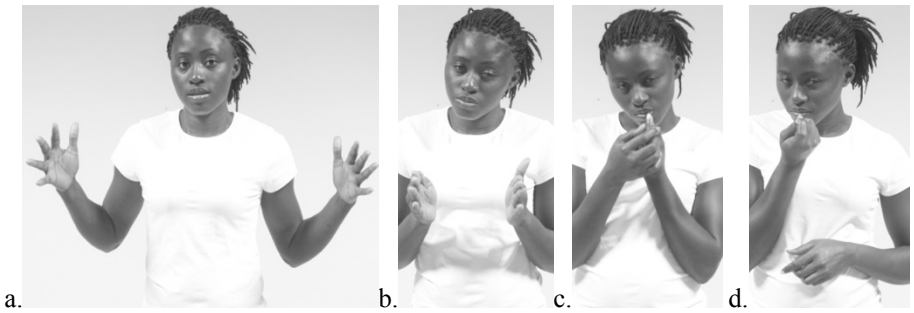


Figure 61. Signs to refer to relative sizes for BIG (a), SMALL (b), as space-based, and two variants for LITTLE (c and d), as body-based, in LGG (Martins & Morgado 2017)

Different from the above, the depiction of an **absolute size** aims at determining the actual size of objects. In AdaSL, signers can depict the size of concrete referents in the neutral space. In Figure 62a, the signer indicates the size of a turtle between the two hands in space and, in Figure 62b, he depicts the height of a short animal, between the hand and the ground. In addition, AdaSL signers use their bodies frequently to express these exact measures. For example, in Figure 62c, the signer delimits on his arm a size between the tip of the fingers and the shoulder.

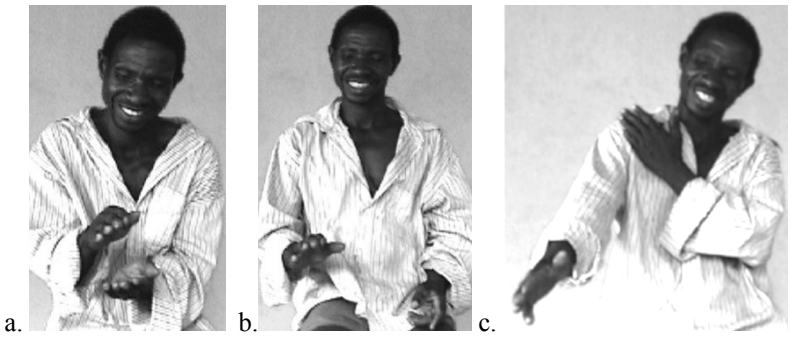


Figure 62. Depictions of absolute sizes space-based for a turtle (a) and a short animal (b) and body-based, between the tip of the fingers and the shoulder (c) in AdaSL (Nyst 2007)

In a similar way as shown in Figure 62 for AdaSL, LaSiBo may also depict a short height between the hand and the ground (Figure 63a) and absolute sizes on the body. In Figure 63b, the signer marks the length of a snake with the whole arm, from the shoulder to the fist, and in Figure 63c, the signer delineates the width of a big fish on his leg. Such a depiction of the width on the leg was not seen in AdaSL (Tano & Nyst 2018).

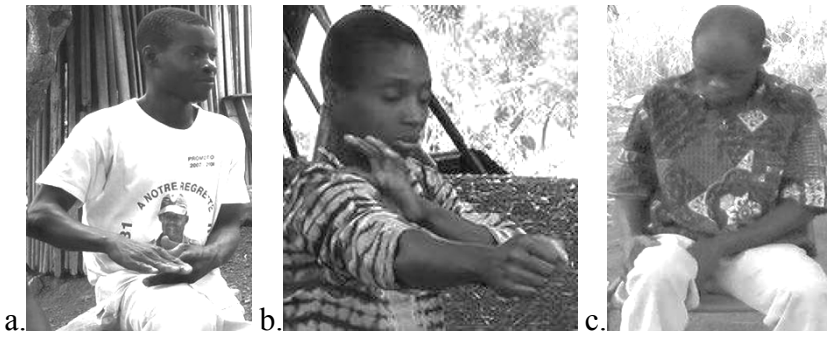
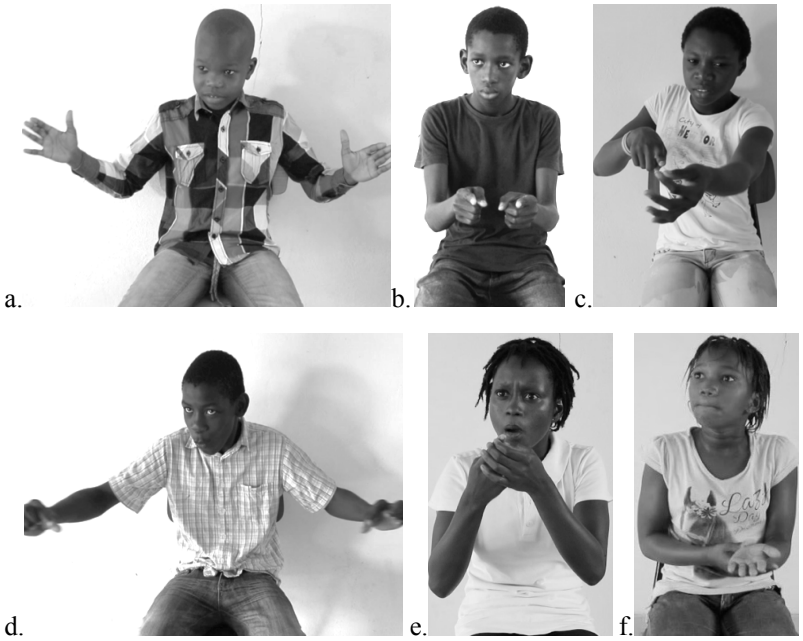


Figure 63. Depictions of absolute sizes space-based for a short animal (a) (Tano 2016) and body-based, between the fist and the shoulder for a snake (b), and on the upper leg for the width of a big fish in LaSiBo (Tano & Nyst 2018)

The LGG dictionary does not include signs of absolute size. For that reason, and to illustrate how it can be depicted in this sign language without resorting to the narratives analysed in this study, I show additional data filmed during fieldwork. Apart from the narratives told by deaf adults, I also filmed 17 LGG signers between

10 and 17 years old (median age of 13) telling their experience with an animal attack following the same methodology. They were not included in this study because there were no deaf signing children in the village sign languages to compare them. However, this data shows the possibilities in depicting the absolute sizes of animals in LGG, since, during fieldwork, I noticed that children and young people use them a lot.

The children produced for the animal's size both space and body-based depictions quite evenly in terms of variety. All examples in Figure 64 depict the sizes of snakes. The children delineated the size in the signing space between the hands (Figure 64a) and the index fingers (Figure 64b). The snake's length was represented, in Figure 64c, with the index finger as an entity handshape combined with a tracing movement. Finally, in Figure 64d, the width of the snake is depicted hand internally between the index fingers and the thumbs together with the length outlined by a tracing movement. However, the width of the snake was mostly delineated on the body, whether the finger (Figure 64e), the wrist (Figure 64f), the forearm (Figure 64g), the thigh (Figure 64h) or the ankle (Figure 64i).



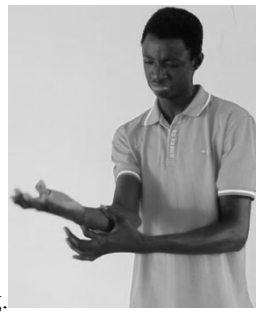
g.  h. i.

Figure 64. Depictions of absolute snake sizes space-based between two hands (a) and two fingers (b), for length with a tracing movement combined with an entity handshape (c) and a handling handshape (d), and body-based for width delineated on the finger (e), the wrist (f), the forearm (g), the thigh (h) and the ankle (i) in LGG signers under the age of 17

Nyst (2007; 2007b) also described in AdaSL different mouth movements combined with size and shape depictions. She observed that signers express the notions of 'large' and 'small' together with mouthings (corresponding to full or parts of spoken words), such as [abo] with puffed cheeks, meaning big in Gã (one of the local spoken languages) and [keketeke] with spread lips meaning 'small' in Akan. These were likely borrowed during the emergence of AdaSL from the hearing villagers using those mouthings while producing the corresponding gestures.

More recently, Morgado and Nyst (2022, 163-164) compared AdaSL and LaSiBo, focusing on the **mouth movements** produced with size and shape depictions, based on the data from the personal experience narratives studied here. In this work, we identified iconic mouth movements, such as **spread lips** for SMALL and LONG; **pursed lips** for very small sizes; **O-shaped mouth** for circular shapes; and **puffed cheeks** for the notion of 'swelling', used especially in AdaSL. LaSiBo signers, in contrast, did not exhibit many of these mouth movements; they mostly had a neutral mouth, except for puffed cheeks for 'large'. These are relevant for the present study because mouth movements appear to enhance the information about the size and shape depiction, and therefore may be seen as something that makes a narrative richer and more engaging.

Comparing what we know about size and shape depictions before the analysis of the personal experiences about animal encounters, we find that all three languages show a great variety of techniques. A first sight, it becomes evident that LaSiBo uses a large signing space similar to West African gesturers, by marking size and shape on the leg. Also, LaSiBo signers usually present neutral mouth patterns in size and shape depictions.

To justify such aspects distinguishing LaSiBo and further understand how LGG expresses size and shape, I turn again to the question and the hypothesis in this thesis.

7.3 Research question

In this study, I aim at checking how signers present the animals encountered – the aim of their personal experience narratives – to engage the audience. The spontaneous occurrence of such depictions is expected to demonstrate the ability to turn the story more compelling.

Here, I recall the research question for this study which has already been posed in Chapter 1, which is as follows: **To what extent do signers of the three sign languages depict the animal's size and shape to enhance their narratives?** Because 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.

In this narrative device as much as in the previous ones, the language age and the community size are likely to be important factors in eventual differences between the three sign languages. To understand how this last narrative device is used in personal experience narratives in the three sign languages, I first explain in the next section which methods were followed in the analysis of size and shape depictions.

7.4 Methods for the analysis of animal depictions

In the previous section, I provided background on what is already known about animal and size depictions in the three sign languages. Based on this, the analysis is set up to look at the various ways in which the animals encountered are presented by AdaSL, LaSiBo and LGG signers in their personal experience narratives.

All 45 narratives were annotated in ELAN for the size and shape categories: 17 narratives in AdaSL, 12 in LaSiBo and 16 in LGG (see Chapter 2 for more details about the overall methodology). In the particular case of LGG, for this study only, I added data from narratives filmed with 17 children (on the same topic: encounters with animals) to have a basis for comparison, since there are no studies yet on this particular aspect in LGG.

Before going through the annotations, I explain how I led the analysis through two levels (see Figure 65). I began by isolating all signs related to the animals encountered, whether because they identified or described them. Actions played by the animals were not included in this set because they were not aiming at the description per se.

The set of signs intentionally presenting the animal was first analysed according to (1) the **context** in which they were told, whether (1a) **within the narrative or after its conclusion**. If they were used within the narrative, I distinguished if they were told (1b) **by the narrator or the character**. Then, I looked at (1c) the **identification** of the animal, whether it was made by pointing or labelling, and at its **description** which could include physical characteristics such as colours or patterns or the depiction of its size and shape. On such (2) **depictions**, I analysed next the variety used by the signer in indicating the general size (large or small), the length (or height), the width or other aspects of the animal's body parts.

Presentation of the animal encountered (identification and description)

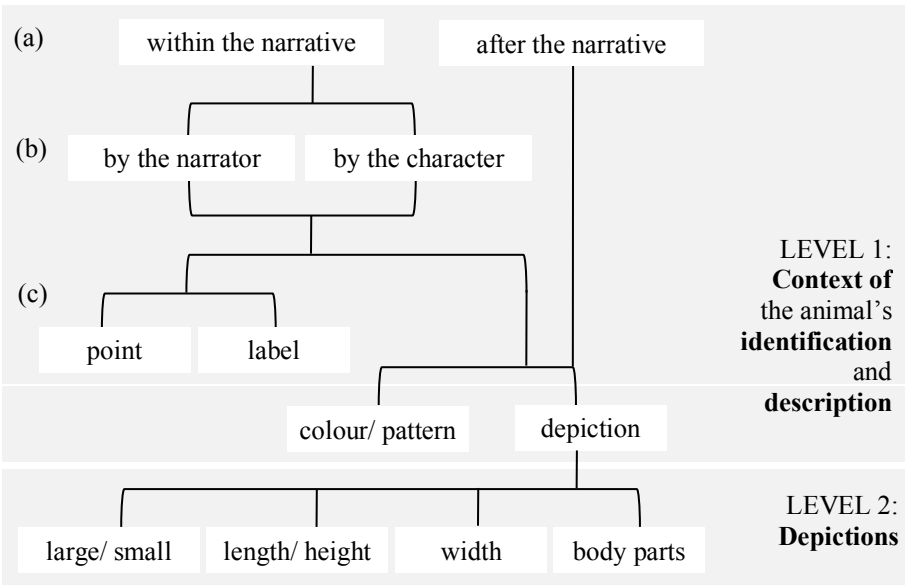


Figure 65. Levels of analysis in Study 4

The first level of analysis relied foremost on the five ELAN tiers that are shared with the previous studies (translation, glosses for both hands, eye gaze and role) and on the component tier shared with Study 1 on the narrative structure. Table 35 shows the tiers on which this analysis was based, including a short description and the type of annotation for each tier.

Table 35. Overview of ELAN tiers for the analysis of the context of the animal's identification and description in Study 4

Parent tiers	Controlled vocabulary	Brief description
Translation	text	Free translation
RH gloss LH gloss	text S&S: 'text'	Narrow translation
Eye gaze	- gaze on the audience - character's gaze	Identifies the narrator's role Identifies the character's role
	- gaze at the hands	Focuses on the description
Role	- narrator - overt constructed action (CA) - partially overt CA	Specifies the signer's role type
Component	- abstract - orientation - complication - climax - resolution - coda	Identifies the structural components

In the first level of analysis, concerning the (1) **context** in which the animals were presented to the audience with an express intention of identifying or describing them, I began by identifying where the signers talked about the animal. To do this, I exported to Microsoft Excel the annotations from the abovementioned tiers, focusing especially on the component tier, to locate all mentions of the animal (1a) **within the structural components or afterwards**. I recall here that, during the data collection, some signers did not include any description of the animal within their narratives. Hence, once their narrative was concluded, I asked them what were the animals like. This was the case in two-thirds of LaSiBo and half of LGG narratives. Such an additional thread of signing material told afterwards was not part of the narrative but was annotated all the same and is used only in the present study.

When animals were identified and described within the narrative, I looked at the annotations from the eye gaze and the role tiers to distinguish mentions told (1b) **by the narrator and the character**. In the character role, all actions reproducing the animal were excluded for not aiming explicitly at its description. Thus, the animal ended up being mentioned by the character within quotations only. After determining the context of references to the animal, I calculated the types of signs used in the

animal's (1c) **identification**, distinguishing between pointing and labels, and **description** of colours, patterns, size and shape.

Finally, to determine the variety of (2) **depictions** for size and shape used in the animal's description, I categorised them into four main categories: large/small, length/height, width and body parts. The analysis of these categories was based on the annotations from the **size and shape** tiers for both hands specific to this study. These have six child tiers: handshape, iconic shape, iconic size in space, iconic size in body, iconic movement and mouth movement.

The only glosses analysed in this part of the study were the ones signalled in the **gloss** tier with the annotation value 'S&S:'. For example, 'long' would be glossed as 'S&S:LONG', and then I focused specifically on the tiers for size and shape, as shown in Table 36.

Table 36. Overview of ELAN tiers for the analysis of the animal's depiction in Study 4

Parent tiers ↳ Children tiers	**Controlled vocabulary**	**Brief description**
RH S&S | LH S&S ↳ Handshape	- 1A – V6	Specifies handshape type in size and shape
↳ Iconic shape	- entity - handling - tracing - tracing+entity - tracing+handling	Specifies iconic shape type in size and shape
↳ Iconic size in space	- 2 hands - hand internal - hand+ground - hand+body - other	Specifies iconic size in space type in size and shape
↳ Iconic size in body	- 2 hands - hand internal - inherent delimitation	Specifies iconic size in body type in size and shape
↳ Iconic movement	- extent in shape - circumference shape - movement for focus	Specifies iconic movement in size and shape

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

The annotation of the size and shape was detailed in specific tiers (see §2.5.6 for more details) to identify the categories for size, namely large/small, length, height and width. These categories were primarily distinguished as being **space** or **body-based**, according to the annotations, respectively, in the iconic size in space and iconic size in body tiers. The latter was further relevant to set apart the body arts involved in the depiction. As previewed in subsection 7.2.2, the annotation for **length** would rely on possible combinations in the iconic shape tier with the extent in shape value in the iconic movement tier. Also, in this tier, the circumference shape value identifies body-based sizes for **width**. The tier for handshape was used especially for disambiguation in terms of the iconic shape (whether entity or handling). Finally, the tier for mouth movement, besides adding an extra non-manual parameter to the depiction of size and shape, helped in distinguishing relative and absolute sizes in AdaSL, as well as length and width in inherent delimitations for size in the body.

Having described the methods for this study, I present next the results from the analysis. The following section begins by showing how the signers in the three sign languages identified and described the animals (§7.5.1), namely within the narrative or afterwards. Then, it focuses on the types of depictions of size and shape of the animals (§7.5.2).

7.5 Descriptive analysis of animal depictions

This third narrative device studied in this thesis focuses on the enhancement of the animal, as the point of the story. I recall that narratives were elicited by asking the signers whether they had ever encountered a dangerous animal. Thus, telling about how threatening the animal looked would certainly increase the dramatic force of their accounts. Of course, storytellers are expected to clearly identify which animal was encountered before describing it. The description is further enhanced, the more entrenched in the emotional part of the narrative and the more detailed it is. How do, then, signers of AdaSL, LaSiBo and LGG talk about the animals encountered in their narratives? Do they describe the animals around the climax? Do they depict different features of the animals?

All 45 accounts by signers in the three sign languages identify the animal encountered, which, in their large majority consisted of a snake, as shown in Table 37. Although most narratives include an explicit label of the animal, nearly half of LaSiBo's narratives and a couple told by women in LGG identify the animal by pointing. However, not all added a description of the animal. This was the case in a very small number of narratives in AdaSL (three of 17), two-thirds in LaSiBo and half in LGG in both genders. Importantly, those who did not describe the animal – only in Bouakako and Bissau – were asked about it in the end. Table 37 distinguishes between these two moments by adding the latter in square brackets. Even so, two narratives in LaSiBo and one told by a female LGG signer include descriptions at all, neither during the account nor afterwards.

Table 37. Animals mentioned in the narratives and number of narratives that include the identification and descriptions (those added afterwards are in square brackets) of the animals in the three sign languages: AdaSL, LaSiBo and LGG per gender

			AdaSL	LaSiBo	LGG	
					men	women
Animals	Narratives:		17	12	8	8
	Snake:	37	13	9	8	7
	Lion:	2	2			
	Wasps:	2	2			
	Horns:	3		3		
	Dog:	1				1
Identification	Narratives:		17	12	8	8
	Pointing:	8	1	5	-	2
	Label:	37	16	7	8	6
Description	Narratives:		14	4[+6]	4[+4]	5[+2]
	Surroundings:	3	-	3	-	-
	Colour/pattern:	6[+3]	2	1[+1]	2[+2]	1
	Depiction	27[+12]	14	4[+6]	4[+4]	5[+2]

Having seen that animals were always identified but not so often described, I looked next at the narrative component where they were presented to the audience. Table 38 refers to all occurrences of the animals whether to identify or describe them. It is sometimes the case where signers produce two or more depicting signs in a row, increasing the number of instances per narrative. In the end, it is shown that the animals were mostly introduced and depicted during the climax by AdaSL and male

LGG signers. In contrast, such presentation of the animal was rather done during the orientation in LaSiBo narratives and before and after the climax in the narratives by women in LGG. What is also worth noting, in Table 38, is that LaSiBo signers resort more to their surroundings to both identify and describe the animals than the signers in the other sign languages do.

The majority of the references to the animals in all three sign languages were made by the narrator. There are only a few mentions of the animal in the character's role and produced within constructed dialogues. These involve size depictions and are told by two signers in AdaSL (one dialogue in the climax and one monologue in the resolution) and by four signers in LGG (three dialogues in the climax, two by men and one by a woman, and another monologue by a woman in the resolution).

Table 38. Distribution of all occurrences in identifying and describing the animals within the narratives and afterwards in the three sign languages: AdaSL, LaSiBo and LGG per gender

		Narrative components									
		Orientation	Complication	Climax	Resolution	Coda	TOTAL	Narratives with descriptions	Narratives describing animals afterwards	Narratives without descriptions	Total S&S
AdaSL		1	7	**23**	7	5	36	14/17	-	4/17	
Identification	Point			1			1				
	Label	1	4	12			**17**				
Description	Colour			1			1				
	Pattern					1	1				
	Depiction		3	9	7	4	**23**				23
LaSiBo		8	5	3	-	2	18	4/12	6/12	2/12	
Identification	Point	1	2	2			5				
	Label	4	3				**7**				
Description	Surroundings	1				1	2		1		
	Colour	1					1		1		
	Depiction	1		1		1	**3**		**17**		20
LGG men		-	1	**11**	6	-	18	4/8	4/8	-	
Identification	Label		1	7			**8**				
Description	Colour			1	1		2		2		
	Depiction			3	5		**8**		**6**		14
LGG women		-	6	3	3	3	15	5/8	2/8	1/8	
Identification	Point		1	1			2				
	Label		4	1	1		**6**				
Description	Colour					1	1		-		
	Depiction		1	1	2	2	**6**		**5**		11

In the previous table, it became evident that depictions were used abundantly, especially in AdaSL and, strikingly, by LaSiBo signers after concluding their accounts when asked about what the animal looked like. I now zoom in on all the depictions of size and shape produced by the signers, in and outside their narratives, to see how varied they may be. I recall that the notions of 'large' and 'small' depend foremost on the entity being measured. This way, a large bee and a large lion or a small snake and a small cow will be depicted differently. Table 39 demonstrates that the type of depiction depends on the size dimension. Thus, large/small and long are predominantly space-based, while the width is uniquely defined on the body, especially in the two villages. Here, LaSiBo signers make the most advantage of circular body parts, such as the finger, arm and leg, to depict the snakes' width. They are also the only ones using their surroundings to depict the size of the animals. AdaSL signers distinguish themselves from their deaf peers by relying greatly on the lexical sign for 'large' and for depicting other features of the animal's body besides its size.

Table 39. Types of all occurrences of size and shape depictions of the animals in the three sign languages: AdaSL, LaSiBo and LGG per gender

				AdaSL	LaSiBo	LGG	
						men	women
Large/small (total=31)	space	2hands (lexical)	6	6			
		2hands	15	2	5	3	5
		2fingers	6			3	3
	body	finger	4	3	1		
Length (total=19)	space	entity handshape	6	5	1		
		handling handshape	4		1	3	
		pulling movement	5		1	2	2
	body	tracing movement	4		2	1	1
Height	space		1		1		
Width (total=12)	body	finger	5	2	3		
		arm	4	1	2	1	
		leg	3		3		
Other	head (entity handshape)		2	2			
	eyes (anthropomorphic)		2	1		1	
	snout (anthropomorphic)		1	1			
				23	20	14	11

As observed in the narrative devices analysed previously, AdaSL signers appear again as the ones investing the most in the emotional enhancement of their accounts. In contrast, LaSiBo signers lack that same engagement, also in describing the animal encountered. Once more, differences between men and women in LGG come to light.

For instance, male signers tend to describe the animal during the climax, while women do not.

In the sections that follow, I provide a descriptive analysis of how the animals are enhanced within the narratives. For each language, I first describe which animals were encountered in the narratives, and then the context in which they were identified and described (in §7.5.1). Next, I focus on the size and shape depictions used to represent animals in each of the three West African sign languages (in §7.5.2).

7.5.1 Depiction contexts

All narratives in the three sign languages identify the animals encountered, mostly snakes and mainly by using a corresponding sign. However, not all include a description of the animal. This is the case of one-third in AdaSL, two-thirds in LaSiBo and half in both genders in LGG. For the last two sign languages, I asked the signers, after they finished their account, to tell me what was the animal like. Hence, for almost all the remaining signers in LaSiBo and LGG, the animal was depicted after the narrative had ended. Most descriptions were told by the narrator, but few instances were observed within constructed dialogues, thus in the character's role, in AdaSL and LGG.

Results are shown next for the context of the animal's depiction within the narrative (or outside of it), distinguishing between its explicit identification and intentional description. After detailing which animals are portrayed and in which narrative component it is done, I go through the role in which signers depicted the animals in the three sign languages.

Depiction contexts in AdaSL narratives

Here, I analyse how and where the animals encountered are described by AdaSL signers. Most are snakes identified with a lexical sign and described as being large and long. This is told mainly within the narrator's role during the climax while looking at the hands.

Animals. Of the 17 narratives in AdaSL, 13 are about snakes, two are about lions and two are about wasps. Of the 13 signers who told attacks involving snakes, there is only one that does not produce a label, but a pointing sign instead. Ten identified lexically snakes with an index handshape, as in (101a), and three with a flat hand, as in 101b). The two signers narrating about a LION made the corresponding sign representing an open mouth, as in (101c). This was also the case in the two narratives about WASPS, referring to a sting on the face, as in (101d). All signers, but the one who pointed, explicitly mentioned which animal they encountered.

(101) Signs identifying the animals: SNAKE1 (a), SNAKE2 (b), LION (c) and WASP (d) in AdaSL

Most of the 17 AdaSL narratives (14 narratives, 82%) included a description of the animal, while three did not (18%). These descriptions were all about the size and shape of the animal, especially to indicate how large and how long the snake was (these are seen in detail in the next subsection). Additionally, there is one mention of the colour, in (102a) and one of the skin pattern of the snake. In the latter, the signer embodies the snake and depicts spots on his chest, in (102b) and then he marks the spots on his arm as if it was representing the snake, in (102c).

(102) Signs describing the snake as being black (a) and with spots on the body (b) and on the arm (c) in AdaSL

Context. In terms of their context of use, when do the descriptions occur in AdaSL narratives? I found that eight of the 14 descriptions occur during the story's climax (one of these proceeds with the description into the resolution, two were also described in the complication and one other is again depicted in the coda). One occurs

in the complication and then in the coda. Four are told only in the resolution, and one only in the coda (see Study 1).

The ones made in the resolution are justified by the fact that they did not see the animal during the climax, as in AdaSL narratives eight and 17 where the animal is shot. Only after the animal's death do they look at it and, surprised, describe it. In the other narrative, the snake was inside a hole, and the signer's father chops the snake's head off. In the resolution component, the snake is pulled out of the hole, and he can see the whole snake. It is only then that he gives its description. The narrative that includes it only in the coda component (the last component where the signer ends the narrative and turns to the audience for comments or additional information) is not so tied to the emotional content of the story. I take the overall preference to include the animal's description in the middle part of the story as an indication that such depictions are helpful to signers when communicating about the most exciting part of a personal experience narrative, and are therefore part of the evaluation component.

Signer's role. Another question is which role AdaSL signers adopt when they produce size and shape depictions: as the narrator or the character? I found that, of the 20 instances of size and shape depictions, only four are expressed by looking directly at the audience as the narrator at the moment of the encounter. There are 14 other occurrences that do not seem to be included in the constructed action but in which the signer does not look at the audience either. These cases were interpreted in the present analysis as an evaluation by suspension of the action, which is when the narrator interrupts the storyline to emphasise what the animal looks like.

Narrative 7, in (103), has two depicting signs produced in the resolution, where the signer first looks at his hands, in (103b), and then at the audience, in (103c), in both cases as the narrator. In this example, the signer enacts his father pulling the snake out of a hole, in (103a), and, looking at the hands, he emphasises how 'long' it is, in (103b). Then, he signs BIG, by looking at the audience as the narrator, in (103c), and immediately returns to the character role by looking at the snake while pulling it, in (103d). When he looks at the audience, he is probably confirming that his interlocutor becomes aware of how big the snake was.

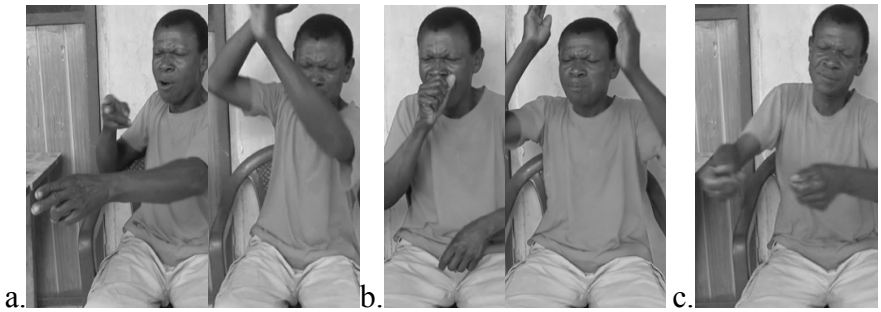
(103) Depictions of size in the narrator's role with gaze at the hands for LONG (b) and gaze on the audience for BIG (c) in AdaSL

gloss	SNAKE-PULL	**S&S**:LONG	**S&S**:BIG	SNAKE-GRAB
eye gaze	character's gaze	gaze at the hands	gaze on the audience	character's gaze
role	overt CA	narrator		overt CA

'(My father) pulled the snake out of the hole. It was a big and very long snake. He grabbed it…'

Finally, two signers describe the animal while embodying the character within quotations, one as a monologue and the other as first-person-only dialogue. Narrative 8, exemplified in (104) refers to the monologue. In this example, the signer tells that he was bitten by a snake and asked for help. Then someone appears with a gun and shoots the snake that falls. He is startled and, remaining in the character role, he thinks to himself how big it is. Next, he picks up the snake and buries it, always maintaining his gaze on the snake.

(104) Depictions of size in the character's role in AdaSL



gloss	SHOOT	FALL(snake)	'AH'	**S&S**:'BIG'	SNAKE-HOLD
eye gaze	character's gaze				
constructed dialogue			**Monologue**: "Ah! It was big."		

'(He walked quietly), shot it and the snake died. "Ah! It was big"'

Most AdaSL signers suspended the emotional part of the narrative, the encounter with the animal, to depict how dangerous it looked. In this way, they invited the audience to experience the fear they had felt during the narrated event. Once again, this study indicates that the group of deaf people in Adamorobe has the habit of watching and telling stories to each other. How would this skill reflect in a much smaller deaf group in its first generation of signers, such as the one from Bouakako?

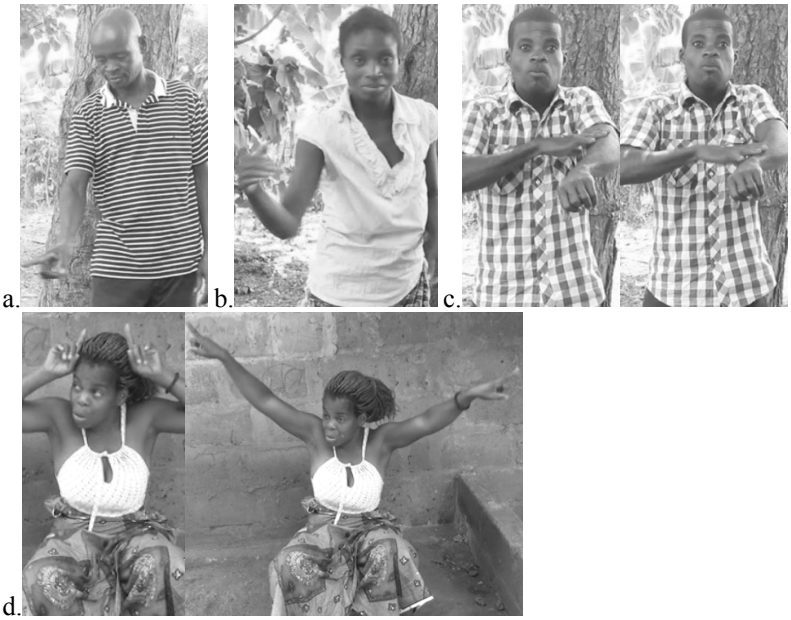
Depiction contexts in LaSiBo narratives

After describing the context in which the animals were identified and described in the AdaSL narratives, I now turn to the corresponding findings in LaSiBo. As above, I first describe which animals appeared in the 12 personal experience narratives and the strategy for naming and describing them before moving on to the description of size and shape depiction types that are used by signers in Bouakako. As in AdaSL, most narratives in LaSiBo are about snakes but, differently from AdaSL, they rely more on their surroundings to both identify and describe the animal. Also, there were very few descriptions within the narratives, the majority occurring only after the signers were asked about it.

Animals. Of the 12 LaSiBo narratives, nine are about attacks by snakes and three are about horned animals. A little more than half of the narratives (7 of 12) assigned a label to the animal. Snakes were identified with three different signs. Similar to AdaSL, they were produced both with an index finger, as in (105a), and a flat hand,

as in (105b). Concerning the type of snake, four signers identified it explicitly as a python by patching spots on the arm, as in (105c). Such a sign was well recognised by the hearing people in the village, indicating that it is conventionalised in that community. It is difficult to know if it is part of a larger local gestural repertoire or if deaf LaSiBo signers created it and used it often around the hearing. The fact is that it is used uniformly by four out of seven signers and that the hearing people watching the filming, even not knowing LaSiBo, reacted to the sign as if knowing what it meant. About the horned animals, it is unclear which animals were the three signers referring to. I could only ascertain that they were not wild. Here again, they produced two different signs, one with the index fingers, as in (49d), and the other with the fists on the head, as in (105e).

(105) Signs identifying the animals: SNAKE1 (a), SNAKE2 (b), PYTHON (c), HORNS1 (d) and HORNS2 (e) in LaSiBo.



e.

In the remaining narratives (five of 12), animals are referred to by being pointed at with the index finger, as in (106a), or the hand, as in (106b), instead of being explicitly identified with lexical labels. In these cases, the audience perceives the animal in question through other cues such as depictions of size and shape or constructed actions involving the animal.

(106) Identification of the animal only by pointing with the index finger (a) and with the hand (b) in LaSiBo

a. b.

Another noteworthy practice used by LaSiBo signers is that they also rely on their surrounding references to describe the animals. This was not observed in the other sign languages. For instance, one LaSiBo signer points at the tree trunk behind him to indicate the width of the snake, as in (107a), while two others trace the snake's length on the ground, as in (107b).

(107) Description of the snake by pointing at a tree for width (a) and tracing on the ground for length (b) in LaSiBo.

a. b.

Concerning animal descriptions, only four of the 12 LaSiBo narratives (33%) include them. This is a much smaller proportion than the 82% of narratives by AdaSL signers (14 out of 17 narratives). In the remaining eight LaSiBo narratives, signers did not spontaneously include animal descriptions. Due to the original research project goal to capture size and shape depictions (see §1.3), signers who did not produce such depictions during their narrative received an immediate follow-up question from me about what the animal looked like. In that case, six of them did then produce several types of depictions of the animals, all snakes, as reported in the next subsection. The other two did not respond to this request. In the end, signers depicted how large, how long and how wide the snake was. Besides these depictions, two signers also indicated the colour of the snake they had encountered and again by pointing at their pants, as in (108).

(108) Description of the snake's colour by pointing at the pants in LaSiBo

Context. The four narratives that include descriptions of the animals within their structural components present it differently. Two of them told by the same signer but about different animals are in the orientation, another one depicts the snake in a very short climax and the fourth one is in the coda.

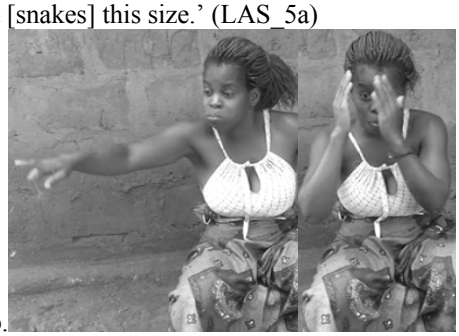
Signer's role. All these instances were told within the narrator's role. In the one told during the coda, the signer describes in detail what to do with dead snakes. When he specifies the snake's size by delineating its width on the lower leg he looks at his hands, in (109a). In the narrative where the description occurs during the climax, the signer points at a location where the snake was supposed to be and then addresses the audience as the narrator to say it was big, in (109b).

(109) Depiction of size in the narrator's role with gaze at the hands for width on the lower leg (a) and gaze at the audience for BIG (b) in LaSiBo

a.

gloss	ME	EAT	NO	**S&S**:WIDTH
eye gaze	character's gaze			gaze at the hands

'I don't eat [snakes] this size.' (LAS_5a)

b. 

gloss	THERE	**S&S**:BIG
eye gaze	character's gaze	gaze on the audience

'a big [snake] was there.'

In sum, very few LaSiBo narratives include the animal's description. Also, LaSiBo signers often relied on pointing to identify and describe the animal. The few who did depict the animals within the narratives did so as narrators and only once did it occur in the middle of the story. Importantly, such a generalised lack of motivation in sharing what the animal looked like with the audience seems to show that LaSiBo signers have not developed this particular descriptive device as their multigenerational deaf peers from the village of Adamorobe. I next look at how signers of an even younger sign language, LGG, have referred to the animals encountered.

Depiction contexts in LGG narratives

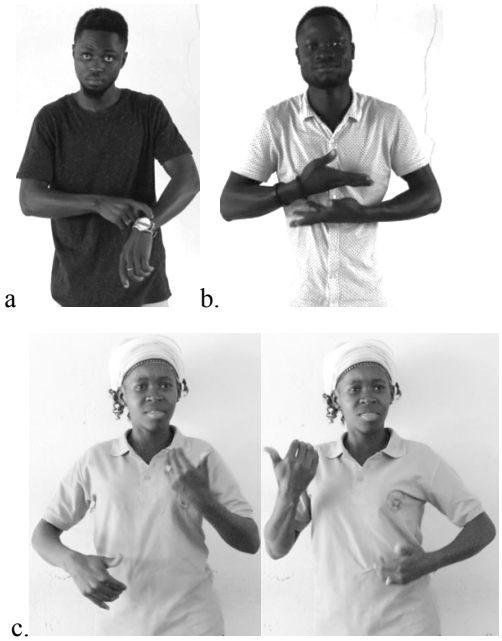
AdaSL and LaSiBo narratives have presented distinct ways of talking about the animals, the first one much more enhanced than the second. How would LGG signers from both genders compare with those of the two other sign languages? Almost everyone tells about their experience with a snake, but only half describes it and mostly in the middle part of the story as the narrator.

Animals. All 16 LGG narratives were about snakes except for one told by a woman about a dog attack. In 14 narratives, the animal was identified lexically as a snake. The snake was produced with a flat hand, as in (110), corresponding to the sign registered in the dictionary (see Figure 57b), except for one woman who did not explicitly mention the animal, but instead pointed ahead and traced the path of the snake approaching. This sign for SNAKE was also observed in AdaSL and LaSiBo. The female signer telling about her experience with a dog did not explicitly label it either but said instead that it barked.

(110) Sign identifying a snake in LGG

Similar to LaSiBo, which had only 33% of narratives with descriptions of the animals, half of the LGG signers, in both gender groups, did not include such depictions either. For that reason, and like LaSiBo, they were asked afterwards what the animal looked like. All answered except for one woman. Most descriptions concerned how big and long the snake was, which is further detailed in the next subsection. In addition, five signers (four men and one woman) told what colour the snake was. Three mentioned it was black, as in (111a), one that it was green, in (111b) and the woman said that it was blue, in (111c).

(111) Signs describing the snake as being black (a), green (b) or blue (c) in LGG

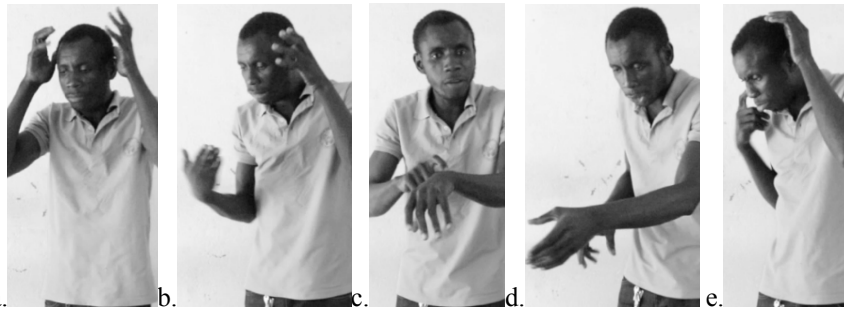


Context. Signers including the descriptions of the snakes, and especially the men, describe them in the middle part of their narratives, between the complication and the resolution, unlike LaSiBo. Two men did so in the climax, another in the climax and the resolution and one of the women described the snake in the complication and the climax. Three other signers (one man and two women) described the snake only in the resolution, and two women in the coda.

Signer's role. Within the sequence of events, they told what they had done to the snake and then suspend the action to describe it within the narrator's role, both by looking at the audience or the hands. For instance, one signer told he was holding a

bowl on his head when he looked down and saw a snake, in (112a). He signed SNAKE while holding the bowl on his head, in (112b). He then suspends the storyline to address the audience by adding that the snake was black, in (112c), and indicating how long and wide the snake was while looking at his hands, in (112d). After this suspension, he goes back to embodying the character looking at the snake, in (112e).

(112) Description of the snake in the narrator's role with gaze on the audience (b) and gaze at the hands (c) in LGG.



RH gloss	HOLD-ON-HEAD	SNAKE	BLACK	**S&S**:LONG	SEE
LH gloss	HOLD-ON-HEAD				HOLD-ON-HEAD
eye gaze	character's gaze		at the audience	at the hands	character's gaze
role	character		narrator		character

'I was holding the bowl on my head. A big black snake was on the ground. I was holding my bowl on my head when I saw the snake.' (LGG_08 narrative)

Besides describing the snakes within the narrator's role, four signers do it also as characters in reported speech, as was observed in AdaSL. In LGG, two men and two women say how big the snake was within a reported speech. Three constructed dialogues occur in the climax, as in (113), while the other, a monologue by a woman, is produced in the resolution (see §6.5.2 and §6.5.3 for more details). In one of the dialogues by a male signer (LGG_05 narrative), he is enacting himself in the past warning the hearing people about the whereabouts of a big snake, in (113a). In another dialogue by a woman, she is enacting a hearing person asking her if she eats small snakes, in (113b).

(113) Depiction of size in the character's role as themselves (a) and as somebody else (b) in LGG

a.

gloss	SNAKE	**S&S**:BIG	THERE
eye gaze	character's gaze		
constructed dialogue	**Dialogue**: "There's a big snake there!"		

b.

gloss	CALL	EAT	S&S:SMALL	THERE
eye gaze	character's gaze			
constructed dialogue	**Dialogue**: "Do you eat that small snake?"			

In sum, although only half of the signers describe the snakes within their narratives, they tend to do it in the middle part of the story, where the emotion is supposed to be enhanced, as AdaSL signers did. Moreover, besides describing them within the narrator's roles, they also embed the depictions within the character's quotations. This indicates that even if still in the making the skill to convey dramatic force to the high point of the story seems to be emerging in LGG.

In the following subsection, I focus on the variety of depicting signs used to describe the animals in the three sign languages, both within and after the narratives.

Considering there would have been a follow-up question by someone in the audience in a naturalistic setting, what would have been the potential diversity of size and shape depictions?

7.5.2 Depictions of size

Most AdaSL narratives (14 of 17) included a description of the animals within the middle components. In contrast, only one-third of LaSiBo narratives and half of LGG's presented it. For that reason, in these two sign languages, when signers missed such a description, they were asked about what the animal looked like after they had finished their stories. All were then able to add the description of the animals, except in two LaSiBo narratives and one told by a female LGG signer.

Looking at the whole set of depicting signs, produced within and after the narratives, LaSiBo ended up showing a higher quantity – produced mainly afterwards – compared to the other two sign languages, especially in what concerns the delineation of the snake's width on the signer's body parts. All three sign languages presented space-based demarcation of size between the hands and of length. In addition, AdaSL showed a higher variety of strategies in depicting the animal's body parts.

Results are shown next for the three sign languages, first for relative size, only in AdaSL, followed by absolute size in the space and on the body. Afterwards, I present depictions of length, again as space and body-based, of height (only in LaSiBo), and of width, which were all delineated on the body. In the end, shape depictions of the animal's body parts are shown for AdaSL and LGG.

Depictions of size in AdaSL narratives

In the 14 AdaSL narratives that included descriptions of the animals, signers depicted the notions of 'large' – mostly as a lexical sign – and long mainly in space and width on the body. About a third of these (five of 14) presented more than two depicting signs. In addition, three signers described the shape of the animal's body parts. In comparison with the other two sign languages studied here, AdaSL narratives included the most depictions within the narratives, especially in the climax.

In total, 23 depicting signs were observed in those 14 AdaSL narratives that included the animal's description. Of these, six are lexical, referring to the **relative size** of BIG, as in (114). Five of them were used to depict snakes, and the other was a lion. Of course, an encounter with a dangerous animal is scarier if the animal is big rather than small, which may account for the difference in the number of signs for each concept.

(114) Lexical sign for the relative size of the animal, BIG in AdaSL

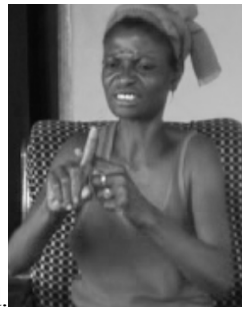
BIG

In the AdaSL narratives, there were also signs depicting the **absolute size** of the animals. In two descriptions of the kind, the signers begin with BIG and then specify the absolute size of a lion, in (115a) and of a snake, in (115b). For smaller sizes, signers relied on the fingers. In two different narratives, the same signer marks the absolute size of the animal on the finger with the other hand to refer to the size of a wasp, in (115c) and of a lion's tooth, in (115d). Another signer delimits in the same hand the size of a snake's tooth on the tip of the finger while simultaneously producing pursed lips, in (115e). Here, the thumb marks the size of the tooth on the index finger.

(115) Space-based depictions of the absolute size of a lion (a) and of a snake (b) and body-based depictions of a wasp (c), a lion's tooth (d) and a snake's tooth combined with pursed lips (e) in AdaSL

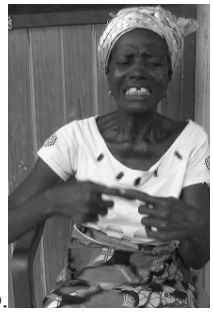
a.

b.

c. d.  e.

The **length** of snakes involved, in all five instances, an entity handshape – the index fingers representing the snake's body – and a tracing movement extending the snake's length in space, as in (116a). Three of these depictions were combined with spread lips, as in (116b). One of them was produced differently: the signer grabs the index finger representing a snake and then pulls it back to extend its length together with sucked cheeks in (116c). Unfortunately, the image was cut off because the signer did it a bit off-camera.

(116) Space-based depictions of the snake's length with an entity handshape and a movement for extension (a), combined with spread lips (b) and by pulling the index finger combined with pursed lips (c) in AdaSL

a. b. 

There are three instances where the **width** of the snake is depicted in the AdaSL narratives, on the signers' body parts. Two are produced on the finger, as in (117a) and one on the forearm, in (117b), to describe the diameter size. These signs are found to usually combine with the O-shaped mouth, a size and shape mouth movement previously undescribed for AdaSL.

(117) Body-based depictions of the snake's width on the finger (a) and on the arm (b) combined with an O-shaped mouth movement in AdaSL

a. b.

Finally, besides depictions of relative and absolute size, length and width, three other signers depict the **shape of the animal's body parts**. Two of them use the arm and the hand to represent a snake, by moving the fist in a circle to depict it as being coiled on the ground, as in (118a). The other signer depicts the shape of the lion's eyes and snout by 'pulling' her own eyes with puffed cheeks for 'big eyes', in (118b), and by 'pulling' her cheeks with pursed lips for a 'long snout', in (118c).

(118) Depictions of a 'coiled snake' with an entity handshape (a), of 'big eyes' (b) and 'big snout' (c) of a lion by 'pulling' the eyes and the cheeks in AdaSL

a. b.

c.

In conclusion, most AdaSL signers produce the animal's description in a variety of ways, showing the naturalness and richness of such productions in AdaSL. Signers grab the audience's attention by highlighting how big and scary the animals are. For that purpose, they use lexical signs for relative size and depictions for absolute size, both space and body-based, length in the space and width in the body. I next look at the corresponding dimensions of size in the animal depictions in LaSiBo.

Depictions of size in LaSiBo narratives

Unlike AdaSL, most LaSiBo narratives (8 of 12) did not include the animal's description within the narrative, but when asked about it in the end, the six signers who responded depicted the animals with a variety of signs. There were three animal depictions produced within the narratives and 17 afterwards. To look at their variety, all instances are analysed together here, regardless of having been produced within or after the narratives. In general, and as AdaSL, they referred to the absolute size of the animals, their length and width and one of them also depicted the height.

The **absolute size** of snakes is delimited on five occasions as space-based, between the two hands for different sizes, as in (119a, b and c). Moreover, the signer in (119c) combines the expression of a big size with puffed cheeks. This was the only mouth movement observed in LaSiBo. In addition, one signer expressed a very small size as body-based. In this case, the signer delimited the size of a snake's tooth on the tip of the finger with the other hand, in (119d).

(119) Space-based depictions of the absolute size of snakes (a, b), combined with puffed cheeks (c) and body-based depiction of a snake's tooth (d) in LaSiBo

a.

b.

c.
d.

The depiction of the snake's **length** was quite diverse in LaSiBo. Three of such depictions were space-based and two were delineated on the body. The ones extending the length of the snake in space were articulated differently: one was produced with an entity handshape, the flat hand representing the snake, in (120a), another with a handling handshape, in (120b), and the third one in pulling the index finger, in (120c). In the two body-based depictions, one is delimited between the hand and the shoulder, in (120d), and, in the other, the signer traces the length of the snake on the forearm, in (120e). Such body-based depictions of length were not seen in AdaSL.

(120) Space-based depictions of the snake's length with an entity handshape (a), a handling handshape (b), and by pulling the index finger (c), and body-based depictions by delimitating the length between the hand and the shoulder (d) and by tracing the length on the forearm (e) in LaSiBo

Within the data collected for this study, there is only one mention of the animal's **height**, which is in LaSiBo concerning a horned animal. Interestingly, this signer determines height on two occasions in her narrative, during the orientation. The first one refers to the height of a person in the audience, in (121a) to indicate age, and, for that reason, it was not included in this set of depicting signs for the animals. Nonetheless, it is shown in the example below as a basis for comparison with the height of the horned animal. The signer begins by explaining that when she was younger – she signs an approximate height and then points at someone in the audience

to confirm the age's height – there was a baby horned animal of a short height, in (121b).

(121) Space-based depiction of the height of a person (a) and of a horned animal (b) in LaSiBo

a.

HEIGHT [POINT (AT SOMEONE) HORNS BORN]

b.

HEIGHT

'I was this tall, like that person, when an animal with horns just born this size (...)' (LAS_06b narrative)

Similar to AdaSL, the depiction of **width** is also body-based in LaSiBo. Here, the snake's diameter is delineated on the fingers on three occasions, as in (122a), on the arm, in two instances, as in (122b), and on the thigh, in (122c) and the lower leg, in (122d). Here we can see how LaSiBo deaf people use the signing space larger than many other sign languages.

(122) Body-based depictions of the snake's width on the finger (a), the arm (b), the thigh (c) and the lower leg (d) in LaSiBo

a. b. c. d.

In one of those cases where the signer was asked for a description of the animal after the story had ended, she started looking for a corresponding size in her surroundings, but, as she could not find it, she used her arm to depict it, in (123). This may indicate that indeed, LaSiBo signers rely on their surroundings to convey certain, in particular those related to size and shape, as has been already hinted in the previous subsection.

(123) Signer looking for a corresponding size on her surroundings (a) and then depicting it on the arm (b) in LaSiBo

a. b.

(LAS_01a narrative)

Although most LaSiBo narratives of encounters with animals do not include a description of the animal during the narrative, contrasting with AdaSL, they did so at the end when prompted with a question about what the animal looked like. In my analysis, this shows that they dispose of a range of size and shape depictions – probably shared with the hearing – that they do not use in their narratives for lack of

practice in telling stories that are captivating to an audience. The following section turns to the analysis of the animal's description in LGG narratives.

Depictions of size in LGG narratives

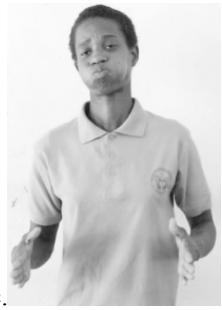
Half of the 16 LGG signers (four men and five women) included the animal's description within their narratives. The other half was asked about it in the end, as were LaSiBo signers. All except one of the women responded and added the description at that moment. In the end, there were 25 depicting signs (14 by men and 11 by women) mostly referring to space-based depictions of large/small and long.

The **absolute size** of animals was depicted in space between two index fingers (in six instances), as in (124a,f,g), or two hands (in eight instances), as in (124b–e). the notions of 'large' and 'small' were distinguished mainly by facial expression. When combined with puffed cheeks they meant 'large', as in (124b,c), and when combined with spread lips, as in (124d), or pursed lips, as in (124e–g) they meant 'small'. All the examples below refer to snakes, except for (124d) which depicts the size of a dog.

(124) Space-based depictions of the absolute size of animals with two fingers (a,f,g) and two hands (b–d) combined with puffed cheeks for 'large' (b,c), spread lips (d) and pursed lips (e–g) for 'small' in LGG

a.

b.


c.

d.

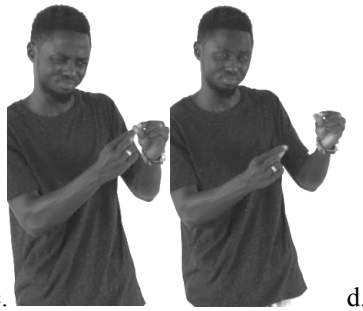
e.

f. g.

Similar to LaSiBo, LGG signers also expressed the snake's **length** by extending in space handling handshapes (in three instances by men) and by pulling the entity handshape of one of the hands (in two instances by men and two by women). When they extend the length in space with handling handshapes, these depict not only how long the snake is with the movement but also its width with the internal space within the hand. Hence, signers in (125a,b,c) depict snakes of different diameters. This is also the case with the pulling strategy, where the handshape also indicates the snake's width, thicker if represented with the flat hand, as in (125d), and thinner if with the index finger, as in (125e). Such pulling movements, especially if related to thinner snakes were combined with sucked cheeks, as in (125e).

(125) Space-based depictions of the snake's length with different handling handshapes (a,b,c), and by pulling the hand (d) and the index finger (e) in LGG

a. b.

c.  d.

e.

In LGG, the length of the snake was also depicted on the body. One woman used her whole body as if stretching it, in (126a). additionally, as was observed in LaSiBo, one male signer traced the snake's length on the forearm, in (126b).

(126) Body-based depictions of the snake's length with the whole body (a) and by tracing the snake's length on the forearm (b) in LGG

a.

b.

Unlike the other two sign languages, where this type of depiction was used a few, especially in LaSiBo, only one body-based depiction of **width** was observed in LGG. Here, the signer delineated how wide the snake was on his forearm, in (127).

(127) Body-based depiction of the snake's width on the forearm in LGG

Finally, as occurred in AdaSL, one LGG signer also depicted the **shape of a body part** of the snake, in this case, of its eyes. He enhanced the width of the snake's eyes by tracing their shape around his own eyes, in (128a), and then by adding a tridimensionality of their large size with the C handshape, in (128b).

(128) Depictions of the 'big eyes' of a snake by tracing their shape (a) and with the C handshapes (b) on the signer's face in LGG

a. b.

From this analysis, no differences appear between deaf men and women. Out of the 16 narratives, nine described the animals within the narrative and six others depicted them afterwards. Most instances concerned the space-based depiction of the absolute size of the animals between two hands and two fingers. The latter was not observed in the other two sign languages. LGG depictions of length also differed from AdaSL for relying on handling handshapes extended in space as well as on pulling movements, as did a couple of LaSiBo signers. In LGG, there was only one body-

based depiction of width, contrasting with the two village sign languages. Nonetheless, similar to AdaSL, one LGG signer also described the shape of the snake's eyes on his face. Finally, LGG signers consistently produced mouth movements depending on the depiction type.

In the following section, I synthesise the results of the analyses of the animal references in the narratives of the three sign languages. For an overall view of the findings, the languages are compared in what concerns the contexts of use and the types of depictions.

7.6 Synthesis of the results

The study of animal depictions in narratives that are precisely about animal attacks focused on the enhancement of the main 'antagonist'. The dramatic force of such enhancements was measured according to whether they occurred within the middle part of the story and how varied the depictions were.

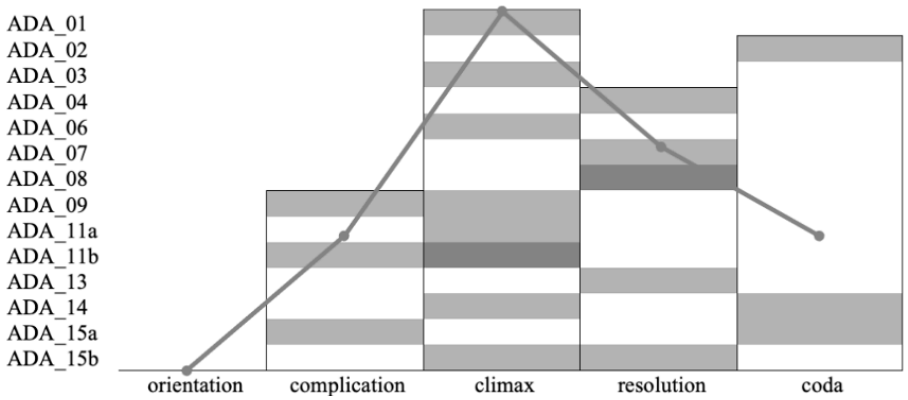
Of the 45 accounts by signers in the three sign languages, 37 are about snakes. In AdaSL there are two more about lions and two about wasps. In LaSiBo, three others are about horned animals and in LGG one is about a dog. The animal was explicitly identified in 37 narratives. In the remaining accounts, they were pointed. This was the case in narratives by one AdaSL signer, two female LGG signers and in five of 12 LaSiBo narratives.

The most striking difference between the three sign languages was the inclusion of the animal's description in the narrative. AdaSL had the higher number of narratives with animal depictions (14 of 17) and mainly in the climax (eight of 14) and neighbouring components, as shown in Figure 66a. In contrast, only four of 12 LaSiBo narratives and nine of 16 LGG narratives contained descriptions of the animals. In these, only the ones produced by male LGG signers were more concentrated in the most exciting part of the story, as shown in Figure 66c. Both LaSiBo narratives, in Figure 66b, and those by female LGG signers, in Figure 66d, presented more scattered descriptions.

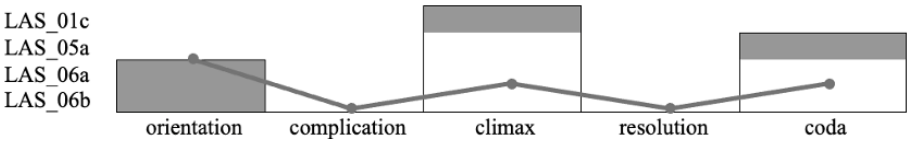
Figure 66 displays the distribution of the animal's descriptions within the internal components per narrative in each language group. Only the narratives that included such depictions are shown in Figure 66. What is more, the graphic line overlapping with the distribution of depictions per narrative aims at illustrating the general pattern in enhancing the animal during the story within the language. Such a graphic line makes clear that both AdaSL and LGG narratives by men highlight the animals, especially during the climax and the resolution, contrasting with the other two language groups. Finally, Figure 66 also shows that descriptions embedded in reported

speech, in AdaSL and LGG (see darker shadings in Figure 66a,c,d), are again concentrated in the climax and the resolution.

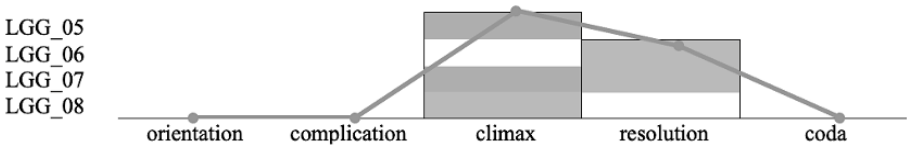
a. AdaSL



b. LaSiBo



c. LGG men



d. LGG women

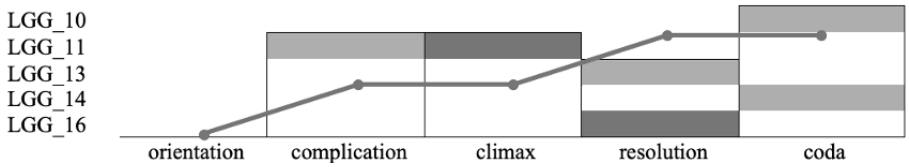


Figure 66. Distribution of the animal depictions within the narrative components per signer: shades correspond to the depictions; darker shades correspond to depictions in constructed dialogues; and graphic lines indicate the number of occurrences per component, in each language group: AdaSL (a), LaSiBo (b), LGG by men (c) and by women (d)

Those who did not describe the animal in LaSiBo and LGG were asked about it at the end of their accounts. All responded but two signers in LaSiBo and one woman in LGG. This resulted in high production of depicting signs afterwards, especially in LaSiBo, probably to make sure that they were being understood. Figure 67 presents the actual number of signs describing the animals in each narrative component and afterwards per language. Some of the signers produced two or more depicting signs in a row, increasing the number of instances per narrative.

A few signers indicated the colour (one in AdaSL, two in LaSiBo and five in LGG, four are by men) and only one in AdaSL depicted the pattern of the snake. Three AdaSL signers and one male LGG signer also described the shape of the animal's body parts. Importantly, only AdaSL employed lexical signs of relative size for 'big', indicating a higher degree of conventionalisation in an older sign language. By opposition, LaSiBo signers rely on references in their surroundings. They used more pointing signs than the other language groups to identify the animals. The colours were also expressed by pointing at their clothes. Moreover, one signer pointed at a tree to indicate size and two others traced the length of the snake on the ground. Hence, such a higher use of pointing demonstrates that the young age of LaSiBo and the reduced size of its community have yet to conventionalise certain concepts. Finally, the large majority of the depicting signs concerned the expression of absolute size for 'large', length and width – this last one especially in the two villages. Besides showing the number of occurrences of size and shape depictions (subtitled as 'S&S'), points, and the indication of the pattern and colour of the animal per language, Figure 67 shows the distribution of the animal's description within the narrative components and afterwards. This makes it evident that AdaSL signers described the animals copiously within their accounts, while the other languages had to be prompted by a question at the end to do so.

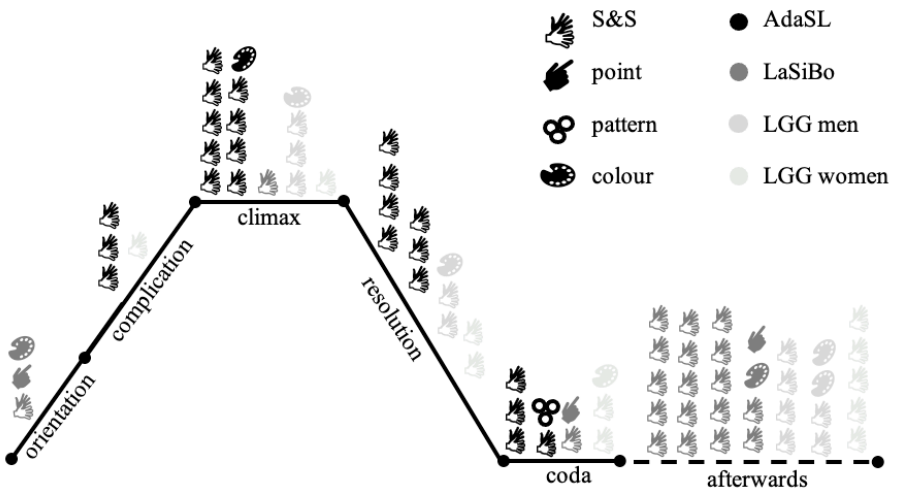


Figure 67. Distribution of the animal depictions of size and shape (S&S), the use of point, the indication of pattern and colour in each narrative component and after the narrative per language group: AdaSL, LaSiBo, LGG by men and by women

To look more closely at how varied the animal depictions were in the three sign languages, both in and outside the narratives, Figure 68 demonstrates the number of occurrences in the different types of size depictions. There was only one reference to height in the animal's descriptions in LaSiBo that is not included in Figure 68. Here, only the most used size dimensions are displayed, namely concerning the depictions of large/small and long as predominantly space-based, and of width, as uniquely defined on the body, especially in the two villages. Body-based depictions for a relative size measured on the finger occurs only in AdaSL and LaSiBo. Moreover, body-based delineations of length occur in LGG and again in LaSiBo. Overall, what is strikingly different between the size depictions in the three sign languages, is that LaSiBo relies much on body affordances mainly to delineate width, while LGG seems to prefer space-based depictions. Importantly, as seen with the use of their surroundings to convey certain concepts, LaSiBo also expresses width within a larger signing space, such as in the leg.

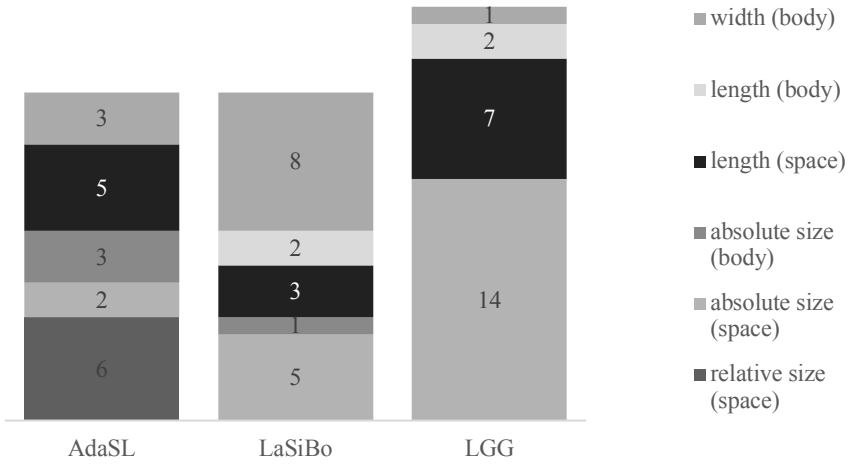


Figure 68. Number of occurrences in the most used depiction types: relative size (in space), absolute size (in space and on the body), length (in space and on the body) and width (on the body) in AdaSL, LaSiBo and LGG

All in all, AdaSL signers enhance the animals the most in their narratives, demonstrating that they are experienced storytellers. On the other end, LaSiBo signers seem to lack the ability to turn their accounts more compelling. Between these two opposing sides, men and women in LGG get closer to different ends. In this particular study, the main distinction between male and female LGG signers concerned the distribution of depictions with the narrative, which was much more concentrated on the middle part of the narratives told by men, similar to AdaSL. Next, I relate the findings of this study with previous descriptions in the three sign languages.

7.7 Discussion

The findings obtained in this study are compared only to previous descriptions of the three West African sign languages analysed here, namely in what concerns the labels used to identify and the signs used to depict the size and shape of animals.

The signs used to represent a thin snake with the index finger, in (100a) for AdaSL and (104a) for LaSiBo, and a wider one with the flat hand, as observed in all three sign languages, in (100b), (104b) and (109), had been described for LGG, namely for WORM, in Figure 56a, SNAKE, in Figure 56b, and even BOA, in Figure 56c. Similarly,

the representation of the horned animal in LaSiBo, in (104d,e), had also been registered in the LGG dictionary for OX, in Figure 57a, and in AdaSL for COW, in Figure 57c (see §7.2.1). The anthropomorphic strategy was observed not only in the representation of 'lion' by depicting an open mouth, but also in the depiction of the snake's spots on the signer's body. In addition, the depiction of 'big eyes' and 'big snout' of a lion on the signer's face, by using the pulling strategy resembles the signs previously observed in AdaSL and LGG, in Figure 59.

The depictions of size seem to be based on gestures, as Nyst (2007, 2016a, 2018) and Tano and Nyst (2018) demonstrate. The data about LaSiBo signers further supports this hypothesis. LaSiBo signers point at real things in their descriptions, just like hearing gesturers of Anyi, in Ivory Coast, tend to do, as observed by Tano and Nyst (2018). This was not found in AdaSL or LGG. Another similarity with gestures in addition to pointing is that LaSiBo signers use a more expansive signing space, as was also seen by those authors in the gestures of hearing people in the village. This signing space is also larger than the signing space by AdaSL and LGG signers. LaSiBo signers were observed to rely much on pointing for surrounding references and seem to use gestures still. It is hypothesised that this is because they are very few deaf signers in this village, and that they interact more with hearing people than with each other. The practice of pointing at references in the environment to enhance descriptions has been observed in signers of very small languages (e.g., Haviland 2013) and in homesigners (e.g., Coppola 2020, 359). If LaSiBo signers have not fully conventionalized size and shape depictions, then perhaps they share some similarities with signers in those situations.

Signs of **relative size** were only observed for 'large' in AdaSL combined with **mouthing**, in (113), as previewed in the literature (see Figure 60a). This was the only mouthing (mouth movement reproducing full or part of spoken words) found in the data of the three sign languages collected for this thesis.

The depiction of the **absolute size**, for both 'large' and 'small' was, in contrast, produced frequently, especially **in space**, between the two hands, as in (114a,b), (118a–c) and (123b,c,e,f), similar to the LGG signs in Figure 61a,b. LGG signers were the only ones measuring size in space with two fingers as well, in (123a,d), which had not been described yet, but was previewed by the data collected from children in Bissau, producing also space-based depictions between the hands, in Figure 64a, and the fingers, in Figure 64b.

Similar to the relative size registered in the literature of small entities **on the body**, as in Figure 60b for AdaSL and Figure 61c,d for LGG, the **absolute size** was also depicted in AdaSL and LaSiBo on the finger, respectively in (114c,d,e) and (118d). No such depictions were observed in the LGG narratives.

LGG signers did, however, distinguish 'large' and 'small' with their facial expressions. **Puffed cheeks** were used for BIG, as in (123b,c), and previewed in the lexical sign for BOA, in Figure 56c. In AdaSL, puffed cheeks were also observed for the notion of 'large' in the depiction of 'big eyes' in (117b). This coincides with previous descriptions in Morgado and Nyst (2022) based on this same data. Here, puffed cheeks were combined with the depiction of 'swelling' in AdaSL and 'large' in LaSiBo, as shown in (118c). This was the only mouth movement seen in LaSiBo. In general, deaf signers of the village of Bouakako maintained a neutral mouth.

Additionally, **spread lips** (123d,e) and **pursed lips** (123f) were combined with the depiction of 'small' in LGG. This was described in that work as well, where spread lips and pursed lips were produced together with depictions of 'very small', as in (114e) for the latter in AdaSL.

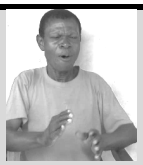
The depictions of **length** were only described for AdaSL, in that same work (ibid., 158), in terms of its combination with **spread lips**, as in (115b). Here, the only occurrences refer to the index fingers, representing the snake, as **entity handshapes**, combined with a tracing movement delineating its length. Besides, such a depiction of LONG, but produced with the palms, LaSiBo used three other strategies which were also observed in LGG. Both LaSiBo, in (119b), and LGG signers depicted the length of a snake with **handling handshapes**. The difference was that, in LGG, besides the C handshape, signers depicted thinner snakes by reducing the distance between the index and the thumb, as in (124b,c). This was observed in the children as well, in Figure 64d. LaSiBo, in (119c), and LGG, in (124e) produced equally a **pulling** of the index to depict the snake's length, as observed again in the children, in Figure 64c. Then again, apart from the index finger, one LGG signer combined the pulling movement with the whole hand, in (124d). Moreover, the pulling movement for length was combined in LGG with **sucked cheeks**, which had not been described yet.

In addition, length was depicted on the **body**, by being **traced on the forearm**, in (119e) for LaSiBo, and (125b) for LGG. This strategy had not been described previously either. What is more, one female LGG signer depicted the snake's length with her **whole body**, in (125a), which was not observed either. However, making use of the physical distance **between the hand and the shoulder** of the other arm, as in (119d) for LaSiBo, had been observed as a Kenyan gesture for 'big fish' (Claessen 1982, 173). As a measure within the same arm, it was registered for LaSiBo, in Figure 63b, and for AdaSL, in Figure 62c.

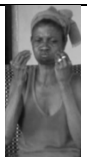
The depiction of **height** occurred only in LaSiBo probably concerning a calf, in (120b), similar to what had been described for the height of a short animal also in LaSiBo, in Figure 63a, and in AdaSL, in Figure 62b.

Finally, the depiction of the snake's **width** was always **body-based**. It was delineated on the **finger**, in AdaSL, in (116a), and LaSiBo, in (121a), on the **arm** in the three sign languages, in (116b) for AdaSL, (121b) for LaSiBo, and (126) for LGG. Importantly, and as observed previously (c.f., Morgado & Nyst 2022), the width was combined with an **O-shaped mouth** in AdaSL. In LGG the depiction of width occurred this one time, although children did delineate it on the finger, arm and leg, as shown in Figure 64e–i. In contrast, in LaSiBo data, it was further delineated on the thigh, in (121c) and the lower **leg**, in (121d). Such a larger use of the signing space, namely by using the leg, had been described before for LaSiBo, in Figure 63c. In gestures, such use of body affordances for circular shapes with different diameters was described in Central Africa (Hochegger 1979, 64), Ghana (Hadjah, forthcoming) and the Ivory Coast (Tano & Nyst 2018, 8).

Table 40. Types of all occurrences of size and shape depictions of the animals in the three sign languages: AdaSL, LaSiBo and LGG per gender. Types shaded were described in the literature

			AdaSL	LaSiBo	LGG	
					men	women
Large/small	space	relative size	 BIG (+mouthing)	-	-	-
		absolute size (2hands)	BIG	BIG (+puffed cheeks)	BIG (+puffed cheeks)	SMALL (+spread lips)
		absolute size (2fingers)	-	-	SMALL (+pursed lips)	SMALL (+pursed lips)

	body	finger	BIG (+spread lips) SMALL (+pursed lips)		-	-
Length	space	entity handshape	LONG (+spread lips)	LONG	-	-
		handling handshape	-	LONG	LONG	-
		pulling movement	-	LONG	LONG	LONG (+sucked cheeks)
	body	tracing movement	-	LONG	LONG	-
			-	LONG	-	LONG
Height	space		-	SHORT	-	-

Width	body	finger	THIN (+O-shaped mouth)	THIN	-	-
		arm	THICK (+O-shaped mouth)	THICK	THICK	-
		leg	-	THICK	-	-
Other		entity handshape	COILED-SNAKE	-	-	-
		anthropomorphic	 BIG-EYES BIG-SNOUT	-	BIG-EYES	-

In terms of the relative amounts of each type, LGG adult narratives had few body-based depictions of size and shape when compared with the other two sign languages and with those produced by child LGG signers. The LGG children are more similar to LaSiBo and AdaSL in using more body-based depictions, especially for width. Why should this be the case? I hypothesise that AdaSL, LaSiBo, and LGG children – who live predominantly in hearing families – are all immersed in a communicative environment with a lot of hearing gesturers, while the interlocutors of LGG adults are mainly other LGG adults.

The animals' description, especially of snakes, relies on a large variety of depicting types, even if only after being asked about it. In addition, mouth movements combine with particular notions of size and shape. This had been described for AdaSL and

LaSiBo depictions (Morgado & Nyst 2022) and was confirmed here for LGG. Again, LaSiBo contrasts with the other two sign languages by using a larger signing space and surrounding references to convey certain concepts. LaSiBo signers also show much fewer facial expressions in depictions of size and shape when compared with the other two sign languages. LaSiBo signers have not developed the use of mouth movements probably due to the fact of being few deaf people that do not usually seek each other to socialise. In contrast, even though LGG is younger than LaSiBo, it differs from the Ivorian sign language in systematically presenting such mouth movements. These results for LGG show that intense communication habits within a growing deaf community may stimulate the use of certain facial expressions.

To return to the theme of how certain narrative devices enhance storytelling, recall that Labov highlights the importance of capturing the audience's attention through the evaluation component. This is when storytellers rely on narrative devices to enrich the story. In this chapter, I propose that describing what the animal is like can be part of this enrichment. I found that animals are most entrenched in the middle part of narratives produced by AdaSL and male LGG signers. Nonetheless, signers in the three sign languages demonstrated to have at their disposal a variety of depicting types that they can use if asked about it.

Considering that AdaSL is an old sign language with lots of accumulated interactions over time and LaSiBo is young and is used by a small group, LGG can be used to help disambiguate the importance of the age of a language on the growth of linguistic structures. It has a large deaf community, and many of the signers (but especially male signers) experience a high density of regular daily interactions with other signers. In this study, I found that half of LGG signers described the animal during their narratives through various means, such as interrupting the narrative to add information or describing it during constructed dialogues; this was similar to AdaSL signers. However, the other half, in both genders, did not provide animal descriptions within the narratives. This may indicate that LGG as a whole language is still developing such narrative structures. These results confirm the hypothesis that even though language age matters, interaction habits are also crucial. AdaSL signers have been interacting daily over past generations. Deaf people in Bissau interact intensively and with a great diversity of deaf interlocutors, even if they are still in their first generation. In contrast, LaSiBo signers constitute a very small group that does not seem to seek interaction with each other daily.

In previous chapters, I showed that, in general, AdaSL and male LGG signers show similar patterns, and that female LGG signers resemble LaSiBo's the most. I can now integrate the findings from the study on the animals' depictions into the overall picture of how differences in the use of narrative devices may reflect social, cultural, and historical aspects of different language communities. Yet, the results in this chapter

also open the door to other factors, such as the accumulated language experience of individuals in ontogenetic time, which has been described in Nicaraguan Sign Language signers (Senghas 2003). That is, even though LGG is growing incredibly quickly and developing linguistic structures in a short amount of time, there are still types of linguistic devices, such as descriptive elaboration in narratives involving size and shape depictions, which need time for individual signers to acquire and use. Next, I wrap up this study with a conclusion.

7.8 Conclusion

This chapter focused on the last type of narrative device studied in this thesis as part of the evaluation component in narratives: the depiction of the animal as the point of the story. I presented an overview of previous descriptions of AdaSL, LaSiBo and LGG, the methods, and a descriptive analysis, followed by a synthesis of the results and a discussion comparing the three sign languages to answer the research question and evaluate the hypothesis.

The three African sign languages presented various depictive strategies to describe the animals, but only AdaSL and male LGG signers included them in the climax and the resolution. It was also seen that deaf people mirror common body-based depictions widely used in West Africa by hearing people. The difference between the three sign languages is that LaSiBo seems more gesture-like in the use of a larger signing space, of real references in the surroundings and the body to depict size dimensions, especially width. AdaSL signers also use body-based depictions but always within the signing space, nor do they point to their surroundings.

One new idea from this study that is particularly compelling for follow-up research is to pursue the hypothesis that LGG-signing children in Bissau still use gestures brought from home that have yet to be adjusted to the current sign language used by adults due to insufficient daily interaction, especially outside of school. I now turn to the last chapter which brings together the four studies presented in this thesis.