

## Deixis in narrative: a study of Kamaiurá, a Tupí-Guaraní language of Upper Xingu, Brazil

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### Abstract

The current paper describes the deictic system of Kamaiurá, a language of the Tupí-Guaraní family. The Kamaiurá system of deictic demonstratives and adverbials has a high degree of complexity, including at least 17 different forms, of which several have different functions. The system codes four levels of Participant deixis, with PROXIMAL, MEDIAL, DISTAL and FAR DISTAL deixis. Forms can also code ANAPHORA and highly specialized locations of the referent, such as ‘moving away’ and ‘located beside something’. A further peculiar and unusual characteristic of the Kamaiurá system is the coding of Modal and Evidential deixis, which is found among the forms marking FAR DISTAL deixis. Our study has two foci: the first part describes the system in its independent or EXOPHORIC use, and this part is based on deep interviews with native speakers and a deixis elicitation study. The second part of the paper represents the core of our study. Here, we investigate the uses of the deictic system in a recorded frog story, looking at ANAPHORIC and CATAPHORIC usages of the forms as well as how they are used to mark TOPIC and FOCUS in the narrative discourse. The text is very rich in deictic forms, and out of the 17 different forms recorded for Kamaiurá, 9 occur in our frog story. We notice a tendency where the hierarchy of increasing distance from the EGO in the independent forms is transferred into increasing FOCUS of the narrative. Epistemic modality of the independent forms is used to mark uncertainty in the narrative, i.e., to indicate lack of terms for a specific item, whereas ANAPHORIC deixis of the independent forms marks general reference in the narrative.

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## 1. Introduction

### 1.1. Background: deixis, demonstratives and grammar of space/time

Deixis is a linguistic category which refers to expressions involving a *SPEAKER*, an *ADDRESSEE*, a reference to a situation and a discourse, located in time, space, and a speech event. Since deixis fundamentally is an instrument of language for categorizing the surrounding environment, deixis is found in all languages – deictic systems are often thought of as a mirror of linguistic ontology, and hence, languages are highly diverging in the way they organize their deictic systems (Diessel 1999, Sidnell and Enfield 2017, Diessel 2014, Seki 2000). Deictic systems are also often sound symbolic in their phonological design (Hinton, Nichols, and Ohala 1995, Johansson 2014) and this situation is restored in languages, if disturbed by language change (Johansson and Carling 2015).

Deixis is closely connected to the parts of speech category of *demonstrative pronouns* due to the inherent nature of demonstrative pronouns to refer to a third participant, marked by 3<sup>rd</sup> person pronoun or demonstrative pronoun, else than the *SPEAKER* and *ADDRESSEE*, marked by 1<sup>st</sup> and 2<sup>nd</sup> person pronouns. In referring to a third person participant, a *REFERENT*, and the location and status of this participant in space, languages often demonstrate overlapping usages with proper deictic markers, serving syntactically as adverbials, not as arguments. This is the situation also in Kamaiurá.

Hence, key components in deixis in languages include a *SPEAKER*, an *ADDRESSEE*, and a *REFERENT*. Additional components include the situation, the discourse, and the speech event itself. In a complex system, such as Kamaiurá, information on the situation, the discourse, and the speech event can be built in into the system of deictic demonstratives and adverbials, rather than being expressed by particles in the syntactic environment of the predicate. This results in a complex and form-intense system, which is hard to interpret and understand. Deictic systems, including both deictic demonstratives and adverbials, reflect the reality of speakers: to make a full study of all aspects of deixis in a language such as Kamaiurá, controlled data from a field-based study, recreating natural situations of hunting, fishing, and eating would be preferred. No such study has been conducted on Kamaiurá. The current study is based on results from deep interviews and discussions with native speakers, a controlled experiment involving stimuli, narratives, and, in particular, a recorded “frog story” with a native speaker, Wary Kamaiurá, who is also a co-author of this paper.

In descriptions of demonstratives and deictic markers, a specific number of properties of deictic/demonstrative systems have been defined, often with the purpose of understanding and universal principles of spatial semantics underlying the diverse systems found in the world’s languages.

A fundamental distinction of spatial grammar is the system of Frames of Reference (FoR), targeting a basic coordinate system of a language for denoting spatial relations, involving figure, ground, origin (center of FoR), viewer (i.e., a person providing a perspective), and the angular specification (i.e., the angle between figure and ground) (Gumperz and Levinson 1997, Levinson 2003). Three basic FoR systems are identified: *relative frame*, which involves a ternary relation between figure, ground, and viewer, and *intrinsic* and *absolute frame*, which both involve a binary relation of figure and ground, in which the position of the viewer is irrelevant in the linguistic coding. In the original outline of the FoR theory (Levinson 2003, 65ff.), deixis is seen as a system independent of FoR, since deixis is primarily thought of as indicating the distance between a DEICTIC CENTRE (i.e., a point between SPEAKER and ADDRESSEE), and a REFERENT, and does not involve ground or a coordinate system, which the FoR does. In this view, deictic demonstratives do not provide directional information. However, this view is challenged by, e.g., Diessel (Diessel 2014), who refers to data from a number of languages, such as Tauya and Dyirbal, in which deictic terms provide information about coordinate system. At present state, the exact conditions of Frames of Reference in Kamaiurá have not been properly investigated, using the necessary stimuli, but the discussion is still of relevance.

Basic deictic categories, typically involved in deictic systems, as listed in the literature (Diessel 2011), include *Person deixis* (I, you), *Spatial deixis* (here, there), *Time deixis* (now, then), *Discourse deixis* (the latter, the aforementioned), and *Social deixis* (French *tu, vous*).

A fundamental distinction, which seems to be present in all languages, is *Participant deixis* (Diessel 2011), which involves the position of a REFERENT in relation to a SPEAKER and the ADDRESSEE, basically defined as PROXIMAL (near SPEAKER), MEDIAL (between SPEAKER and ADDRESSEE, close to deictic centre), DISTAL (near ADDRESSEE), and FAR DISTAL (distant from both) (Dixon 2010b, 234ff., Sidnell and Enfield 2017). Descriptions of deixis identify a variety of systems, ranging from a two-way system to complex systems with fine-grained distinctions of degrees of spatial location of the referent with respect to SPEAKER and ADDRESSEE, involving various intermediate degrees, such as MID-DISTANCE FROM SPEAKER, MID-DISTANCE FROM ADDRESSEE (Dixon 2010b, 239-242). Other aspects of Participant deixis includes, e.g., communicative role, number, gender, animacy, sex (Diessel 2011). This is also referred to as semantic distinctions of the type ‘quality’ within deixis, different from ‘space’ (Sidnell and Enfield 2017).

Deictic systems can also involve other types of references related to SPEAKER, ADDRESSEE, and REFERENT. An important dimension is, as mentioned before, *Spatial deixis*, referring to the relation between the Participant deixis system and the ground, also involving FoR (Diessel 2014, 8ff., Sidnell and Enfield 2017). Spatial dimensions that have been described as inherent in deictic/demonstrative

systems include, e.g., ELEVATION (e.g., ‘uphill’, ‘downhill’, ‘upstream’), DIRECTION (e.g., ‘along coastline’), EXTERIORITY (located outside speaker’s perimeter), DISTANCE, or ACCESS (‘accessible’ or ‘inaccessible’) (Burenhult 2008, Sidnell and Enfield 2017). Spatial dimensions can be combined with Participant deixis distinctions, as e.g., has been observed in Dyirbal (Diessel 2014, 9).

Another important dimension is *discourse*, in (Diessel 2011) defined as *Discourse deixis*. This type of deixis codes pragmatic aspects, defining new and given information in the discourse. This is sometimes specifically coded into the system. Basically, descriptions of systems target their EXOPHORIC (i.e., non-contextual) reference (cf. Burenhult in press). Also in non-contextual use, forms can implicitly code ANAPHORIC reference, e.g., ‘the one, mentioned before’. This is the case also in Kamaiurá. The first part of our study (chapter 2) describes the system in its EXOPHORIC use. The ENDOPHORIC uses of the forms of the system, i.e., how information from inside of the context is coded, is an important part of the second section of the study (chapter 3), on how deictic terms are used in the narrative. There are two basic functions here, ANAPHORIC (mentioned before) and CATAPHORIC (new or later information) reference. Besides TOPIC and FOCUS (see 3), it is apparent that ANAPHORA and CATAPHORA is important in the coding of deictic terms in the frog story, as we will see later on.

Dixon (Dixon 2010b-245) lists a number of examples from languages which include ‘Visibility’ and ‘Other senses’ into their deictic demonstrative systems. This dimension is not mentioned in, e.g., (Diessel 2011), but there are descriptions of languages that implement in their deictic demonstrative system, whether the REFERENT is visible or not, audible or not, and also whether the REFERENT is familiar or not or is in one or the other way emotionally connected to the SPEAKER (Burenhult in press). Kamaiurá distinguishes VISIBLE and AUDIBLE in their system. However, we believe that this is related to the concept of nominal TAME (Tense, Aspect/Actionality, Modality, Evidentiality), which occurs in Amazonian languages (Aikhenvald 2012, 156ff.), including Kamaiurá (Seki 2000, 346f.). The categories of *modality* and *evidentiality* are prominent in Kamaiurá, but there is no consensus as to how to define these categories in the literature of Amazonian languages (Rodrigues and Cabral 2012, Aikhenvald 2012). In our analysis of the deictic system, we prefer to use both connotations (see 2.3).

## 1.2. Frog stories, narratives, and deixis

Besides deixis, our study also deals with narrative and discourse; areas which have been discussed intensely within linguistics during the past decades. However, for the type of study we have done, there is little previous work in the literature. First, we look at a deictic system which is of high complexity, involving a number of characteristics, of which some have been described

before, whereas others are relatively underdescribed in the literature of deictic systems (see 1.1 and 2.1). Second, our study ranges under the type of research which uses “Frog story” picture series (Strömquist and Verhoeven 2004, Berman, Slobin, and Aksu-Koç 1994). In linguistic typological research, frog stories are typically used for studying event structure or manner of motion in various languages (Ozcaliskan and Slobin 1999), unusually for describing deixis.

The most complex and understudied part of our study relates to discourse deixis, i.e., how deictic systems are laid out into a narrative sequence, i.e., how a system of spatial relations are used to track, by means of anaphora, the identity of referents in a narrative (Frawley 1992, 376ff.). With few exceptions, e.g., the study by Mushin on Macedonian (Mushin 2000), literature on aspects of deixis in narrative often deal with much less complex systems, such as English (*this* – *that*), investigating the issue from cognitive and corpus-based perspectives (Duchan 1995, Webber 1997). In investigating deixis in narrative in a language such as Kamaiurá, aspects of ANAPHORA and CATAPHORA, as well as TOPIC and FOCUS become important. However, it is obvious that the aspects of ANAPHORA in narrative go far beyond the use in normal speech, as we will see further below.

## 2. Description of the Kamaiurá deictic system

### 2.1. Background

The system of Kamaiurá is extraordinarily complex, with a rich variety of forms. The system is also in active use in the language when a narrative is told, which means that the deictic particles and demonstratives play an important role also as discourse markers in a narrative context.

Most of the distinctions occurring in the Kamaiurá system of deixis have been observed in other languages. However, other distinctions have little or no reference in general literature, and the composition of the system is unique, even though we would expect that related languages of the Tupí-Guaraní branch would share similarities with the present system.

The current study of deixis and demonstratives in Kamaiurá is based on the short description by Seki of demonstratives (Seki 2000, 63-65), and deictic and temporal particles (Seki 2000, 77-78, 98, 101), deep interviews with native speaker Wary Kamaiurá, and results from an elicited field work by Elis Jarl Skute with native speaker Ceni Kamaiurá. Definitions have also been discussed with Ana Suelly Arruda Câmara Cabral and Ariel Pheula Couto Silva, with knowledge on deixis in related Tupí-Guaraní languages.

In our description (see table 2), we distinguish demonstratives from adverbial locative and temporal deictic markers. Deictic demonstratives may serve as NP arguments, whereas locative and temporal deictic markers syntactically have

adverbial functions. As expected, the definition in individual cases in Kamaiurá is not always easy, but a few syntactic features serve as indicators of the distinction (cf. Seki 2000, 63, 117ff.).

First, we have the Kamaiurá grammatical marker *-a*, glossed as CORE, which signals that a particle has argument status, either as S/A, O or POSSESSOR (Jensen 1999, 148-149). In our text, the CORE marker also occurs in adpositional phrases, both on the head as well as on the adposition. The rules for when a deictic demonstrative takes a CORE marker are not clear, but the ability to take the core marker is an indication that a particle may serve as a NP and is therefore to be classified as a demonstrative (table 2). Second, it is obvious that several of the deictic markers are case-inflected forms, with the locative case suffix *-m* or *-pe* (Seki 2000, 109-110), of which some are synchronically transparent, some more grammaticalized (see table 2). Case-inflected demonstratives are clearly adverbials, and we do not find any example of these forms occurring with a CORE marker. On the other hand, it is obvious that demonstratives that may take the CORE marker can function as adverbials without a locative case marker.

## 2.2. Participant deixis

To begin, the basic system of participant deixis involves a four-way distinction of the location of the REFERENT in relation to SPEAKER/ADDRESSEE, i.e., the DEICTIC CENTRE. There are three forms with apparent PROXIMAL deixis, of which one is reported to have also MEDIAL deixis (fig. 1):

<i>ko</i>	this – PROXIMAL, VISIBLE (rarely used)
<i>'ang</i>	this – PROXIMAL, VISIBLE; here, now
<i>'am</i>	this/that – PROXIMAL/MEDIAL, VISIBLE

One form is reported to have DISTAL deixis:

<i>okoj/okwoj</i>	that – DISTAL, VISIBLE
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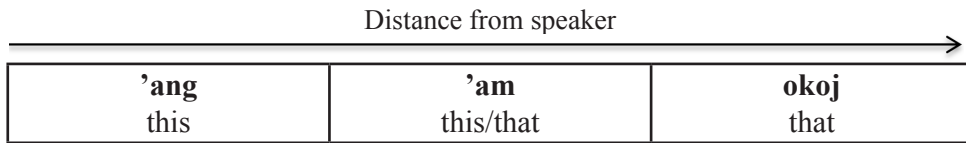
Another form seems to be both PROXIMAL and DISTAL

<i>ewokoj/ewokwoj</i>	that – DISTAL, VISIBLE, 'there is that one'; or PROXIMAL, far from LISTENER, NOT VISIBLE, e.g., a relative, a son being not present
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All these forms, except for *ewokoj/ewokwoj*, occur in our frog story.

With the exception of VISIBLE, the demonstratives with PROXIMAL and DISTAL Participant deixis are not reported to possess any of the additional deictic categories, which will be discussed below.



**Fig. 1. Illustration of the fundamental system of Participant deixis in Kamaiurá**

Beside the forms mentioned before, there are several forms with FAR DISTAL deixis, denoting that the REFERENT is located ‘over there’, i.e., far away from both SPEAKER and ADDRESSEE. These forms are interesting in various aspects and will be further discussed under 2.3.

### 2.3. Additional dimensions

Beyond Participant deixis, we have several additional dimensions expressed in the system. Most frequently, but not exceptionally, these dimensions are found with markers of FAR DISTAL Participant deixis (table 2). These additional dimensions can be divided into the categories Discourse, Space, Modal, and Evidential deixis.

Discourse deixis is, according to our material (cf. Seki 2000, 271ff.) present in two forms, one demonstrative and one locative adverbial, which both refer to someone or something mentioned before, i.e., ANAPHORIC OR ENDOPHORIC USE:

- a'e*      the one spoken of, distant from both, VISIBLE OR NOT
- 'ame*      this thing mentioned before, with uncertainty of proposition (EPISTEMIC); here – local deictic particle, PROXIMAL/MEDIAL, with uncertainty of proposition (EPISTEMIC)

Both occur in our frog story. The demonstrative/deictic particle *'ame* will be further analyzed below, under Modal and Evidential deixis.

However, as we will see below under 3, it is clear that the system has further implications of discourse deixis than these forms specifically mentioned by our native speakers.

*Space deixis*, which has been described from a number of languages of the world, can code a number of different local dimensions (e.g., Burenhult in press, Sidnell and Enfield 2017). Space deixis occurs also in Kamaiurá, in a series of locative deictic adverbials with different functions (Seki 2000, 77). Several of them occur in our frog story:

- 'ang*      here (PROXIMAL)
- 'am*      her'e (PROXIMAL)
- 'ame*      See further below
- 'anguwe*      here (PROXIMAL)

<i>pem</i>	there, over there (DISTAL/ FAR DISTAL)
<i>nan</i>	over there, moving towards a certain location (FAR DISTAL)
<i>towaj</i>	over there, located beyond, beside (FAR DISTAL)
<i>'apo</i>	See further below

These locative adverbials code PROXIMAL, DISTAL and FAR DISTAL deixis, which corresponds to the demonstratives, and with no specific additional dimensions. As with the demonstratives, additional dimensions are found among the far distal forms *nan* and *towaj*, which code movement and location beside something.

In some of the literature on deixis, using various connotations (Burenhult in press, Sidnell and Enfield 2017, Dixon 2010a, 243-245, Hanks 2005), the dimension *Sense perception* is mentioned as a possible part of deictic systems, typically expressed by visibility and audibility. This is also a characteristic of the system of Kamaiurá. Some forms are visible-neutral, whereas other forms are markedly VISIBLE, others NON-VISIBLE, and one form, *po*, is marked as AUDIBLE/NON-VISIBLE (see further below under Modality/Evidentiality deixis).

*pe* that one over there – FAR DISTAL, VISIBLE

However, a specific characteristic of the system of Kamaiurá is the possibility to express *modality* and *evidentiality* in the deictic system. These categories are hard to define, and we have to look outside of the deictic system to understand the underlying principles of modality and evidentiality.

There is a discussion in the scientific literature as how to best describe and classify modality, which is by definition a semantic phenomenon; when part of grammar, the term used is *mood* (Frawley 1992, 386ff.). Mood is typically marked as part of the event structure (i.e., in the sphere of the predicate); however, in Amazonian languages, tense, aspect, modality, and evidentiality (TAME) are often marked also on nouns (Aikhenvald 2012, 158ff.). Therefore, we regard modality and evidentiality as integrated parts of a deictic demonstrative system as highly possible.

More problematic is the definition of the boundaries between modality and evidentiality, on which there is disagreement in the linguistic literature. Basically, *modality* refers to the status of the proposition, whereas *evidentiality* refers to the evidence on which the information is based. In the canonical literature on modality, evidentiality is included in the concept of modality, distinguishing the parameters EVENT (DEONTIC/DYNAMIC, expressing obligation, permission, conditioning factors are external) and PROPOSITIONAL (EPISTEMIC/EVIDENTIAL, expressing probability, possibility, expresses speakers judgements about factual status) modality (Palmer 2001, 7ff.). Some researchers have a more narrow definition of modality, avoiding the terminology of DEONTIC and



EPISTEMIC (cf. Dixon 2012, 25-30), and prefer to use a distinction of REALIS and IRREALIS for describing the status of the proposition, where IRREALIS can express various degrees of uncertainty, such as PREDICTION, OBLIGATION, NECESSITY, ABILITY. Distinctions defining the information source are described under the separate category *evidentiality* (Aikhenvald 2012, 248-278). In their descriptions of Tupí languages (Rodrigues and Cabral 2012, 561), Rodrigues and Cabral prefer to use the term *modality*, describing two basic types: *epistemic* and *alethic*, leaning towards a wider use of modality, and avoiding the term evidentiality. Seki (Seki 2000, 343-347) describes a system of evidentiality particles for Kamaiurá (see table 1), which is apparently independent from modality markers, which can occur both as part of verbal inflection (Seki 2000, 126ff.) and as independent particles (Seki 2000, 84ff.).

**Table 1. Evidentiality particles in Kamaiurá. Translated from Portuguese from (Seki 2000, 346)**

Source of information	Other	Reported	<i>je</i>
	Spoken	Attested	<i>rak</i>
Type of evidence	Direct	Foreseen	<i>heme</i>
	Direct	Visual	<i>ehe</i>
	Inferred	External	<i>inip</i>
	Inferred	Internal	<i>a'añ</i>

Within the deictic system, two deictic demonstratives are of specific interest here: *'apo* and *po*. Of these, we find *'apo* is used in our narrative text, with a clear modality meaning (see 3.2). Besides, there is a locative adverbial *'ame*, which is also described as having a modality/evidentiality meaning. In discussions with native speakers, these forms are described as follows:

- 'apo* 1. Deictic particle, referring to 'over there' (FAR DISTAL), but of which the speaker is not sure whether it is true, or if anything is really there. The *source* of the information is *not* the speaker, rather hearsay or report; 2. Demonstrative, referring to a person 'whose name we don't remember'; again, the source of the information is not the speaker, rather hearsay or report.
- po* Demonstrative, referring to something which is *heard* but not *seen* (FAR DISTAL), but the speaker isn't sure what it is, e.g., whether it is a human, anything else (such as an animal), or if it exists. The *source* of the information is the speaker.
- 'ame* Deictic adverbial, referring to something mentioned before (ANAPHORIC) 'this thing here, I mentioned before', but of which the speaker is not sure whether it is true (EPISTEMIC).

Compared to other deictic demonstratives (see below), these forms mark epistemic modality, i.e., the proposition is of low certainty (Hegarty 2016, 410ff., Frawley 1992), but, the difference between *'apo* and *po* is described in terms of *evidentiality*, targeting the source of the information: whether it is heard by the speaker (AUDIBLE/INFERRED) or whether the source is hearsay (REPORTED).

Accordingly, we make the following distinctions in describing the Kamaiurá system (table 2): *Participant deixis*, of which there is a four-way system, PROXIMAL, MEDIAL, DISTAL and FAR DISTAL. We also identify *Modal deixis*, distinguishing EPISTEMIC modality. Under *Evidential deixis* we sort all types referring to the source of information, distinguishing AUDIBLE, VISIBLE, REPORTED and INFERRED. Under *Space deixis*, we identify two types, ALLATIVE (REFERENT moving away) and PROXIMITY (REFERENT located over there, beside something). Under *Discourse deixis* we distinguish ANAPHORIC, which implies that the forms are specifically described as referring to something mentioned before. In the description here, we do not infer results from our narrative study, described under 3, only results from deixis stimuli elicitation, previous literature, and deep interviews with native speakers.

**Table 2. Semantic characteristics of exophoric functions of the demonstrative and adverbial deictic markers of Kamaiurá (cf. Seki 2000, 63-65, 77-78).**

The symbols + and – mark whether the function is present or not. The symbol × implies that the function is not relevant. Question marks imply lack of information/data. Forms marked in bold occur in our text, Appendix 1.

Deictic category:	Participant deixis				Modal/evidential deixis				Space deixis		Discourse deixis		Gloss	
	PROXIMAL	MEDIAL	DISTAL	FAR DISTAL	VISIBLE	AUDIBLE	REPORTED	INFERRED	EPISTEMIC	ALLATIVE	EXTERIOR	CORE MARKER		ANAPHORIC
Functions:														
Demonstratives														
<i>ko</i>	+	–	–	–	+	×	×	×	–	×	×	yes	–	DEIX1
<i>'ang</i>	+	–	–	–	+	×	×	×	–	×	×	yes	–	DEIX2
<i>'am</i>	–	+	–	–	×	×	×	×	–	×	×	yes	–	DEIX3
<i>okoj/okwoj</i>	–	–	+	–	+	×	×	×	–	×	×	?	–	DEIX4
<i>ewokoj/ewokwoj</i>	±	±	+	–	±	×	×	×	–	×	×	?	–	×
<i>pe*</i>	–	–	±	+	±	×	×	×	–	×	×	yes	–	DEIX5
<i>a'e*</i>	–	–	±	+	±	×	×	×	–	×	×	yes	+	DEIX6
<i>po</i>	–	–	–	+	–	+	–	+	+	×	×	?	–	×
<i>'apo</i>	–	–	–	+	–	–	+	–	+	×	×	yes	–	DEIX8

Local deictic adverbials														
'ang	+	-	-	-	+	×	×	×	-	×	×	×	-	DEIX2
'anguwe	+	-	-	-	×	×	×	×	-	×	×	×	-	×
pem**	-	-	±	+	×	×	×	×	-	×	×	×	-	×
a'ep**	-	-	-	+	×	×	×	×	-	×	×	×	-	×
nan	-	-	-	+	×	×	×	×	-	+	-	×	-	×
towaj	-	-	-	+	×	×	×	×	-	-	+	×	-	×
'ame**	+	±	±	-	×	×	-	-	+	×	×	×	+	DEIX9
'apo	-		±	+	-	-	+	-	+	×	×	×	-	DEIX8

\* *a'e* and *pe* are used as independent third person pronouns (Drude 2011, 174, Seki 2000, 64).

\*\* Forms with a locative core marker, *-m*, *-p*, *-e*.

Temporal deictic adverbials	
'ang	now
a'e	then
ko	just now
'ang-amo	just before the moment of utterance
arehe	after the moment of utterance

### 3. Deixis in narrative: a study of *A boy, a dog, and a frog* by Mercer Meyer

#### 3.1. The frog story study

The current study is based on a transcribed, glossed and analyzed narrative with the native speaker Wary Kamaiurá, performed by Sandra Cronhamn and Vera da Silva Sinha at Laboratório de Línguas e Literaturas Indígenas in Brasília, November 2013. The original picture series used in the fieldwork session was *A boy, a dog and a frog* by Mercer Meyer (Mayer 1967), and the session was recorded by video. The text was later transcribed and analyzed by Wary Kamaiurá in collaboration with Sandra Cronhamn, Gerd Carling, Ana Suelly de Cabral, and Vera da Silva Sinha during several meetings and workshops in Brasília and Lund during 2013-2017. There is one previous description of Kamaiurá, the grammar by Seki (Seki 2000), which was very useful for trying to understand the text. Most important, however, were the discussions with native speaker Wary Kamaiurá and discussions with Ana Suelly de Cabral on various grammatical aspects in the text.

In the fieldwork session, our native speaker Wary was first allowed to look through the book in advance. During the recording (see fig. 2), Wary sits on a chair with the book in his hand, pointing at pictures and objects in the book while talking, showing the pictures to the camera/fieldworker (Sandra).

**Fig. 2. Still of Wary Kamaiurá pointing at pictures in the frog story book during the recording session**



In the transcription, we have separated the text into lines (Appendix 1), which are enumerated from 1-75. These follow the structure of the narrative of Wary, and define utterances, separated by pauses and breaks (e.g., turning pages) in the speech. Since it is obvious from the recording (but not always from the transcription) which picture Wary is talking about, we have added information about the pictures in the transcription. Pictures are given in Appendix 3. In the text, we have separated clauses/ sentences with commas. To separate clauses, we have identified coordinative particles, such as *ran*, and *a'e ramue* (Seki 2000, 242-243). We have also identified the particles in Wackernagel position (Seki 2000, 91ff.). These Wackernagel particles, which are not obligatory, occur in two slots in second clause position. They are given in a specific order, following upon a noun, a deictic demonstrative (*'ang*, *'am*) or an adverbial (*'am-e*) (see table 3).

**Table 3. Order of Wackernagel particles occurring in the frog story of Appendix 1 (cf. Seki 2000, 91ff.)**

SLOT 1	SLOT 2
<i>(a) 'iki</i> AFFECTIVE	<i>ta</i> CONFIRMATIVE
<i>(a) 'iweru</i> SMARTIVE	<i>te</i> FOCAL
<i>jepe</i> FRUSTRATIVE	

Besides the Wackernagel particles, we can identify, in our text, the clause-final particles *kora'ewa* AFFIRMATIVE, and *kō* REPORTIVE. The particle *ko'yt* EMPHATIC, which is sentence-final according to Seki (Seki 2000, 98ff.), occurs in our text, but it is obviously not sentence- or clause-final in most of our occasions.

We are aware that there is much more in our text, else than deixis, which is of high interest to linguistic typological research. Therefore, we give the full transcription, glossing, and translation, following the picture series, in Appendix 1. In the text below, we often refer to the line number and picture only.

### 3.2. Deictic markers in the transcribed text

In our text, we find 10 deictic demonstratives and adverbials, which in table 2 are marked in bold. Other deictic terms are not present. The text is, as is apparent from the glossing, crowded with deictic demonstratives and adverbials, but they are unevenly distributed: some sentences are filled with deictic markers, often together with other pragmatic particles, such as AFFIRMATIVE, COMPARATIVE, FRUSTRATIVE, SMARTIVE, AFFECTIVE, EMPHATIC OR FOCAL markers (see previous chapter and glossary, Appendix 2). In other clauses there are few or no deictic particles. Sometimes, the event is first explained by deictic/pragmatic particles, and then retold by content words (nouns and verbs). The best example is probably (68) and (69) (pic. 23), which says:

(68) *'ame ta 'ang 'apo ko-a*  
 DEIX2 CONF DEIX1a DEM4 DEM1-CORE  
 “Here, this one, what’s-its-name.”

(69) *kunu'um wararuijap i-jauk-awa-w r-yru*  
 boy dog R2-bathe-PL-IND.II R1-container  
 “The boy, the dog, the bathing container[=bathtub].”

Some tendencies of usage of the deictic demonstratives and particles are clear; other tendencies are more uncertain, mostly due to too few occurrences in the text. In the narrative, there are typically two parallel systems of reference, which are also visible through gestures: one referring to the situation of the recording, where Wary refers to the story, *moroneta*, sometimes apparently in its physical condition, i.e., the book in his hand. The second deictic system is the relation between the participants in the story, i.e., the boy, the dog, and the frog, and their relation to the ground and other objects occurring in the text, which is often visible through pointing at pages and objects in the book. The Kamaiurá language lacks words for some of the objects occurring in the pictures, including ‘bucket’, ‘rush’, and ‘bathtub’. This uncertainty gives us interesting usages of the deictic particles.

Deictic demonstratives are frequently found in sentence-initial position, which are combined with Wackernagel particles (table 3). Some of them are adverbial phrases (table 4) (Seki 2000, 92ff.).

**Table 4. Adverbial phrases in sentence-initial position frequently occurring in the text**

<i>a'e ramue</i>	so, therefore, because of this
<i>a'e-a wite</i>	like this
<i>a'e-a wite-wara</i>	like this

Beginning with our main Participant deixis forms, *ko*, *'ang*, *'am*, and *okoj*, we see the following tendencies:

*'ang* is the most frequently occurring deictic particle, functioning as a default form, both with a general reference to the story itself, and to the situation of the specific picture, both with the meaning '[this] here'. It is frequently used in clause-initial position. The particle is apparently used for marking TOPIC, with ANAPHORIC reference, referring to the ground, the boy, the dog, or the frog. Frequently, it is also used as a local adverbial, meaning 'here'.

*'am* is used for marking switch FOCUS (often against *'ang*). The difference between the phrases *'ang-a 'ang* and *'am-a 'ang* code the same as the individual forms, i.e., 'he/it here' (TOPIC) and 'he/it here' (FOCUS). Both *'ang* and *'am* can be used as deictic demonstratives targeting referents (boy, dog, frog, stone, log, etc), as well as deictic local and temporal adverbials, referring to the ground 'here', which in the case of *'am* also often is marked by the locative adverbial *'ame*.

An example of FOCUS is found already in (1), when Wary refers to the story in general, using *'ang-a 'ang ko-a moroneta-'i-a* 'this one, this little story', and then, two utterances later, uses *'am-a 'ang*, with an emphatic particle, to mark FOCUS:

- (2) *'ang*            *a-etsak*        *ne*        *upe*  
 DEIX1a        1sg-see        2sg        DAT  
 "I read this for you."

(Pic. 1)

- (3) *'am-a*                            *'ang*        *ko'yt*  
 DEIX1b-CORE        DEIX1a        EMPH  
 "This very one."

There are several examples, where *'am* is used either to mark FOCUS, referring to a referent previously mentioned, or to mark switch of reference, referring to



a new referent in relation to a previous utterance. This is the case for both *'am* '(this) here', *'am-a* (with CORE marker) 'this here', as well as *'ame* (locative adverbial) 'here'. Examples of *'am(-a)* and *'ame* in this usage are:

- about the dog (15, pic. 6) when previously talking about the boy and the dog;
- about the frog (21, pic. 8), when previously talking about the dog and the boy, and the event;
- about the frog (28, pic. 10) when previously talking about the dog, the frog, the boy, the tree, and the story;
- about the water, which is not mentioned before (31, pic. 11);
- about the catching of the frog, when previously talking about the story (46, pic.16);
- about the hiding place, after talking about the dog and boy being tired (54, pic. 18);
- about the 'boys' (i.e., boy and dog, not visible in the picture), after talking about the hiding place of the frog and that there is water (56, pic. 18);
- about the frog, after describing the previous scene with the bucket and that there is water (on the floor) (66, pic. 22).

*ko* occurs only in 9 occurrences of our text and in all instances with the CORE marker *-a*. In 6 occurrences, *ko-a* is sentence-final, in 3 occurrences *ko-a* is within an NP. In 6 of the occurrences, *ko-a* is preceded by *'am-a* or *'am-e* at the beginning of the sentence. With one exception, where *ko-a* is rendered as an adverbial 'just right, very well', it is not translated at all by Wary. This implies that *ko-a*, even though it has a core marker, shouldn't be an argument if it occurs in sentence-final position, since Kamaiurá is an SV/AOV language. In all the occasions of sentence-final *ko-a*, core arguments are marked by other deictic demonstratives earlier in the sentence. One example is (25, pic. 9):

<i>'ame</i>	<i>ta</i>	<i>'ang</i>	<i>kururu-a</i>	<i>i-katu</i>	<i>i-ker-i</i>	<i>ko-a</i>
DEIX2	CONF	DEIX1a	frog-CORE	R2-good	R2-sleep-IND.II	DEM1-CORE

"In this one, the frog sleeps very well."

It is likely that *ko-a* here, in these occasions, is used to reinforce an earlier pointed reference, like adding, after the final predicate, 'this very one' (even

though this only occurs once in Wary's translation). This suits well with the PUNCTUAL aspect function of *ko* (see table 2).

*okoj* occurs only in two instances in our text (32, 36) and both instances refers to the frog

(36, pic. 13)

*a'e*          *r-amue*          *kururu-a*          *jepe*          *okoj*          *o-nupā-potar-awa*  
 DEM3b      R1-TRANSL      frog-CORE      FRUSTR      DEM2      3-hit-DES-PL  
 'Therefore, they [i.e., the boy and dog] wanted to try to hit the frog'.

Based on these examples, it is difficult to establish an exact discourse function of *okoj*, but it is evident from both examples that *okoj* is used to mark switch of FOCUS to the frog, when previously having talked about the dog, the boy, and the log.

Summing up the usages of the Participant deixis forms, we can identify a hierarchy of increased FOCUS or switch reference from '*ang* > '*am* > *okoj* (fig. 3), which corresponds to the increased distance of Participant deixis as shown in fig. 1.

**Figure 3. Forms used in our frog story narrative for increasing FOCUS**

Increased FOCUS / switch reference →		
<i>'ang</i> this	<i>'am</i> this/that	<i>okoj</i> that

Turning over to the three FAR DISTAL deictic demonstratives occurring in our text, *pe*, *a'e* and '*apo*, we notice very interesting usages, which are very different from the PROXIMAL and MEDIAL forms described before.

*a'e* has a very general reference, typically referring to the situation in general, or a sequence of events that have led to the present situation. It is not used as a reference to the story, *moroneta*, which is more concrete (and marked by '*ang*/*'am*), but to the situation in general. It occurs frequently in phrases, such as *a'e wite*, *a'e witewara*, or *a'e ramue* (see table 4).

(45) *a'e*          *wite-war-a*                  '*ang*          *moroneta*          *kora'ewa*  
 DEM3b      COMP-CIRC.NMLZ-CORE      DEM1b      story          AFFIRM  
 "Like that this story (goes)."

*'apo* occurs several times in the text, and the use is very interesting, considering the modality/evidentiality function of '*apo*: it is used either with CATAPHORIC reference, e.g., when a new referent is mentioned for the first time, as when the log is introduced for the first time (12, pic. 5):

<i>'apo-a</i>	<i>'arim</i>	<i>ka'a</i>	<i>'arim</i>
DEM4-CORE	ADESS	vegetation	ADESS

“On that, on the tree.”

Another usage is to mark that the speaker is uncertain about the word in Kamaiurá. This use is both ANAPHORIC and CATAPHORIC. Here, we find *'apo* for the bucket (18, pic. 7; 63, pic. 21), the neck of the dog (35, pic. 13, here, Wary points to his own neck when using *'apo*), the rush (41, pic.14), and the bathtub (68, pic. 23, 71, pic. 24). An excellent example of the uncertainty is found in (41, pic. 14), where Wary does not know the word for ‘rush’ and uses first *'apo* ‘that-one’, and then a synonym for ‘rush’, ‘grass’, after imitating the sound of the rush by *uuu*.

<i>'ang-a</i>	<i>'ang</i>	<i>'apo-a</i>	<i>uuu</i>	<i>jawa'ip</i>
DEM1b-CORE	DEIX1a	DEM4-CORE	uuu	grass

“This one here, what’s-its-name, ‘uuu’ [sound], grass.”

In another example, given before (68), the term *'apo* as reference to the bathtub in picture 23, is followed by a metaphorical ‘container-for-bathing’.

Another telling example is the bucket, which is mentioned for the first time in (18, pic. 7):

<i>kunu'um-a</i>	<i>'apo-p</i>	<i>i-'yahap</i>	<i>o-pyhyk</i>
boy-CORE	DEM4-LOC	R2-carry	3-take

“The boy [is] in what’s-its-name[=bucket], he took his carrying thing[=bucket].”

In our text, we have one occasion of *pe*, which is the modality/evidentiality neutral FAR DISTAL deictic demonstrative (table 2), in 59 (pic. 20), where the frog has entered the house of the boy. The use is interesting, since it refers to ‘house’, which in the picture is visible only from the inside. However, this single case cannot provide us with enough information about the use of *pe*.

### 3.3. Discussion – deixis in narrative

There are several aspects of the discourse functions of the deictic system that are of interest here. As mentioned before, some aspects of usage are unclear, whereas others are more evident. This depends partly on the restricted data, and, as usual, more text and more speakers would have been preferable. However, we can discuss some of the implications of the results so far.

The frequent use of the deictic markers in our frog story is remarkable. In all, the language is very dense in particles, but it is interesting to note that a proposition can be given first using deictic and pragmatic markers only, and the repeated with content words (see 3.2).

It is interesting to discuss how the deictic system is transferred into a narrative discourse and the ways in which Participant, Spatial, Temporal, and Evidential/Modality deixis is mapped into information structure and sequentializing of events. According to the Deictic Shift Theory (Duchan 1995, 14ff.cf. ), the metaphor of the reader or storyteller getting inside of the narrative is important in the way in which this mapping is performed. Deictic terms are used to refer to this conceptual location, involving the deictic types inherent in the system. In this theory, the readers/narrators shift their deictic centre from a real-world scenario into the imaginary narrative, thus transforming, by metaphor, a multi-dimensional system, including spatial, temporal, and evidential/modality aspects into a sequential system of references to existents (characters, objects, settings) and events (happenings, actions) in a narrative (cf. Mushin 2000, Galbraith 1995).

Our data offers interesting perspectives to this research. As we have seen in chapter 2 and table 2, Kamaiurá has three forms that mark an increasing distance from the *SPEAKER*, but which are still located within the sphere of the deictic field: *'ang*, *'am*, and *okoj*. Besides, there is a form *ko*, which is more infrequent, but which has a distinct *PROXIMAL* deixis. Two of these forms have temporal value: *'ang* 'now' (*IMPERFECTIVE*), and *ko* 'just now' (*PUNCTUAL*). Further, there is a series of forms (table 2), of which the reference is away from the deictic centre, denoting *FAR DISTAL* deixis. These forms can code a number of additional values, such as modality, evidentiality, spatial orientation or motion, or discourse. These are *pe*, *a'e*, *'apo* and *'ame* (see table 2 for explanations). Of these, only *a'e* also has a reported temporal value, 'then' (temporal shift).

In the narrative text, in referring to the existents, e.g., the boy, the dog, the frog, and various objects occurring in the text, we notice that the chain of increasing *FOCUS*/ switch reference is marked by *'ang* > *'am* > *okoj* (note, though, an uncertainty on *okoj*), which reflects an increasing distance from the ego in the Participant deixis system. The form *ko* is used to reinforce previous discourse marking.

If we consider the two *FAR DISTAL* forms that are well enough attested in our data, *a'e* and *'apo*, we notice usages that are completely different. For *a'e* 'over there, visible or not', which is a *FAR DISTAL* form with no additional deixis values, it is used in our narrative to refer to events, also including series of events, and never to existents, such as the boy, the frog, the dog, or other objects (not even the story, *moroneta*). The *EPISTEMIC/REPORTED* deictic term *'apo* also has a very interesting usage: it is consistently used for marking uncertainty, either when a new existent is introduced and our speaker is uncertain about the word, i.e., when there is no word for a concept in Kamaiurá, such as bathtub, rush, or bucket.

#### 4. Summary

The current study has two foci: first, to describe, in as much detail as possible, using available data and consulting our native speaker and collaborator Wary Kamaiurá, the system of deictic demonstratives and adverbials in the language. Second, our aim is to try to understand how this system of deictic markers is used in a narrative context, based on a recorded frog story.

The deictic system of Kamaiurá is extraordinarily complex with a rich variety of forms. The deictic system itself, and how it is used in speech, is interesting from a number of aspects. First, the relatively high number of Participant deixis distinctions, including 4 degrees of distance from ego (PROXIMAL, MEDIAL, DISTAL, FAR DISTAL), and second, the high number of forms with additional distinctions of Space, Modality, and Evidentiality deixis. The latter characteristic of the system is remarkable and highly worth a separate study, using field-based stimuli methods. Several of the deictic demonstratives have temporal values, denoting aspect and actionality. The richness in forms coding various Participant deixis values and additional values is found both among demonstratives as well as deictic adverbials.

The recorded narrative of our study, a frog story, is crowded with deictic markers, referring to new and given existents and events of the text. The narrative reveals ANAPHORIC and CATAPHORIC as well as TOPIC and FOCUS usages of the independent system, in which a hierarchy of increasing distance from the ego in the system of deictic adverbials and demonstratives is transferred into a system of increasing FOCUS/ switch reference in the narrative. One of the two ANAPHORIC forms of the independent system, *a'e*, is used also for ANAPHORA in the narrative, but with a general reference, either to one or a series of events, never to a specific existent. The second form reported to have anaphoric reference, the deictic adverbial *'ame*, doesn't seem to have specific ANAPHORIC use in the narrative: it is used for information of location, meaning 'here', sometimes referring to objects not specifically mentioned before.

Increase of FOCUS in the narrative is marked by a chain of Participant deixis forms, *'ang* > *'am* > *okoj*. Apparently, *'ang* as a demonstrative is a TOPIC marker, referring to what is being talked about. It is the most frequently occurring form in the text. It is also a default marker of temporal/spatial deixis, a deictic filler with the meaning 'here/now', which can be combined in phrases with *'ang(-a)*, *'ame*, and *'am(-a)*. Focus is marked first by *'am* and second, but unusually, by *okoj*, which is noteworthy, considering the functions of increasing distance from the ego.

A distinct pattern of our narrative is the transfer of the EPISTEMIC/REPORTED marker *'apo* to CATAPHORIC discourse, and, in particular, to a marker of uncertainty, used in the case of not knowing the term for the word in the language.

To sum up, we believe that this study can be useful for looking at how complex deictic systems can be used in a narrative context. This type of research can provide us with information about the ontology of languages; how languages map categories, defined by means of a deictic system, into a linear sequence of ANAPHORA and CATAPHORA, TOPIC and FOCUS, in a narrative. A continued study could also involve other modalities, such as deictic pointing and gestures. Further study would be necessary to fully understand the complexity of the system, but at present state, we believe that the current study can contribute to the knowledge about deictic complexity as well as the role of deixis in a narrative context.

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## APPENDIX 1: Frog story

Pointing at the cover of the book (not open)

- (1) **Kamaiurá** 'ang-a 'ang ko-a moroneta-'i-a  
**Eng gloss** DEIX2-CORE DEIX2 DEIX1-CORE story-DIM-CORE  
**Eng translation** “This one, this little story...”

- (2) **Kamaiurá** 'ang a-etsak ne upe  
**Eng gloss** DEIX2 1SG-see 2SG DAT  
**Eng translation** “I read this for you.”

PICTURE 1

- (3) **Kamaiurá** 'am-a 'ang ko'yt  
**Eng gloss** DEIX3-CORE DEIX-1a EMPH  
**Eng translation** “This very one.”

- (4) **Kamaiurá** kunu'um o-ho ma'anuar-a r-ekat  
**Eng gloss** boy 3-go something-CORE R1-find  
**Eng translation** “The boy went searching for something.”

PICTURE 2

- (5) **Kamaiurá** kunu'um-a ywyra 'arim o-je-upit, ywate o-je-upir-i  
**Eng gloss** boy-CORE tree ADESS 3-REFL-climb high 3-REFL-climb-IND.II  
**Eng translation** “The boy climbed up the tree, he climbed up high.”

- (6) **Kamaiurá** wararuijaw-a 'iki i-nite, eymaw-a ran, eymaw-a i-nite  
**Eng gloss** dog-CORE AFFECT R2-ASSOC pet-CORE CONJ pet-CORE R2-ASSOC  
**Eng translation** “The poor dog [is] with [him], [he is] his pet too, the pet [is] with [him].”

PICTURE 3

- (7) **Kamaiurá** 'ame ta 'ang ko-a wararuijaw kunu'um-i  
**Eng gloss** DEIX9 CONF DEIX2 DEIX1-CORE dog boy-DIM  
**Eng translation** “In this one here, this dog [and] the little boy.”

- (8) **Kamaiurá** 'am-a 'ang 'apo-a kunu'um-i-a w-etsak kururu-a  
**Eng gloss** DEIX3-CORE DEIX2 DEIX8-CORE boy-DIM-CORE 3-see frog-CORE  
**Eng translation** “Here, that little boy looks at the frog.”

- (9) **Kamaiurá** kururu-a y-p o-ko  
**Eng gloss** frog-CORE water-COP 3-COP  
**Eng translation** “The frog is in the water.”

## PICTURE 4

- (10) **Kamaiurá** *kunu'um-i-a jepe kururu-a o-pyhy-potat, o-jan-awa*  
**Eng gloss** boy-DIM-CORE FRUSTR frog-CORE 3-take-DES 3-run-PL  
**Eng translation** “The little boy tried to catch the frog, they ran.”

- (11) **Kamaiurá** *kururu-a ko'yt y-p i-ko-w*  
**Eng gloss** frog-CORE EMPH water-LOC R2-COP-IND.II  
**Eng translation** “The frog himself was in the water.”

## PICTURE 5

- (12) **Kamaiurá** *'apo-a 'arim ka'a 'arim*  
**Eng gloss** DEIX8-CORE ADESS vegetation ADESS  
**Eng translation** “On that, on the tree.”

- (13) **Kamaiurá** *a'e r-amue jepe 'am i-por-awa-w,*  
**Eng gloss** DEIX6 R1-TRANSL FRUSTR DEIX3 R2-jump-PL-IND.II

**Kamaiurá** *wararuijaw-a o-pot y-p*  
**Eng gloss** dog-CORE 3-jump water-LOC

**Eng translation** “Because of this, they tried to jump here, and the dog jumped into the water.”

- (14) **Kamaiurá** *kunu'um-a nite*  
**Eng gloss** boy-CORE ASSOC  
**Eng translation** “With the boy.”

## PICTURE 6

- (15) **Kamaiurá** *'am-a 'iki ta 'ang*  
**Eng gloss** DEIX3-CORE AFFECT CONF DEIX2  
**Eng translation** “Here [is] the poor thing.”

- (16) **Kamaiurá** *pyy kunu'um-i-a kuj y-p-e ko-a*  
**Eng gloss** “splash” boy-DIM-CORE fall water-LOC-(EPEN) DEIX1-CORE

**Kamaiurá** *wararuijaw-a nite, o-kuj-t-awa kō*  
**Eng gloss** dog-CORE ASSOC 3-fall-GER-PLREP

**Eng translation** “Splash! The little boy fell into the water with the dog, they fell.”

- (17) **Kamaiurá** *a'e r-amue kururu-a 'iweru-a n-o-pyhyk-ite-awa*  
**Eng gloss** DEIX6 R1-TRANSL frog-CORE SMART-CORE NEG-3-take-NEG-PL  
**Eng translation** “Therefore, they did not catch the smart frog.”

PICTURE 7

(18) **Kamaiurá** *kunu'um-a... kunu'um-a 'apo-p i-'yahap o-pyhyk*  
**Eng gloss** boy-CORE boy-CORE DEIX8-LOC R2-carry 3-take  
**Eng translation** “The boy... The boy [is] in what’s-its-name[=bucket], he took his carrying thing[=bucket].”

(19) **Kamaiurá** *kururu-a, wararuijaw-a 'iki y-p o-ko,*  
**Eng gloss** frog-CORE dog-CORE AFFECT water-LOC 3-COP

**Kamaiurá** *o-'yta-'ytaw a'iki o-'up*  
**Eng gloss** 3-swim-swim AFFECT 3-lie.down

**Eng translation** “The frog, the poor dog is in the water, the poor one lies swimming.”

(20) **Kamaiurá** *a'e r-amue 'ang a'e-a wite o-ko-m-e kō*  
**Eng gloss** DEIX6 R1-TRANSL DEIX2 DEIX6-CORE COMP 3-COP-GER-(EPEN) REP  
**Eng translation** “That’s why it turned out this way.”

PICTURE 8

(21) **Kamaiurá** *'am-a 'iki ta 'ang kururu-a*  
**Eng gloss** DEIX3-CORE AFFECT CONF DEIX2 frog-CORE

**Kamaiurá** *a<sup>2</sup>-mo-por-awa-w ko-a*  
**Eng gloss** 1sg-CAUS-jump-PL-IND.II DEIX1-CORE

**Eng translation** “Here, they let the poor frog jump.”

(22) **Kamaiurá** *wararuijaw-a 'iki ikō a\*-mo-em-e kō*  
**Eng gloss** dog-CORE AFFECT tongue 1sg-CAUS-leave.outside-(EPEN) REP  
**Eng translation** “The poor little dog let his tongue out.”

(23) **Kamaiurá** *i-kane'ō a-'iki*  
**English gloss** R2-tired-CORE AFFECT  
**Eng translation** “He is tired, the poor thing.”

PICTURE 9

(24) **Kamaiurá** *y-p-a 'ang i-'yta-'ytaw-awa-w*  
**English gloss** water-LOC-CORE DEIX2 R2-swim-swim-PL-IND.II  
**Eng translation** “In the water here they are swimming.”

<sup>2\*</sup> We haven’t been able to explain why our consultant is using a 1<sup>st</sup> person singular prefix here. Given the context, a 3<sup>rd</sup> person prefix is what we would expect.

- (25) **Kamaiurá** 'ame ta 'ang kururu-a i-katu i-ker-i ko-a  
**Eng gloss** DEIX9 CONF DEIX2 frog-CORE R2-good R2-sleep-IND.II DEIX1-CORE  
**Eng translation** “In this one, the frog sleeps very well.”

- (26) **Kamaiurá** wararuijap kururu kunu'um ywyrá 'ang  
**Eng gloss** dog frog boy tree DEIX2  
**Eng translation** “The dog, the frog, the boy, the tree, here.”

- (27) **Kamaiurá** a'e-a wite 'ang moroneta kora'ewa  
**Eng gloss** DEIX6-CORE COMP DEIX2 story AFFIRM  
**Eng translation** “Like that this story (goes).”

## PICTURE 10

- (28) **Kamaiurá** 'am-a 'iki ta 'ang kururu-a  
**Eng gloss** DEIX3-CORE AFFECT CONF DEIX2 frog-CORE  
**Eng translation** “Here [is] the poor frog.”

- (29) **Kamaiurá** wararuijap kunu'um kururu ywyrá 'arim i-tej  
**Eng gloss** dog boy frog tree ADESS R2-sit  
**Eng translation** “The dog, the boy and the frog are sitting on the tree.”

## PICTURE 11

- (30) **Kamaiurá** 'ame jepe te 'ang i-pyhyk-awa-w ko-a  
**Eng gloss** DEIX9 FRUSTR FOC DEIX2 R2-take-PL-IND.II DEIX1-CORE  
**Eng translation** “As for here, they wanted to try to catch this[=the frog].”

- (31) **Kamaiurá** kunu'um-a 'iweru-a ywyrá 'arim, wararuijap  
**Eng gloss** boy-CORE SMART-CORE tree ADESS dog

**Kamaiurá** wyra 'arim y-a nite 'am  
**Eng gloss** tree ADESS water-CORE ASSOC DEIX3

**Eng translation** “The smart boy is on the tree, and the dog is on the tree by the water here.”

- (32) **Kamaiurá** a'e r-awi jepe te okoj i-pyhy-potar-awa-w  
**Eng gloss** DEIX6 R2-ABL FRUSTR FOC DEIX4 R2-take-DES-PL-IND.II

**Kamaiurá** ko-a  
**Eng gloss** DEIX1-CORE

**Eng translation** “After this, they wanted to try to catch him.”



PICTURE 12

(33) **Kamaiurá** 'ame jepe te 'ang i-pyhy-potar-i,  
**Eng gloss** DEIX9 FRUSTR FOC DEIX2 R2-take-DES-IND.II

**Kamaiurá** wararuijaw-a o-pyhy-potat  
**Eng gloss** dog-CORE 3-take-DES

**Eng translation** “As for this one here, he wanted to try to catch this one, he wanted to catch the dog.”

PICTURE 13

(34) **Kamaiurá** kururu-'i-a o-kuj te y-p  
**Eng gloss** frog-DIM-CORE 3-fall FOC water-LOC

**Eng translation** “The little frog fell into the water.”

(35) **Kamaiurá** a'e jepe eymaw-a o-nupã, a'e-a 'iki,  
**Eng gloss** DEIX6 FRUSTR pet-CORE 3-hit DEIX6-CORE AFFECT

**Kamaiurá** 'apo r-upi a'iki  
**Eng gloss** DEIX8 R1-PERL AFFECT

**Eng translation** “Then he [accidentally] hit the pet, that poor thing, that poor thing right here [points at neck].”

(36) **Kamaiurá** a'e r-amue kururu-a jepe okoj  
**Eng gloss** DEIX6 R1-TRANSL frog-CORE FRUSTR DEIX4

**Kamaiurá** o-nupã-potar-awa, wararuijaw-a tete o-nupã  
**Eng gloss** 3-hit-DES-PL dog-CORE only 3-hit

**Eng translation** “Therefore, they wanted to try to hit the frog, but he only hit the dog.”

PICTURE 14

(37) **Kamaiurá** kururu-a n-o-pyhyk-ite, wararuijaw-a jue o-pyhyk  
**Eng gloss** frog-CORE NEG-3-take-NEG dog-CORE only 3-take

**Eng translation** “They didn’t catch the frog, he only caught the dog.”

(38) **Kamaiurá** wararuijaw-a 'iki i-pyhyk-e kō  
**Eng gloss** dog-CORE AFFECT R2-take-(EPEN) REP

**Eng translation** “He caught the poor dog.”

(39) **Kamaiurá** a'e-a wite 'ang i-ko-w kora'ewa  
**Eng gloss** DEIX6-CORE COMP DEIX2 R2-COP-IND.II AFFIRM

**Eng translation** “This is what it was like at this moment.”

(40) **Kamaiurá** 'ang-a y-a y-a, kururu-a  
**Eng gloss** DEIX2-CORE water-CORE water-CORE frog-CORE

**Kamaiurá** 'yta-'y<sub>tap</sub>, ita 'arim i-tej  
**Eng gloss** swim-swim stone ADESS R2-sit

**Eng translation** “This water, water, the frog was swimming, he sat down on the rock.”

(41) **Kamaiurá** 'ang-a 'ang 'apo-a uuu jawa'ip  
**Eng gloss** DEIX2-CORE DEIX2 DEIX8-CORE uuu grass

**Eng translation** “This one here, what's-its-name, 'uuu' [sound], grass.”

### PICTURE 15

(42) **Kamaiurá** kururu-a 'iweru o-poretsak, awa na w-etsak  
**Eng gloss** frog-CORE SMART 3-look.people people COLL 3-see  
**Eng translation** “The smart frog was spying, he saw these people.”

(43) **Kamaiurá** 'ang-a wararuijap kunu'um-a nite  
**Eng gloss** DEIX2-CORE dog boy-CORE ASSOC

**Kamaiurá** o-jo-ero-'in o-poretsak-e kō  
**Eng gloss** 3-REC-C.CAUS-sit.down 3-look.people-(EPEN) REP

**Eng translation** “Here, the dog is sitting watching with the boy.”

(44) **Kamaiurá** y-a 'arim-a 'ang ko'yt ywyra, 'ang-a  
**Eng gloss** water-CORE ADESS-CORE DEIX2 EMPH tree DEIX2-CORE

**Kamaiurá** ang jawa'iw-a  
**Eng gloss** DEIX2 grass-CORE

**Eng translation** “In this one, on the water [there is] the tree, [and] this here [is] grass”

(45) **Kamaiurá** a'e wite-war-a 'ang moroneta kora'ewa  
**Eng gloss** DEIX6 COMP-CIRC.NMLZ-CORE DEIX2 story AFFIRM

**Eng translation** “Like that this story (goes).”

### PICTURE 16

(46) **Kamaiurá** 'am n-o-pyhyk-ite-awa  
**Eng gloss** DEIX3 NEG-3-take-NEG-PL  
**Eng translation** “Here, they didn't catch [him].”

- (47) **Kamaiurá** *kururu-a 'iweru o-'in-e kō*  
**Eng gloss** frog-CORE SMART 3-sit.down-(EPEN) REP  
**Eng translation** “The smart frog is sitting.”
- (48) **Kamaiurá** *'am-a 'ang n-o-pyhyk-ite-awa, o-ho-awa*  
**Eng gloss** DEIX3-CORE DEIX2 NEG-3-take-NEG-PL 3-go-PL  
**Eng translation** “In this one, they didn’t catch [him], they left.”
- (49) **Kamaiurá** *o-ho-awa, o-jewyr-awa*  
**Eng gloss** 3-go-PL 3-return-PL  
**Eng translation** “They left, they went back.”

PICTURE 17

- (50) **Kamaiurá** *n-o-pyhyk-ite-awa, o-ho-awa ko'yt i-pyr-a katy*  
**Eng gloss** NEG-3-take-NEG-PL 3-go-PL EMPH R2-house-CORE ALL  
**Eng translation** “They didn’t catch [him], they went back to his[=the boy’s] house.”
- (51) **Kamaiurá** *a'e r-amue y-a r-eja-taw-a kō*  
**Eng gloss** DEIX6 R1-TRANSL water-CORE R1-leave-ACT.NMLZ-CORE REP  
**Eng translation** “So, [they are] leaving the water.”
- (52) **Kamaiurá** *i-'akym-a 'iki ko'yt, i-'akym-awa, wararuijaw-a i-'akym*  
**Eng gloss** R2-wet-CORE AFFECT EMPH R2-wet-PL dog-CORE R2-wet  
**Eng translation** “He, the poor thing, is wet, they are wet, the dog is wet.”
- (53) **Kamaiurá** *i-kane'ō-awa 'iki*  
**Eng gloss** R2-tired-PL AFFECT  
**Eng translation** “They are tired, the poor things.”

PICTURE 18

- (54) **Kamaiurá** *'ame ta 'ang kururu-a rej ko-a, kururu*  
**Eng gloss** DEIX9 CONF DEIX2 frog-CORE sit DEIX1-CORE frog  
**Kamaiurá** *ka'a 'ang*  
**Eng gloss** vegetation DEIX2  
**Eng translation** “In this one here, the frog sitting, the frog, the grass here.”
- (55) **Kamaiurá** *'ang 'ang-a nip a'ang ma'anuar-a ko'yt*  
**Eng gloss** DEIX2 DEIX2-CORE DUB OPIN something-CORE EMPH  
**Kamaiurá** *i-kwar-a nip*  
**Eng gloss** R2-hole-CORE DUB  
**Eng translation** “Here, this one, I don’t know what this is, maybe his hiding place.”

(56) **Kamaiurá** *amo-a 'ang y-a tete eko, 'am*  
**Eng gloss** other-CORE DEIX2 water-CORE only COP DEIX3

**Kamaiurá** *kunu'um-er-a n-o-kwahaw-ite*  
**Eng gloss** boy-PL-CORE NEG-3-know-NEG

**Eng translation** “This other one, there is only water here, the boys [=boy+dog] don't know.”

## PICTURE 19

(57) **Kamaiurá** *kururu-a 'iweru o-jepotat*  
**Eng gloss** frog-CORE SMART 3-leave.water  
**Eng translation** “The smart frog got out of the water.”

(58) **Kamaiurá** *o-'ata-m a'iweru o-ho-m-e ko'yt*  
**Eng gloss** 3-walk-GER SMART 3-go-GER-(EPEN) EMPH  
**Eng translation** “He, the smart one, went walking.”

## PICTURE 20

(59) **Kamaiurá** *hok-a pype i-jo-w, hok-a pe*  
**Eng gloss** house-CORE INESS R2-come-IND.II house-CORE DEIX5  
**Eng translation** “He went inside the house, that house.”

(60) **Kamaiurá** *kunu'um-a pyr-a katy, hok-a kunu'um-er-a*  
**Eng gloss** boy-CORE house-CORE ALL house-CORE boy-PL-CORE

**Kamaiurá** *r-eko-tap*  
**Eng gloss** R1-COP-ACT.NMLZ

**Eng translation** “Towards the boy's house, the house where the boys were.”

(61) **Kamaiurá** *kunu'um-a pyr-a katy*  
**Eng gloss** boy-CORE house-CORE ALL  
**Eng translation** “Towards the boy's house.”

## PICTURE 21

(62) **Kamaiurá** *i-kane'ō-awa, o-jauk-awa 'iki o-jo-er-eko-m*  
**Eng gloss** R2-tired-PL 3-bathe-PL AFFECT 3-REC-C.CAUS-COP-GER  
**Eng translation** “They are tired, the poor things are bathing.”

(63) **Kamaiurá** *wararuijap kunu'um... 'apo wararuijap kunu'um*  
**Eng gloss** dog boy DEIX8 dog boy  
**Eng translation** “The dog, the boy... what's-its-name, the dog, the boy.”

- (64) **Kamaiurá** *'am-a iweru o-je-kytsiok-tsiok*  
**Eng gloss** DEIX3-CORE SMART 3-REFL-wash-wash  
**Kamaiurá** *o-jo-er-eko-m-e kō*  
**Eng gloss** 3-REC-C.CAUS-COP-GER-(EPEN) REP  
**Eng translation** “Here, the smart ones are washing themselves.”

- (65) **Kamaiurá** *a'e r-amue i-'yahaw-er-awa y*  
**Eng gloss** DEIX6 R1-TRANSL R2-carry-PL-PL water  
**Eng translation** “So, his bucket (‘carrying thing’), water.”

PICTURE 22

- (66) **Kamaiurá** *'am-a iweru kururu-a i-tse-w o-'ut*  
**Eng gloss** DEIX3-CORE SMART frog-CORE R2-enter-IND.II 3-come  
**Eng translation** “Here, the smart frog came in.”

- (67) **Kamaiurá** *kururu i-'i-a 'ang o-'ut a'e-a*  
**Eng gloss** frog R2-say-CORE DEIX2 3-come DEIX6-CORE  
**Kamaiurá** *wite-war-a 'ang kora'ewa*  
**Eng gloss** COMP-CIRC.NMLZ-CORE DEIX2 AFFIRM  
**Eng translation** “The frog came saying that it’s here.”

PICTURE 23

- (68) **Kamaiurá** *'ame ta'ang 'apo ko-a*  
**Eng gloss** DEIX9 CONF DEIX2 DEIX8 DEIX1-CORE  
**Eng translation** “Here, this one, what’s-its-name.”

- (69) **Kamaiurá** *kunu'um wararuijap i-jauk-awa-w r-yru*  
**Eng gloss** boy dog R2-bathe-PL-IND.II R1-container  
**Eng translation** “The boy, the dog, the bathing container[=bathtub].”

- (70) **Kamaiurá** *kururu-a 'ang, a'e r-amue 'ang etsak-awa*  
**Eng gloss** frog-CORE DEIX2 DEIX6 R1-TRANSL DEIX2 see-PL  
**Kamaiurá** *kō, kunu'um-a kuruk*  
**Eng gloss** REP boy-CORE urine  
**Eng translation** “This frog, because of this they saw the boy’s pee.”

PICTURE 24

- (71) **Kamaiurá** *kururu-a a'e-a o-pot 'apo-a pype*  
**Eng gloss** frog-CORE DEIX6-CORE 3-jump DEIX8-CORE INESS  
**Eng translation** “The frog jumped inside what’s-its-name[=bathtub].”

- (72) **Kamaiurá**      *jauk-awa*    *r-yru-a*                      *pype*  
**Eng gloss**        bathe-PL    R1-container-CORE    INESS  
**Eng translation** “Inside the bathing container[=bathtub].”

PICTURE 25

- (73) **Kamaiurá**      *'am-a*              *'iweru*    *i-je-mo-'iryw-awa-w*  
**Eng gloss**        DEIX3-CORE    SMART    R2-REFL-CAUS-friend-PL-IND.II  
**Eng translation** “Here, the smart one made himself some friends.”

- (74) **Kamaiurá**      *kunu'um,*    *wararuijap,*    *kururu*    *wetep*    *i-jauk-awa-w*  
**Eng gloss**        boy              dog              frog        all        R2-bathe-PL-IND.II  
**Eng translation** “The boy, the dog, the frog, all bathing together.”

- (75) **Kamaiurá**      *a'e-a*              *wite-war-a*                      *'ang*    *moroneta*  
**Eng gloss**        DEIX6-CORE    COMP-CIRC.NMLZ-CORE    DEIX2    story

- Kamaiurá**      *kora'ewa*    *i-katu*  
**Eng gloss**        AFFIRM        R2-good

- Eng translation** “That’s how this story is beautiful.”



**APPENDIX 2: Glossary**

KAMAIURÁ	GLOSS	COMMENT TO GLOSS
'akym	wet	to be wet
'am	DEIX3	demonstrative (see article for further specification)
'ame	DEIX9	demonstrative (see article for further specification)
'ang	DEIX2	demonstrative (see article for further specification)
'apo	DEIX8	demonstrative (see article for further specification)
'arim	ADESS	ADESSIVE 'on' (postposition)
'ata	walk	to walk
'i	say	to say
'in	sit.down	positional verb 'to be sitting down'
'iryp	friend	(p > w / _V)
'up	lie.down	positional verb 'to be lying down'
'ut	come	to come
'yahap	carry	to carry (p > w / _V)
'ytap	swim	to swim (p > w / _V)
a-	1SG	clitic pronoun, 1st person singular
-a	CORE	CORE case
a'ang	OPIN	OPINIONATIVE (evidentiality particle)
a'e	DEIX6	demonstrative (see article for further specification)
(a)'iki	AFFECT	AFFECTIVE marker (a > Ø / V# _)
(a)'iweru	SMART	SMARTIVE marker (a > Ø / V# _)
amo	other	
amue	TRANSL	TRANSLATIVE (postposition)
awa	people	
-awa	PL	PLURAL marker
awi	ABL	ABLATIVE 'from' (postposition)
-e	(EPEN)	epenthetic vowel; sometimes appears at word boundary (C_# C)
ejar	leave	to leave
ekat	find	to find
eko	COP	copular verb (cf. ko)

<i>em</i>	leave.outside	to leave outside
<i>er-</i>	C.CAUS	COMITATIVE CAUSATIVE (cf. <i>ero-</i> )
<i>ero-</i>	C.CAUS	COMITATIVE CAUSATIVE (cf. <i>er-</i> )
<i>-et</i>	PL	PLURAL marker (t > r / _V)
<i>etsak</i>	see	to see
<i>eymap</i>	pet	(p > w / _V)
<i>ho</i>	go	to go
<i>hok</i>	house	
<i>i-</i>	R2	relational prefix 2 (i > Ø / V# _V)
<i>-'i</i>	DIM	DIMINUTIVE (cf. <i>-i</i> )
<i>-i</i>	DIM	DIMINUTIVE (i > 'i / C_) (cf. <i>-'i</i> )
<i>-i</i>	IND.II	indicative mood II (i after consonants, w after vowels) (cf. <i>-w</i> )
<i>ikō</i>	tongue	
<i>ita</i>	stone	
<i>-ite</i>	NEG	NEGATION
<i>jan</i>	run	to run
<i>jauk</i>	bathe	to bathe
<i>jawa'ip</i>	grass	(p > w / _V)
<i>je-</i>	REFL	REFLEXIVE
<i>jepe</i>	FRUSRT	FRUSTRATIVE (particle)
<i>jepotat</i>	leave.water	to leave water
<i>jewyr</i>	return	to return
<i>jo</i>	come	to come
<i>jo-</i>	REC	RECIPROCAL
<i>jue</i>	only	(particle)
<i>ka'a</i>	vegetation	general term for everything relating to wild plants/forest
<i>kane'ō</i>	tired	to be tired
<i>katu</i>	good	to be good
<i>katy</i>	ALL	ALLATIVE 'towards' (postposition)
<i>ket</i>	sleep	to sleep (t > r / _V)
<i>ko</i>	DEIXI	demonstrative (see article for further specification)
<i>ko</i>	COP	copular verb (cf. <i>eko</i> )

<i>kõ</i>	REP	REPORTIVE (particle)
<i>ko'yt</i>	EMPH	EMPHATIC (particle)
<i>kora'ewa</i>	AFFIRM	AFFIRMATIVE (particle)
<i>kuj</i>	fall	to fall
<i>kunu'um</i>	boy	
<i>kuruk</i>	urine	
<i>kururu</i>	frog	
<i>kwahap</i>	know	to know (p > w / _V)
<i>kwat</i>	hole	here used in the sense 'hiding place' (t > r / _V)
<i>kytsiok</i>	wash	to wash (cf. tsiok)
<i>-m</i>	GER	GERUNDIVE marker (m > t / j_) (cf. -t)
<i>ma'anuat</i>	something	something, anything (t > r / _V)
<i>mo-</i>	CAUS	CAUSATIVE
<i>moroneta</i>	story	
<i>n-</i>	NEG	NEGATION
<i>na</i>	COLL	COLLECTIVE marker
<i>ne</i>	2SG	free pronoun, 2nd person singular
<i>nip</i>	DUB	DUBITATIVE (particle)
<i>nite</i>	ASSOC	ASSOCIATIVE 'with' (postposition)
<i>nupã</i>	hit	to hit
<i>o-</i>	3	clitic pronoun, 3rd person
<i>okoj</i>	DEIX4	demonstrative (see article for further specification)
<i>-p</i>	LOC	LOCATIVE case
<i>pe</i>	DEIX5	demonstrative (see article for further specification)
<i>poretsak</i>	look.people	to look at people
<i>pot</i>	jump	to jump (t > r / _V)
<i>potat</i> iary verb)	DES	DESIDERATIVE 'to want, to be able to' (independent or auxil-
<i>pyhyk</i>	take	to take, to grab, to catch (k > Ø / _V)
<i>pype</i>	INESS	INESSIVE 'inside' (postposition)
<i>pyt</i>	house	(t > r / _V)
<i>r-</i>	R1	relational prefix 1
<i>ran</i>	CONJ	conjunction

<i>rej</i>	sit	to sit (cf. <i>tej</i> )
<i>ta</i>	CONF	CONFIRMATIVE (particle)
<i>-t</i>	GER	GERUNDIVE marker (cf. <i>-m</i> )
<i>-tap</i>	ACT.NMLZ	nominalizer of action (p > w / _V)
<i>te</i>	FOC	FOCUS (particle)
<i>tej</i>	sit	to sit (t > r / V# _) (cf. <i>rej</i> )
<i>tete</i>	only	(particle)
<i>tse</i>	enter	to enter
<i>tsiok</i>	wash	partially reduplicated form (cf. <i>kytsiok</i> )
<i>upe</i>	DAT	DATIVE ‘in, for’ (postposition)
<i>upi</i>	PERL	PERLATIVE ‘along’ (postposition)
<i>upit</i>	climb	to climb (t > r / _V)
<i>w-</i>	3	clitic pronoun, 3rd person
<i>-w</i>	IND.II	indicative mood II (i after consonants, w after vowels) (cf. <i>-i</i> )
<i>wararuijap</i>	dog	(p > w / _V)
<i>-wat</i>	CIRC.NMLZ	nominalizer of circumstance (t > r / _V)
<i>wetep</i>	all	
<i>wite</i>	COMP	COMPARATIVE ‘like’ (postposition)
<i>y</i>	water	
<i>yru</i>	container	
<i>ywate</i>	high	
<i>ywyrá</i>	tree	