

The grammatical coding of postural semantics in Goemai  
(a West Chadic language of Nigeria)

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The grammatical coding of postural semantics in Goemai  
(a West Chadic language of Nigeria)

een wetenschappelijke proeve  
op het gebied van Letteren

**Proefschrift**

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door

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---

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## ABBREVIATIONS AND CONVENTIONS

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### Abbreviations used in interlinear glosses

ADVZ	adverbializer	LogA	logophoric (addressee)
ANT	anterior	LogS	logophoric (speaker)
BEN	benefactive	m, masc	masculine
Cl	classifier	NEG	negation
COM	comitative	NOMZ	nominalizer
COMP	complementizer	OBL	obligative
COND	conditional	ORD	ordinal number
CONJ	conjunction	PAST.CL	close past
DEF	definite	PAST.HEST	yesterday past
DEM	demonstrative	PAST.REM	remote past
DIR	direction	PERM	permissive
DIST	distal	pl, PL, Pl	plural
DUR	durative	Poss	possessive
EMPH	emphasis	PREP	preposition
f, fem	female	PRES	presentative
FOC	focus	PROGR	progressive
FUT.CL	close future	PROH	prohibitive
HAB	habitual	PROX	proximal
I	independent pronoun	PUR	purpose
IDEOPH	ideophone	RED	reduplication
INTERJ	interjection	RESULT	resultative
INTERR	interrogative	SEQ	sequential
IRR	irrealis	sg, Sg	singular
LOC	locative	SUB	subordinator
LOC.ANAPH	locative anaphor	TH	theme



In addition to the abbreviations listed above, all spatial nominals and aspectual verbs are glossed in upper case letters to remind the reader of their grammatical functions, e.g., BACK (= spatial nominal, meaning ‘at the back, behind, after’).

### Notation conventions used in examples

/	intonation break	
-	morpheme/clitic boundary	
SMALL CAPITALS	emphasis	
(...)	omission (if the beginning of a sentence is omitted, the example starts with a small letter)	
()	any comments	
[]	example source:	
	natural data	[ <i>text name</i> ] e.g., [LIIT]
	stimuli data	[ <i>stimuli code _ item number - consultant code</i> ] e.g., [TRPS_23-A]
	elicited data	[ <i>consultant code - elicitation date</i> ] e.g., [A-14/12/00]
	example numbering:	
	(1a), (1b), etc.	examples come from different sources
	(1-1), (1-2), etc.	first, second, etc. utterance in a sequence from the same source



This thesis investigates the coding of postural information in grammar. It describes the grammatical, semantic and pragmatic characteristics of the postural/existential system of Goemai and relates the descriptive findings to on-going discussions in the areas of spatial semantics, nominal classification, field methodology and grammaticalization. It furthermore includes a sketch grammar that provides necessary background information. This sketch grammar constitutes the first published outline of the grammatical structure of Goemai. Like the rest of the thesis, it is based on data collected during 10 months of fieldwork.

This chapter introduces the language and its speakers (section 1.1), the fieldwork setting (section 1.2), the theoretical assumptions that underlie the description (section 1.3.1), the theoretical relevance of the descriptive findings (section 1.3.2), and the structure of the thesis (section 1.4).

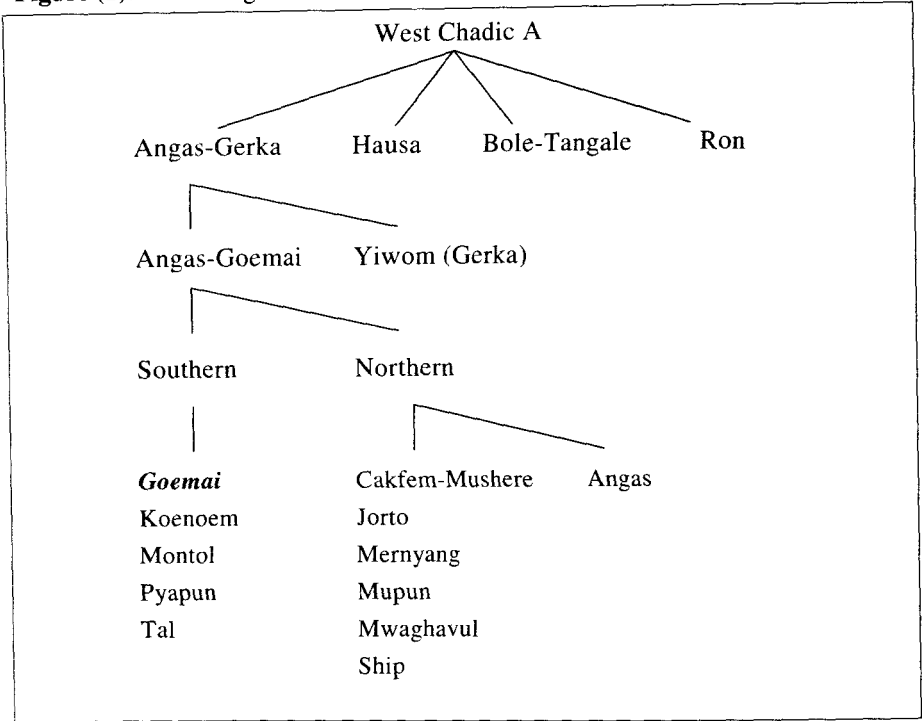
### **1.1 The Goemai language and its speakers**

Goemai is an Afroasiatic (Chadic, West Chadic A) language that is spoken in Central Nigeria by approximately 200.000 speakers. The name ‘Goemai’ is used by the speakers themselves in reference to both their language and their ethnic group. To outsiders, they are better known under the name of ‘Ankwe’ – a name that is also commonly found in the older linguistic, anthropological and historical literature.

This section summarizes the information available on the language (section 1.1.1) and its speakers (section 1.1.2).

#### *1.1.1 Linguistic classification and history of documentation*

As illustrated in figure (1) below, Goemai belongs to the Southern Angas-Goemai group of West Chadic A.

**Figure (1):** The linguistic classification of Goemai

Initially, languages of the Angas-Goemai group proved difficult to classify: Westermann and Bryan (1952) left them unclassified (and included Fyam, a Benue-Congo language, as part of this group), Greenberg (1955) subsumed Tarok (Benue-Congo) under Angas-Goemai, and other researchers commented on similarities to surrounding Benue-Congo languages (Hoffmann 1970; Jungraithmayr 1963b). Such difficulties in classification are not surprising given that these languages are spoken in a region that constitutes a larger language and culture area (see section 1.1.2). Today, Angas-Goemai is firmly established as a subgroup of Chadic on the basis of regular sound correspondences, pronominal forms and certain characteristic morphological features (see Greenberg 1966; Hoffmann 1975; Jungraithmayr and Ibriszimow 1994; Jungraithmayr and Shimizu 1981; P. Newman and Ma Newman 1966; P. Newman 1977a).

The Angas-Goemai group is divided into a Northern and a Southern branch. Most of our knowledge is restricted to the Northern branch: there are extensive

grammars and dictionaries on Angas (Burquest 1973; Foulkes 1915; Gochal 1994; Jungraithmayr 1964b; Ormsby 1912; 1913), Mupun (Frajzyngier 1991a; 1993) and Mwaghavul (Jungraithmayr 1963a), and some additional information is available on Ship (Hoffmann 1975; Jungraithmayr 1964a; Kraft 1981) and Mernyang (Hoffmann 1975; Netting 1967). All Northern languages are closely related and partly mutually intelligible.

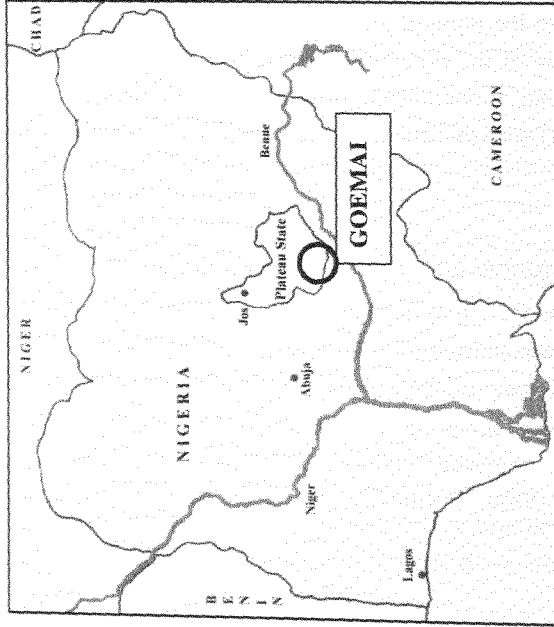
Our knowledge of the Southern branch, by contrast, is very limited. With the exception of a grammatical sketch of Montol (Jungraithmayr 1964a), only Goemai has received any documentation. Hoffmann (1975) is a comparative phonological study of the Angas-Goemai group with Goemai (Kwo dialect) as the representative of the Southern branch; Kraft (1981) is a phonological sketch of Goemai that also includes a word list (possibly Dorok dialect); and H. Wolff (1959) is a phonological inventory of Goemai (Duut dialect). Furthermore, the missionary Eugene Sirlinger has compiled three unpublished documents of the language as it was spoken around 1930 (based on the Kwo dialect, but with additional information from other dialects): two dictionaries (Sirlinger 1937; 1946) and a grammar (Sirlinger 1942). All three manuscripts contain reliable lexical and grammatical information.

Goemai speakers recognize four dialect areas that correspond to political and geographical units: Duut, East Ankwe (or Derteng), Dorok and Kwo (see map 2 below). The dialects are mutually intelligible, and their differences seem to be restricted to the phonological and lexical level. None of them is standardized at the expense of the others. However, both the Duut and the Kwo dialects have gained some wider currency due to the political supremacy of the town of Shendam (Duut) and the influence of the Goemai catechism (Kwo) (see section 1.1.2).

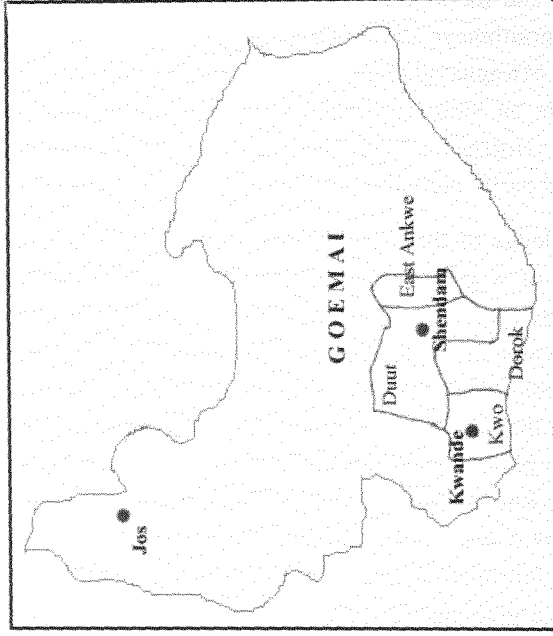
### *1.1.2 Historical and sociolinguistic background*

Goemai speakers live in an area that is known geographically as the Great Muri Plains, a lowland region with a savannah environment that is situated between the Jos Plateau in the North and the Benue river in the South (see map 1 below). The economy is based on agriculture (yam, millet, guineacorn, groundnut, beniseed) and is supplemented with fishing (in the Dorok area) (Monday 1989). Politically, the area belongs to Plateau State, and more

**Map (1):** Nigeria and Plateau State



**Map (2):** Plateau State and the Goemai settlement area  
(based on Kurungtiem 1991; Monday 1989)



specifically to the Local Government Areas Shendam and Qua'an Pan. Smaller Goemai speaking communities are found in surrounding Local Government Areas as well as in Jos, the capital of Plateau State.

Oral traditions suggest that speakers of Goemai migrated from the Jos Plateau to their present location in relatively recent times (see the contributions in Isichei 1982b; Yearwood 1981). It is generally assumed that the ancestors of the present-day inhabitants of the Jos Plateau did not arrive there before the 17<sup>th</sup> century. Presumably, the first speakers of Chadic languages arrived at an even later stage. They first settled on the Plateau, and later some of them, including the ancestors of the Goemai, migrated further south into the lowlands.

The history of the whole region is characterized by numerous small-scale migrations that are linked to the formation and expansion of powerful regional states: the Kororofa Empire of the Jukun (14<sup>th</sup> to 18<sup>th</sup> century) and several Emirates established in the wake of the Hausa/Fulani jihad (19<sup>th</sup> century) (Isichei 1981; 1982a; Morrison 1982). The lowland societies were incorporated into the newly established states, and the mountainous Plateau became a refuge. While some refugees were integrated into the indigenous societies, others dispersed the original inhabitants, setting off a chain reaction of further migrations. As a result, new ethnic groups were formed, interethnic marriages took place, and trading networks were established (Agi 1982; Ames 1932; Banfa 1982; Danfulani 1995; Fitzpatrick 1910; Gunn 1953; Isichei 1981; 1982a; Meek 1931; Unomah 1982; Weingarten 1990). This continuous and frequent contact then led to the establishment of a language (and culture) area in which unrelated Chadic and Benue-Congo languages share lexical and grammatical features (Ballard 1971; Gerhardt 1983; Gerhardt and Wolff 1977; Hoffmann 1970).

Like other groups in this region, the Goemai had (and still have) extensive contacts to speakers of different languages. As a lowland society, they were under the influence of first the Jukun Empire and later the Bauchi Emirate (Agi 1982). In both cases, they were integrated politically, culturally and economically into the regional states. In fact, Goemai speakers today still trace their origin back to the Jukun, i.e., to speakers of a Benue-Congo language. But despite their firm integration, they continued to maintain close personal and commercial ties to Jos Plateau societies (Unomah 1982).

The regional states disintegrated with the arrival of the British colonial authorities at the beginning of the 20<sup>th</sup> century (Isichei 1981; 1982a; Kurungtiem 1991). In 1901, the British established their headquarters in Shendam and, in 1908, centralized the Goemai chieftaincy under the leadership of the chief of Shendam. Around the same time, missionaries of the Roman Catholic Church arrived (Onotu 1982), settled in Shendam (in 1907), and later established secondary missionary centers in Demshin (in 1909) and Kwande (in 1931). In 1911, Shendam became headquarters for the Prefecture North; and from 1931 onwards, it hosted the Vernacular Training College, which supplied large parts of Nigeria with trained teachers. Until its functions were taken over by Jos, Shendam was thus the administrative, religious and educational center for the whole of Northern Nigeria. For the Goemai, this colonization process resulted in establishing their political and ethnic unity (under the authority of Shendam). And their education within the colonial system allowed many of them to assume leading roles throughout Nigeria.

The population of the present-day Goemai speaking area is very heterogeneous. Sizeable immigrant communities have settled in and around all villages, including speakers of both closely related Chadic and non-related Benue-Congo languages. Although Goemai is the major language spoken in this area, its importance decreases rapidly in favor of Hausa. Most Goemai use Hausa in administrative, religious and educational settings as well as in their everyday contact with their non-Goemai neighbors. Among members of the younger generation, Hausa replaces Goemai as their means of everyday communication. Especially in the larger settlements, younger Goemai grow up with Hausa as their first, and sometimes only, language. Even where they still speak Goemai, code-mixing and code-switching commonly occur. To date, there still exist a substantial number of Goemai speakers (approximately 200.000 according to SIL 2002), but this situation is likely to change in the near future.

The older generation is conscious of the threat posed by Hausa and actively engages in promoting the Goemai language through organizing awareness campaigns, radio broadcasts and language classes. The Jos-based radio station PRTV broadcasts a daily 5-minute summary of the news in Goemai as well as a weekly 30-minute Goemai language magazine on topics of general interest. In recent years, the Goemai Literacy and Bible Translation Committee, in cooperation with the Nigerian Bible Translation Trust, has started its translation work, has introduced a practical orthography (Ohikere and Tiemsan 1999) and has published a collection of folktales (Tiemsan 1999). Before these



activities started, the only written material available was a translation of the Catholic catechism into Goemai (Sirlinger 1931). This catechism has played a considerable role in promoting literacy, and many of the older generation have learnt to read and write Goemai with its help.

## 1.2 The fieldwork setting

The data for this thesis was collected during 10 months of fieldwork (distributed over the period from 1998 to 2001), which took place in the village of Kwande (Qua'an Pan Local Government Area) and the city of Jos. It investigated the Kwo dialect, but, whenever possible, the data was verified with speakers of other dialects – either through collecting the relevant data myself, or through consulting with Pastor Jimoh Ohikere who works with the Goemai Literacy and Bible Translation Committee in Ajikamai and Shendam.

The contributors to this thesis speak Goemai as their first language and use it as their means of everyday communication. All are bilingual in Goemai and Hausa, and most also speak other local languages and/or English. In the beginning, the research was carried out in English and/or Hausa, and later in Goemai. Most contributors are men, either in the age range between 15 and 30, or above 50 years. It proved difficult to establish contacts with female or middle-aged speakers, which accounts for the somewhat biased sample. Table (1) gives an overview of the major contributors.

The database collected with the help of these speakers contains about 17 hours of recorded natural texts (see table 2). Part of this data was volunteered by the speaker(s), while another part was prompted by me, i.e., speaker(s) were asked to talk about specific topics (i.e., 'staged communicative events' in the terminology of Himmelmann 1998).

The natural data was supplemented with data from direct elicitation, focussing on the domains relevant to this thesis, but also covering other grammatical areas. To minimize the risk of misunderstanding that inevitably occurs when relying on translation equivalents alone, these elicitation sessions were based, whenever possible, on natural text examples and visual aids (see, e.g., the discussions in Samarin 1967: 205-217; Vaux and Cooper 1999: 37-43). In addition, responses to non-verbal stimuli and questionnaires were collected. Table (3) below gives an overview of the used stimuli (see section 4.1 for a further discussion of field methodology).

**Table (1):** Major contributors to this thesis

Code	Dialect	(Approximate) age in 2000	Sex
A	Kwo	65	male
B	Kwo	65	male
C	Kwo	60	female
D	Kwo	52	male
E	Kwo	32	female
F	Kwo	25	male
G	Kwo	25	male
H	Kwo	24	male
I	Kwo	24	male
J	Kwo	23	male
K	Kwo	18	male
L	Kwo	17	male
M	Kwo	15	male
N	Dorok	60	male
O	Dorok	60	female
P	Dorok	60	female

**Table (2):** Natural texts

Genre	Recording time
Conversations	3 hours
Narratives	
• Folktales	2.5 hours (+ 17 written tales)
• Historical narratives	2 hours
• Personal narratives	1.5 hours
Descriptive texts	3.5 hours
Procedural texts	1 hour
Speeches and ritual texts	1 hour (+ 3 written religious texts)
Radio broadcasts	1.5 hours
Proverbs, riddles, songs	1 hour

**Table (3):** Stimuli

<b>Stimuli</b>	<b>Code</b>	<b>Type</b>
Topological Relations Picture Series (Bowerman and Pederson 1993)	TRPS	Picture books
Picture Series for Positional Verbs (Ameka et al. 1999)	PSPV	
Topological Tasks (Meira and Levinson 2001)	TOP	
Drawings (Goemai stimuli)	DRAW	
Photos (Goemai stimuli)	PHOTO	
Configuration pictures (Goemai stimuli)	CONFIG	
Progressive pictures: West Africa (Kawada 1992: 70-71) Lao (Enfield 2002) Goemai (Goemai stimuli)	PROGWA PROGLA PROGGO	
Staged Events (van Staden et al. 2001)	STAGE	Video stimuli
Caused Positions (Hellwig and Lüpke 2001)	CP	
Caused Positions/Goemai (Goemai stimuli)	CP/G	
(Dis-) positionals - progressive (Goemai stimuli)	DPP	
Frog Story (Berman and Slobin 1994)	FROG	Story retellings based on pictures
Contrastive demonstratives (Goemai stimuli)	CONTR	
Inchoative pictures (Goemai stimuli)	INC	
Various story retellings (Goemai stimuli)	SR	
Men and Tree (Pederson et al. 1998)	MT	Matching games
Route Description (Wilkins and Danziger 1996)	RD	
Hidden Colour Chips (Enfield and Bohnermeyer 2001)	COLOR	
(Dis-) positionals (Goemai stimuli)	DIS	
Compare (Goemai stimuli)	COMP	
Demonstrative Questionnaire (Wilkins 1999a)	DQ	Questionnaires as basis for enactment
Come and Go (Wilkins 1993)	CG	
Tense/Aspect questionnaire (Dahl 1985)	TQ	Questionnaires
Posturals - progressive/aorist (Goemai stimuli)	P01, P02	
Negation (Goemai stimuli)	NEG	Sorting tasks
Similarity Judgements (Goemai stimuli)	SIM	

All three types of data – natural, elicited, and stimuli-based – were taken into account for the analysis. All data were transcribed, glossed, translated and annotated by me. Whenever possible, speakers were consulted in this process. Throughout the thesis, the source of an example follows the free translation in square brackets: if the example comes from a natural text, the name of the text is given; if it comes from a stimuli, the code of the stimuli occurs together with the code of the speaker; and if it comes from an elicitation session, both speaker code and session date are given.

### 1.3 The postural/existential system

Goemai has a set of five contrastive elements that have a wide distribution throughout the grammar: the semantically general *d'e* ‘exist’, and the more specific *lang* ‘hang/move’, *t'ong* ‘sit’, *d'yem* ‘stand’ and *t'o* ‘lie’. As indicated by the glosses, the last four elements are used in the description of human postures or movements. But although they can be used in this way, their ‘postural’ uses are marginal – as well as formally marked – when compared to their ‘locative’ uses: in all locative statements, Goemai speakers are required to choose one of the five elements and to thereby assert or classify the position of an (animate or inanimate) referent in space. These elements occur obligatorily in the following grammatical environments: as classifiers in the demonstrative word, and as verbs in the locative and existential, presentative, progressive, ascriptive and different subtypes of serial verb constructions. Example (1) below illustrates a small part of this system: *d'e* ‘exist’ occurs as a deictic classifier within the demonstrative, and *t'o* ‘lie’ occurs in the verb slot.

- (1) *Goe-n-d'e-nang*                                      *a*    *k'umbulu*    *t'o*    *toe*.  
 NOMZ(sg)-ADVZ-CI:exist-DEM.DIST    FOC    guitar                      lie(sg)    EMPH  
 ‘That existing one is a *k'umbulu* guitar (that) lies.’ [HAND-A/N]

The coding of postural/existential information thus plays an important role in Goemai grammar. It is part of what could be termed the “genius” of the language: in order to speak Goemai idiomatically, the speaker has to have an understanding of the semantics and pragmatics of the postural/existential system.

The description of this system is the topic of this thesis. The thesis itself is strongly data-oriented in that it aims at an adequate characterization and analysis of the Goemai data. Throughout the analysis, a number of theoretical assumptions are made, which are introduced in section 1.3.1. Furthermore, the

Goemai data is of interest to different areas of theoretical linguistics, which are outlined in section 1.3.2.

### *1.3.1 Background assumptions*

This thesis focuses on the semantics of the Goemai postural/existential system. Despite such a semantic focus, equal attention is paid to both semantic and grammatical analyses. The reasons for this decision are as follows: First, given that only little is known about present-day Goemai, I consider it essential to provide grammatical information that can serve as a background against which the meaning and usage of the postural/existential elements can be evaluated. Second, I adopt the general assumption underlying most approaches to lexical semantics that there are links between the lexical meaning of an item and its grammatical behavior (e.g., Levin 1993; Lyons 1977). I especially agree with Lucy (1994) who strongly argues for the importance of language-internal morphosyntactic criteria in the course of semantic analysis. Third, as outlined in the next paragraphs, I adopt a construction grammar approach, i.e., I assume that grammatical constructions carry meanings, which interact with the meanings of lexical items.<sup>1</sup> Under this view, an analysis of grammatical constructions is necessary in order to assess the different contributions made by constructions and lexical items to the meaning of an utterance.

Throughout the thesis, I follow the construction grammar approach defended in Goldberg (1995). Like all approaches to grammatical semantics and construction grammar (see also Fillmore et al. 1988; Kay and Fillmore 1999; Lambrecht 1994; Langacker 1987; Wierzbicka 1988), it assumes that constructions are form-meaning pairings that exist independent of the lexical items that instantiate them, i.e., independent of their lexical fillers. Lexical fillers are integrated into constructions on the basis of the two being semantically compatible.

For example, under the adopted approach, verbs are differentiated from argument structure constructions. As a consequence, participants (which are inherent to the lexical semantics of verbs) are seen as being independent from

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<sup>1</sup> Within construction grammar, it is often argued that both constructions and lexical items are part of the lexicon (Goldberg 1995). For ease of presentation, I chose to differentiate terminologically between grammatical constructions, on the one hand, and lexical items, on the other. This is an entirely practical decision, and no theoretical implications should be read into it.

constructional arguments (which are slots in the construction, comprising both core arguments and adjuncts). Verbs can be integrated into argument structure constructions provided that (a) their participants are semantically compatible with the constructional arguments (according to the Semantic Coherence Principle) and that (b) profiled participants are associated with profiled constructional arguments (according to the Correspondence Principle). Prototypically, but not necessarily, the properties of the lexical fillers match those of the construction. Nevertheless, a construction can add further arguments, or, alternatively, suppress lexically-specified participants, and, generally, “(...) the verb and construction may contribute distinct aspects of meaning to the overall interpretation” (Bencini and Goldberg 2000: 642).

Since the construction grammar approach attributes part of the interpretation of an utterance to the constructional meaning, it is compatible with a semantic analysis in terms of monosemy. Throughout this thesis, I work with a monosemy bias, i.e., I adopt as working hypothesis the assumption that “(...) any meaning that is not present in all contexts of a word is not part of the word’s inherent meaning” (Ruhl 1989: 234). It does not follow from this working hypothesis that polysemy cannot occur: multiple senses are posited in those cases where different interpretations cannot be attributed to either constructional meaning or pragmatic implicatures (see below). Nor does it follow from this hypothesis that speakers do not have encyclopedic knowledge at their disposal (in the sense of, e.g., Haiman 1980; Taylor 1989): this encyclopedic knowledge need not be part of the lexical meaning of an item, but can arise from pragmatic principles.

In capturing the distinction between lexical semantics and pragmatic implicatures, I adopt a neo-Gricean approach. Specifically, I follow Levinson (2000b) and Wilkins and Hill (1995), who, despite some differences, both argue for maintaining the distinction between semantics and pragmatics. Crucially, they argue for the existence of one semantic level, which stores the abstract lexical meanings that are entailed by an item. These stored, coded, meanings provide the input for pragmatic rules that enrich them. Among these rules are Generalized Conversational Implicatures, which derive default interpretations that are present in all contexts where an item occurs. Although these interpretations look similar to coded lexical meanings, they do not constitute part of this meaning because, like all implicatures, they are defeasible.

Default interpretations arise because speakers (a) maintain expectations about normal language behavior and (b) are aware of alternative expressions that could be used instead. Following Levinson (2000b), three general principles can account for their existence: the Q-principle, the M-principle and the I-principle.

The Q-principle and its heuristic of “[w]hat isn’t said, isn’t” (Levinson 2000b: 35) is based on Grice’s (1975) first Maxim of Quantity (i.e., make your contribution as informative as is required). It captures the distribution of logically compatible alternates of the same markedness status but of different informativeness. Specifically, given a Horn-scale  $\langle S, W \rangle$  where one form is informationally stronger than the other (Horn 1989), this principle predicts that the use of the informationally weaker alternate (‘W’) Q-implicates that the stronger one (‘S’) does not apply – since if the stronger one would apply, the speaker would have used it. The use of the stronger alternate, by contrast, does not carry any such implicature.

The complementary M- and I-principles capture the distribution of marked and unmarked forms. The M-principle is based on two of Grice’s submaxims of Manner (i.e., avoid obscurity of expression, avoid unnecessary prolixity), while the I-principle is based on his second Maxim of Quantity (i.e., do not make your contribution more informative than is required). The M-principle and its heuristic of “[w]hat’s said in an abnormal way isn’t normal” (Levinson 2000b: 38) predicts that to use a marked form in a context where an unmarked form could have been used M-implicates a marked message, i.e., non-stereotypicality. If the situation were stereotypical, the speaker would have used the unmarked form, thereby following the complementary I-principle and its heuristic of “[w]hat is expressed simply is stereotypically exemplified” (Levinson 2000b: 37).

Based on the general framework outlined in this section, it is thus assumed that the overall interpretation of an utterance can be attributed to three sources: lexical semantics, constructional semantics, and pragmatic implicatures. Throughout the following chapters, reference is made to these assumptions, and their application is illustrated in more detail.

### 1.3.2 *Relevance of the Goemai data*

The postural/existential system of Goemai is quite widespread in the languages of the world. It is known that many non-related languages use such elements as verbs in locative and/or existential constructions (Ameka and Levinson in prep.-a; Stassen 1997: 55-61), as classifiers in the demonstrative word (Aikhenvald 2000a: 176-183; Grinevald 2000: 68-69), as progressive or continuative auxiliaries (Bybee et al. 1994: 127-133; Comrie 1976: 98-106, 129-130; Kuteva 1999), and/or as copulas (Devitt 1990; Heine 1997b: 202-207; Stassen 1997: 94-95, 214). Such elements are reported to exist in Germanic languages (Bowerman et al. in prep.; Kutscher and Schultze-Berndt submitted; Lemmens 2001; 2002; Maienborn 1990; 1991; Mulder and Wehrmann 1989; van Oosten 1986; Serra Borneto 1996), Papuan languages (Drabbe 1953: 39-41; 1957: 31-36; 1963: 21-22, 67; Foley 1986: 88-91; Lang 1975; Levinson 2000a; Merlan et al. 1997; Mühlhäusler 1995; Rumsey 2002; W. Seiler 1985: 154-160), Australian languages (Austin 1998; Reid 2001; Wilkins to appear), Guaykuran languages (Ceria and Sandalo 1995; Grondona 1998; Klein 1979; Vidal 1997), and Siouan as well as neighboring southeast area languages (Barron and Serzisko 1982; Campbell 1997: 341-344; Rankin 1977; 1986; 2000; Rood 1979: 186-187; H. Seiler 1986: 87-94).

Ameka and Levinson (in prep.-b) argue that there are a distinct type of languages, the so-called postural type languages, which is characterized through the use of postural verbs in the locative construction. A survey of the literature indicates that the postural elements in languages of this type share certain similarities in their semantics, usage and grammaticalization paths. But despite such indications as to the existence of a larger typological pattern, the study of the postural type has never been the focus of attention (but see Ameka and Levinson in prep.-a; J. Newman 2002b). With respect to individual languages, there are a number of descriptive studies, but most are restricted to subparts of the whole system. The grammatical, semantic and pragmatic analysis presented in this thesis is, to my knowledge, the first in-depth study of any postural/existential system. As such, it is meant to fill a descriptive gap in the literature.

The descriptive findings of this thesis have further implications for the following areas of linguistics:



## (a) Spatial semantics.

In contrast to other languages, the postural/existential elements in Goemai do not code primarily either a human-based posture (Lemmens 2001; 2002; van Oosten 1986; Serra Borneto 1996) or an abstract shape (Aikhenvald 2000a: 337-340; Denny 1979), but a locative relation (see also Kaufmann 1995; Maienborn 1991; Mulder and Wehrmann 1989). In fact, it is often assumed, implicitly or explicitly, that relational information is coded in adpositions and local cases, but not in verbs (see, e.g., Fillmore 1975: 16-27; Frawley 1992: 250-293; Landau and Jackendoff 1993; J. Lyons 1977: 636-734; Miller and Johnson-Laird 1976: 375-410; Talmy 1985: 61-76). The Goemai data thus contributes to an on-going discussion on the coding of spatial information across different word classes.

## (b) Nominal classification.

The postural/existential elements are used in a classificatory way to classify nominal concepts. This use makes the Goemai data relevant to issues raised in the literature on nominal classification, notably to the following issues: (i) the classificatory aspects of verbs (Aikhenvald 2000a: 153-159; Grinevald 2000: 67-68); (ii) the relationship between sortal and temporary aspects of classification systems (Berlin 1968; Broschart 1997; Denny 1986; Serzisko 1982), and (iii) the classification of nominal concepts, as opposed to the classification of either referents or language (Ameka and Levinson in prep.-b; Lucy 2000).

## (c) Field methodology and semantics.

The use of stimuli-based methods (see, e.g., Hellwig submitted-a; Levinson 1992; Pederson et al. 1998) shaped, to some extent, the proposed semantic and pragmatic analysis of the Goemai postural/existential system. Generally, the semantic literature (e.g., Cruse 1986; Frawley 1992; Goddard 1998; J. Lyons 1977) does not address problems of field semantics, i.e., problems that arise in the semantic analysis of little described languages and in the absence of easy access to native speaker intuitions, extensive text corpora and grammatical background knowledge. It is hoped that the methodological discussion in this thesis helps to create some awareness of the possibilities and limitations involved in doing field semantics.

(d) Grammaticalization.

The postural/existential elements occurring in different morphosyntactic environments are linked through grammaticalization chains, only some of which are well attested in the literature (e.g., Bybee et al. 1994; Heine and Reh 1984; Heine et al. 1991; Lehmann 1995), while others are rare, and yet others are not described at all. The Goemai data thereby contributes to our knowledge about possible grammaticalization chains.

The brief comments in this section are meant to illustrate the relevance of the descriptive findings to different areas of linguistics. Their precise contributions are discussed in more detail throughout later parts of the thesis.

#### **1.4 Structure of the thesis**

This thesis is divided into three parts. The first part gives an introduction to Goemai grammar (chapter 2). The second part focuses on the locative (i.e., postural and existential) verbs and compares them to other types of verbs: it discusses form class properties (chapter 3), locative relational semantics (chapter 4) and classificatory usage (chapter 5). The third part is concerned with constructions: the locative and presentative constructions (chapter 6), the demonstrative or deictic classifier construction (chapter 7), different serial verb constructions (chapter 8), the progressive construction (chapter 9) and the ascriptive construction (chapter 10). Chapter 11 summarizes the findings and sketches possible lines of further research.

This chapter introduces the grammatical structure of Goemai. It does not aim at a comprehensive description of Goemai, but at providing the background information necessary for understanding the argumentation and examples in the subsequent chapters. The discussion is based on data collected during 10 months of fieldwork. In addition, grammars and typological studies of other Chadic and Benue-Congo languages were consulted for comparative purposes.

Goemai exhibits the following typological characteristics:

- nominative-accusative pattern;
- rigid SVO word order in main and subordinate clauses (and corresponding noun-genitive, preposition-noun orderings), used for coding grammatical relations;
- predominantly isolating, but with extensive suppletive alternations, and with some recently developed nominal morphology and remnants of verbal morphology;
- different types of verb serialization;
- arguments are added or suppressed through constructional alternations, nominalization and adverbialization, but not through verbal extensions;
- all TAM categories are expressed periphrastically;
- a subset of verbs agrees in number with either the subject (intransitive verbs) or the direct object (transitive verbs);
- there is no general or obligatory marking of number within the noun phrase.

While some features are widespread throughout Chadic languages, others are only found infrequently, and still others are shared by both Chadic and Benue-Congo languages spoken in the Jos Plateau area. Parallels and differences are indicated throughout the following sections.

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<sup>1</sup> Parts of this chapter appear in Hellwig (submitted-b).

This chapter gives information on phonological and tonological aspects (section 2.1), the structure of noun (section 2.2) and verb phrases (section 2.4), different parts of speech (sections 2.2 to 2.4; see table 1 below) and syntax (simple verbal clauses in section 2.4.1, complex verbal clauses in section 2.5, and non-verbal clauses in section 2.6). Section 2.7 concludes this chapter.

**Table (1):** Parts of speech

<b>Parts of speech</b> <sup>2</sup>	<b>Section</b>
nominals (including nouns, pronouns, quantifiers, numerals and derived nominals)	section 2.2.1
determiners	section 2.2.2.4
verbs	section 2.4
adverbs	section 2.3.1
prepositions and spatial nominals	section 2.3.2
particles, clitics	section 2.3.3

## 2.1 Phonology and tonology

Table (2) below introduces the Goemai phonemes and the orthographic notation used throughout this thesis. The notation is a modified version of the practical orthography developed in Sirlinger (1937).

Goemai contrasts aspirated and non-aspirated voiceless obstruents. Cross-linguistically, such a contrast is well attested in stops, but rare in fricatives (Ladefoged and Maddieson 1996: 66-70, 176-179). Previous authors working on Goemai have labeled it an opposition between fortis and lenis stops (H. Wolff 1959) or between glottalized and non-glottalized obstruents (Hoffmann 1975; possibly also Sirlinger 1937). The waveforms and spectrograms taken from my data indicate a contrast in aspiration – only the velar non-aspirated stop is occasionally realized as glottalized. It is possible that this contrast is a

<sup>2</sup> Goemai does not have a class of adjectives: most property concepts are expressed by verbs (including dimension, physical property, color, value and age), and only some are expressed by nouns (e.g., material, sex). Any property verb or noun can occur in the modifying construction (see sections 2.2.1.5 and 3.2.2), i.e., in a construction that derives adjective-like attributive forms. The existence of this construction is not taken as evidence for the existence of a form class of adjectives, though. Following Dixon (1982b), I assume that any adjective class has to have a core of non-derived forms.

remnant of a voicing contrast in the proto-language: voiceless and voiced obstruents have merged in the Northern Angas-Goemai subgroup, but have been retained in Goemai in the form of aspirated and non-aspirated obstruents (Greenberg 1958; Hoffmann 1975; Jungraithmayr and Ibriszimow 1994, Takács, p.c.).<sup>3</sup>

**Table (2):** Goemai phonemes and their orthographic notation

<b>Consonants:</b>					
	labial	alveolar	palatal	velar	glottal
<u>stops</u>					
voiceless aspirated	p	t		k	
voiceless non-aspirated	p'	t'		k'	
voiced	b	d		g	
implosive	b'	d'			
<u>fricatives</u>					
voiceless aspirated	f	s	sh		h
voiceless non-aspirated	f'	s'	sh'		
voiced	v	z	j		
<u>nasals</u>					
	m	n		ng	
<u>liquids</u>					
lateral		l			
trill		r			
<u>glides</u>					
	w		y		
<b>Vowels:</b>					
	i	û (= /u/)		u	
	e	oe (= /ə/)		o	
		a			

In addition to the two types of voiceless obstruents, Goemai has voiced obstruents and implosives. The implosives are phonetically similar to the

<sup>3</sup> Under such a scenario, the origin of the voiced obstruents in Goemai remains unclear. They may go back to prenasalized voiced consonants (Jungraithmayr and Ibriszimow 1994), or they may have entered the language through recent loanwords (Yalwa 1998).

creaky voiced implosives of Hausa (as they are described in Ladefoged and Maddieson 1996: 82-87). Goemai thus has a four-way contrast in the stop series and a three-way contrast in the fricative series. Table (3) illustrates the contrasts with the help of (near) minimal pairs.

**Table (3):** Obstruents

	<b>Voiced</b>	<b>Implosive</b>	<b>Voiceless, non-aspirated</b>	<b>Voiceless, aspirated</b>
<b>Stop</b>	<i>bang</i> 'gourd'	<i>b'ang</i> 'red'	<i>p'ang</i> 'stone'	<i>pang</i> 'snake'
	<i>dal</i> 'beat'	<i>d'al</i> 'swallow'	<i>t'al</i> 'collect'	<i>tal</i> 'ask'
	<i>gam</i> 'fill'	-	<i>k'am</i> 'teach'	<i>kam</i> 'RESULT'
<b>Fricative</b>	<i>vel</i> 'two'	-	<i>f'er</i> 'four'	<i>fer</i> 'horn'
	<i>zam</i> 'field'	-	<i>s'am</i> 'grind'	<i>sam</i> 'descend'
	<i>jap</i> 'children'	-	<i>sh'arap</i> 'fish'	<i>sharap</i> 'women'

The full inventory of consonants occurs only in morpheme-initial position. In medial position, a process of lenition can be observed (stops tend to occur as fricatives, implosives as voiced stops, and aspirated obstruents as non-aspirated). In final position, only the following consonants are attested: *p*, *t*, *k*, *s*, *m*, *n*, *ng*, *l*, *r*, (*w*), (*y*). This distribution is characteristic for both Chadic and Benue-Congo languages spoken in this area (Gerhardt and Wolff 1977). Similarly, the attested syllable structures CV, CVC and CVVC are also common patterns.

In morpheme-initial position, the secondary features of labialization, palatalization and prenasalization occur.<sup>4</sup> They originated either through the loss of a syllable (which may still be realized in slow speech, e.g., *twaam* ~ *tuwaam* 'cause standing') or through the addition of an *N*- prefix (see sections 2.2.1.1, 2.3.1, 2.3.2). I therefore do not analyze them as phonemes. In the practical orthography, they are written as follows:

<sup>4</sup> All consonants can occur with any of the three features, but, in the case of labials, the feature labialization is realized as the high central vowel *û*. Labialization and palatalization do not co-occur.

labialized consonant:	$Cw$	e.g., <i>lwa</i> ‘animal’
	$C_{Labial}û$	e.g., <i>mûep</i> ‘they’
palatalized consonant:	$Cy$	e.g., <i>f’yer</i> ‘become big’
prenasalized consonant:	$nC$	e.g., <i>nda</i> ‘father’

Goemai has seven vowel phonemes. Unlike the consonants, these vowels show considerable variation in the four dialects. There are also many allophones, and the factors responsible for their occurrence are not always transparent (see also Hoffmann 1975; Kraft 1981). For the present purpose, some general remarks on dialectal and allophonic variation will suffice:

- The mid vowel /e/ is realized either as [e] (when it occurs as a long vowel or in final position), as [ɛ] (short vowel in closed syllable in the Duut dialect), as [ə] (short vowel in closed syllable in the Kwo dialect) or, occasionally, as [ɔ] (in final position only). The mid vowel /o/ is always realized as [ɔ] preceding velar consonants.
- In closed syllables, the short central vowel [ə] is an allophone of /e/. In open syllables, /ə/ and /e/ are in phonemic contrast, e.g., *poe* ‘give’ vs. *pe* ‘place’.
- In closed syllables, vowel length is phonemic, e.g., *paap* ‘hide (sg)’ vs. *pap* ‘hide (pl)’. In open syllables, vowel length is not phonemic, but is conditioned by factors such as word boundaries and pauses.
- All vowels are realized short when they precede a velar consonant.
- The vowels /u/ and /o/ are realized long (unless they precede a velar consonant) and often correspond to  $VC_{velar}V$  sequences in closely related languages, e.g., *nûûn* ‘mother’ and *joom* ‘chin’ in Goemai correspond to *nəgəŋ* and *jaɣam* in Mwaghavul (data taken from Hoffmann 1975).
- The sequences *au* (~ *ou*), *ai* (~ *ei* ~ *ee*), *ûa*, and *ûe* are written as diphthongs in the practical orthography, but they could probably be analyzed as  $VC_{Glide}$  and  $(C)_wV$  sequences respectively.

Goemai is a tone language that recognizes four tonal patterns, which are illustrated in table (4) below.

**Table (4):** Tonal patterns

High	Low	Falling	Rising
<i>ráng</i> 'think'	<i>màng</i> 'take'	<i>lâng</i> 'hang/move'	<i>k'yǎng</i> 'rope'
<i>s'é<sup>ˊ</sup>m</i> 'name'	<i>s'ò<sup>ˋ</sup>è</i> 'eat'	<i>s'é<sup>ˋ</sup>èt</i> 'trade'	<i>d'ě</i> 'exist'

The practical orthography does not note tone. But despite this shortcoming, there are two reasons to adopt it, with slight modifications, for the purposes of this thesis. First, speakers of Goemai are familiar with it. Second, the lexical tone of an item rarely settles on the item itself – either because the construction imposes its own tonal pattern (as in 1a and 1b), or because the tone spreads to the right and interacts with the lexical tone of other items (as in 2a and 2b). Both phenomena are illustrated with the help of the high-tone verb *ná* 'see' and the low-tone verb *dàl* 'beat'.

- |      |                                   |                  |                        |      |                                    |                    |                        |
|------|-----------------------------------|------------------|------------------------|------|------------------------------------|--------------------|------------------------|
| (1a) | <i>hèn</i><br>1Sg                 | <i>nà</i><br>see | <i>lá</i><br>child(sg) | (1b) | <i>hèn</i><br>1Sg                  | <i>dàl</i><br>beat | <i>lá</i><br>child(sg) |
|      | 'I saw the child' [A-22/09/00]    |                  |                        |      | 'I beat the child' [A-22/09/00]    |                    |                        |
| (2a) | <i>mùèp</i><br>3Pl                | <i>ná</i><br>see | <i>lá</i><br>child(sg) | (2b) | <i>mùèp</i><br>3Pl                 | <i>dál</i><br>beat | <i>là</i><br>child(sg) |
|      | 'they saw the child' [A-22/09/00] |                  |                        |      | 'they beat the child' [A-22/09/00] |                    |                        |

Under these circumstances, it is a somewhat unsatisfactory solution to note either the lexical or the surface tone, unless the notation is accompanied by a thorough discussion of the tonological processes involved. Since such a discussion goes beyond the scope of this thesis, I decided to mark tone only in the following cases: in all constructional templates (if tone is part of the construction), and whenever it bears on the argumentation.

## 2.2 Nominals and the noun phrase

### 2.2.1 Nominals

Nominals are identified by their ability to head a noun phrase. They are divided into common nouns (see section 2.2.1.1), pronouns (see section 2.2.1.2), quantifiers (see section 2.2.1.3) and numerals (see section 2.2.1.4). Section 2.2.1.5 introduces mechanisms for deriving nouns from verbs and determiners.



### 2.2.1.1 Nouns

There are no inflectional categories marked on the noun, but there are remnants of number and class marking morphology. Furthermore, there is some evidence that points to the development of number marking morphology.

First, number marking (by means of either suppletion or an infix *a*) is restricted to the six nouns shown in table (5) below. The infix *a* is a common plural formative in Chadic (Frajzyngier 1977b; P. Newman 1990).

**Table (5):** Singular and plural nouns

Singular	Plural	Gloss
<i>k'a</i>	<i>k'ek</i>	'head'
<i>k'en</i>	<i>k'an</i>	'maternal uncle'
<i>la</i>	<i>jap</i>	'child; few/little'
<i>mat</i>	<i>sharap</i>	'woman'
<i>mis</i>	<i>daas</i>	'man'
<i>reep</i>	<i>zarap</i>	'girl'

The sequence *VrV*, which occurs in *sharap* 'women' and *zarap* 'girls', is a common formative for deriving verb plurals in Goemai (see section 2.4.2.2). And aside from these two plural nouns, Goemai has a large number of collective nouns that contain the same sequence, e.g.:

<i>arang</i>	'ashes'	<i>gurum</i>	'person/people'
<i>oerem</i>	'beans'	<i>sh'arap</i>	'fish'

It is likely that these nouns exhibit remnants of an older productive pattern of plural formation. Notice that the same formative is also found in other Jos Plateau languages (Gerhardt and Wolff 1977).

Goemai may be in the process of developing overt morphological number marking: the number-marking nominalizing prefixes (see section 2.2.1.5) are used increasingly with simple, i.e., non-derived, nouns. For example, in (3) below, *gurum* 'person' is marked with the 'nominalizing' plural prefix *moe-*. However, this prefix does not have any derivational function in this case: the unmarked form is already a noun.

- (3) **moe-gurum** muk / mûep mûarap dip.  
 NOMZ(pl)-person 3Sg.Poss 3Pl die(pl) all  
 ‘his people, they have all died.’ [WITCH2]

Second, with the exception of the following terms, nouns are neutral with respect to gender:

<i>mat ~ sharap</i>	‘woman’	<i>mis ~ daas</i>	‘man’
<i>reep</i>	‘girl’	<i>yam</i>	‘son’
<i>nûûn</i>	‘mother’	<i>nda</i>	‘father’

To differentiate gender, the modifiers ‘male’ or ‘female’ can be added (as in 4), which are derived from the nouns *mis ~ daas* ‘man’ and *mat ~ sharap* ‘woman’ respectively.

- (4) **Mûep yong jap moe-daas.**  
 3Pl call children(pl) NOMZ(pl)-men(pl)  
 ‘They called the male children.’ [LU-A]

Like in many Jos Plateau languages (Frajzyngier and Koops 1989; Mieke 1991), there are remnants of the Benue-Congo noun class prefix \*N-. It occurs in the form of a prenasalized consonant in many nouns referring to insects, birds, and kinship relations, e.g.:

<i>nfet</i>	‘mosquito’	<i>ngum</i>	‘insects’
<i>ndeng</i>	‘bird species’	<i>nkya</i>	‘vulture’
<i>nda</i>	‘father’	<i>nsh’ik</i>	‘grandson’

Genitive constructions are formed by juxtaposing two nouns (as in 5a).<sup>5</sup> The same order, possessum – possessor, is also found in possessive constructions that contain a possessive modifier (as in 5b).

<sup>5</sup> Only very few Chadic languages form genitive constructions through juxtaposition. In these languages, juxtaposition is usually restricted to inalienable possession (Pawlak 1994; Schuh 1990). In Goemai, by contrast, there is no formal difference between alienable and inalienable possession.

Alternatively, two nouns can be linked through the form *m-muk* ‘NOMZ-3Sg.Poss’ as in (i).

- (i) **Mûep buk n-ni m-pûe m-muk Ngan.**  
 3Pl return(pl) COM-3Sg.I LOC-mouth NOMZ-3Sg.Poss Ngan  
 ‘They returned with it to the door belonging to Ngan.’ [GOELONG]

- (5a) *mûaan lu la hok.*  
 go(sg) settlement child(sg) DEF  
 ‘(he) went to the house of the child.’ [LA]
- (5b) *mûaan lu muk (...).*  
 go(sg) settlement 3Sg.Poss  
 ‘(he) went to his house (...)’ [SR\_ABST-J]

**2.2.1.2 Pronouns**

Independent pronouns are similar to nouns in that they can co-occur with all modifiers, e.g., with the locative anaphor *nnoe* in (6) below. Furthermore, they occur in all syntactic slots where a noun can occur.

- (6) *de-goe mûaan goe p'en ni nnoe.*  
 PUR go(sg) SEQ remove(sg) 3Sg LOC.ANAPH  
 ‘to go and remove this/it.’ [LIIT]

Table (6) below illustrates the attested pronominal paradigms: the independent (in non-verbal clauses, in focus position, following prepositions) and object pronouns (following verbs), the subject pronouns (preceding verbs) and the possessive pronouns (as free forms following nouns, and as suffixes that are bound to the nouns ‘body’ and ‘self’).

**Table (6):** Pronouns

	<b>Indep., object</b>	<b>Subject</b>	<b>Poss.</b>	<b>‘Body’</b>	<b>‘Self’</b>
1Sg	<i>hen</i>	<i>hen ~ n</i>	<i>noe</i>	<i>san</i>	<i>mmaan</i>
2Sgm	<i>goe</i>	=	=	<i>sak</i>	<i>mmak</i>
2Sgf	<i>yoe ~ yi</i>	=	=	<i>shik</i>	<i>mmik ~ mmit</i>
3Sg	<i>ni</i>	=	<i>muk</i>	<i>sek (muk)</i>	<i>mmuk</i>
1Pl	<i>men</i>	<i>moe</i>	<i>men</i>	<i>sem</i>	<i>mmen</i>
2Pl	<i>gwen</i>	<i>gu</i>	<i>gwen</i>	<i>suk</i>	<i>mmuk (*mnuuk)</i>
3Pl	<i>mûep</i>	=	=	<i>(sek mûep)</i>	<i>(mmûep)</i>
Sgm.LogS	<i>ji</i>	=	=	<i>sûûn</i>	<i>mmûûn</i>
Sgf.LogS	<i>doe</i>	=	=	<i>sat</i>	<i>mmat</i>
Pl.LogS	<i>dwen</i>	<i>du</i>	<i>dwen</i>	<i>sut</i>	<i>(mmûep)</i>
Sgm.LogA	<i>gwa</i>	=	=	<i>(sek gwa)</i>	<i>(mmak)</i>
Sgf.LogA	<i>pa</i>	=	=	<i>(sek pa)</i>	<i>(mmik ~ mmit)</i>
Pl.LogA	<i>nwa</i>	=	=	<i>(sek nwa)</i>	<i>(mmûep)</i>

As can be seen in the table (6), the independent/object, subject and possessive forms are nearly identical. Although there are tonal differences, these are not triggered by the pronouns themselves, but are a property of the syntactic slots. The suffixes occurring with the nouns ‘body’ and ‘self’ probably constitute remnants of an older pattern: they are formally similar to (possessive) pronouns found in other Chadic languages (see Blažek 1995; Dolgopolsky 1988; Kraft 1974 for a discussion of pronoun systems in other Chadic languages). Both lexemes are used predominantly in grammatical contexts: as reflexive pronouns and as independent possessive pronouns respectively.

Some features of the pronoun system are of general interest. First, Goemai distinguishes gender only in the 2<sup>nd</sup> person singular, but not in the 3<sup>rd</sup> person singular – many Chadic languages, by contrast, distinguish gender in both cases (Blažek 1995; Dolgopolsky 1988; Kraft 1974).

Second, Goemai has two sets of logophoric pronouns. One set specifies co-reference with the reported speaker (set S), and the other co-reference with the reported addressee (set A), as illustrated in (7) below.<sup>6</sup>

- (7) *Yin / to / (...)* *ji*                    *goe* *ndoe* *ûen*  
 SAY      okay                    Sgm.LogS.I    COM    some      medicine
- goe-pe*                    *t'ong* *ji*                    *poe* *pa*                    *ba.*  
 NOMZ-COMP    IRR                    Sgm.LogS                    give    Sgf.LogA    NEG
- ‘(He<sub>i</sub>) said that, okay, (...), he<sub>i</sub> does not have any medicine,  
 which he<sub>i</sub> could give her<sub>2</sub>.’ [MATWO]

Logophoric pronouns are used in clauses that are introduced by speech act verbs and/or by the complementizer *yin* ‘SAY’ (see section 2.5.4). Their use reflects not only elements of indirect speech, but also of direct speech (e.g., the use of interjections and absolute tenses that were true at the time of the direct speech). Furthermore, the logophoric pronouns are similar to the 2<sup>nd</sup> person pronouns in that they distinguish gender.

The major function of the logophorics is reference tracking. The possessive forms can even occur independent of speech act verbs to indicate co-reference with an antecedent. Consider the following example, where the possessive is expressed by the logophoric form, while the direct object is expressed by the non-logophoric form.

<sup>6</sup> Similar logophoric systems are found in a few other Chadic languages, including the closely related languages Mupun and Mwaghavul. See Frajzyngier (1985a; 1985c; 1993: 105-118) for details.

- (8) *goe-k'oon*            *n-k'a*            *ji* /  
 NOMZ-face\_down(sg)    LOC-head(sg)    Sgm.LogS.Poss
- t'ong*    *goe*    *wakaam*    *goe-pe*    *liit*    *t'ong*    *t'an*    *ni*.  
 sit(sg)    PLACE    road            NOMZ-COMP    lion    IRR    pursue    3Sg
- 'after covering his<sub>1</sub> head,  
 (he<sub>1</sub>) sat on the road where the lion<sub>2</sub> would pursue him<sub>1</sub>.' [LIT]

Third, pronouns can be divided into the following two sets depending on their position relative to the verbs in a serial construction:<sup>7</sup>

- **Set 1:** 1Sg, 3Sg, 3Pl, LogA
- **Set 2:** 2Sg, 1Pl, 2Pl, LogS

In serial constructions, pronouns of set 1 behave like nouns and precede only the first verb (as in 9a). Pronouns of set 2 have a wider distribution in that they obligatorily precede each verb, except the first (as in 9b). For reasons of emphasis, they can optionally precede the first verb as well, occurring either in their independent or in their subject form (as in 9c).

- (9a) *Mûep*    *buk*            *d'yam*    *t'ong*    *pil*    *sek*    *mûep*    *yi*.  
 3Pl            return(pl)    stand(pl)    PROGR    watch    body    3Pl.Poss    PROGR
- 'They returned (and) stood watching each other.' [STAGE-46\_N]
- (9b) *Buk*            *gu*    *t'wot*    *gu*    *shin*    *bi*    *goe-d'emen*    *n-ni*.  
 return(pl)    2Pl    sit(pl)    2Pl    do    thing    NOMZ(sg)-good    COM-3Sg.I
- 'Return (and) you sit (and) you do something good with it.' [YOUTH]
- (9c) *Goemai* / *gu*    *buk*            *gu*    *t'wot* (...).  
 Goemai            2Pl    return(pl)    2Pl    sit(pl)
- 'Goemai, you return (and) you sit (...).' [YOUTH]

It is possible that pronouns of set 1 originated in nouns since they behave like nouns with respect to their syntactic position. In the case of logophoric A pronouns, there is some diachronic evidence that they actually derive from nouns (see Frajzyngier 1993: 118 for an analysis of cognate forms in Mupun).

### 2.2.1.3 Quantifiers

The quantifiers *d'em* 'remainder', *d'u* 'many/much', *la* (sg)/*jap* (pl) 'few/little', *nde* 'one/other' and *ndoe* 'some' constitute a subclass of nominals. They

<sup>7</sup> Such a grouping of pronouns is typologically unusual. Other Angas-Goemai group languages also distinguish pronouns on the basis of their position in serial verb constructions, but there the split is between 3<sup>rd</sup> person singular/plural, on the one hand, and all other persons, on the other (see Frajzyngier 1993: 229-231).

probably originated from common nouns (compare, e.g., the quantifier *la* ‘few/little’ and the noun *la* ‘child’). Like other nominals, they occur as the lexical head of the noun phrase (as in 10a). But unlike other nominals, they can also occur in a unique slot within the noun phrase, preceding the lexical head (as in 10b).

(10a) *To / nde d'e d'i zak.*  
 okay one/other exist LOC.ANAPH also  
 ‘Okay, and another one is there.’ [DIALECT]

(10b) *Sai nde la liit gok muut.*  
 then one/other child(sg) lion become\_ill die(sg)  
 ‘Then one child of the lion became ill (and) died.’ [LIIT]

#### 2.2.1.4 Numerals

Table (7) below lists the forms of the numerals.

**Table (7):** Numerals

Cardinal numbers		Ordinal numbers
1	<i>(goe)me</i>	<i>goe-me</i>
2	<i>vel</i>	<i>goe-vel</i>
3	<i>k'un</i>	<i>goe-k'un</i>
4	<i>f'er</i>	etc.
5	<i>paat</i>	
6	<i>poemo</i> (‘give 1’)	
7	<i>poevel</i> (‘give 2’)	
8	<i>poek'un</i> (‘give 3’)	
9	<i>poef'ar</i> (‘give 4’)	
10	<i>s'ar</i> (< <i>s'a</i> ‘hand’)	
11	<i>s'ar k'a goeme</i> (‘10 plus 1’)	
etc.		
20	<i>ya guruh</i> (‘catch person’)	
21	<i>ya guruh shik'a goeme</i> (‘20 plus 1’)	
etc.		
30	<i>ya guruh shik'a s'ar</i> (‘20 plus 10’)	
40	<i>ya guruh vel</i> (‘20 twice’)	
50	<i>ya guruh vel shik'a s'ar</i> (‘20 twice plus 10’)	
etc.		

Numerals are a subclass of nominals and, as such, can occur as the lexical head of the noun phrase. Furthermore, they can occur in modifying position, following the head noun.

Goemai makes use of a base 20 system,<sup>8</sup> but speakers usually resort to Hausa loans for numerals above twenty. Numerals below twenty are based on five (from 6 to 9) and on ten (from 11 to 19).

### 2.2.1.5 Derived nominals

Goemai does not have a form class of adjectives, but it has a modifying construction that can be used to derive adjective-like attributive forms (see also sections 3.2.2 and 7.1.1). The prefixes *goe-* (sg) and *moe-* (pl) are used to derive nominals from state-change verbs (as in 11a), activity verbs (as in 11b) and determiners (as in 11c). The nominalized forms are distributed like simple nouns: they can occur in all syntactic positions reserved for nouns and they can co-occur with all modifiers.

- (11a) *goe-pe*      *moe-b'ang*      *rwo*      *goe*      *yil*      *Duut /*  
 NOMZ-COMP    NOMZ(pl)-become\_red    enter(pl)    PLACE    ground    Duut  
*goe-b'ang*      *nnoe*      *na*      *ndoe*      *mat (...)*.  
 NOMZ(sg)-become\_red    LOC.ANAPH    see      some    woman(sg)

'when the red ones (= Europeans) entered the country of Duut,  
 this red one saw a woman (...).' [SHENDAMW]

- (11b) *A*      *gya*      *moe-shyang*      *toe*.  
 FOC    song/dance    NOMZ(pl)-hunt/watch    EMPH

'It is the dance of the hunters.' [HAND-A/N]

- (11c) *Goe-nnoe*      *rang /*      *goe-nnoe*      *rang*.  
 NOMZ(sg)-LOC.ANAPH    think    NOMZ(sg)-LOC.ANAPH    think

'This one thinks, that one thinks.' [SHAAR]

The nominalized verbs can also occur as modifiers within the noun phrase as in (12a). They agree in number with their head, and this agreement feature justifies analyzing them as modifiers and not as nouns in a genitive construction. Nouns in a genitive construction as in (12b) do not show number agreement.

<sup>8</sup> Vigesimal systems are not very common, either in Chadic or on the Plateau. They are known from Jukun and the Kororofa empire, though (Gerhardt 1987; Ibrizimow 1988; Shimizu 1980).

(12a) *la*            *goe-f'yer /*                            *t'ong*    *goe*    *zem*  
 child(sg)    NOMZ(sg)-become\_big(sg)    IRR        OBL    like

*de-goe*    *n-bi*            *wakaam*    *naan*    *ba.*  
 PUR        PUR-follow    road        God        NEG

'the grown (sg) child (sg), (he) would not want to follow the ways of God.' [PEOPLE]

(12b) *Goelong*    *t'ong*    *tang*    *sh'ep*    *wa*                            *n-ni*  
 Goelong    IRR        search    wood    return\_home(sg)    COM-3Sg.I

*doe*    *poe*    *sharap*    *naan.*  
 come    give    women(pl)    God

'Goelong would look for wood (and) return home with it (and) give it here to the wives (pl) of God (sg).' [GOELONG]

There are two further ways of deriving nominals from verbs. First, some verbs co-occur with cognate objects, which follow their respective verbs and which can occur with all nominal modifiers (see example 38b in section 2.4.1 below). Second, a prefix *nye-* 'kind' derives abstract nouns from mental verbs, e.g.:

<b>verb</b>	<b>nominalized verb</b>
<i>rang</i> 'think'	<i>nye-rang</i> 'thought'
<i>tal</i> 'ask'	<i>nye-tal</i> 'question'
<i>k'a</i> 'doubt'	<i>nye-k'a</i> 'doubt'

### 2.2.2 Noun phrase

The noun phrase consists of a head (i.e., any of the forms described in section 2.2.1 above) that may optionally be accompanied by quantifying and qualifying modifiers and determiners. This section introduces first the structure of the noun phrase (subsection 2.2.2.1), and then illustrates the non-nominal elements of the noun phrase (subsections 2.2.2.2 to 2.2.2.4). Recall that the roles of quantifiers (section 2.2.1.3), numerals (section 2.2.1.4) and nominalized verbs (section 2.2.1.5) are variable, as they can occur either as lexical heads or as modifiers.

#### 2.2.2.1 Structure of the noun phrase

Table (8) illustrates the structure of the noun phrase. The ten distinct subgroups are identified on the basis of co-occurrence restrictions: members of one subgroup cannot co-occur. As illustrated in (13a) to (13d) below, members of different subgroups can co-occur in the order depicted in table (8).



**Table (8):** The structure of the noun phrase

Slot	Subgroup	Section
1.	Quantifier	section 2.2.1.3
2.	Plural marker	section 2.2.2.2
3.	Head	section 2.2.1
4.	Possessive modifier	section 2.2.1.2
5.	Numeral	section 2.2.1.4
6.	Derived nominal	section 2.2.1.5
7.	Nominalized clause	section 2.2.2.3
8.	Demonstrative	section 2.2.2.4
9.	Locative anaphor	section 2.2.2.4
10.	Definite article	section 2.2.2.4

(13a) *War*      *d'u*      *gwen*      *d'a* (...).  
 collect(pl)    many      PL      calabash  
                   **quantifier**    **plural**      **head**

'(He) collected the many calabashes (...).' [LIIT, A-28/12/99]

(13b) *A* /    *pe*      *goe-f'yer* / (...)  
 FOC    place    NOMZ(sg)-become\_big(sg)    *goe-d'ik*      *G.*  
          **head**    **derived nominal**      NOMZ-build      G.  
    **nominalized clause**

'It is a big place (...) that G. built.' [MIL-N]

(13c) *goe*    *eep*      *fridge*      *n-d'e-nnoe*      *hok* (...).  
 2Sgm    open(sg)    fridge      ADVZ-Cl:exist-DEM.PROX    DEF  
    **head**      **demonstrative**      **definite**

'you open the/this existing fridge (...).' [WITCH2]

(13d) *goe*    *nak*      *ndoe*      *haas*      *goe-n-d'ek*      *hok.*  
 2Sgm    fetch    some    flour    NOMZ-ADVZ-winnow    DEF  
                                  **quantifier**    **head**      **nominalized clause**      **definite**

'you fetch some (of) the flour that was winnowed.' [CROPS]

The boundaries of the noun phrase and its existence as a phrasal unit can be shown with the help of (i) clitics and (ii) morphemes that mark syntactic boundaries (see section 2.3.3). First, clitics attach to the final element of a phrase, e.g., in (14a), the clitic *hoe* 'exactly' attaches to the locative anaphor *nnoe*. Second, if a boundary morpheme is present such as the particle *yi* in (14a) and (14b), all elements of the noun phrase precede it, while other elements follow it (e.g., the quantifier *dip* 'all' in 14b, which is an adverb in apposition to the noun phrase).

- (14a) *d'e t'ong mûûr / [oerem ji nnoe]<sub>NP</sub> -hoe yi?*  
 exist PROGR steal beans Sgm.LogS.Poss LOC.ANAPH-exactly PROGR  
 '(who<sub>2</sub>) is stealing these his<sub>1</sub> very beans?' [FUAN]
- (14b) *Liit a toe [long lwa]<sub>NP</sub> yi [dip]<sub>ADV</sub> n-s'et.*  
 lion FOC EMPH chief animal SUB all LOC-bush  
 'So it is the lion (who is) the chief of the animals, (of) all in the bush.'  
 [LIIT]

### 2.2.2.2 Plural marker

Goemai has an associative plural morpheme *gwen*, which is used to denote the unit comprising a person (expressed in the head noun) and its associates (as in 15).

- (15) *gwen naan yok n-zam (...).*  
 PL God return\_home(pl) LOC-field  
 'God and his people returned home from the farm (...).' [GOELONG]

It is further used for objects of the same kind (e.g., for several calabashes as in 13a in section 2.2.2.1 above), but not for entities of different kinds. Although there are several loci for indicating number – modifying morphology (see sections 2.2.1.5 and 3.2.2), classifying elements (see section 7.2.1), lexical form of some nouns (see section 2.2.1.1), lexical form of some verbs (see section 2.4.2.2) – none of them triggers the use of the plural marker *gwen*. Goemai does not have any general or obligatory plural marker.<sup>9</sup>

### 2.2.2.3 Nominalized clause

Nominalized clauses can occur within the noun phrase. The invariant nominalizing prefix *goe-* is added to the clause, and all clausal arguments are obligatorily expressed (as in 16a) (see also section 2.5.3). The adverbializing prefix *N-* can be added to the nominalized clause, in which case a passive-like reading develops (as in 16b) (see also section 2.4.2.3).

- (16a) *sh'im goe-d'an muk hok*  
 yam NOMZ-boil 3Sg.Poss DEF  
 'the yam that she boiled' (lit. 'the yam of her boiling')<sup>10</sup> [A-12/10/00]

<sup>9</sup> Other Chadic languages, by contrast, often have an elaborate system of nominal plural marking (Frajzyngier 1977b; Hellwig and McIntyre 2000; P. Newman 1990).

<sup>10</sup> If the head noun does not correspond to the clausal subject, the subject follows the nominalized verb in possessive form, e.g., *muk* '3Sg.Poss'. Notice that the clause translates as 'her boiling', not as \*'her yam'.

- (16b) *Fûan lap sh'im goe-n-d'an.*  
 rabbit receive yam NOMZ-ADVZ-boil

'The rabbit received the yam that was boiled.' (lit. 'of being in a boiled condition') [LIGYA]

Nominalized clauses precede the determiners, e.g., they precede the definite article *hok* as in (17) below (see also 13d in section 2.2.2.1 above). Their function is similar to that of subordinate clauses (see section 2.5.4). But unlike nominalized clauses, subordinate clauses always follow the determiners (as the clause introduced by the complementizer *goe-pe* in 17 below), and they do not constitute part of the noun phrase.

- (17) *p'en bi (...) [goe-t'o d'i] hok /*  
 remove(sg) thing NOMZ-lie(sg) LOC.ANAPH DEF  
 head [nominalized clause] definite article
- [goe-pe ni nyet nd'ûûn boega].*  
 NOMZ-COMP 3Sg leave INSIDE well  
 [complement clause]

'(he) removed the thing (...) that lay there, which he had left inside the well.' [MOESHAR]

It is not possible for two nominalized clauses to co-occur, but it is possible for a subordinate clause to follow a nominalized clause as in (17) above.

#### 2.2.2.4 Determiners

A bare noun phrase can be interpreted as either definite or indefinite. While there is no separate indefinite marker, definiteness can be marked explicitly. There are three sets of determiners dedicated to this purpose: the demonstratives, the locative anaphor and the definite article (see section 7.3 for details of the different functions).

The demonstratives are complex forms (containing an optional nominalizing prefix, an adverbializing prefix, a deictic classifier, and a deictic root) that occur both as modifiers and as head nouns. They are used to draw attention to physically present and identifiable referents. Once attention has been established, subsequent reference makes use of the locative anaphor *nnoe*. In (18) below, a physical referent is first introduced by means of the distal demonstrative *goend'enang*, and then referred to by the anaphor *nnoe*.

- (18) *K'epmang ndoe goe-n-d'e-nang-hoe.*  
 different CONJ NOMZ(sg)-ADVZ-Cl:exist-DEM.DIST-exactly  
*Tep nkyat ndoe goe-nnoe ba.*  
 become\_black equal CONJ NOMZ(sg)-LOC.ANAPH NEG  
 '(It) is different from that existing one.  
 (It) is not as black as that one.' [COLOR\_8-N]

The definite article *hok* marks a referent as identifiable from the previous discourse as in the second and third lines of (19) below.<sup>11</sup>

- (19) *Sai ndoe kaam t'a nd'ûûn ndoe lu k'us m-mûep. (...)*  
 then some festival fall(sg) INSIDE some settlement near COM-3Pl.Poss  
 'Then a festival came to a town near them. (...)  
*mûep goe mûen goe pe kaam hok. (...)*  
 3Pl OBL go(pl) PLACE place festival DEF  
 they should go to the place of the festival. (...)  
*mûep yin du wul a kaam hok.*  
 3Pl SAY Pl.LogS arrive FOC festival DEF  
 they<sub>i</sub> said that they<sub>i</sub> had arrived for the festival.' [LIGYA]

The three sets of determiners have different functions, which explains their co-occurrence possibilities. Comparable patterns are attested in the closely related Chadic language Mupun (Frajzyngier 1993: 81-105). Cross-linguistically, the co-occurrence of determiners seems to be rare as languages tend to unite different functions such as exophoric usage, anaphor or previous mention within a single morpheme or within a single form class (Diessel 1999: 93-114; J. Lyons 1977: 646-657).

## 2.3 Other word classes

### 2.3.1 Adverbs

Adverbs such as *b'ak* 'here' in (20) are identified by their ability to occur in adjunct position (i.e., following boundary morphemes such as the particle *yi*; see section 2.3.3) without being marked by either a preposition or a spatial nominal (see section 2.3.2). They usually follow the verb phrase they modify –

<sup>11</sup> Recall that *ndoe* 'some' in the first line of the example is a quantifier (see section 2.2.1.3). It cannot be analyzed as an indefinite article since it could co-occur with the definite article *hok*.

the only exception are temporal adverbs, which, for reasons of emphasis, can occur clause-initially.

(20) *Mûep t'wot t'ong shin shit yi b'ak.*  
 3Pl sit(pl) PROGR do work PROGR here

'They sat doing work here.' [MIL-A]

In addition to a small core of non-derived adverbs, adverbs can be derived by means of prefixation and reduplication.

Non-derived forms comprise locational and deictic adverbs, temporal adverbs, and quantifying adverbs. Their phonological properties make it likely that they were originally derived from nouns or verbs: some contain an initial *N-* (which may go back to either the adverbializer *N-* or to the locative preposition *N-*), some contain an initial *goe-* (which may go back to the locative preposition *goe*), and some occur in partially or completely reduplicated form (which may go back to productive processes of adverbialization). But although they seem to be derived, the original nouns or verbs do not exist anymore. Synchronically, they can therefore be considered non-derived. Table (9) below lists examples of each subset. There are only very few adverbs that do not show these phonological characteristics – and some of these optionally occur with one of the prefixes, e.g., *d'i ~ goe-d'i* 'locative anaphor', *dip ~ n-dip* 'all'.

**Table (9):** Adverbs

<i>N-</i>	<i>goe-</i>	Reduplication
<i>n-date</i> 'straight'	<i>goe-sampe</i> 'outside'	<i>dyen-dyen</i> 'yesterday'
<i>n-duni</i> 'much'	<i>goe-t'eng</i> 'upward'	<i>mpûe-mpûe</i> 'always'
<i>n-dyen</i> 'yesterday'	<i>goe-tûûn</i> 'beyond'	<i>toe-d'aar</i> 'tomorrow'
<i>n-gong</i> 'nighttime'	<i>goe-d'aar</i> 'tomorrow'	<i>toe-t'ei</i> 'all'

There are two productive derivational processes. First, a prefix *N-* derives an adverb from any verb in the language (as in 21a and 21b).

(21a) *goe tarap s'onkwa m-b'arak.*  
 2Sgm snap(pl) maize ADVZ-become\_fresh/wet

'you break the maize freshly/in a fresh condition.' [CROPS]

(21b) *Gu t'wot n-t'wot.*  
 2Pl sit(pl) ADVZ-sit(pl)

'You sit sitting.' [QUEST]

Second, partial reduplication to the left derives adverbs from a sub-class of verbs. The first consonant is reduplicated (whereby implosives and voiceless non-aspirated obstruents become voiceless aspirated obstruents), and a schwa is inserted between the reduplicated consonant and the stem. This process is largely restricted to the sub-class of property verbs (as in 22a), whereby the derived form occurs in the adjunct slot of a verbal clause. Some transitive verbs can undergo the same process. In their case, the derived adverbs either occur as adjuncts in verbal clauses (as in 22b) or they occur in non-verbal clauses (as in 22c), functioning as stative predicates.<sup>12</sup>

(22a) *vûang a riga muk poe-pya*  
 wash FOC shirt 3Sg.Poss RED-become\_white

‘(he) washed his shirt white’ [A-01/02/00]

(22b) *man goe mang loe-la ba*  
 PROH 2Sgm take RED-pain(sg) NEG

‘do not take (it) seriously’ (i.e., ‘do not worry’) [A-02/02/00]

(22c) *Tamtis noe toe-t’at.*  
 folktale 1Sg.Poss RED-shoot/tell\_folktale

‘My folktale is being told.’ [KUR]

### 2.3.2 Prepositions and spatial nominals

Goemai has two sets of prepositions: prepositions proper, and spatial nominals (see section 6.2 for details). Table (10) on the next page gives an overview of the forms, together with their approximate semantics.

Both sets are identified by their ability to head a prepositional phrase. The prepositional phrase has the status of an adjunct, i.e., it occurs following boundary morphemes such as the particle *yi* in (23) (see section 2.3.3).

(23) *Wang hok t’ong yi k’a pepe.*  
 pot DEF sit(sg) SUB HEAD(sg) cover

‘So that the pot sits on the woven cover.’ [DIS\_2.6-A/N]

The two sets differ in that the spatial nominals have a nominal origin. This nominal origin shows in their co-occurrence with possessive pronouns (as in 24a) and in their ability to occur without an accompanying nominal (as in 24b). Prepositions proper, by contrast, are obligatorily followed by a noun or an independent pronoun (as in 63b in section 2.4.3.3 below).

<sup>12</sup> Reduplication to form stative predicates is also found in the closely related languages Angas (Burquest 1973) and Mwaghavul (Jungraitmayr 1963a).

(24a) *Ndoe shel-n-sh'e t'o k'a muk.*  
 some game-LOC-foot lie(sg) HEAD(sg) 3Sg.Poss

'A ball lies on it.' [COMP<sub>12</sub>-M/J]

(24b) *Moto n-d'e-nang d'yem k'a.*  
 car ADVZ-Cl:exist-DEM.DIST stand(sg) HEAD(sg)

'That existing car stands on top.' [COLOR-J]

**Table (10):** Prepositions and spatial nominals

<b>Prepositions:</b>	
<i>goe</i>	location at a place, comitative/instrumental, theme
<i>N-</i>	location at an object, comitative/instrumental, theme, benefactive
<b>Spatial nominals:</b>	
<i>sek</i>	location at the 'body' of an object
<i>k'a ~ n-k'a, k'ek ~ n-k'ek</i>	location at the 'head' of an object
<i>goede ~ n-goede</i>	location at the 'bottom' of an object
<i>pûe ~ n-pûe ~ goe-pûe</i>	location at the 'mouth' of an object
<i>nd'ûûn</i>	location inside an object
<i>dakd'ûe</i>	location in the middle of an object
<i>nk'ong</i>	location at the 'back' of an object
<i>ntyem ~ nkyem</i>	location at the 'front' of an object
<i>n-t'oor ~ goe-t'oor</i>	location at the 'side' of an object

Prepositions and spatial nominals can co-occur to indicate non-contiguity between Figure and Ground, or to indicate a shift from an intrinsic frame of reference to a relative frame of reference (see section 6.2.2). The preposition precedes the spatial nominal in this case.

### 2.3.3 Particles and clitics

Goemai has a number of particles, which occur in slots that cannot be filled by any item belonging to another word class. TAM particles are discussed in section 2.4.3 and complementizing particles in section 2.5. In the present section, the following four particles are introduced: the subordinating particle, the focus particle, the sentence-final negation particle, and the question particles. In addition, the clitic *hoe* 'exactly' is presented.

First, the subordinating particle *yi* occurs in subordinate irrealis clauses (see section 2.5.4). It plays an important syntactic role as it helps to differentiate (a) between an adjunct and a direct object and (b) between a verb and a TAM particle.<sup>13</sup>

(a) Direct objects precede the particle *yi* (as *yil* ‘ground’ in 25a), while adjuncts follow (as *nyil* ‘on the ground’ in 25b).

(25a) *Kan goe-bi t'ong b'em yil yi.*  
 incline as\_if IRR touch ground SUB  
 ‘(It) is inclined as if it would touch the ground.’ [DIS\_15.4-J/M]

(25b) *de hen sam yi n-yil.*  
 COMP 1Sg descend SUB LOC-ground  
 ‘so that I descend onto the ground.’ [ANIMAL1]

(b) In multi-verb constructions as in (26a), the first verb precedes the particle *yi*, while all others follow it. Notice that all TAM particles precede *yi* together with the verb – including those that have been grammaticalized from verbs in multi-verb constructions such as the irrealis particle *t'ong* that has been grammaticalized from the verb *t'ong* ‘sit’ in (26b) (see also section 2.4.3).

(26a) *de goe kat sool yi d'ue n-liju muk (...).*  
 COMP OBL find money SUB cause\_lying(pl) LOC-pocket 3Sg.Poss  
 ‘so that (he) should find the money (and) put (it) in his pocket (...).’  
 [NGOEGAN]

(26b) *de ni t'ong tang goesampe hok yi.*  
 COMP 3Sg IRR search outside DEF SUB  
 ‘so that he would search the outside.’ [LA]

Second, focussed elements are marked through the focus particle *a* as in (27).

(27) *Dok mang m-muk ya a naan.*  
 PAST.REM take NOMZ-3Sg.Poss catch(sg) FOC God  
 ‘(He) took his own (and) caught God.’ [GOELONG]

Although the surface order of elements in the clause is maintained, the focussed element occurs in the syntactic position of an adjunct, not in the position of a core argument. As a result, any focussed direct object follows a boundary morpheme such as *t'ong* ‘habitual’ in (28a); any focussed direct object that expresses the benefactive role has to occur with the benefactive

<sup>13</sup> In similar ways, the TAM particles *yi* (progressive) and *t'ong* (habitual) can be used to determine the syntactic status of an element. Whenever I use one of the three particles for this purpose, I will refer to it as ‘syntactic boundary marker’.



preposition (as in 28b); and any focussed subject requires the use of an additional subject pronoun (as in 28c).

(28a) *Hen la yil t'ong a longvilip.*

1Sg HAB write HAB FOC paper

'I habitually wrote letters.' [TQ<sub>26</sub>-A]

(28b) *Goe-vel / hen t'ong poe a n-la noe (...).*

ORD-two 1Sg IRR give FOC BEN-child(sg) 1Sg.Poss

'The second one, I will give (it) to my child (...).' [GOESHANW]

(28c) *A boro / mûep loe le mûep a nk'ong jaki.*

FOC Fulani 3Pl put load 3Pl.Poss FOC BACK donkey

'It is the Fulani, they put their load on the back of a donkey.' [ARAM]

Whenever a verb is focussed, it occurs in adverbialized form as in (29).

(29) *Yin gwa wul a de bi mmoe?*

SAY Sgm.LogA arrive FOC DIR thing what

*Hai (...)/ a n-wul goe weel.*

INTERJ FOC ADVZ-arrive SEQ disturb

'(He<sub>1</sub>) said that he<sub>2</sub> arrived because of what?

Hey (...), it is an arrival to disturb.' [GOEBETLA]

Third, Goemai makes use of the sentence-final negation particle *mou* or the corresponding Hausa loan *ba* as in (30) below. Both are used to negate all verbal and non-verbal clauses, and all TAM constructions. Such particles are very common in both Chadic languages (Pawlak 1994) and on the Jos Plateau (Gerhardt and Wolff 1977).

(30) *Mûep kat fûan ba (~ mou).*

3Pl find rabbit NEG

'They didn't find the rabbit.' [LIIT]

Fourth, there are question particles that occur in sentence-final position of polar questions: *a ~ wa ~ ya* (neutral question) in (31a) and *o ~ wo* (question assuming 'yes' as an answer) in (31b). Like WH questions (see section 2.3.4), polar questions maintain canonical SVO word order and are marked through a rising intonation contour.

(31a) *T'ong yi b'oot a?*

IRR 2Sgf able(sg) INTERR

'Would you be able (to do it)?' [LA]

(31b) *Ko t'ong du kat lwa d'i m-pe hok o?*

maybe IRR Pl.LogS find meat LOC.ANAPH LOC-place DEF INTERR

'Or maybe they would find meat there in the place?' [LIGYA]

Fifth, the form *hoe* ‘exactly’ cliticizes to the last element of a noun phrase (as in 32a) or an adverb (as in 32b), thereby placing emphasis on the referent of the phrase.

- (32a) [*Bi goe-d'in k'wal men*]<sub>NP</sub>-*hoe*.  
 thing NOMZ-PAST.CL talk 1Pl.Poss-exactly  
 ‘Exactly the thing that we have said earlier.’ [DIS\_13.6-A/N]
- (32b) *Nd'asoenoe-hoe / men Moek'wo / moe p'uat a ndoe pe ba.*  
 now-exactly 1Pl.I Kwande 1Pl exit(pl) FOC some place NEG  
 ‘But now, we in Kwande, we don’t come from anywhere.’ [TARIHI]

### 2.3.4 Question words

WH questions maintain SVO word order. If the interrogative words are marked with the focus morpheme *a*, they occur in adjunct position as in (33), i.e., following a boundary morpheme such as *t'ong* ‘habitual’ (see section 2.3.3).

- (33) *Dok la shin t'ong a mmoe?*  
 PAST.REM HAB do HAB FOC what  
 ‘What did (he) usually do in the past?’ [TQ\_20-A]

Table (11) below lists all question words. Although they probably do not constitute a uniform word class, they are grouped together for ease of presentation.

**Table (11):** Question words

Question word	Gloss
<i>mmoe ~ bi mmoe</i>	what
<i>nye (bi) mmoe</i>	why (lit. ‘kind of what’)
<i>k'a (bi) mmoe</i>	why (lit. ‘head of what’)
<i>wuroe</i>	who
<i>nnang</i>	where (i.e., ‘where to’, ‘where from’, ‘where at’)
<i>t'atnang</i>	when (lit. ‘day there’)
<i>goenang, moenang</i>	which (sg, pl)
<i>nd'ang</i>	how
<i>kong</i>	how much/many

Many question words seem to be derived from other word classes: some occur with a nasal prefix (which derives adverbs, see section 2.3.1), one occurs with

the prefixes *goe-* and *moe-* (which derive modifiers, see section 2.2.1.5), and another seems to be a noun and an adverb in apposition (*t'at-nang* 'day' plus 'there'). In addition, some can occur like nouns in genitive construction, e.g., *mmoe* 'what' in (34).

- (34) *M-mak*            *a*        *yim*    *mmoe?*  
 NOMZ-2Sgm.Poss    FOC    leaf    what  
 'Yours is what kind of paper?' [COMP\_4-A/N]

Question words can be turned into indefinite forms through the addition of the Hausa loan *ko-* 'every' as in (35).

- (35) *Misk'oom*    *t'ong*        *t'em*        *ko-mmoe*    *poe*    *ni*.  
 elder(sg)        IRR            tell        every-what    give    3Sg  
 'The elder would tell him everything' [SPEAKING]

## 2.4 Verbs and verbal clauses

Verbs are identified by their ability to follow pronominals of the subject pronoun set (see table 6 in section 2.2.1.2 above) and to co-occur with certain TAM categories (see section 2.4.3). They do not carry any inflectional or derivational morphology. The only exception are a subgroup of verbs that marks number on the verb.

This section first illustrates simple verbal clauses (section 2.4.1) (see section 2.5 for complex clauses). Following that, it discusses the lexical valence of verbs and the available valence-changing mechanisms (section 2.4.2). Finally, it introduces the TAM marking possibilities (section 2.4.3).

### 2.4.1 Verbal clause

Goemai has SVO word order in both main and subordinate clauses. Adjuncts, with few exceptions (see section 2.3.1), follow to the right. Like in many other Chadic languages (see Frajzyngier 1983), word order is the main means for coding the grammatical relations of subject and object. Arguments are not cross-referenced and case-marking is absent.

A simple intransitive clause is illustrated in (36a), and a simple transitive clause in (36b).

- (36a) *K'ur t'a n-hangoed'e.*  
 tortoise fall(sg) LOC-water  
**Subject Verb Other**

'The tortoise fell in the water.' [WO]

- (36b) *Nda noe t'al la-t'eng.*  
 father 1Sg.Poss collect(sg) child(sg)-tree  
**Subject Verb Object**

'My father plucked a fruit.' [QUEST]

Subjects and direct objects can be omitted under certain conditions. First, a 3<sup>rd</sup> person singular subject is usually omitted if it is recoverable from the linguistic context (as *nfet* 'mosquito' in 37a). Whenever it is overtly realized as in (37b), it invites the pragmatic implicature of non-co-reference with the preceding subject (as predicted by Levinson 2000b: 285).

- (37a) *Nfet / la p'et / (...)*  
 mosquito COND exit(sg)

*t'ong mûaan doe lang (...) nd'ûûn pin ndoe gurum. (...)*  
 IRR go(sg) come hang/move(sg) INSIDE hut some person

*Goed'aar t'ong kat goe / at / t'ong poe goe wala.*  
 tomorrow IRR find 2Sgm bite(sg) IRR give 2Sgm trouble

'The mosquito, when (it) comes out, (...),  
 (it) will go (and) move here (...) inside the hut of someone. (...)  
 Tomorrow (it) will find you, (it) bites, (it) will give you trouble.'  
 [ANIMAL1]

- (37b) *Liit mûaan de ni goe tal ni yi.*  
 lion go(sg) COMP 3Sg OBL greet 3Sg SUB

'The lion went so that he (= preferred interpretation: not the lion) should greet him.' [LIIT, A-15/02/00]

Second, a direct object can be omitted to emphasize the verb action, provided that it is recoverable from context (as *ndûûsnaan* 'insect' in 38a). If it is not recoverable, it needs to be overtly expressed. For example, in the case of unspecified direct objects or generic actions, the object slot is always filled by a cognate object (as in 38b).<sup>14</sup>

- (38a) *Ya ndûûsnaan. Ya at de goe tu yi.*  
 catch(sg) insect catch(sg) bite(sg) COMP OBL kill(sg) SUB

'(He) caught the insect. (He) caught (it) (and) bit (it) so that (he) should kill (it).'

<sup>14</sup> The cognate object behaves like a noun in that it (i) fills the direct object slot of the transitive construction and (ii) can occur with all nominal modifiers. Throughout this thesis, it is glossed using the English '-ing' form.

- (38b) *Mûep d'e t'ong s'oe s'oe yi.*  
 3Pl exist PROGR eat eating PROGR

'They are eating food.' [FUAN2]

Verbal clauses are used in contexts where other Chadic languages commonly use either a copula or an invariant particle (see Frajzyngier 1987a; Pawlak 1994 for a discussion of copulas in other Chadic languages): in the expression of static location (as in 39a), presentative (as in 39b), existence (as in 39c), non-existence (as in 39d), and negative possession (as in 39e).

- (39a) *Hangoed'e t'o goede gung.*  
 water lie(sg) BOTTOM forest

'Water lies (= is) at the bottom of the forest.' [DIS\_11.2-A/N]

- (39b) *Gak na n-d'yam ko-a-nnang.*  
 wall PRES PRES-stand(pl) every-FOC-where

'Behold, walls are standing everywhere.' [JOS]

- (39c) *Byaap-t'eng goe-mat d'e d'i.*  
 pawpaw-tree NOMZ(sg)-woman(sg) exist LOC.ANAPH

'There are female pawpaw trees.' [TREE-N]

- (39d) *Neen dok t'a yi k'a yil dip / nye-pe fûaan wan.*  
 hunger PAST.REM fall(sg) SUB HEAD(sg) ground all kind-COMP rain lack

'So that hunger fell on the whole land, because there was no rain.' [NTI]

- (39e) *A sool wan men toe.*  
 FOC money lack 1Pl EMPH

'We don't have money.' (lit. 'money lacks in relation to us') [MIL-A]

Property concepts are expressed either as verbs in a verbal clause (as in 40 below) (with a dynamic 'become' interpretation) or as derived nominals (see section 2.2.1.5) in a non-verbal clause (with a stative interpretation). Stassen (1997: 293-295, 507-512) has observed similar patterns in other Chadic languages.

- (40) *Mûep la hen b'ak / hen f'yer.*  
 3Pl give\_birth(sg) 1Sg here 1Sg become\_big(sg)

'They had given birth to me here, (and) I became big.' [QUEST]

## 2.4.2 Valence and transitivity

The following tests are employed in order to establish the lexical valence of verbs: the distribution of syntactic boundary markers (section 2.4.2.1), number marking (section 2.4.2.2), and nominalization (section 2.4.2.3). After applying these three criteria, all verbs can be assigned to one of three classes:

intransitive verbs, transitive verbs, and labile verbs.<sup>15</sup> The latter occur both in transitive and intransitive verbal clauses, whereby the subject of the intransitive clause (as *d'a* 'calabash' in 41a) corresponds to the direct object of the transitive clause (as *wang* 'pot' in 41b).

- (41a) *D'a*            *goe-leng*            *n-s'a*            *gurum (...)*    *p'yaram*.  
 calabash    NOMZ-hang/move(pl)    LOC-hand    person            break(pl)

'The calabashes that were in the person's hand (...) broke.' [STAGE\_65-N]

- (41b) *Goelong*    *t'ong*    *p'yaram*    *wang (...)*    *dip*.  
 Goelong        IRR        break(pl)    pot            all

'Goelong would break the pots (...), all (of them).' [GOELONG]

Section 2.4.2.4 introduces transitivity devices and detransitivizing devices.

### 2.4.2.1 Syntactic boundary markers

The syntactic status of the element that follows the verb is only transparent in constructions that contain boundary morphemes: such morphemes are preceded by direct objects, but followed by adjuncts (see section 2.3.3). This criterion can therefore be used to distinguish reliably between arguments and unmarked adjuncts. For example, in (42) below, the phrase *lu men* 'our house/home' could be mistaken for a direct object following the transitive verb *ru* 'enter'. However, its position following a boundary marker, i.e., the subordinating particle *yi* in this example, shows its adjunct status, suggesting that *ru* 'enter' is intransitive.

- (42) *de*        *yi*        *ru*        *yi*        *lu*        *men*.  
 COMP    2Sgf    enter(sg)    SUB    settlement    1Pl.Poss

'so that you enter our house (= our home).' [LU-J]

### 2.4.2.2 Number marking

Approximately 10% of the collected verb forms are specified for number, making use of various suppletive forms and unproductive root alternations. The attested formatives are listed in table (12). Number marking is found in most semantic domains, but occurs predominantly with verbs of posture, motion, caused motion and destruction, and is absent with verbs of cognition, perception, speaking and consumption.

<sup>15</sup> There is no language-internal evidence that would suggest that labile verbs are either basically transitive or basically intransitive. Until such evidence is found, they are referred to as 'labile'.

**Table (12):** Singular and plural verbs

Formative	Singular	Plural	Gloss
suppletion	<i>f'yer</i>	<i>nan</i>	'become big'
-a-, - <sup>w</sup> a-, - <sup>y</sup> a-	<i>f'yer</i>	<i>f'yar</i>	'become big/important'
-VrV-	<i>tap</i>	<i>tarap</i>	'snap'
-Vb'V-	<i>k'oon</i>	<i>k'ab'an</i>	'face down'
-a-ap ( <i>t &gt; r</i> )	<i>muut</i>	<i>mûarap</i>	'die'
-e-	<i>mûaan</i>	<i>mûen</i>	'go'
-oe-eng	<i>d'al</i>	<i>d'oeleng</i>	'swallow'
-wo	<i>ru</i>	<i>r(u)wo</i>	'enter'
-t	<i>twaam</i>	<i>twat</i>	'cause standing'

It is not possible to predict the form of the plural verb on the basis of its corresponding singular form. Some of the attested formatives, e.g., the infix *a*, are probably of Chadic origin. Other formatives, e.g., the *-r-* infix or the *-ng* suffix, are common formatives in the Jos Plateau area, and can be traced back to Benue-Congo verbal extensions (Gerhardt and Wolff 1977).

Number marking indicates the basic valence of the verb. A verb is intransitive if it agrees in number with the subject (as *muut* ~ *mûarap* 'die' in 43a), and it is transitive if it agrees with the direct object – independent of whether the direct object is overtly expressed (as in 43b) or not (as in 43c). Labile verbs allow for both agreement possibilities (as in 41a and 41b above). Such agreement patterns are common in Chadic languages (Frajzyngier 1977b; P. Newman 1990). Unlike other Chadic languages, however, Goemai does not use number marking to express a plural action (e.g., iterative, frequentative).

(43a) *Kafin ni muut dai (...).*  
 before 3Sg die(sg) indeed

*Jap muk (...)* *d'e t'ong mûarap yi.*  
 children(pl) 3Pl.Poss exist PROGR die(pl) PROGR

'Before he died (...). His children (...) are dying.' [TIME-A]

(43b) *Ima (...)* *tu goeme. (...)* *Ni two mûep dip.*  
 Ima kill(sg) one 3Sg kill(pl) 3Pl all

'Ima (...) killed one. (...) He killed them all.' [WITCH2]

- (43c) *Mûep two t'ong tar kwan.*  
 3Pl kill(pl) IRR tear(pl) throw\_away(pl)

'They killed (them), (and) would tear (them) apart (and) throw (them) away.' [LIT]

### 2.4.2.3 Nominalization

Core arguments can be omitted in verbal clauses (see section 2.4.1), but not in nominalized clauses. As illustrated with the help of the three nominalized clauses below, neither the nominal corresponding to the subject nor the one corresponding to the direct object of a transitive verb can be omitted – (44a) is therefore ungrammatical. In (44b), the nominal corresponding to the direct object occurs as the head noun (and the nominal corresponding to the subject occurs in possessive form), while in (44c), it occurs as direct object within the nominalized clause (see also section 2.5.3).

- (44a) \**hen man mat goe-tu*  
 1Sg know woman(sg) NOMZ-kill(sg)

\*'I knew the woman who killed/was killed' [A-16/02/00]

- (44b) *hen man mat goe-tu muk*  
 1Sg know woman(sg) NOMZ-kill(sg) 3Sg.Poss

'I knew the woman whom he killed' [A-16/02/00]

- (44c) *hen man mat goe-tu ni*  
 1Sg know woman(sg) NOMZ-kill(sg) 3Sg

'I knew the woman who killed him' [A-16/02/00]

The adverbializing prefix *N-* (see section 2.3.1) can be added to the nominalized clause as in (45). The resulting clause receives a passive-like interpretation.

- (45) *K'yang hok a goe-n-b'oot. (...)*  
 rope DEF FOC NOMZ-ADVZ-tie

*Ko-wuroe shin toe wo?*  
 every-who do EMPH INTERR

'The rope is (a) tied (one). (...)

Someone has done it, right?' [P01\_64-A]

Intransitive verbs can be nominalized (as in 46a), but since they cannot occur with a direct object, they cannot occur in the passive-like structure either – as illustrated in (46b), the addition of the adverbializing prefix to the nominalized clause is ungrammatical.



- (46a) *hen man mat goe-muut*  
 1Sg know woman(sg) NOMZ-die(sg)  
 'I know the woman who died' [A-16/02/00]
- (46a)\**mat hok a goe-n-muut*  
 woman(sg) DEF FOC NOMZ-ADVZ-die(sg)  
 \*'the woman is (a) dead (one)' [A-16/02/00]

Since transitive and intransitive verbs behave differently under nominalization, they can be distinguished in this environment.

**2.4.2.4 Transitivity and detransitivizing devices**

Depending on their lexical valence, verbs occur either in an intransitive clause (as in the intransitive construction of 36a in section 2.4.1 above) or in a transitive clause (as in the transitive construction of 36b). While many Chadic languages use verbal extensions to increase or reduce the number of arguments (Frajzyngier 1985b; P. Newman 1977b), Goemai has no such extensions at its disposal. This lack of (de)transitivity morphology is probably responsible for the large number of suppletive intransitive and transitive verbs, some of which are illustrated in table (13) below.

**Table (13):** Suppletive verbs

Intransitive	Transitive
<i>fyal</i> 'boil'	<i>d'an</i> 'boil'
<i>muut</i> (sg), <i>mûarap</i> (pl) 'die'	<i>tu</i> (sg), <i>two</i> (pl) 'kill'
<i>paap</i> (sg), <i>pap</i> (pl) 'hide'	<i>s'ok</i> (sg), <i>s'wak</i> (pl) 'hide'
<i>t'ong</i> (sg), <i>t'wot</i> (pl) 'sit'	<i>d'u</i> (sg), <i>d'war</i> (pl) 'cause sitting'
<i>yool</i> (sg), <i>yûûl</i> (pl) 'rise'	<i>eep</i> (sg), <i>aap</i> (pl) 'rise'

Goemai has two syntactic possibilities for increasing the number of core arguments in the clause. First, the location-object construction allows verbs that belong to the subclasses of property and dispositional verbs (see section 3.2) to occur with a direct object as in (47a) and (47b) below. The added element has the syntactic status of a direct object and thus precedes syntactic boundary markers such as the particle *yi* in example (47a) (see section 2.3.3 for such markers). The construction differs from the transitive construction in that the verb agrees in number with the subject, not with the direct object (as

illustrated in 47b).<sup>16</sup> Notice that there is no morphological marking on the verb – it is the construction alone that licenses the addition of the direct object.

- (47a) *de hen f'yer ni yi.*  
 COMP 1Sg become\_big(sg) 3Sg SUB  
 'so that I have grown big in relation to him.' (i.e., I am bigger than he is) [YOUTH, A-14/11/00]

- (47b) *Hen f'yer mûep toe.*  
 1Sg become\_big(sg) 3Pl EMPH  
 'I have grown big in relation to them.' [YOUTH]

Second, the ditransitive construction allows verbs of physical transfer to occur with a second direct object as in (48) below. Again, the added element has the status of a direct object and thus precedes the particle *yi*.

- (48) *S'oot (...) d'e t'ong poe men wala yi.*  
 witchcraft exist PROGR give 1Pl trouble PROGR  
 'Witchcraft (...) is giving us trouble.' [WITCH1]

In nominalized clauses, the recipient is obligatory, but not the theme (as illustrated in 49a and 49b). This suggests that the recipient is the lexical participant, while the theme is added by the construction (see section 2.4.2.3 for nominalized clauses).

- (49a) *t'ong du kat gurum goe-poe dwen (shita).*  
 IRR Pl.LogS find person NOMZ-give Pl.LogS (pepper)  
 'they<sub>i</sub> would find a person who gives them<sub>i</sub> (pepper).' [LIGYA, A-14/11/00]
- (49b) \**t'ong du kat gurum goe-poe shita*  
 IRR Pl.LogS find person NOMZ-give pepper  
 \*'they<sub>i</sub> would find a person who gives pepper' [A-14/11/00]

<sup>16</sup> The location-object construction does not only have a transitivizing function. It also allows transitive verbs that, in the prototypical transitive construction, express the patient or the theme as direct object, to instead express the location (as in i) or the benefactive (as in ii) as direct object.

- (i) *La hok t'ong t'ong d'an wus yi.*  
 child(sg) DEF sit(sg) PROGR boil fire PROGR  
 'The boy sits warming (himself) (at) the fire.' [PROGGO\_175-N]

- (ii) *ni s'eet men goe sh'im hok*  
 3Sg trade(sg) 1Pl TH yam DEF  
 'he sold us the yam' (lit. 'he traded in relation to us with the yam') [A-15/12/99]

Following Hopper and Thompson (1980), the location-object construction can be said to express events that are less transitive than those expressed by the transitive construction.

Only the location-object and the ditransitive constructions can add a core argument. There are other possibilities for expressing additional participants (serialization, prepositions, conjunctions), but, in those cases, the added element does not occur in the direct object slot with respect to the main verb.

The coordinate serial construction (see section 8.1.1) can be used to introduce a recipient, which is then expressed as the direct object of the verb *poe* ‘give’ (as in 50a). The form *poe* shows some grammaticalization in that (a) the main verb *poe* ‘give’ can co-occur with the recipient-morpheme *poe*, and (b) the recipient-morpheme *poe* can mark the ‘recipient’, i.e., the addressee, of speech act verbs. Its function is restricted to expressing the recipient role – the benefactive role is expressed by the preposition *N-* (as in 50b).

(50a) *ni s'et sh'im poe hen*  
 3Sg trade(sg) yam give 1Sg  
 ‘he bought yam for me’ (i.e., he gave it to me) [A-17/02/00]

(50b) *ni s'et sh'im n-hen*  
 3Sg trade(sg) yam BEN-1Sg.I  
 ‘he bought yam for me’ (i.e., for my benefit, because I asked him to) [A-17/02/00]

Aside from expressing the benefactive (as in 50b above), prepositions also express the comitative and instrumental. As illustrated in (51), the preposition *goe* introduces a noun (or an animate companion regardless of whether it is instantiated by a noun or a pronoun), while *N-* introduces a pronoun.

(51) *reep nnoe (...) ba goe s'a muk.*  
 girl(sg) LOC.ANAPH return(sg) COM hand 3Sg.Poss  
*Het yit noe n-ni.*  
 hit face 1Sg.Poss COM-3Sg.I

‘this girl (...) moved with her hand. (She) hit my face with it.’ [WITCHI]

The same alternation between *goe* and *N-* is found in the marking of the theme role. Some verbs of physical and metaphorical transfer such as *s'et* ‘trade’ can express either the theme or the benefactive as a direct object (see also footnote 16). If the theme is expressed as the direct object, the benefactive is marked by the preposition *N-* (as in 50b above). If the benefactive is expressed as the direct object, the theme is marked by the prepositions *goe* (plus noun) or *N-* (plus pronoun) (as in 52 below).

(52) *Yin kambok gwa goe s'et ji goe goeme mana!*  
 SAY please Sgm.LogA OBL trade(sg) Sgm.LogS TH one indeed  
 ‘(He<sub>1</sub>) said that. please, he<sub>2</sub> should sell him<sub>1</sub> (with) one.’ [GOESHANG]

The conjunction *ndoe* ‘and’ (see section 2.5.6) is used to convey an associative reading. It occurs in the same slot as the comitative preposition, but differs semantically in that the participant takes an active part in the action (as in 53).

- (53) *K'ur yool ndoe mûep.*  
 tortoise rise(sg) CONJ 3Pl.I

‘The tortoise rose together with them.’ [KUR]

The conjunction *ndoe* also occurs with the verb *k'wal* ‘talk’ to introduce the addressee. In the interpretation of ‘talk to s.o.’, it occurs in adjunct position, i.e., following a boundary marker such as the particle *yi* in (54a). In the interpretation of ‘instruct s.o.’, the addressee occurs in direct object position, i.e., preceding the particle *yi* in (54b). The conjunction seems to be on its way to grammaticalize into a verbal extension, assigning syntactic direct object status to the element following it.

- (54a) *Mûep d'e t'ong k'wal k'wal yi ndoe shak.*  
 3Pl exist PROGR talk talking PROGR CONJ each\_other

‘They are talking to each other.’ [STAGE\_22-N, A-07/02/00]

- (54b) *A bi mmoe weel nwa toe poenoe?*  
 FOC thing what disturb Pl.LogA EMPH thus
- Nwa k'wal k'wal ndoe ni yi.*  
 Pl.LogA talk talking CONJ 3Sg.I SUB

‘What is it that worries them like this?  
 So that they tell him.’ [LIIT, A-07/02/00]

Goemai has two means dedicated to decreasing the number of arguments. First, nominalization and adverbialization assign a passive-like reading to transitive verbs (see section 2.4.2.3). Second, transitive verbs can enter the impersonal passive construction as in (55).

- (55) *Mûep leng yim sek t'eng.*  
 3Pl hang/move(pl) leaf BODY tree

‘The leaves were hung on the tree.’ (lit. ‘they hung the leaves on the tree’) [TRPS\_41-I]

The impersonal passive construction is formally a transitive clause that contains the 3<sup>rd</sup> person plural pronoun *mûep*. Semantically, it is interpreted as agentless (e.g., in the example above, it is unlikely that the speaker had an agent in mind). This interpretation has a formal correlate in that the construction cannot contain logophoric marking. Recall that logophoric possessive pronouns are used to indicate co-reference with an antecedent (see section 2.2.1.2). As illustrated in (56), the impersonal passive construction can

only contain the non-logophoric form, suggesting that the pronoun *mûep* is interpreted as an impersonal pronoun.

- (56) *Mûep leng le n-k'ek mûep/\*dwen*  
 3Pl hang/move(pl) load LOC-heads(pl) 3Pl.Poss/\*Pl.LogS.Poss  
 'They<sub>1</sub> hung the loads on their<sub>2</sub>/\*their<sub>1</sub> heads.' [A-17/02/00]

2.4.3 Tense, aspect, modality

Goemai differs from other Chadic languages in its marking of tense, aspect and modality (TAM) (see, e.g., Jungraithmayr 1979; P. Newman 1977c; Schuh 1976; E. Wolff 1979 for a discussion of TAM marking patterns in other Chadic languages). Goemai TAM categories are expressed by means of free particles and periphrastic constructions whose diachronic origins are often transparent – it does not use TAM-inflected verbs or pronouns, as found in other Chadic languages. Furthermore, Goemai does not exhibit the common Chadic perfective/imperfective dichotomy.

Table (14) below gives an overview of the TAM forms, their approximate semantics and their diachronic origins. Categories that have a common origin are subsumed in one box.

Table (14): TAM morphemes of Goemai

Form	Semantics	Diachronic origin
no marking	aorist	-
<i>dok, dyen, d'in, d'a</i>	past & future tenses	first verb in a serial construction (?)
<i>t'ong</i>	irrealis	first verb in a serial construction
locative verb + <i>t'ong V(O) yi</i>	progressive	locative verb plus subordinate clause marked for irrealis modality
<i>la V(O) t'ong</i>	habitual	conditional clause plus irrealis marker
<i>goe, N-</i>	irrealis	locative preposition
<i>kam, lat</i>	resultative, anterior	second verb in a serial construction

Most TAM forms are restricted to verbal clauses. Only the forms for the tenses and the habitual can occur both in verbal and non-verbal clauses, suggesting

that they express a property of the clause rather than the verb phrase. Despite their different distribution, all TAM markers are discussed together in the present section.

TAM particles that were derived from verbs in a serial construction differ from those that were derived from prepositions. In serial constructions, pronouns of set 1 precede only the first verb, while those of set 2 precede all verbs, except the first (see examples 9a to 9c in section 2.2.1.2 above). The same behavior of pronouns is found with respect to TAM particles that originated in serial constructions: pronouns of set 1 precede the TAM particles (as *hen* ‘I’ in 57a), while those of set 2 follow (as *moe* ‘we’ in 57b). Similarly, the resultative and anterior particles are treated like the second verb in a serial construction. Pronouns of set 2 therefore occur between the main verb and the TAM particle (as *yi* ‘you’ in 57c). TAM particles that originated in prepositions do not show this alternation, and pronouns of both sets precede them (as the set 2 pronoun *moe* ‘we’ in 57d).

- (57a) *Hen t'ong kut ndoe kut.*  
 1PI IRR speak some speech  
 ‘I will say something.’ (lit. ‘speak some speech’) [FUANUU]
- (57b) *T'ong moe kut a mmoe?*  
 IRR 1PI speak FOC what  
 ‘What will we speak?’ [GOESEM]
- (57c) *Goe-pe wa yi kam (...).*  
 NOMZ-COMP return\_home(sg) 2Sgf RESULT  
 ‘After you returned home (...).’ [TIME-J]
- (57d) *moe goe rwo n-s'et.*  
 1PI OBL enter(pl) LOC-bush  
 ‘we should enter into the bush.’ [SPEAKING]

Despite their diachronic origin, the TAM particles have lost some of their original verbal or prepositional properties. TAM particles that originated in verbs behave like particles when they occur in nominalized clauses – not like verbs (see the discussion around examples 81a and 81b in section 2.5.3 below). TAM particles that originated in prepositions are preceded by subject pronouns – not by independent pronouns like prepositions.

**2.4.3.1 The unmarked verb: aorist**

In the aorist, the subject pronoun directly precedes the unmarked verb. The aorist is used in all cases of tense neutralization, i.e., it is the default choice once temporal reference is established. For example, in (58a), the narrative is set in the remote past (established by means of the tense particle *dok* in the first line), and all subsequent utterances occur with unmarked verbs. The aorist is usually used to tell the main story-line during narratives (as in the first two lines of 58b), while other TAM morphemes are introduced as soon as the temporal sequence is interrupted (as in the last line of 58b).

(58a) *Fûan dok shin bi goe-dam t'yak noe (...).*  
 rabbit PAST.REM do thing NOMZ-spoil heart/neck 1Sg.Poss

'The rabbit did something that made me angry (...).

*Moe tang ni yi de-goe doe tu.*  
 1Pl search 3Sg SUB PUR come kill(sg)

So we looked for him to kill (him) here.

*Sai mang s'a muk nin n-yit noe.*  
 then take hand 3Sg.Poss point/show LOC-face 1Sg.Poss

Then (he) took/raised his hand (and) pointed (it) at my face.' [LIIT]

(58b) *Mûep t'wot shin nye-d'ûe nnoe (...).*  
 3Pl sit(pl) do kind-voice LOC.ANAPH

'They sat having this discussion (...).

*Mûep yûûl p'ûat de-goe mûen.*  
 3Pl rise(pl) exit(pl) PUR go(pl)

They rose (and) went out to go.

*Fûan d'in t'ong d'i goe-t'oor (...).*  
 rabbit PAST.CL sit(sg) LOC.ANAPH PLACE-flank

The rabbit had sat there at the side (...).' [LIIT]

There are indications that the aorist can replace all TAM markers under certain conditions. This behavior suggests that it derives its interpretation from its pragmatic opposition to the other TAM markers in the language (see, e.g., Bybee 1994). An alternative possibility would be that the aorist codes either (i) perfective aspect, or (ii) non-future tense, or (iii) realis modality. The following observations argue against these possibilities:

(i) The unmarked form is used in both typically perfective and typically imperfective contexts.<sup>17</sup> This distribution suggests that there is no binary perfective (aorist) vs. imperfective (*t'ong*-marked forms) opposition.

(ii) The unmarked verb usually receives a default non-future interpretation (past or present), while the future tense is usually conveyed with the particle *t'ong*. However, *t'ong* marks a modality, not a tense (see section 2.4.3.4). Furthermore, the default non-future interpretation of the aorist can be cancelled, and the unmarked verb can be used for a future event as in (59).

(59) *Goed'aar toe moe müen n-Jos.*  
 tomorrow EMPH 1Pl go(pl) LOC-Jos

'It is tomorrow (that) we go to Jos.' [FRIENDS]

It is cross-linguistically common that unmarked forms receive a default past/present tense interpretations, whereby the interpretation depends on the aspectual class of the verb (Bybee 1994; Comrie 1976: 82-84). In Goemai, stative verbs receive a default present tense and non-stative (including inchoative) verbs a default past tense interpretation (see also sections 3.1.2 and 3.2).

(iii) The unmarked aorist does not necessarily convey a realis reading: it is used in future contexts (as in 59 above), or in the expression of epistemic modality (as in 60 below). This suggests that there is no binary realis (aorist) vs. irrealis (*t'ong*-marked forms) opposition either.

(60) *Hen rang goe-pe müep poe n-daas ba.*  
 1Sg think NOMZ-COMP 3Pl give BEN-men(pl) NEG

'I think that they did not give (it) to the elders.' [HAND-A/N]

All possible interpretations of the aorist (perfective, non-future, realis) are default interpretations, which arise because other TAM markers code the opposite categories. The aorist pragmatically picks up those interpretations that are not coded by these other markers – but the interpretations are not part of its meaning and can thus be cancelled.

<sup>17</sup> This distribution was established with the help of the Tense/Aspect questionnaire developed by Dahl (1985). In Goemai, no correlation was found between the unmarked aorist and either the perfective or the imperfective category.



### 2.4.3.2 Tense

Goemai has four tenses (based on different degrees of remoteness): three past tenses and one future tense, which are marked by the particles *dok* (remote past), *dyen* (yesterday), *d'in* (earlier today) and *d'a* (tomorrow). These tenses locate an event in time, usually with respect to the time of speech, i.e., the present moment is taken as the point of reference. As is cross-linguistically common (Comrie 1985: 83-101; Dahl 1985: 120-128), the Goemai tenses are only rarely used as relative tenses, i.e., relative to some other reference point that is established by the context. Their occurrence is not obligatory: in a narration, they tend to occur only once to anchor an event in time (as in the first line of 58a in section 2.4.3.1 above); and if temporal adverbs introduce the temporal setting, they tend not to occur at all.

The tense particles precede the verb as in (61a) and (61b). Pronouns of set 1 precede the particles, while those of set 2 follow, thereby suggesting that the particles derive from verbs.

(61a) *Mûep dok maar maar nt'it ba.*  
 3PI PAST.REM farm farming thoroughly NEG  
 'They did not farm properly in the past.' [TARIHI]

(61b) *B'it la d'a lin (...).*  
 day COND FUT.CL dawn  
 'When the day dawns tomorrow (...).' [PEOPLE]

All tense particles can combine with modal and aspectual markers, whereby the three past tense particles can co-occur with progressive and habitual markers, and all four particles with irrealis markers. In the latter case, they occur in different syntactic slots: past tense particles precede the irrealis particle (as in 62a), while the future tense particle follows the irrealis particle (as in 62b).

(62a) *Dok t'ong goe ru taxi dakd'ûe lu (...).*  
 PAST.REM IRR 2Sgm enter(sg) taxi MIDDLE settlement  
 'In the past you would enter a taxi into town (...).' [JOS]

(62b) *t'ong d'a moe rwo.*  
 IRR FUT.CL 1PI enter(pl)  
 'we would enter tomorrow.' [ARAM]

The diachronic origin of the tense particles is not transparent. All of them have corresponding temporal adverbs, which show formal similarities: *dokndok* (day before yesterday), *dyendyen* ~ *ndyen* (yesterday), *shini* (today) and *goed'aar* ~ *toed'aar* (tomorrow). Cross-linguistically, it is well attested that such tense

particles tend to grammaticalize from temporal adverbs (Bybee et al. 1994: 98-104; see also Frajzyngier 1993: 303-317 for a similar analysis for Mupun). In Goemai, by contrast, the temporal adverbs are clearly derived forms. At least some of the derivational morphology is productively used to derive adverbs from nouns and verbs (partial reduplication, prefix *N-*, prefix *goe-*) (see section 2.3.1). Furthermore, with respect to the two sets of pronouns, the tense particles are distributed like the first verb in a serial construction. It is therefore possible that the particles have a verbal origin.<sup>18</sup>

### 2.4.3.3 Aspect

The following four aspectual categories are coded in Goemai: progressive, habitual, resultative and anterior. Since all of them are discussed in more detail in later chapters (see section 8.2 and chapter 9), this section only gives a brief introduction.

The progressive is a periphrastic construction that contains a locative verb followed by the particles *t'ong* and *yi*. Pronouns of set 1 precede the locative verb (as in 63a, repeated from example 20), while pronouns of set 2 follow the particle *t'ong* (as in 63b).

(63a) *Mûep t'wot t'ong shin shit yi b'ak.*  
 3Pl sit(pl) PROGR do work PROGR here

'They sat doing work here.' [MIL-A]

(63b) *D'e t'ong moe shin shit yi n-ni.*  
 exist PROGR 1Pl do work PROGR COM-3Sg.I

'We are doing work with it.' [HAND-J]

The progressive construction codes an action that is viewed as on-going at reference time. Stative verbs can enter the construction, in which case they receive a habitual interpretation.

Like the progressive, the habitual construction is a periphrastic construction. It contains the particles *la ~ d'a* and *t'ong*. Pronouns of set 1 precede the particle *la* (as in 64a), while those of set 2 follow (as in 64b).

<sup>18</sup> It is likely that both the tense particles and the temporal adverbs derive from the same source, i.e., from verbs. Although it is conceivable that the temporal adverbs derive from the tense particles, such an analysis would not be compatible with the principle of unidirectional change in grammaticalization theory (see, e.g., Heine et al. 1991: 212).

- (64a) *Mùep la yil goe-nnoe t'ong (...).*  
 3PI HAB write NOMZ(sg)-LOC.ANAPH HAB

'They used to decorate this one (...).' [HAND-A/N]

- (64b) *La moe yong ni t'ong (...).*  
 HAB 1PI call 3Sg HAB

'We used to say it (...)' [TARIHI]

The habitual construction is used for any event that is characteristic for an extended period of time (taking place habitually or repeatedly).

Finally, there are two aspectual verbs, *lat* 'anterior' and *kam* 'resultative', which originate in the intransitive verbs *lat* 'finish' and *kam* 'stay' respectively. The anterior particle *lat* is used to describe an event prior and relevant to the situation at reference time. It very often occurs in complex sentences to convey a temporal order as in (65).

- (65) *La fi lat (...) goe wus nd'ûûn sher.*  
 COND become\_dry(sg) ANT 2Sgm roast INSIDE pot

'When (it) has become dry, (...) you roast (it) inside a pot.' [CROPS]

The anterior particle occurs with any verb (including stative verbs), indicating that the event has ended. The resultative particle *kam* is more restricted in its occurrence. It occurs only with verbs of motion, caused motion and change of state, focussing on the resulting end state as in (66a) to (66c).

- (66a) *P'aar t'a kam n-hangoed'e.*  
 jump fall(sg) RESULT LOC-water

'(He) jumped (and) fell in the water.' (i.e., the falling event is over)  
 [FROG-A, A-11/02/00]

- (66b) *Ruun gong muk kam n-t'uun.*  
 insert(sg) nose 3Sg.Poss RESULT LOC-hole

'(He) inserted his nose into the hole.' (i.e., the nose is in the hole now)  
 [FROG-A, A-11/02/00]

- (66c) *neng hok fu kam b'e*  
 cow DEF scatter RESULT EMPH

'the cows have scattered' (i.e., they are scattered now) [A-11/02/00]

In addition to these four aspectual markers, younger speakers increasingly make use of Hausa loans. The following loans are attested in my database: *gama* 'stop doing', *k'ara* 'repeat an action', *riga(ya)* 'have already done', *rik'a* 'keep on doing', and *tab'a* 'have ever/never done'. These are used like the first verb in a serial construction, i.e., pronouns of set 2 follow them as in (67).

- (67) *k'ara* *ji* *tang* *pe* *goe-d'e* *fūan* *zak-yit* *mou.*  
 REPEAT Sgm.LogS search place NOMZ-exist rabbit again NEG

'he would never again look for the place where the rabbit is.' [LIIT]

The text frequency of the Hausa loans is very low, and older speakers reject them as foreign words. For the time being, they cannot be considered as integrated loans – they are rather used when bilinguals mix or switch codes.

#### 2.4.3.4 Modality

The three morphemes *t'ong*, *goe*, and *N-* are used to express irrealis modality and future tense. They code basically a modality, and only secondarily a tense: they can occur in non-future contexts (see below), future can be expressed with the help of the unmarked aorist (see example 59 in section 2.4.3.1 above), and they are not part of the same formal system of oppositions as the tense markers with which they can co-occur (see examples 62a and 62b in section 2.4.3.2 above). For these three reasons I label them modalities.

The irrealis particle *t'ong* is discussed in detail in section 9.4.3.1. The present section briefly summarizes its functions. First, it marks irrealis modality, including the coding of epistemic modality (as in 68a), of intention (as in 68b), and of the counterfactual (as in 68c). Second, it expresses future tense (as in 69).

- (68a) *rang* (...) *pe* *hangoed'e* *t'ong* *zoom* *nd'asoeno.*  
 think COMP water IRR become/make\_cold now

'(he) thinks that the water would be cold now.' [TQ\_115-A]

- (68b) *To/* *yin* *t'ong* *ji* *shin* *nd'ang* (...)?  
 okay SAY IRR Sgm.LogS do how

'(He<sub>i</sub>) said how should he<sub>i</sub> do (it) (...)?' [GOELONG]

- (68c) *D'in* *la* *kem* *d'in* *t'ong* *kwan* *dip.*  
 PAST.CL COND tip\_over PAST.CL IRR spill all

'If (it) had tipped over, (it) would have spilled everything.' [DIS\_5.8-A/N]

- (69) *nhat* *la* *su* *k'a* *muk* / (...) *t'ong* *goe* *muut.*  
 wind COND run(sg) HEAD(sg) 3Sg.Poss IRR 2Sgm die(sg)

'if the wind runs over it, (...) you will die.' [GWAKTAK]

The form *goe* expresses obligative modality (as in 70a) and definite future tense (as in 70b). In the latter case, it usually combines with the irrealis particle *t'ong*.

(70a) *pa goe nyap hura.*  
 Sgf.LogA OBL prepare gruel

‘she should prepare gruel.’ [REEP]

(70b) *Hen t’ong goe yil longvilip.*  
 1Sg IRR OBL write letter

‘I definitely plan to write a letter.’ [TQ\_22-A]

The form *N-* expresses permissive modality (as in 71a) and immediate future tense (as in 71b). In the latter case, it usually combines with the irrealis particle *t’ong*.

(71a) *hen m-mang*  
 1Sg PERM-take

‘let me take it’ [A-14/11/00]

(71b) *mûep t’ong n-yûûl*  
 3Pl IRR PERM-rise(pl)

‘they are about to rise’ [A-29/12/00]

Both *goe* and *N-* are not part of Goemai’s tense system. They fill a syntactic slot that is different from that of the future tense particle *d’a* (see section 2.4.3.2): pronouns of set 2 follow the tense particle, but precede the two modality particles. Nor can any of the two be assigned to an objective time period.

The imperative is expressed either by the bare verb (as in 72a) or by a pronoun plus the verb (as in 72b).

(72a) *Mang goet’eng.*  
 take upward

‘Raise (it) up.’ [MT-I/J]

(72b) *Goe mang goet’eng.*  
 2Sgm take upward

‘You raise (it) up.’ [D-26/01/00]

In the negative imperative, the subject pronouns are obligatory. In addition, two negation particles are needed: the sentence-final particle *mou* (or its Hausa equivalent *ba*), and either one of the three sentence-initial particles *man* (as in 73a), *kede* (as in 73b; borrowed from Hausa) or *s’a(yo)* (as in 73c). Often, the prefix *boe-* is added as well (as in 73d).

(73a) *Man goe shyang boega hok mou.*  
 PROH 2Sgm hunt/watch well DEF NEG

‘Do not look into the well.’ [KE]

- (73b) *Kede yi luut ba.*  
 PROH 2Sgf fear(sg) NEG  
 ‘Do not fear.’ [MATWO]
- (73c) *s’ayo buk gu dal jap n-d’e-nnoe yit ba.*  
 PROH return(pl) 2Pl beat children(pl) ADVZ-Cl:exist-DEM.PROX again NEG  
 ‘do not beat these existing children again.’ [WITCH1]
- (73d) *Man boe-yi luut mou.*  
 PROH PROH-2Sgf fear(sg) NEG  
 ‘Do not fear.’ [MATWO]

## 2.5 Complex clauses

### 2.5.1 Serialization

Goemai makes extensive use of serialization. Since this topic is discussed in more detail in chapter 8, the present section only introduces two general properties of serialization: the verbs share (a) one core argument and (b) the same temporal setting.

(a) The subject of the subsequent verb(s) is identical to either the subject of the first verb (as in 74a and 74b) or to its direct object (as in 74c).

- (74a) *Sai hen su mûaan de A.*  
 then 1Sg run(sg) go(sg) DIR A.  
 ‘Then I ran (and I) went to A.’ [KEY]
- (74b) *Aas mang ûes haar.*  
 dog take bone chew  
 ‘The dog took the bone (and) chewed (it).’ [AAS]
- (74c) *mûep b’am twen hok yi lang d’i.*  
 3Pl stick cloth DEF DUR hang/move(sg) LOC.ANAPH  
 ‘they stuck the cloth (and it) hangs there.’ [DIS\_I3.3-A/N]

(b) Since the sub-events share the same temporal setting, this setting is marked only once by the tense marker (as in 75). It cannot be marked for all verbs, nor can they be marked with different tense particles or time adverbials. Recall that tense marking is not a property of the verb phrase, but of the clause as a whole (see section 2.4.3).

- (75) *Dok wa doe t’o.*  
 PAST.REM return\_home(sg) come lie(sg)  
 ‘He returned home (and) lay here.’ [SR\_SVCT-D]

All serial constructions are characterized by properties (a) and (b). Different constructions can be distinguished on the basis of the following criteria: the expression of separate locations, the scope of negation, the marking of irrealis modality, the insertion of sequential particles and their behavior in specific syntactic environments (see chapter 8 for details).

### 2.5.2 Sequential and purpose

A sequence of events can be overtly marked through the morphemes *goe* (*N-*) ‘sequential’ (as in 76a) and *de-goe* (*N-*) ‘purpose’ (as in 76b), provided that the verbs share the same subject argument and the same temporal setting.

(76a) *Yool goe mang la liit.*  
 rise(sg) SEQ take child(sg) lion

‘(He) rose and (successfully) took the child of the lion.’ [LIT, A-10/12/99]

(76b) *yool de-goe mang la liit*  
 rise(sg) PUR take child(sg) lion

‘(he) rose to take the child of the lion’ [A-10/12/99]

The sequential is used to indicate the successful completion of an action, and the clause usually receives a past tense interpretation. This interpretation is a pragmatic implicature, resulting from the opposition between the sequential and the purpose morphemes. It can be cancelled, and the sequential and the purpose morphemes can even co-occur to express a sequence of intended actions as in (77).

(77) *Mûep mang boezung de-goe mûen goe tal ni.*  
 3PI take chest PUR go(pl) SEQ greet 3Sg

‘They took the courage to go and greet him.’ [LIT]

The sequential morpheme can be reduplicated, in which case it stresses the successful accomplishment of an action that was difficult to accomplish (as in 78).

(78) *Ni yool mûaan goe-goe shyang boega.*  
 3Sg rise(sg) go(sg) RED-SEQ hunt/watch well

‘He rose (and) went and tried hard to look into the well.’ [SR\_NEG-C]

Both the sequential and the purpose morphemes can be followed by an optional morpheme *N-*. The augmented forms are used in the same contexts as the simple forms. There is a pragmatic difference, though, in that the augmented forms stress the purpose reading. Their default interpretation is that the intended result was not achieved as in (79).

- (79) *yool de-goe n-kyak sh'ep / sap s'al*  
 rise(sg) PUR PUR-crack wood axe slip(sg)  
 '(he) rose to cut wood, (but) the axe slipped' [A-10/11/00]

### 2.5.3 Clausal nominalization

Nominalization is a common mechanism for forming a relative clause (see also sections 2.2.2.3 and 2.4.2.3; see section 2.2.1.5 for a different type of nominalization). It makes use of the invariant prefix *goe-*. The nominalized clause occurs within the noun phrase, and contains all elements that were present in the corresponding verbal clause, including the verb, the arguments, the adjuncts and the TAM morphemes. The following patterns are observed:

(a) If the head noun corresponds to the subject of the clause (such as *gurum* 'person' in 80 below), it is followed by the nominalizing prefix *goe-*, the verb (and the TAM particles, if any), the direct object (if any) and adjuncts (if any).

- (80) *Gurum goe-man ni wan.*  
 person NOMZ-know 3Sg lack  
 'There is no person who knows it.' (lit. 'the person of knowing it')  
 [ARAM]

(b) If the head noun does not correspond to the clausal subject (such as *bi* 'thing' in 81a and 81b below), the subject occurs as the possessor of the nominalized clause. In case of nominalized simple clauses, the possessor (such as *muk* '3Sg.Poss' in 81a) is preceded by the verb and all TAM particles, but followed by adjuncts. In case of multi-verb clauses, the possessor (such as *mûep* '3Pl.Poss' in 81b) is preceded by the first verb (and its TAM particles), but followed by the other verbs.

- (81a) *Bi goe-t'ong kat muk goe luun.*  
 thing NOMZ-IRR find 3Sg.Poss PLACE dry\_season  
 'The thing that he would find in the dry season.' (lit. 'the thing of his possibly finding') [YOUTH]
- (81b) *B'ep du k'oeleng bi goe-d'e mûep t'ong k'wal yi.*  
 again Pl.LogS hear thing NOMZ-exist 3Pl.Poss PROGR talk PROGR  
 'Let them listen again to the thing that they are talking.' (lit. 'the thing of their talking') [LHT]

Nominalized clauses cannot occur pronominally in place of the head noun. If they occur without a head noun, they receive a temporal interpretation as in (82a). They are used for events that either temporally precede the main event or occur simultaneously. The former reading can be stressed through the use of



the nominal *nk'ong* 'back side' together with the nominalizing prefix as in (82b). They cannot be used for events that follow the main event in time (see section 2.5.4).

- (82a) *Goe-p'yoor muk d'waan d'ip ke.*  
 NOMZ-burn 3Sg.Poss pluck feather chicken  
 'After she burned it, (she) plucked a chicken's feather.' [GOELONG]

- (82b) *nk'ong goe-yool goe ni doe b'ak*  
 BACK NOMZ-rise(sg) 2Sgm.Poss 3Sg come here  
 'after you left, he came here' [A-22/12/99]

A second type of clausal nominalization makes use of the prefix *boe-*. It can nominalize both verbal clauses as in (83a) and (83b) and non-verbal clauses as in (83c). It specifies where or how an event took place.

- (83a) *A boe-t'ong t'angoede.*  
 FOC WHERE-IRR begin  
 'This is where it would begin.' [LU-A]

- (83b) *Amma boe-lat muk toe ba ai?*  
 but WHERE-finish 3Sg.Poss EMPH NEG INTERJ  
 'But this is not where it finishes, is it?' [COLOR-A/N]

- (83c) *La boe-a gaskiya (...).*  
 COND WHERE-FOC truth  
 'If this is where the truth is (...).' [WITCHI]

Clauses nominalized with *boe-* occur as nominal predicates in non-verbal clauses, but they cannot occur within the noun phrase (neither as modifiers nor as heads).

#### 2.5.4 Subordinate clauses

Subordinate clauses are independent from their main clauses in that the subject argument has to be realized twice and the temporal setting need not be shared. There is some dependence between the clauses in that only the subordinate clause can be negated (as in 84a; repeated from example 60), but not the main clause (as in 84b).

- (84a) *Hen rang goe-pe mûep poe n-daas ba.*  
 1Sg think NOMZ-COMP 3Pl give BEN-men(pl) NEG  
 'I think that they did not give (it) to the elders.' [HAND-A/N]

(84b) \**hen rang ba goe-pe mûep poe n-daas*  
 1Sg think NEG NOMZ-COMP 3Pl give BEN-men(pl)

\*‘I don’t think that they gave (it) to the elders’ [HAND-A/N, A-15/02/00]

The following three complementizers are used to introduce subordinate clauses:

(*goe-*) *pe* ~ *fe*      complementizer  
*de*                      complementizer (purpose)  
*yin*                      complementizer (speech act)

The complementizer *pe* occurs in three different contexts. First, it occurs in the same context as the clausal nominalizer *goe-* (see section 2.5.3): to mark relative clauses (as in 85a) and temporal sequences (as in 85b). The two strategies only differ in form: *pe* introduces a clause, while *goe-* introduces a nominalized clause. The complementizer *pe* can optionally be augmented with the nominalizer *goe-*. There does not seem to be a semantic difference between the simple and the augmented forms.

(85a) *Gya (goe-) pe mûep t’ong mang goe wakaam (...)*  
 song/dance (NOMZ-) COMP 3Pl IRR take PLACE road

‘The song which they would sing on the road (...).’ [LIIT, A-15/02/00]

(85b) (*Goe-*) *pe nin s’a muk n-yit noe lat /*  
 (NOMZ-) COMP point/show hand 3Sg.Poss LOC-face 1Sg.Poss ANT

*hen wam yi.*  
 1Sg rot SUB

‘After (he) had pointed his hand at my face,  
 so I became rotten.’ [LIIT, A-15/02/00]

Second, it is used to introduce reason clauses, often augmented with the form *nye* ‘kind’ (*pe* ~ *nye-pe* ~ *nye-goe-pe*) as in (86a). The form *nye* can also be used on its own to introduce a noun phrase as in (86b).<sup>19</sup>

(86a) *T’yak muk dam*  
 heart/neck 3Sg.Poss spoil  
 (*nye-*) *pe goe-sek poe ni koor (...)*  
 (kind-) COMP NOMZ-body give 3Sg jealousy

‘He was sad  
 because this thing made him jealous (...).’ [NGOEGAN, A-15/02/00]

<sup>19</sup> Reason clauses are marked differently from purpose clauses: (*nye-*) (*goe-*) *pe* (reason) vs. *de* (purpose). Many Chadic languages, by contrast, use the same form in both cases (Koops 1991).

- (86b) *T'ong moe hoom sem nye koor (...).*  
 IRR 1Pl hold body.1Pl.Poss kind jealousy

'We should embrace ourselves because of jealousy (...).' [GOELONG]

Third, it follows verbs of cognition or propositional attitude as in (84a) above.

The complementizer *de* introduces purpose clauses as in (87). It therefore almost always co-occurs with an irrealis particle and the subordinating particle *yi*.

- (87) *de ni goe shin ûen yi n-doe.*  
 COMP 3Sg OBL do medicine SUB BEN-Sgf.LogS.I

'so that he should do magic for her.' [MATWO]

The particle *yi* regularly occurs in irrealis contexts, e.g., in temporal clauses introduced by *ntyem* 'before, front' (as in 88a) or in comparative clauses introduced by *goe-bi* 'as if' (as in 88b). Its presence alone suffices to mark the clause as a subordinate irrealis clause (as in 88c) (see section 9.4.1 for details).

- (88a) *Mûep saam mûarap sosai nt'it ntyem fûan yool yi.*  
 3Pl sleep die(pl) thoroughly thoroughly FRONT rabbit rise(sg) SUB

'They slept thoroughly (like) dead before the rabbit would rise.' [LIIT]

- (88b) *Ni dok a goe-k'oor goe-bi bang yi.*  
 3Sg PAST.REM FOC NOMZ(sg)-round as\_if gourd SUB

'It (= tortoise) was a round one like (= as if it were) a gourd.' [KUR]

- (88c) *Tamtis noe lat. Hen dok ba mûaan yi wa.*  
 folktale 1Sg.Poss finish 1Sg PAST.REM return(sg) go(sg) SUB return\_home(sg)

'My folktale is finished. I left to go (and) return home.' [KE]

The complementizer *yin* ~ *yi* introduces speech acts. Subsequent clause(s) require the use of logophoric marking (see section 2.2.1.2). This complementizer was grammaticalized from a verb 'say', which retains some of its verbal properties, in that it can occur as the main verb (as in 89a), but it can also co-occur with another speech act verb (as in 89b).

- (89a) *Masha yin a wuroe t'ong d'ing d'ûe doe (...)?*  
 friend(fem) SAY FOC who IRR imitate voice Sgf.LogS.Poss

'Our friend<sub>1</sub> said that who would imitate her<sub>1</sub> voice (...)?' [NTI]

- (89b) *ndoe gurum t'ong k'wal yin kwai / ji b'oot ba.*  
 some person IRR talk SAY no Sgm.LogS able(sg) NEG

'someone<sub>1</sub> would say that 'no', he<sub>1</sub> is not able (to do it).' [ANC]

In addition to these three complement constructions, a few verbs take clausal arguments, e.g., *sa* 'make' (as in 90a), *ya* 'catch' (as in 90b), or *shin* 'do' (as in

90c). Such constructions differ from serial constructions in that (a) the second verb can optionally be preceded by a subject pronoun (as in 90a) and (b) the subordinating particle *yi* may occur (as in 90b).

(90a) *Naan sa hen hen p'et shini.*  
 God make 1Sg 1Sg exit(sg) today

‘God made me (that I) woke up today.’ [FRIENDS, A-18/02/00]

(90b) *hen ya ni rang k'wal hok yi*  
 1Sg catch(sg) 3Sg think talking DEF SUB

‘I forced him so that he thinks about the problem’ [A-18/02/00]

(90c) *P'ûûs shin hangoed'e hok b'aan.*  
 sun do water DEF become/make\_warm

‘The sun made the water warm.’ [D-05/01/00]

### 2.5.5 Conditional clauses

Conditional (‘if’) and temporal (‘when’) clauses are formed with the help of the particle *la ~ d'a* (see also section 9.4.3.2). This particle occurs in the same syntactic slot as the first verb in a serial construction (see section 2.2.1.2), i.e., preceding pronouns of set 2 (as in 91a). Irrealis and counterfactual conditions are additionally marked with the past tense particle *d'in* (as in 91b).

(91a) *Dok la goe p'et / t'ong goe kat jap.*  
 PAST.REM COND 2Sgm exit(sg) IRR 2Sgm find children(pl)

‘When you went out, you would find children.’ [KWANDE]

(91b) *Oerem men d'in la la /*  
 beans 1Pl.Poss PAST.CL COND give\_birth(sg)

*hen d'in t'ong poe yoe.*  
 1Sg PAST.CL IRR give 2Sgf

‘If our beans would produce fruit, I would give (them) to you (= but they won’t).’

‘If our beans had produced fruit, I would have given (them) to you (= but they didn’t).’ [FARE2, A-04/02/00]

### 2.5.6 Joining independent clauses

Clauses are often juxtaposed without any formal marking that indicates their relationship,<sup>20</sup> but it is possible to use the particle *zak* ‘also’ to indicate such a relationship (as in 92a). The conjunction *ndoe* ‘and’, which is used to conjoin two noun phrases (as in 92b), cannot be used to conjoin two clauses.

<sup>20</sup> This seems to be a common pattern in Chadic languages (Frajzyngier 1996a).

- (92a) *Ba goe haan goe t'o k'a gado muk (...).*  
 return(sg) SEQ climb(sg) SEQ lie(sg) HEAD(sg) bed 3Sg.Poss  
*Sai noemûat zak (...) p'et nd'ûûn t'u nnoe.*  
 then frog also exit(sg) INSIDE calabash\_bottle LOC.ANAPH  
 '(He) returned and climbed and lay on his bed with his dog.  
 And then the frog (...) left the inside of this bottle.' [FROG-D]

- (92b) *Mûep doe goe haam ndoe shat.*  
 3Pl come COM water CONJ porridge  
 'They came with water and food.' [LIGYA]

Like many Chadic languages, Goemai has borrowed the conjunction *amma* 'but' from Hausa (see 83b in section 2.5.3 above). Furthermore, the verb *ba* 'return' is used with such an interpretation in a serial construction, stressing the independence of the two sub-events as in (93).

- (93) *hen p'et mûaan n-Jos*  
 1Sg exit(sg) go(sg) LOC-Jos  
*ba ba goe waar ya Moek'wo*  
 return(sg) return(sg) PLACE road arrive Kwande  
 'I left (and) went to Jos, but returned on the way (and) arrived in Kwande' [A-21/12/99]

Goemai speakers can use the borrowed Hausa conjunction *ko* 'or/maybe' to join two clauses (see example 31b in section 2.3.3 above), but it is more common to use question tags for this function. These tags are used to join clauses (as in 94a) as well as noun phrases (as in 94b).

- (94a) *Kat ni t'o kyoop o / kat ni dam t'o wo.*  
 maybe 3Sg lie(sg) health INTERR maybe 3Sg spoil lie(sg) INTERR  
 'Maybe he lies healthy, maybe he lies sick.' [ARAM]
- (94b) *Mûep yong ni a goek'al o ko a jiri o.*  
 3Pl call 3Sg FOC antelope INTERR maybe FOC antelope INTERR  
 'They call it *goek'al* or *jiri*.' [FROG-C]

## 2.6 Non-verbal clauses

Goemai has two non-verbal clause types: the equational and the possessive clause. Equational clauses are formed by means of the focus particle *a* (see section 2.3.3) as in (95a). Possessive clauses are formed by means of the comitative prepositions *goe* and *N-*, which are in complementary distribution (see section 2.4.2.4) as in (95b).

(95a) *Ni a long gurum goe-mat.*  
 3Sg.I FOC chief person NOMZ(sg)-woman(sg)

‘He is the chief of the people of the wife.’ [DIALECT]

(95b) *ji goe lu ba / ji n-ni ba*  
 Sgm.LogS.I COM settlement NEG Sgm.LogS.I COM-3Sg.I NEG

‘he doesn’t have a house, he doesn’t have it’ [D-26/01/00]

Non-verbal clauses make use of pronouns of the independent pronoun set (see section 2.2.1.2), and they cannot occur with irrealis, progressive, anterior and resultative marking (see section 2.4.3). Both clause types are discussed in more detail in section 10.1.

## 2.7 Summary

This chapter has introduced the Goemai language, outlining the phonology (section 2.1), the different parts of speech (sections 2.2 to 2.4), the noun phrase (section 2.2.2) as well as simple verbal, complex verbal and non-verbal clauses (sections 2.4 to 2.6). It was shown that Goemai differs from other Chadic languages in its isolating structure, its extensive use of verb serialization, its tense system (based on different degrees of remoteness), and its logophoric system. Furthermore, unlike many other Chadic languages, Goemai lacks nominal plural marking, (de-) transitivity verbal extensions, TAM-inflected pronouns and a perfective/imperfective dichotomy. While some of these characteristics are attested in other Angas-Goemai group languages as well, Goemai differs from its closest relatives in parts of its TAM-system, in its widespread use of verbal strategies instead of non-verbal strategies (e.g., to express static location), in its predominant lexicalization of concepts as inchoatives rather than statives (e.g., property concepts), in its use of constructional alternations, nominalization and adverbialization for purposes of (de-) transitivity, and in its use of the modifying construction.

Many of the characteristics that are unique to Goemai are discussed in more detail in the following chapters, as they bear directly or indirectly on the analysis of the postural/existential system. This includes a discussion of transitivity and lexical aspect (chapter 3), demonstratives and the modifying construction (chapters 3 and 7), serialization (chapter 8), TAM forms and categories (chapter 9), and the intrusion of verbal forms into non-verbal domains (chapters 6 and 10).

This second part of the thesis focuses on the locative, i.e., postural and existential, verbs. As mentioned at the beginning of section 1.3, the postural/existential elements are not only – and not primarily – used in reference to human postures, but play a much more important role throughout Goemai grammar: in all locative and existential statements, Goemai speakers are required to choose one of these element and to thereby assert or classify the position of an (animate or inanimate) referent in space. The following three chapters discuss form class properties (this chapter), locative relational semantics (chapter 4) and classificatory usage (chapter 5). All three chapters are mainly concerned with the properties of locative verbs as evidenced by their occurrence in the locative construction. And although these verbs have given rise to other, derived, elements, these other elements do not constitute the focus of the current discussion: the properties of the verbs need to be established before those of the derived elements can be investigated (see chapters 6 to 10 for the latter).

This chapter discusses the formal properties of locative verbs, focussing on their distribution, lexical aspect (as evidenced by their occurrence and interpretation in specific aspectual constructions) and argument structure. The following two issues are central to this chapter:

- (i) The form class of locative verbs, its formal properties and its relationship to other classes in the language.

Following Goldberg (1995), Levin (1993) and others, it is assumed as a working hypothesis that the morphosyntactic behavior of lexical items is motivated by their meaning (see section 1.3.1). In the course of the analysis, language-internal formal criteria are used to delimit the phenomenon under investigation. The established formal properties are then taken into account for the overall semantic analysis (presented in chapters 4 and 5). The importance assigned to formal properties distinguishes this study from comparable studies on the semantics of postural verbs (e.g., van Oosten 1986; Serra Borneto 1996).

(ii) The relationship between lexical properties (of the locative verbs) and constructional properties (of the locative construction).

The interaction between lexical and constructional properties is important to all approaches that assign meaning to constructions (see section 1.3.1), yet only few studies explicitly investigate such an interaction (e.g., Laffut and Davidse 2000; Schultze-Berndt 2000; Van Valin and Wilkins 1993; Wilkins 2000; Zhang 1998). The analysis presented in this chapter can be seen as a case study that illustrates the integration of verbs into constructional templates.

This chapter is structured as follows: section 3.1 describes the properties of locative verbs, section 3.2 compares these properties to those of a group of semantically similar verbs, and section 3.3 concludes this chapter.

### 3.1 The formal properties of locative verbs

Table (1) below lists the locative verbs and gives an approximation of their semantics. Chapter 4 discusses their semantics in more detail – for the moment, it suffices to note that the verbs are used to (a) describe animate postures and movements and (b) assert or classify the position of animate and inanimate referents relative to another reference object.

**Table (1):** Locative verbs<sup>1</sup>

Gloss	Singular	Plural
'hang/move'	<i>lang</i>	<i>leng</i>
'sit'	<i>t'ong</i>	<i>t'wot</i>
'stand'	<i>d'yem</i>	<i>d'yam</i>
'lie'	<i>t'o</i>	<i>t'oerep</i>
'exist'		<i>d'e</i>

It is shown in this section that the locative verbs enter distinct slots in different constructions (section 3.1.1), occur with a stative interpretation (section 3.1.2), and occur with a semantic location participant (section 3.1.3).

<sup>1</sup> Unless indicated otherwise, the singular form is used as the citation form. There is a semantic subdivision among the locative verbs (see chapter 4) that, at times, makes it necessary to distinguish *d'e* 'exist' from the other four verbs. In such cases, the terms 'existential' and 'postural' are respectively used.



### 3.1.1 Distributional properties

A number of different constructions contain a locative verb or an element derived from a locative verb. These constructions are summarized in table (2) below. Since they are discussed in more detail throughout chapters 6 to 10, the present section only gives a brief summary that is intended to illustrate the distributional possibilities.

**Table (2):** Distribution of locative elements

Construction	Form
Locative	Subject + <b>Locative Verb</b> + Adjunct
Presentative	Subject + Presentative + <b>Locative Verb</b>
Demonstrative	(Nominalizer) + Adverbializer + <b>Classifier</b> + Deictic Root
Serial:	
• coordinate	Subject + (Caused) Motion Verb + <b>Locative Verb</b> (+ Adjunct)
• configurational	Subject + State-change Verb + <b>Locative Verb</b>
• inchoative	Subject + 'fall' / 'rise' + <b>Locative Verb</b>
Progressive	Subject + <b>Locative Verb</b> + Progr. + Main Verb Phrase + Progr.
Ascriptive	Subject + <b>Locative Verb</b> + Property-denoting Element

First, locative verbs occur obligatorily in the presentative (as in 1a) and locative constructions (as in 1b) (see chapter 6). The presentative construction is used to introduce an object into discourse through drawing attention to its position. The locative construction is used to describe the position of an object relative to a second reference object. In both cases, the locative verbs are used to either assert a current position or to classify an object in terms of its canonical position. The locative construction is furthermore used to express existential statements (see sections 4.3 and 5.1.1.3).

(1a) *Pin na n-lang b'ak m-pe n-d'e-nnoe*  
hut PRES PRES-hang/move(sg) here LOC-place ADVZ-Cl:exist-DEM.PROX

*ba-ntyem goe jar.*  
SIDE-front 2Sgm.Poss straight

'Behold, a hut is hanging here in this existing place,  
straight in front of you.' [LU-A]

(1b) *Lu leng b'ak m-pe n-d'e-nnoe (...).*  
settlement hang/move(pl) here LOC-place ADVZ-Cl:exist-DEM.PROX

'Houses hang here in this existing place (...).' [KWANDE]

Second, the locative verbs have developed into deictic classifiers that occur obligatorily in the demonstrative word as illustrated in (2) (see chapter 7). The demonstrative and presentative constructions are functionally similar, and the locative elements in both constructions have similar semantics.

- (2) *t'eng n-d'yem-nnoe / s'em muk a t'eng d'in.*  
 tree ADVZ-Cl:stand(sg)-DEM.PROX name 3Sg.Poss FOC tree sheabutter  
 'this standing tree, its name is sheabutter tree.' [TREE-J]

Third, locative verbs occur in a fixed slot in a number of serial verb constructions as illustrated in (3) (see section 8.2). They follow (caused) motion or state-change verbs, and code the position of the referent at the endpoint of its movement or state change. There are indications that they are in the process of grammaticalizing into aspectual verbs that code the termination of the preceding event.

- (3) *Mûep buk doe t'wot n-s'et.*  
 3Pl return(pl) come sit(pl) LOC-bush  
 'They returned (and) sat here in the bush.' [FUAN2]

Fourth, the locative verbs have given rise to aspectual verbs that occur obligatorily as auxiliary verbs in the progressive construction as illustrated in (4) (see chapter 9). The progressive construction is used to express an activity that is on-going at reference time. The locative verbs code either (a) the position of the referent engaged in the main activity or (b) the position in which the main activity is typically carried out.

- (4) *Mûep na mûep d'e t'ong s'oe s'oe yi.*  
 3Pl see 3Pl exist PROGR eat eating PROGR  
 'They saw them (and they) were eating food.' [FUAN2]

Fifth, the locative verbs occur in the ascriptive construction where they function as the main predicate and co-occur with adverbs or nominalized property verbs as illustrated in (5) (see chapter 10). This construction is used with an ascriptive function to specify a property of the referent. The semantics of the locative verbs are similar to those of the aspectual verbs in the progressive construction.

- (5) *Moto t'o m-fi.*  
 car lie(sg) ADVZ-become\_dry(sg)  
 'The car lies empty.' (i.e., nobody is in the car) [DRAW1\_03-A]

Each of the five locative elements can fill the highlighted slots in table (2) and examples (1) to (5) above. Under specific conditions, elements belonging to the

class of dispositional verbs can occur in some of these slots, but their occurrence is (a) infrequent, (b) not accepted by all speakers, and (c) highly marked (see chapters 6 to 10; see section 3.2.3). On the basis of distributional evidence, the locative verbs can thus be said to constitute a paradigmatic set.

### 3.1.2 Lexical aspect

The locative verbs are stative verbs. This section illustrates their stativity with the help of their occurrence and interpretation in a number of different aspectual constructions.

The locative verbs are unique in the language in that they are the only verbs that can be marked for durative aspect. The durative particle *yi* expresses that, for a specific time-interval, a referent continues to be located in a place.<sup>2</sup> It is often used to describe the spatial layout of settlements (as in 6a), but can be used for any locative relation that is construed as continuous. For example, (6b) is taken from a story in which the protagonist talks about the continuous location of objects in a place.

- (6a) *Dakd'ûe pin muk / ndoe pin T. /*  
 MIDDLE hut 3Sg.Poss CONJ hut T.  
*me / dok yi lang d'i m-pe hok (...).*  
 barn PAST.REM DUR hang/move(sg) LOC.ANAPH LOC-place DEF  
 'Between her hut and T.'s hut,  
 a barn was hanging there in the place (...).' [LU-A]
- (6b) *hûe oerem goe / yi t'oerep d'i k'a tebul (...).*  
 seed beans 2Sgm.Poss DUR lie(pl) LOC.ANAPH HEAD(sg) table  
*Mûep d'a t'oerep t'ei ndoe pe goe-k'em ba /*  
 3Pl HAB lie(pl) already some place NOMZ(sg)-different NEG  
*sai / a k'a tebul hok kûût.*  
 only FOC HEAD(sg) table DEF just  
 'your beans are lying there on the table (...).  
 They never lay any place else,  
 only ever on the table.' [SR\_TMAN-A]

The durative particle can co-occur with all tense particles (e.g., with the remote past tense particle *dok* in 6a above), and also with the irrealis particle *t'ong* (as in 7a below). It can further occur in questions and negative statements (as in 7b).

<sup>2</sup> The relationship of the durative particle *yi* to the subordinating and progressive particles *yi* is examined later.

- (7a) *fitila hok t'ong yi lang d'i sek gak.*  
 lamp DEF IRR DUR hang/move(sg) LOC.ANAPH BODY wall

‘the lamp would be hanging there at the wall.’ [SR\_TMAN-A, A-04/07/01]

- (7b) *Yin fitila ji yi d'e nnang? (...)*  
 SAY lamp Sgm.LogS.Poss DUR exist where

*Nye-pe tab'a t'ei*  
 kind-COMP NEVER already

*yi lang ndoe pe goe-k'em ba (...).*  
 DUR hang/move(sg) some place NOMZ(sg)-different NEG

‘(He<sub>1</sub>) said that where is his<sub>1</sub> lamp? (...)

Because (it) had never

been hanging any place else (...).’ [SR\_TMAN-A, A-04/07/01]

Durative marking is possible in all contexts where locative verbs specify a static locative relation: in the locative construction (as in 6a above), in some serial verb constructions (as in 8a below) and in the progressive construction (as in 8b). Locative verbs can occur in non-stative contexts, e.g., in the inchoative serial construction that expresses a state change (see 11a below for an example; see section 8.2.3) – but in such contexts, durative aspect marking is ungrammatical.

- (8a) *Noemûat zak p'ûat doe yi t'wot d'i (...).*  
 frog also exit(pl) come DUR sit(pl) LOC.ANAPH

‘And the frogs had come out (and) were sitting there (...).’ (i.e., after the frogs had come out, they sat continuously there’) [FROG-D, A-12/10/00]

- (8b) *Noemûat zak yi t'wot*  
 frog also DUR sit(pl)

*t'ong shin shel mûep yi goe shak.*  
 PROGR do game 3Pl.Poss PROGR COM each\_other

‘And the frogs were sitting playing their game with each other.’ (i.e., the frogs sit continuously while being engaged in the activity of playing) [FROG-D, A-12/10/00]

The particle cannot occur with any other verb: neither with the transitive counterparts of the locative verbs (such as *twaam* ‘cause standing’ in 9a; see section 3.1.3 for the causative forms), nor with any stative non-locative verbs (such as *man* ‘know’ in 9b).

- (9a) \**hen yi twaam sh'ep-me sek gak*  
 1Sg DUR cause\_standing(sg) wood-barn BODY wall

\*‘I stood the ladder against the wall’ [A-03/07/01]

(9b) \* *gurum hok yi man bi nduni*  
 person DEF DUR know thing many

\*‘the man knows many things’ [A-03/07/01]

The restriction of the durative particle to stative contexts is to be expected: duratives mark continuous, temporally unstructured, events, and statives are continuous by definition (Comrie 1976: 41-51; Frawley 1992: 149, 306-310). But its restriction to the locative context is unexpected. It possibly results from a diachronic development that originated in the subordinating particle *yi* and/or the progressive particle *yi*. Semantically, a connection between the durative and progressive particles is conceivable, as both convey a notion of unboundedness; and the progressive particle itself has been grammaticalized from the subordinating particle (see section 9.4.1). Syntactically, such a development is not immediately obvious, however, because the particles occur in different positions: the durative particle precedes the verb, while the other two follow it (see the position of the progressive and subordinating particles in 10a). The durative and subordinating particles can even co-occur within the same clause (as in 10b). Goemai speakers consider the durative particle to be different from the other two, and they explicitly base their argumentation on the different syntactic positions.

(10a) *Gurum mûep d’e t’ong t’oerep yi n-yil*  
 person 3Pl.Poss exist PROGR lie(pl) PROGR LOC-ground  
*de mûep t’ong k’wat yi.*  
 COMP 3Pl IRR pay SUB

‘Their people always lay (= slept) at the place,  
 so they would rent (it).’ [MIL-A]

(10b) *Kwalba hok k’oon n-k’oon yi d’yem yi*  
 bottle DEF face\_down(sg) ADVZ-face\_down(sg) DUR stand(sg) SUB  
*k’a tebul.*  
 HEAD(sg) table

‘The bottle is face down so that it is standing on the table.’ [P01\_33-A]

It is nevertheless possible that the durative particle developed from the other two. In multi-verb clauses (i.e., in all clauses that have more than one verb, e.g., serial constructions), the progressive and subordinating particles always follow the first verb and precede the second (see section 2.3.3). Since locative verbs frequently occur as the second verb in such clauses (see section 8.2), they often follow the progressive or subordinating particle (as in 11a). In this position, the particle *yi* could have been reanalyzed as a durative particle (as in

11b). The durative particle would then occur in the slot reserved for aspectual particles, i.e., preceding the verb in a simple clause.

- (11a) *Ru d'em wa ya n-hool gado nûûn muk*  
 enter(sg) this\_time return\_home(sg) arrive LOC-hollow bed mother 3Sg.Poss  
*goe t'a yi t'o.*  
 OBL fall(sg) SUB lie(sg)

'(He) entered this time (and) returned home (and) arrived in the hollow of his mother's bed so that (he) should lie down.' [GOELONG]

- (11b) *Kan yi t'o nd'ûûn (...).*  
 incline DUR lie(sg) INSIDE

'(It) is lying inclined inside (...).' [DIS\_5.1-A/N]

The possibility to mark locative verbs for durative aspect can be taken as one indication of their stativity. In the remainder of this section, further evidence for their lexical aspect is discussed. Central to the argumentation is the interpretation of verbs when they occur in the aorist, resultative and progressive constructions. Their interpretation was systematically tested with the help of questionnaires (P01, P02), video stimuli (DPP) and picture books (INC), that were developed specifically for Goemai. Consultants were shown pictures and videos illustrating state changes together with co-occurring or subsequent activities, and were then asked to describe the witnessed scenes. Their answers, together with the results from direct elicitation and the analysis of natural texts, provided the basis for table (3) below. This table is only concerned with the stative and inchoative verbs of Goemai, as this difference is of importance to the topic of this thesis. Non-stative non-inchoative verbs such as, e.g., *s'oe* 'eat' or *k'wal* 'talk', are not discussed further.

**Table (3):** Lexical aspect and the coding of state and state change in Goemai

Lexical aspect	Aspectual reference		
	state change in progress	completed state change	state
stative	serial construction in progressive	serial construction in aorist	aorist
stative/inchoative	progressive	aorist, resultative	aorist
inchoative	progressive	aorist, resultative	nominalization

Inchoative verbs are used to express a state change. In Goemai, such verbs can only denote a state when occurring in nominalized form in the equational construction (as in 12a and 12b). As illustrated in (12c), the stative locative verbs cannot occur in this context.

- (12a) *K'aram a goe-b'ang.*  
 mat FOC NOMZ(sg)-become\_red  
 'The mat is a red one.' [COMP\_3-A/N]
- (12b) *Twen hok a goe-n-fum.*  
 cloth DEF FOC NOMZ-ADVZ-fold(sg)  
 'The cloth is a folded one.' [DIS\_13.3-N/A]
- (12c) \**k'aram a goe-t'o ~ goe-n-t'o*  
 mat FOC NOMZ(sg)-lie(sg) ~ NOMZ-ADVZ-lie(sg)  
 \*'the mat is a lying one.' [A-22/06/01]

In the unmarked aorist form, by contrast, inchoative verbs focus on the completion of the state change (as *b'ang* 'become red' in 13a and *fu* 'scatter' in 13b).

- (13a) *Kat la goe na la-t'eng hok b'ang nt'it (...)/*  
 maybe COND 2Sgm see child(sg)-tree DEF become\_red thoroughly  
*t'ong goe b'oot goe t'oeleng mûep (...).*  
 IRR 2Sgm able(sg) OBL collect(pl) 3Pl  
 'If you see (that) the fruit has become very red (...),  
 you will be able to collect them (...).' [CROPS]
- (13b) *doe kat hura d'e ma goe-bi*  
 come find gruel exist also as\_if  
*dyen nyap hura yi ba.*  
 PAST.HEST prepare gruel SUB NEG  
*P'yaram dip fu nd'ûûn d'a.*  
 break(pl) all scatter INSIDE calabash  
 '(she) found here (that) the gruel was just as if  
 she hadn't prepared any gruel yesterday.  
 (It) had all spoiled (and) scattered into the calabash.' [REEP]

As illustrated in (13a) and (13b) above, unmarked inchoative verbs receive a default past-tense interpretation. The resulting state is an implicature that arises from the fact that the state change has been completed.<sup>3</sup> It is possible to explicitly code the resulting end state with the help of the resultative particle

<sup>3</sup> During elicitation, speakers consistently rejected the aorist with states, arguing that it expressed a past event, which they had not witnessed.

*kam* (as in 14a and 14b) (see sections 2.4.3.3 and 8.2.1). As illustrated in (14c), stative verbs cannot occur in this context.

(14a) *la yoe f'yer kam b'e*  
 child(sg) 2Sgf.Poss become\_big(sg) RESULT EMPH  
 'your child has become big' [A-11/02/00]

(14b) *la hok shuur kam*  
 child(sg) DEF squat RESULT  
 'the child got into a squatting position' [A-03/07/01]

(14c)\**la hok t'ong kam*  
 child(sg) DEF sit(sg) RESULT  
 \*'the child got into a sitting position' [A-03/07/01]

Whenever inchoative verbs occur in the progressive construction, they express the on-going state change (as in 15a and 15b).

(15a) *Hangoed'e hok d'e t'ong b'ang yi nd'ûûn cup.*  
 water DEF exist PROGR become\_red PROGR INSIDE cup  
 'The water is getting red in the cup.' (= said while the water was turning red) [DPP\_40-A]

(15b) *D'e t'ong d'ûût yi amma d'ûût t'ei ba.*  
 exist PROGR lean PROGR but lean already NEG  
 '(She) is getting into a leaning position, but (she) does not lean yet.'  
 [DPP\_58-N]

In all contexts illustrated above, stative verbs differ from inchoative verbs. Whenever stative verbs occur in the unmarked aorist form, they express the state (as in 16a). This includes locative verbs expressing the position of objects relative to a location (as in 16b). Since these verbs express a state, they cannot be marked for resultative aspect (see 14c above), nor can they occur in nominalized form in the equational construction (see 12c above).

(16a) *Ni man d'ûe men.*  
 3Sg know voice IPl.Poss  
 'He knows our language.' [ARAM. P01\_35-A]<sup>4</sup>

<sup>4</sup> Mental verbs such as *man* 'know' or *rang* 'think' are both stative and inchoative. They thus share similarities with inchoative verbs as well, e.g., they can express a state change in the progressive construction (as in i).

(i) *La hok d'e t'ong man d'ûe bakwa yi le-le nd'asoeno.*  
 child(sg) DEF exist PROGR know voice Hausa PROGR RED-little now  
 'The child is now slowly getting to know the Hausa language.' [P01\_35-A. A-12/06/01]



- (16b) *Nde d'yam pûanang nk'ong men.*  
 one/other stand(pl) there/yonder BACK 1Pl.Poss

'Other ones stand over there behind us.' [TREE-N]

With stative verbs, the state change reading is conveyed through the inchoative serial construction (as in 17a) (see section 8.2.3). The construction can be marked for progressive aspect, in which case it expresses the on-going state change (as in 17b). A stative verb by itself can occur in the progressive construction, but only with a habitual interpretation (as in 17c) (see section 9.2).

- (17a) *Yitsaam mang k'ur mu? K'ur t'a t'o (...).*  
 sleep catch tortoise INTERR tortoise fall(sg) lie(sg)

'Sleep caught the tortoise, right? The tortoise lay down (...).' [KUR]

- (17b) *d'e t'ong t'a yi t'ong n-yil.*  
 exist PROGR fall(sg) PROGR sit(sg) LOC-ground

'(she) is sitting down onto the ground.' [DPP\_66-N]

- (17c) *tun soe goe-sek /*  
 since time NOMZ-body  
*fûan d'e t'ong t'ong yi n-goede yim.*  
 rabbit exist PROGR sit(sg) PROGR LOC-bottom leaf

'ever since that time the rabbit sits under the leaves.' [FUAN2]

Their distribution and interpretation in the different TAM constructions suggests that locative verbs are stative verbs – they do not express any state change. As stative verbs they occur with durative aspect marking, they receive a stative interpretation in the unmarked aorist and a habitual interpretation in the progressive construction, and they cannot occur with either the resultative particle (to express a resulting state) or in nominalized form (to express a state). In all these aspects, they differ from inchoative verbs. The attested differences are cross-linguistically quite common (see, e.g., Dowty 1979; Foley and Van Valin 1984; Vendler 1967), but, interestingly, Goemai has only very few stative verbs, while it has a large group of inchoative verbs (see section 3.2).

From a cross-linguistic perspective, the lexicalization of postural-based verbs as exclusively stative does not seem to be very common. In many languages, it is not possible to categorize such verbs unambiguously as either stative or non-stative (see J. Newman 2002a for an overview). For Dutch, Mulder and Wehrmann (1989) argue that the postural-based locational verbs are ambiguous between a stative reading (coding a locative relation) and an active reading

(coding the performance of an action). For English, Levin and Rappaport Hovav (1995: 126-133) show that verbs of spatial configuration have four different readings: agentive ‘maintain a position’, agentive ‘assume a position’, non-agentive ‘simple position’ (i.e., the existence of an entity at a location) and causative.<sup>5</sup> In both Dutch and English, the different readings are associated with different syntactic patterns.

In other languages, either the stative or the non-stative form can be said to be basic. Although both possibilities are attested (see J. Newman 2002a for an overview), there are claims that posturals are basically non-stative. For example, when discussing grammaticalization chains, Heine (1997b: 205-207) subsumes the posturals under his ‘action schema’, arguing that the inactive reading (e.g., ‘stand’) is conceptually derived from the active reading (e.g., ‘stand up’). Others have noted an internal split, based on experiential reality, suggesting that some postures (e.g., ‘lie’) are more likely to be lexicalized as statives than others (e.g., ‘stand’) (J. Newman 2002a).

In Goemai, those verbs that express human postures (e.g., *shuur* ‘squat’, see section 3.2.3) are, indeed, non-stative verbs. By contrast, the postural-based locative verbs are stative verbs, coding ‘simple position’ (in the terminology of Levin and Rappaport Hovav) – even when describing human postures. And although they can be recruited to express the ‘maintain position’ and ‘assume position’ readings, these readings do not result from the verbs alone, but from constructional semantics and pragmatic implicatures (see sections 5.1.1.3 and 8.2.3). For the causative reading, suppletive forms have to be used (see section 3.1.3).

### 3.1.3 Argument structure

This section discusses the argument structure properties of locative verbs. It is shown that they are (i) intransitive and (ii) occur with a location participant that is syntactically expressed as an adjunct.

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<sup>5</sup> In their view (1995: 130-133), the causative and non-causative readings involve distinct lexical semantic representations, i.e., they cannot be derived from one another. But since they share the same constant (i.e., the spatial configuration), many languages use the same verb in all cases.

With the exception of *d'e* 'exist' (see table 1 above), the locative verbs have suppletive singular/plural forms.<sup>6</sup> Being intransitive verbs, they agree in number with the subject as illustrated in (18a) and (18b) (see section 2.4.2.2).

(18a) *La d'a d'yem nd'ûûn s'a doe.*  
 little(sg) calabash stand(sg) INSIDE hand Sgf.LogA.Poss  
 'A little calabash stands in her hand.' [STAGE\_81-N]

(18b) *Jap t'eng / d'yam d'i n-zam muk sosai (...).*  
 little(pl) tree stand(pl) LOC.ANAPH LOC-field 3Sg.Poss thoroughly  
 'Many little trees stand there in his farm (...).' [SR\_MUCH-A]

With the exception of *lang* 'hang/move' (see section 3.3 for a discussion), the locative verbs cannot occur in the transitive construction. Instead, there are suppletive transitive forms (as illustrated in table 4 below). These forms are used to express scenarios in which an external or internal agent causes the Figure, i.e., the located entity, to be in the specified locative relation.

**Table (4):** Locative verbs: intransitive and transitive forms

	Intransitive	Transitive
'hang/move'	<i>lang</i> (sg), <i>leng</i> (pl)	<i>lang</i> (sg), <i>leng</i> (pl)
'sit'	<i>t'ong</i> (sg), <i>t'wot</i> (pl)	<i>d'u</i> (sg), <i>d'war</i> (pl)
'stand'	<i>d'yem</i> (sg), <i>d'yam</i> (pl)	<i>twaam</i> (sg), <i>twat</i> (pl)
'stand in a stable way'	=	<i>twet</i> ~ <i>toot</i> (sg), <i>twat</i> (pl)
'lie'	<i>t'o</i> (sg), <i>t'oerep</i> (pl)	<i>b'ûet</i> (sg), <i>d'ûe</i> (pl)
'exist'	<i>d'e</i>	<i>loe</i>

The transitive verbs occur with a direct object that expresses the Figure. Its direct object status can be shown with respect to its position preceding boundary morphemes such as the particle *yi* in (19a) (see section 2.3.3). Being transitive verbs, number agreement is with the direct object, hence with the Figure (as in 19b).

(19a) *ji d'ûe nsh'i yi k'a.*  
 Sgm.LogS cause\_lying(pl) honey SUB HEAD(sg)  
 'so he lay honey on top.' [MOESHA]

<sup>6</sup> It is shown in section 4.3 that *d'e* 'exist' codes a very general semantics, subsuming the semantics of the more specific posturals. In view of its general semantics, it is not surprising that it also neutralizes the number distinction.

- (19b) *Mûep b'ûet ni sek b'et muk.*  
 3Pl cause\_lying(sg) 3Sg BODY BELLY 3Sg.Poss

'They lay it next to it.' [COMP\_8-M/J]

Both the transitive and the intransitive locative verbs occur with a Ground phrase (expressing the entity with respect to which the Figure is located). This Ground phrase has the status of a semantic participant (see below), but is realized as a syntactic adjunct. Like all adjuncts, it follows boundary morphemes such as *yi* in (20) below.

- (20) *Mûep t'ong tang ndoe gurum goe-mis /*  
 3Pl IRR search some person NOMZ(sg)-man(sg)  
*de goe t'o yi sek mûep.*  
 COMP OBL lie(sg) SUB BODY 3Pl.Poss

'They would look for some male person  
 so that (he) should lie near them.' [MIL-C]

Such a mismatch between the semantic participant on the one hand and its syntactic realization as an adjunct on the other is problematic for the traditional definition of adjuncts: adjuncts are often considered to be external to the semantics of a verb, i.e., they are seen as not corresponding to any semantic participant (see, e.g., Matthews 1981: 121-145). A few studies explicitly address such questions with respect to locative verbs. They come to the conclusion that, in these cases, the syntactic adjunct nevertheless expresses a semantic participant (for Dutch, see Mulder and Wehrmann 1989; for German, see Kaufmann 1995; Maienborn 1991; for English, see Levin and Rappaport Hovav 1995: 128). As shown below, a similar conclusion can be drawn for Goemai.

In Goemai, the existence of a semantic participant (independent of its syntactic realization) can be shown with the help of clausal nominalization. In a nominalized clause, all participants need to be expressed, independently of whether they are coded as core arguments or adjuncts in the corresponding verbal clauses. (21a) and (21b) illustrate this observation with respect to locative verbs.

- (21a) *D'a goe-t'ong k'a muk a haam yim.*  
 calabash NOMZ-sit(sg) HEAD(sg) 3Sg.Poss FOC water/color leaf

'The calabash that sits on its top is of green color.' [COMP\_3-A/N]

- (21b)\**d'a goe-t'ong a haam yim*  
 calabash NOMZ-sit(sg) FOC water/color leaf

\*'the calabash that sits is of green color' [A-22/06/01]

It is possible to suppress a semantic participant by means of adverbialization and nominalization (see section 2.4.2.3). A comparable effect is found in purpose clauses, which make use of the alternate forms *de-goe* and *de-goe N-*. (The latter form probably contains the adverbializing prefix *N-*.) With all transitive verbs (such as *s'oe* 'eat' in 22a and 22b), the prefix *N-* is obligatorily present whenever the direct object is omitted.<sup>7</sup> Similarly, with all locative verbs (as *t'o* 'lie' in 23a and 23b), this prefix occurs obligatorily whenever the locative adjunct is omitted. Compare this distribution to the behavior of, e.g., intransitive manner of motion verbs, which do not have a location participant. In their case, the two forms are used interchangeably (as in 24a and 24b).

- (22a) *mûer goe-n-d'oot de-goe s'oe s'oe n-ni ba.*  
 oil NOMZ-ADVZ-purify PUR eat eating COM-3Sg.I NEG

'no palm-oil that was purified to eat food with it.' [LU-N]

- (22b) *Mûep kat la-t'eng de-goe n-s'oe ba.*  
 3Pl find child(sg)-tree PUR PUR-eat NEG

'They didn't find a fruit to eat (it).' [NTI]

- (23a) *B'em de-goe t'o dakt'ûe.*  
 touch PUR lie(sg) MIDDLE

'(It) touches to lie in the middle.' [DIS\_14.2-M/J]

- (23b) *Ngong goe-pe la nnoe ru/ de-goe n-t'o (...).*  
 nighttime NOMZ-COMP child(sg) LOC.ANAPH enter(sg) PUR PUR-lie(sg)

'At night after this child had come in to lie there (...).' [FROG-C]

- (24a) *Yool de-goe su ba na a la reep (...).*  
 rise(sg) PUR run(sg) return(sg) see FOC little(sg) girl(sg)

'(He) rose to run and (he) saw a little girl (...).' [FUAN]

- (24b) *Yool de-goe n-su.*  
 rise(sg) PUR PUR-run(sg)

'(He) rose to run.' [FROG-A]

The location participant of locative verbs can be suppressed under certain conditions. First, as already mentioned, it can be suppressed whenever the verb is adverbialized (see also 26-3 below). As a consequence, both the presentative and the deictic classifier constructions, which originated in adverbialized clauses, do not necessarily contain a locative adjunct (see sections 6.1.2 and 7.1). Second, it can be suppressed when the verb occurs in an aspectual

<sup>7</sup> The two forms are partly in pragmatic opposition (see section 2.5.2). This pragmatic opposition does not affect the distribution discussed in the present chapter. In (22b) and (23b), the omission of the prefix *N-* is ungrammatical.

construction (see chapters 8 to 10). Third, it can be suppressed when the focus shifts away from the locative relation between Figure and Ground to the internal posture of the Figure (see Maienborn 1990 for a comparable analysis for German). In this case, the verb either elaborates on the internal posture or it contrasts it to other possible postures. Such a shift in focus needs to be formally marked: through the presence of a comitative adjunct that codes an intrinsic part of the Figure (as in 25-1), through the presence of a cognate adverb (as in 25-2 and 25-3), through contrastive stress (as in 26-2), or through a focus particle marking the adverbialized verb (as in 26-2). Unless the locative verb is marked in one of these ways, the adjunct cannot be omitted.

(25-1) N: *T'ong goe goede.*  
 sit(sg) COM bottom

'(It) sits on the bottom.'

(25-2) A: *T'ong n-t'ong. Man d'yem n-d'yem ba a?*  
 sit(sg) ADVZ-sit(sg) PROH stand(sg) ADVZ-stand(sg) NEG INTERR

'(It) sits sitting. (It) shouldn't stand standing, should it?'

(25-3) N: *A'a / t'ong n-t'ong. Ni goe sh'e a?*  
 no sit(sg) ADVZ-sit(sg) 3Sg COM foot INTERR

'No, (it) sits sitting. Does it have a leg?'

[DIS\_6.1-A/N]

(26-1) A: *To / nd'asoeno moe yong moe yi /*  
 okay / now IPI call IPI SAY

*t'ong n-yil a ko d'yem n-yil?*  
 sit(sg) LOC-ground INTERR maybe stand(sg) LOC-ground

'Okay, now do we say that

(it) sits on the ground or (that it) stands on the ground?'

(26-2) N: *A n-d'yem- / t'ong- / a n-d'yem / T'ONG ba.*  
 FOC ADVZ-stand(sg) sit(sg) FOC ADVZ-stand(sg) sit(sg) NEG

'Standing-, (it) sits-, standing, (it) doesn't SIT.'

(26-3) A: *N-d'yem / yes.*  
 ADVZ-stand(sg) yes

'Standing, yes.'

[DIS\_14.8-A/N]

The unmarked locative verb, by contrast, always expresses the position of a Figure in relation to a Ground (see section 4.2.6), and thus always occur with an adjunct that specifies this Ground. Because of (a) their unmarked form and (b) the obligatoriness of the locative adjunct in nominalized and purpose

clauses, I assume that the Ground constitutes a semantic participant of the locative verbs.

### 3.2 Locative verbs and state-change verbs

The previous section introduced the locative verbs, focussing on their distribution, their stative lexical aspect, and their argument structure (in particular, their location participant). Taken together, these properties make it possible to set up a form class of locative verbs.

Of particular interest to this study is the observation that the locative verbs are stative verbs. Goemai has only few stative verbs since it lexicalizes as inchoatives many concepts that are lexicalized as statives in other languages. This includes property concepts (as in 12a, 13a, 14a and 15a above) and spatial configurations (as in 12b, 13b, 14b and 15b above). Mental verbs have both a stative and an inchoative reading (see footnote 4). Chadic languages commonly code property concepts in inchoative verbs (Stassen 1997: 293-295, 507-512), but not much is known about the coding of the other concepts.<sup>8</sup>

This section introduces the inchoative verbs of Goemai. It is beyond the scope of the thesis to provide an exhaustive classification of verbs, but the inchoative verbs are of special interest to this study. Talmy (1985) has shown that, in many languages, the same verb roots are used to express both stative and inchoative. In Goemai, only the mental verbs lexicalize both concepts, while other verbs are either stative or inchoative. The inchoative verbs show interesting formal and semantic parallels to the stative locative verbs, but they are distinguishable as a separate form class, labeled state-change verbs. Section 3.2.1 introduces those properties that are shared by all members of this class. The class can be further divided into distinct subclasses such as property verbs, dispositional verbs, or verbs of separating and joining. Each subclass forms a semantically coherent unit that can be formally distinguished from the others. Two of the subclasses are discussed in more detail: the property verbs are

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<sup>8</sup> Frajzyngier (1977a) argues that the intransitive copy pronoun, which is typical for Chadic languages, is a way to derive inchoatives from statives. The presence of such morphology could suggest that many Chadic verbs are statives, and not inchoatives. Notice that Goemai does not have an intransitive copy pronoun. Many Benue-Congo languages are known to code comparable concepts in inchoative verbs (Welmers 1973). Unfortunately, this type of information is not available for the Benue-Congo languages spoken in the Jos Plateau area.

discussed because of their qualifying semantics and their occurrence in the modifying construction (section 3.2.2), and the dispositional verbs are discussed because of their semantic similarities to locative verbs and their occurrence in the locative construction (section 3.2.2). The other subclasses are not discussed further.

### 3.2.1 State-change verbs

All state-change verbs are inchoative verbs (see section 3.1.2 above). They thus express the on-going state change when marked for progressive aspect (as in 15a and 15b above), the completed state change when unmarked (as in 13a, 13b, 14a and 14b above), and the state when nominalized (as in 12a and 12b above).

Since the state change is gradable, all state-change verbs can occur in the comparative construction (as *f'yer* 'become big' in 27a) or with degree adverbs and ideophones (as *kan* 'incline' and *k'oon* 'face down' in 27b and 27c).

(27a) *nye-goe-pe*      *dûûs (...)*      *f'yer*      *ma*      *ni*.  
 kind-NOMZ-COMP    cricket      become\_big(sg)    surpass    3Sg  
 'because the cricket (...) has grown bigger than him.' [ANIMAL5]

(27b) *Amma kan nduni ba*.  
 but      incline      much      NEG  
 'But (it) is not much inclined.' [DIS\_5.2-A/N]

(27c) *K'oon kirip ba*.  
 face\_down(sg)    IDEOPH    NEG  
 '(It) is not completely face down.' [DRAW\_5-N/A]

Locative verbs cannot be graded in such a way: a Figure either is or is not at a Ground. As a result, locative verbs cannot occur in the comparative construction. They can occur with degree adverbs, provided that these can be interpreted as modifying the Ground. This interpretation is reflected formally in that adverbs such as *jar* 'straight/completely' have to follow the locative adjunct (as in 28a). In the case of state-change verbs, they follow the verb (as in 28b).

(28a) *T'o d'i k'a tebul jar mu?*  
 lie(sg)    LOC.ANAPH    HEAD(sg)    table    straight    INTERR  
 '(It) lies there straight on the table, right?' (= it is aligned parallel to the edges of the table) [DIS\_14.4-A/N]



- (28b) *K'oon jar k'a tebul.*  
 face\_down(sg) straight HEAD(sg) table

'(It) is straight face down on the table.' (= it is completely face down)  
 [DIS\_1.2-A/N]

The state-change verbs not only differ in their lexical aspect from the locative verbs, but also in their argument structure. They occur in the intransitive (as in 29a and 29b), the transitive (as in 30a and 30b) and the location-object construction (as in 31a and 31b).

- (29a) *To / k'oon k'a tebul.*  
 okay face\_down(sg) HEAD(sg) table

'Okay, (it) is face down on the table.' [DRAW\_2-N/A]

- (29b) *Jap moe-nd'yen d'e d'i /*  
 children(pl) NOMZ(pl)-become\_small(pl) exist LOC.ANAPH  
*d'emde mûep nan.*  
 remainder 3Pl.Poss become\_big(pl)

'Small children were there, (and) the others had grown big.' [FRIENDS]

- (30a) *Mûep k'oon ni / n-s'ong sh'ep.*  
 3Pl face\_down(sg) 3Sg LOC-branch wood

'They put it face down on the branch of the tree.' [DIS\_1.4-J/M]

- (30b) *P'ûûs b'ang ni toe.*  
 sun become\_red 3Sg EMPH

'The sun made him red.' [INC\_23-N]

- (31a) *Candle k'oon k'ek muk n-yil.*  
 candle face\_down(sg) heads(pl) 3Sg.Poss LOC-ground

'The candlestick is face down on its heads on the ground.' (= a seven-armed candlestick upside down) (lit. 'it faces its heads on the ground')  
 [CONF\_1-N]

- (31b) *goe-pe mûep f'yar hen (...).*  
 NOMZ-COMP 3Pl become\_big(pl) 1Sg

'who have grown big in relation to me (...).' [QUEST]

Recall that these three argument structure constructions are characterized by the following properties:

- In the intransitive construction (see section 2.4.1), any element following the verb occurs in the syntactic adjunct slot. Number agreement is with the subject.

- In the transitive construction (see section 2.4.1), the element following the verb occurs in the syntactic direct object slot. The object bears the same semantic relation to the verb as the subject of the intransitive use. Number agreement is with the direct object.
- In the location-object construction (see section 2.4.2.4), the element following the verb occurs in the syntactic direct object slot. The subject bears the same semantic relation to the verb as the subject of the intransitive use. Number agreement is with the subject.

Locative verbs do not occur in either the transitive or the location-object construction – the only exception is *lang* ‘hang/move’ that occurs in the transitive construction (see table 4 in section 3.1.3 above),

Furthermore, state-change verbs do not have a location participant in their lexical argument structure. This is especially relevant in the case of the subclass of dispositional verbs since they code a type of spatial semantics similar to that coded in locative verbs. Although these verbs can occur with a locative adjunct that expresses the Ground, they commonly occur either without any adjunct (as in 32a) or with a comitative adjunct that specifies the relation of one part of the Figure to that of other parts (as in 32b). An external Ground may be added (as in 32b), or introduced through an additional locative verb (as in 32c).

(32a) *Sher k’oon.*

pot\_piece face\_down(sg)

‘The piece of the pot faces down.’ [DIS\_8.5-A/N]

(32b) *Ko ni goe dum goe foerem muk n-yil.*

maybe 3Sg OBL bend\_forward COM knee 3Sg.Poss LOC-ground

‘Or he should bend over on his knees onto the ground.’ {SR\_POSTURE\_11-J}

(32c) *Kan to k’a toom.*

incline lie(sg) HEAD(sg) chair

‘(It) lies inclined on the chair.’ [DIS\_7.7-A/N]

All state-change verbs can co-occur with a locative verb in the configurational serial construction (as in 33a and 33b) (see section 8.2.2). Their co-occurrence suggests that they code different, but complementary, types of information.<sup>9</sup>

<sup>9</sup> Another conceivable interpretation would be that one of the classes is semantically more general. In this case, verbs of the general class could provide a type of verb

- (33a) *Ndoe gurum shuur t'ong pûanang.*  
 some person squat sit(sg) there/yonder  
 'Someone sits squatting over there.' [STAGE\_69-N]

- (33b) *hangoed'e hok b'ang d'e nd'ûûn cup*  
 water DEF become\_red exist INSIDE cup  
 'the water is red in the cup' [A-15/06/01]

To summarize, all state-change verbs differ considerably from locative verbs. They are non-stative, labile, do not have a location participant and can co-occur with locative verbs.

### 3.2.2 Property verbs and the modifying construction

Property verbs constitute a subclass of state-change verbs. Table (5) on the next page gives an approximation of the kinds of semantics coded by these verbs. (Notice that it proved difficult to find English glosses that would adequately translate the inchoative semantics of these verbs.)

This subclass differs from other state-change verbs in its derivational properties: adverbs are derived from property verbs by partial reduplication (as in 34a) (see section 2.3.1), and abstract nouns are formed through zero derivation (as in 34b).

- (34a) *Shin nwap d'in sosai foe-f'yer.*  
 do gum sheabutter thoroughly RED-become\_big(sg)  
 '(He) prepared glue from the sheabutter (tree), really strongly.' [FUAN]
- (34b) *To/ hen na f'yer wa ru.*  
 okay 1Sg see bigness(sg) return\_home(sg) enter(sg)  
 'Okay, I saw (that) old age had arrived.' [LU-N]

Property verbs furthermore occur in the modifying construction (see section 2.1.1.5), which is used to (a) derive modifiers and nominals from other word classes and (b) overtly mark the modifying function. This construction is illustrated in figure (1) below. Its defining characteristics are as follows: modifiers agree in number with the head noun; and they can be used pronominally in place of the whole noun phrase, i.e., as headless modifiers.

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classification of the kind that is found in many Australian languages (see McGregor 2002; Schultze-Berndt 2000). In the course of chapters 4 and 6, it is shown that this alternative interpretation cannot adequately account for the Goemai data.

**Table (5):** Property verbs

Property verb	Gloss
<i>b'aan</i>	'warm'
<i>b'al</i>	'hard, rigid, inflexible, expensive, stingy'
<i>b'ang</i>	'red, clean'
<i>b'arak</i>	'fresh, wet'
<i>d'eet</i>	'bitter', see <i>shind'eet</i> 'difficult (lit. do bitter)'
<i>d'wang</i>	'sour'
<i>foerep, doelek</i>	'rough'
<i>f'yel</i>	'light, quick'
<i>f'yer</i> (sg), <i>f'yar</i> (pl)	'big (importance, age)'
<i>f'yer</i> (sg), <i>nan</i> (pl)	'big (size)'
<i>gya</i>	'old (age)'
<i>kaam</i>	'wide'
<i>kat</i>	'small (size)'
<i>kwak</i>	'smooth'
<i>k'ep</i>	'short'
<i>leen</i>	'soft'
<i>lyAAP, nyaal</i>	'thin'
<i>malak</i>	'sticky, slimy (of okra)'
<i>meen</i>	'fresh, raw'
<i>nek, nuur</i>	'thick (of liquid)'
<i>(n)gergek</i>	'round (of calabash)'
<i>(n)k'ong</i> (sg), <i>(n)d'yen</i> (pl)	'small (importance, age)'
<i>pya</i>	'white'
<i>p'oot</i>	'narrow'
<i>p'ûe</i>	'new'
<i>rees</i> (sg), <i>rwas</i> (pl)	'lean, thin'
<i>rok</i>	'sweet'
<i>sûe, sh'ak</i>	'long'
<i>s'ûûr</i>	'old, disused'
<i>shoon</i>	'heavy'
<i>sh'an, dool</i>	'fat, stout'
<i>tep</i>	'black'
<i>t'eng</i>	'tall'
<i>zoom</i>	'cold'

**Figure (1):** The modifying construction

Form:	[(Noun)	Prefix-	Modifier] <sub>NP</sub>
(nominal)		<i>goe-</i> (sg) <i>moe-</i> (pl)	state-change verb property noun activity verb determiner (?) <sup>10</sup> numeral (?) demonstrative (?) locative expression (?)
Meaning: The referent of the noun phrase is thought of as having property X.			
Function: Deriving modifiers from other word classes, overt marking of the modifying function, overt marking of number.			

All state-change verbs are attested in the modifying construction, but, based on their frequency, the property verbs are the prototypical verbs to occur there: almost all examples in the corpus of natural texts involve property verbs. It is likely that this distribution results from the fact that they code prototypical adjectival concepts such as dimension, physical property, color or age (Dixon 1982b; Stassen 1997: 168-169). The modifying construction is of interest to this study because it can be entered by locative expressions, including locative verbs.

The modifying construction derives nouns (as in 35a) and modifiers (as in 35b) from state-change verbs.

(35a) *Nde a goe-rok.*  
one/other FOC NOMZ(sg)-become\_sweet

'The other one was a sweet one.' [TREE-N]

(35b) *Goe-n-d'yem-nmoe a lemu goe-rok.*  
NOMZ(sg)-ADVZ-Cl:stand(sg)-DEM.PROX FOC orange NOMZ(sg)-become\_sweet

'This standing one is a sweet orange (tree).' [TREE-N]

All property nouns,<sup>11</sup> i.e., nouns that can fulfill a qualifying function, can enter this construction, e.g., descriptive color terms (as in 36a). In this case, two

<sup>10</sup> Determiners and numerals are not accepted by all speakers; demonstratives and locative expressions show certain formal peculiarities (see the discussion below, see section 7.1.1).

<sup>11</sup> Recall that the prefixes *goe-* and *moe-* can also occur with common nouns such as *nda* 'father' or *gurum* 'person', i.e., with nouns that do not code property concepts

alternative strategies are available: the comitative strategy (as in 36b) and the possessive strategy (as in 36c).

- (36a) *lu*                    *moe-haam*                    *haas-ke*  
 settlement    NOMZ(pl)-water/color    egg-chicken  
 ‘yellow houses’ [D-11/01/99]
- (36b) *Moto*   *goe / haam*    *yim*    *d’yem*    *goede*.  
 car            COM    water/color    leaf    stand(sg)    BOTTOM  
 ‘A green car stands underneath.’ (lit. ‘car with greenness’) [COMP2\_6- A/N]
- (36c) *D’a*            *m-muk*            *haam*            *yim*            *t’ong*    *d’i (...)*.  
 calabash    NOMZ-3Sg.Poss    water/color    leaf    sit(sg)    LOC.ANAPH  
 ‘A green calabash sits there (...).’ (lit. ‘calabash in possession of greenness’) [COMP\_1-A/N]

Activity verbs can occur in the modifying construction (as in 37), provided that they characterize a typical activity of the referent.

- (37) *gurum*   *moe-shin*    *shit (...)*.  
 person    NOMZ(pl)-do    work  
 ‘the workers (...).’ [MIL-A]

This construction is furthermore used to derive nominals from determiners such as from the locative anaphor *nnoe* in (38a). In addition, some speakers can use the construction to overtly mark modifiers. For such speakers, determiners (as in 38b) and numerals (as in 38c) can optionally be marked with the modifying prefixes when they occur in modifying position. The prefixes do not have a derivational function here since both the determiners and the numerals can occur as non-derived modifiers (see section 2.2.2).

- (38a) *Goe-nnoe*                    *yin*    *ji*                    *ma*    *toe*.  
 NOMZ(sg)-LOC.ANAPH    SAY    Sgm.LogS    surpass    EMPH  
 ‘This one<sub>1</sub> said that he<sub>1</sub> is better.’ [NYERE]
- (38b) *Reep*    *goe-nnoe*                    *mang*    *sap*    *zak-yit (...)*.  
 girl(sg)    NOMZ(sg)-LOC.ANAPH    take    axe    again  
 ‘This girl took the axe again (...).’ [STAGE\_52-N]
- (38c) *Yool*    *lap*            *sharap*            *ji /*                    *sharap*    *moe-k’un*.  
 rise(sg)    receive    women(pl)    Sgm.LogS.Poss    women(pl)    NOMZ(pl)-three  
 ‘(He<sub>1</sub>) rose (and) married his<sub>1</sub> women, three women.’ [TIME-N]

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(see section 2.2.1.1). In this case, they do not express the modifying function, but code number.

It is likely that the modifying construction was originally used for deriving (a) nominals and modifiers from property verbs (and possibly from other state-change verbs as well) and (b) nominals from determiners. These are the functions attested in the manuscripts of Sirlinger (1937; 1942; 1946). Its occurrence with other lexical fillers is probably the result of a recent development. The availability of alternative strategies and the considerable speaker variation also point towards a fairly recent development.

In present-day Goemai, this construction does not only have a derivational function but also a modifying function: it characterizes the referent in terms of a specific property. Usually, this property is a time-stable property (such as the qualities coded in the property verbs and nouns). But other means of characterizing the referent are possible: in terms of a transitory spatial property (coded in dispositional verbs), a part-whole relation (coded in verbs of separating and joining), an activity (coded in activity verbs), discourse status (coded in determiners), or number (coded in numerals).

It is furthermore possible for locative expressions to enter the modifying construction. This includes demonstratives (as in 39a) as well as locative clauses that contain a locative verb (as in 39b and 39c).

- (39a) *Tebul* ***goe-n-d'yem-nnoe-hoe*** *a?*  
 table NOMZ(sg)-ADVZ-Cl:stand-DEM.PROX-exactly INTERR  
 'Is it this standing table?' [COLOR\_5-A/N]
- (39b) *gwi* ***moe-t'wot*** ***b'ak*** *nnoe* *a* *m-maan*  
 calabash NOMZ(pl)-sit(pl) here LOC.ANAPH FOC NOMZ-1Sg.Poss  
 'these sitting calabashes here are mine' [A-22/06/01]
- (39c) ***Goe-k'oon*** ***n-k'oon*** ***d'yem*** *nnoe-hoe.*  
 NOMZ(sg)-face\_down(sg) ADVZ-face\_down(sg) stand(sg) LOC.ANAPH-exactly  
 'This standing face down one.' [HAND-A/N]

The occurrence of locative expressions in the modifying construction is discussed in sections 7.1.1 and 7.4. It is shown there that the extension of the modifying construction to locative expressions is a recent development. It is also shown that they do not constitute typical fillers of the modifying construction since they exhibit additional properties. Nevertheless, Goemai grammar treats locative expressions similarly to qualifying expressions: it permits them to occur in the modifying construction and thus to characterize a referent in terms of its locative relation.

### 3.2.3 Dispositional verbs and the locative construction

Dispositional verbs constitute a second subclass of state-change verbs. They are distinguished by their ability to occur in the locative construction. Table (6) on the next page illustrates the types of semantics coded by these verbs. Again, as in the case of the property verbs, the glosses can only be seen as an approximation of the semantics.<sup>12</sup>

For diachronic and semantic reasons, I include a number of verbs in the subclass of dispositional verbs that show additional properties. (These verbs are marked with an asterisk in table 6). They share all properties with other state-change verbs, with the only exception that, in the transitive construction, they can express either the Figure (as in 40a) or the Ground (as in 40b) as the direct object. Other dispositional verbs can only express the Figure in this slot.

- (40a) *Mûep shyoot ni / n-sh'e tebul.*  
 3Pl coil 3Sg LOC-leg table  
 'They coiled it around the table's leg.' [DIS\_9.4-A/N]

- (40b) *Goe-nnoe a wo shyoot p'ang.*  
 NOMZ(sg)-LOC.ANAPH FOC snake coil stone  
 'This one, it is a snake (that) coiled around a stone.' [MT\_1-I/J]

With such verbs, the Ground can thus be expressed alternatively as a direct object or as an adjunct. It is, in fact, often difficult to determine the syntactic status of the element following the verb: whenever this element contains a spatial nominal, it could occur either in the direct object slot (i.e., preceding the particle *yi* as in 41a below) or in the adjunct slot (as in 41b below).

- (41a) *wo d'e t'ong shyoot sek kuk yi*  
 snake exist PROGR coil body stump PROGR
- (41b) *wo d'e t'ong shyoot yi sek kuk*  
 snake exist PROGR coil PROGR BODY stump
- 'the snake is coiling around the stump' [A-04/07/01]

The syntactic status of the element can only be determined in contexts such as in (41a) and (41b), i.e., in contexts that contain boundary morphemes such as

<sup>12</sup> I do not claim that the table gives an exhaustive list of the dispositional verbs in Goemai. It is likely that, upon further investigation, other dispositional verbs will be found. It is furthermore possible that some verbs in the list may turn out not to be dispositional verbs, but rather activity verbs. Nevertheless, I assume that the list gives a fairly good impression of the kind of semantics found with these verbs.



**Table (6):** Dispositional verbs

Dispositional verb	Gloss
<i>byap</i>	'prostrate'
<i>b'am</i>	'stick'
<i>b'eer</i>	'scatter (of masses); plenty'
(* <i>b'oot</i> )	'tie'
<i>dap</i>	'bend backward'
<i>dum<sub>1</sub></i>	'bend forward'
<i>dum<sub>2</sub></i> (sg), <i>duk</i> (sg, pl)	'upside down (on Figure's solid top)'
<i>d'ak</i>	'scatter'
<i>d'ûûr</i>	'located precariously, carry on head'
<i>d'ûût</i>	'lean, support'
<i>fu</i>	'scatter'
<i>fum</i> (sg), <i>fûam</i> (pl)	'fold'
<i>guur</i>	'hooked'
<i>kab'al</i>	'cross-wise'
<i>kan</i>	'incline, bend sideward'
<i>koot</i>	'stoop'
<i>ku ~ kur</i>	'curl, heap'
<i>k'oon</i> (sg), <i>k'ab'an</i> (pl)	'face down (on Figure's usage space)'
<i>k'ut ~ k'wat</i>	'crouch, roll up'
<i>k'wep ~ k'wop</i>	'burrow, stick into'
<i>lam</i>	'twist'
<i>maar</i>	'pile up'
<i>meet</i>	'scatter'
<i>neep ~ nap</i>	'hang straight downward, become sleepy'
<i>ruk</i>	'short spaced to each other'
<i>sar</i>	'at an angle'
<i>s'ang</i>	'stretch'
<i>shuur</i>	'squat'
(* <i>shyoot</i> )	'coil (around), encircle'
<i>sh'uut</i>	'in form of a foliage, branch out'
<i>t'arat ~ t'arak</i>	'in patches'
<i>yeng</i>	'hang to side'
<i>yuut</i>	'in large numbers, in a mass'
<i>zaan</i>	'in a line, draw'

the particle *yi* (see section 2.3.3). I assume that the ambiguity results from the properties of the spatial nominals. Any object can be subdivided into parts. In (41a), the part noun *sek* ‘body’ is used to specify that the snake is coiled around the main part of the stump and not, for example, around the top part (*k’a* ‘head’) or the bottom part (*goede* ‘bottom’). Such intrinsic parts are identical in form to the spatial nominals that can add an adjunct constituent such as *sek* in (41b) (see sections 2.3.2 and 6.2.2). This overlap probably accounts for the two readings.

Semantically, both types of dispositional verbs are similar. Compare, for example, the verb *shyoot* ‘coil (around)’ to the prototypical dispositional verb *k’ut* ‘roll up’. There is one semantic difference that may account for the different coding possibilities: the Ground is important to the semantics of verbs like *shyoot* (i.e., a Figure ‘coils around/encircles something’), but not necessarily to the semantics of verbs like *k’ut* (i.e., a Figure can be ‘rolled up’ in relation to itself). As a consequence, the Ground can occur as a direct object with the former, but not with the latter type of verbs.<sup>13</sup> Since both types exhibit otherwise identical properties, I subsume them under the general heading of dispositional verbs.

As illustrated in table (6), the dispositional verbs have a spatial semantics that seems similar to that of locative verbs (see section 4.4 for details). Given their semantic similarities, it could be expected that locative and dispositional verbs share other formal properties as well – yet they belong to two different classes.<sup>14</sup> Their only formal similarity is that both types of verbs can occur in the locative construction. (42a) illustrates a locative verb in this construction, and (42b) a dispositional verb.

<sup>13</sup> It is possible that the direct object status of the Ground results from a diachronic development. In present-day Goemai, verbs like *shyoot* ‘coil’ occur with a direct object in stereotypical situations only (e.g., when the Figure is tightly coiled around the main body of the Ground). That is, it is conceivable that, originally, such verbs were always followed by an adjunct. Over time, the spatial nominal or preposition was dropped in stereotypical situations and the former adjunct was reanalyzed as a direct object. Such a scenario could be explained pragmatically with the help of Levinson’s (2000b) M-principle (see section 1.3.1). But in the absence of independent evidence, such a diachronic development has to remain speculative.

<sup>14</sup> There are languages that subsume comparable verbs in the same form class. Well-known examples of such languages are Mayan languages such as Tzeltal or Yukatek (Bohnenmeyer and Brown submitted; Lucy 1994; Martin 1977).

- (42a) *Wang t'ong n-yil.*  
 pot sit(sg) LOC-ground  
 'The pot sits on the ground.' [DIS\_8.6-A/N]

- (42b) *Pepe k'oon n-yil.*  
 cover face\_down(sg) LOC-ground  
 'The cover is face down on the ground.' [DIS\_7.6-A/N]

Like all state-change verbs, dispositional verbs are (a) inchoative verbs and (b) do not have a location participant (see section 3.2.1). But when they occur in the locative construction, they occur with a stative interpretation and a locative adjunct expressing the static Ground. This observed difference makes it possible to distinguish between a lexical and a constructional level, as it is assumed that the stative semantics and the locative adjunct are provided by the construction. The remainder of this section provides evidence for this assumption.

Like any other state-change verb, dispositional verbs can occur with an optional locative adjunct. Since they are inchoative verbs of getting into a spatial configuration, the adjunct specifies either the goal of such a state-change or the location on which the state change takes place (as in 43). It does not define a search region for the Figure.

- (43) *Ko yi loe a foerem yi k'a /*  
 maybe 2Sgf put FOC knee 2Sgf.Poss HEAD(sg)  
*yi dum k'a.*  
 2Sgf bend\_forward HEAD(sg)  
 'Or you put your knee onto the top (of the cloth),  
 you bend onto the top.' [HAND-J]

In such contexts, dispositional verbs retain their inchoative semantics. For example, they express the on-going state change when occurring in the progressive construction (as in 44a); and they cannot be marked for durative aspect (as in 44b).

- (44a) *Goe-k'wal k'wal men /*  
 NOMZ-talk talking 1Pl.Poss  
*la hok d'e t'ong k'oon yi goe b'et muk.*  
 child(sg) DEF exist PROGR face\_down(sg) PROGR COM belly 3Sg.Poss  
 'While we are talking,  
 the child is getting face down on its belly.' [P02\_59-A]

- (44b) \**la*      *hok*   *yi*      *k'oon*      *goe*   *b'et*   *muk*   *n-yil*  
 child(sg) DEF    DUR      face\_down(sg) COM    belly    3Sg.Poss LOC-ground  
 \*‘the child got face down on its belly onto the ground’ [A-03/07/01]

But in contrast to other state-change verbs, they can also occur in locative relational contexts, where the verb specifies actual Figure properties, while the adjunct specifies the static location. Such a context is illustrated in the dialog in (45).

- (45) N: *K'oon*      *n-yil*.  
           face\_down(sg) LOC-ground  
           ‘(It) is face down on the ground.’  
 A: *Mh / okay*.   *Dakd'ûe*   *n-yil*      *a*      *ko-*  
           yes    okay      MIDDLE    LOC-ground    INTERR    maybe  
           ‘Yes, okay. (Is it) in the middle on the ground or-’  
 N: *K'oon*      *dakd'ûe*   *n-yil*.  
           face\_down(sg) MIDDLE    LOC-ground  
           ‘(It) is face down in the middle on the ground.’  
           [DIS\_7.5-A/N]

In such locative contexts, the inchoative interpretation of dispositional verbs is absent. They rather behave like stative verbs in that they receive a habitual interpretation when occurring in the progressive construction (as in 46a); and they can be marked for durative aspect (as in 46b).

- (46a) *la*      *hok*      *d'e*      *t'ong*      *k'oon*      *yi*      *n-yil*  
 child(sg) DEF    exist    PROGR    face\_down(sg) PROGR    LOC-ground  
 ‘the child is always face down on the ground’ [A-03/07/01]  
 (46b) *wang*   *yi*      *k'oon*      *n-yil*  
           pot      DUR      face\_down(sg) LOC-ground  
           ‘the pot is face down on the ground’ [A-03/07/01]

The different behavior of dispositional verbs in non-locative (examples 43, 44a and 44b) and locative (examples 45, 46a and 46b) contexts needs an explanation. The following two lines of interpretation are conceivable:

- (i) It can be argued that the resultative interpretation, which state-change verbs receive in the unmarked aorist, is compatible with a stative interpretation (i.e., the present state is an implicature that results from the fact that the state change has been completed). This compatibility would allow state-change verbs to occur with the same interpretation in the same constructions as stative locative verbs.

(ii) Alternatively, it can be argued that, in addition to the resultative interpretation (and its 'present state' implicature), the semantic similarities to locative verbs allow dispositional verbs to occur in the stative locative construction. Under this scenario, it is the locative construction that co-occurs with durative aspect – not the dispositional verbs. Similarly, the habitual interpretation of the progressive form would result from the constructional semantics – not from the lexical semantics. The construction thus coerces a stative meaning, while backgrounding the inchoative meaning of the verbs.

The second line of interpretation is more promising because of a difference between the dispositional verbs, on the one hand, and other state-change verbs, on the other. If the first line of interpretation were true, all state-change verbs should be compatible with a stative reading – but this is not the case. Property verbs, for example, always receive a state-change interpretation in the progressive construction (and never a habitual interpretation). Similarly in their unmarked form – unmarked forms of property verbs can never denote a state; only nominalized forms can. It is likely that this difference between dispositional and other state-change verbs results from the fact that only the dispositional verbs can occur in the locative construction. The stative locative construction, in turn, is then responsible for the stative semantics.

I therefore assume that examples (45), (46a) and (46b) are instantiations of the locative construction (contributing the locative adjunct and the stative semantics) that co-occur with the aorist, progressive and durative aspect constructions respectively (contributing the aspectual semantics). When a stative construction co-occurs with the aorist, it expresses a state, and when it occurs with the progressive, it receives a habitual interpretation. Furthermore, only a stative locative construction can co-occur with the durative construction.

It follows from this discussion that two types of verbs can enter the locative construction: locative verbs and dispositional verbs. Since the properties of the locative verbs match those of the locative construction (location participant, stative semantics), it is not possible to argue, on this basis alone, for the existence of both a lexical and a constructional level. Such an argumentation is only possible on the basis of the mismatch between the lexical properties of dispositional verbs (no location participant, inchoative semantics) and the constructional properties. In their case, it can be argued that these properties are provided by the construction – i.e., when occurring in the locative construction, the dynamic, state-change, aspect of dispositional verbs is

backgrounded in favor of the resulting end state.<sup>15</sup> Hence, a separate constructional level has to be recognized (see section 1.3.1 for a discussion of the construction grammar framework). Schematically, the fused structure can be represented as in figure (2) (following Goldberg 1995).

**Figure (2):** Composite structure: locative construction and dispositional verb

Semantics	Be in a position at a location	< Figure	Ground >
↓		↓	⋮
Dispositional verb	Get into a disposition	< Figure	>
↓		↓	⋮
Syntax	Verb	Subject	Oblique

Dispositional verbs can be integrated into the locative construction because their lexically profiled role (i.e., the entity getting into a position) can be construed as an instance of the constructional role 'Figure' (i.e., the entity being in a position at a location). This fusion of roles results from their compatible spatial semantics (see chapter 4 for details on their semantics).

It is frequently assumed that constructions are structured as prototype categories, having both central and marginal members (Goldberg 1995: 39-43; Taylor 1998). Verbs whose lexical semantics match the semantics of the construction are its prototypical lexical fillers (e.g., the locative verbs in the locative construction in Goemai). Other fillers may enter the construction (e.g., the dispositional verbs), but they do not prototypically occur there. As a consequence of their marginality, the dispositional verbs only occur infrequently in the locative construction, they are rarely the immediate answer to a 'where' question, and there is considerable variation between speakers as

<sup>15</sup> The stative reading of the inchoative dispositionals has to be coerced by the construction. Goldberg (1995: 59-66) recognizes a number of different conflation patterns that can resolve such a mismatch between verb semantics and constructional semantics. One pattern specifies that the event type designated by the verb is a precondition of the event type designated by the construction, i.e., 'getting into a disposition/state' can be seen as the precondition of 'being in a disposition/state'.

to whether or not they produce or accept dispositional verbs in the locative construction (see section 4.4).

To summarize this section, the dispositional verbs form a semantically coherent group that codes information about the spatial disposition of a Figure. The formal criterion that distinguishes the dispositionals from other state-change verbs is their ability to occur in the locative construction. However, they are not the prototypical verbs to occur in this construction.

### 3.3 Summary and discussion

This chapter has shown that the locative verbs constitute a clearly defined form class in Goemai (section 3.1): they have unique distributional properties, they occur with durative aspect marking, they are stative verbs, and they occur with a location participant. In all these respects, they differ from the inchoative state-change verbs (section 3.2.1). In two other respects, though, there are similarities between locative and state-change verbs. First, locative verbs (like state-change verbs) can enter the modifying construction and thus characterize a referent in terms of its locative relation (section 3.2.2). Second, dispositional state-change verbs (like locative verbs) can enter the locative construction (section 3.2.3).

This concluding section summarizes and discusses the place of locative verbs vis-à-vis dispositional verbs. The following two pieces of information are relevant to this discussion:

First, it has been shown in section 3.1.3 that the locative verb *lang* ‘hang/move’ differs from the other locative verbs in that it does not have a suppletive transitive form, but can occur in both the intransitive and the transitive constructions. For some speakers, it is even marginally acceptable to mark *lang* ‘hang/move’ for resultative aspect (as in 47). Furthermore, it differs from the other postural verbs in that it does not take part in the same set of semantic oppositions (see section 4.2.6).

(47) ? *matnaan lang kam sak b'e*  
 spider hang/move(sg) RESULT body.2Sgm.Poss EMPH  
 ‘the spider has moved on your body’ [A-27/12/99]

J. Newman (2001; 2002a) proposes that, cross-linguistically, some verbs in the set of postural verbs are more agentive than others. In Goemai, this is clearly

the case for *lang* ‘hang/move’ – possibly because of the motion component of its semantics that can be linked to a more agentive subject. Its distribution thereby shows similarities to that of the dispositional verbs, which can occur in the transitive construction and which can be marked for resultative aspect.

Second, dispositional verbs show similarities to locative verbs in that they can occur in the locative construction. Throughout this chapter, the dispositional verbs were discussed as a single group whose members show identical behavior. There are, however, differences between the individual verbs: some dispositional verbs occur more frequently in the locative construction than others; and one dispositional can even enter some of the constructions that are normally restricted to locative verbs only (e.g., the presentative construction).

There are thus (a) internal divisions within each verb class and (b) similarities between individual members of one class and those of the other class. These observations could suggest that individual verbs can shift from the class of dispositional verbs to the class of locative verbs. Such a process is illustrated schematically in figure (3) below.

**Figure (3):** A cline between dispositional verbs and locative verbs

dispositional verbs			locative verbs	
←			→	
core members:	occur easily in locative construction:	occur in presentative construction:	remnants of agentive semantics:	core members:
<i>kan</i> ‘incline’	<i>duk</i> ‘upside down’	<i>k’oon</i> ‘face down’	<i>lang</i> ‘hang/move’	<i>t’ong</i> ‘sit’
<i>shuur</i> ‘squat’	<i>d’ûût</i> ‘lean’			<i>d’yem</i> ‘stand’
<i>d’ak</i> ‘scatter’	<i>b’am</i> ‘stick’			<i>t’o</i> ‘lie’
and many more				<i>d’e</i> ‘exist’

The internal divisions are likely to be motivated by the verb semantics in the following ways:

First, dispositional verbs that occur frequently in the locative construction code information about the Figure as well as about the type of contact between the Figure and the Ground, e.g., *b’am* ‘(sticky) Figure sticks to Ground’, *d’ûût* ‘(inclined) Figure leans against Ground’. Alternatively, they specify an



intrinsic part through which the Figure supports itself, e.g., *k'oon* 'face down (on the usage space)', or *duk* 'upside down (on the solid top)'. Such verbs thus code some kind of relational information that is similar to the semantics of locative verbs. By contrast, verbs that code Figure information only, occur rarely in the locative construction.

Second, the dispositional verb *k'oon* 'face down' may be on its way to being included in the class of locative verbs. It is used with a Figure that maintains its position autonomously through being located on its usage space, either on its *pûe* ('mouth') or on its *k'a* ('head'). Compare this to the semantics of the locative verb *t'ong* 'sit', which is used with a Figure that maintains its position autonomously through being located on its base, i.e., its *goede* ('bottom'). Furthermore, *k'oon* 'face down' fills a gap in the semantic system of postural verbs: none of the posturals can be unambiguously used with Figures that are located upside down. Both considerations taken together probably account for the similarities in usage between *k'oon* 'face down' and the locative verbs (see section 4.4).

*K'oon* 'face down' is similar to the locative verbs in yet another respect. Unlike locative verbs, dispositionals cannot be used to classify objects since no object is seen as being inherently or canonically, e.g., coiled, folded or inclined (see section 5.2.2.3). There is only one potential exception to this generalization: the canonical position of all covers (such as hats or lids) is *k'oon* 'face down'. *K'oon* does not (yet) have a classificatory use, but it is conceivable that it may eventually be used to classify objects that are canonically located upside down.

Third, the locative verb *lang* 'hang/move' shows both semantic and formal similarities to dispositional verbs. It is possible that *lang* has only recently completed a shift from the class of dispositional verbs to that of locative verbs.

In the absence of diachronic evidence, such a scenario is based on plausibility alone. Synchronically, despite the behavior of individual verbs, there are clear criteria to distinguish between the form classes of locative and dispositional verbs. The next two chapters analyze and compare the semantics and pragmatics of these two verb classes in more detail.



## LOCATIVE VERBS AND LOCATIVE RELATIONAL SEMANTICS<sup>1</sup>

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### CHAPTER 4

This chapter analyzes the semantics of the locative verbs, and compares it to that of the dispositional verbs. Although both types of verbs code some kind of spatial semantics (allowing both to occur in the locative construction), they belong to two different form classes. In the previous chapter, it was established that the locative verbs constitute a form class: they are characterized through unique distributional properties, stative semantics and a location participant in their argument structure. Dispositional verbs, by contrast, constitute a subclass of state-change verbs: they generally do not occur in the same environments as locative verbs, they have inchoative semantics and they do not have a location participant.

This chapter focuses on locative relational semantics. It is assumed that this kind of semantics is basic to the locative verbs: it is present in all environments where they occur, but is most clearly evidenced in the locative construction – i.e., in the construction that diachronically precedes all other constructions. Additional semantic features that have developed in the course of grammaticalization are discussed in chapters 6 to 10.

The analysis presented in this chapter contributes to the following four topics:

(i) The coding of locative relational information in verbs.

Goemai codes locative relational information in verbs. In large parts of the literature, by contrast, it is implicitly or explicitly assumed that such information is found in adpositions and case-markers only (see, e.g., Fillmore 1975: 16-27; Frawley 1992: 250-293; Landau and Jackendoff 1993; J. Lyons 1977: 636-734; Miller and Johnson-Laird 1976: 375-410; Talmy 1985: 61-76).

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<sup>1</sup> Condensed versions of chapters 4 and 5 appear in Hellwig (submitted-a; submitted-d). The presented analysis was shaped by discussions with members of the Space project at the MPI for Psycholinguistics, Nijmegen. In particular, the hypotheses advanced in Ameka and Levinson (in prep.-a) are of importance to the argumentation.

(ii) The locative relational semantics of postural verbs.<sup>2</sup>

The postural verbs in Goemai code information about the support relation between a Figure (i.e., the entity being located) and a Ground (i.e., the entity with respect to which the Figure is located). Features such as dimensionality or axial properties, by contrast, only play a marginal role. In this respect, their semantics differs from the kind of semantics commonly found with postural-type elements in other languages (Aikhenvald 2000a: 271-306; Denny 1979; Grinevald 2000: 71-74; van Oosten 1986; Serra Borneto 1996; Talmy 1985).

## (iii) The coding of spatial information in two different verb classes.

In Goemai, spatial information is coded in two distinct verb classes, both of which can occur in the locative construction: locative and dispositional verbs. This language-internal division corresponds to a difference between two types of languages: those that employ postural-like (or locative-like) verbs and those that employ dispositional-like verbs (Ameke and Levinson in prep.-a). It is unusual that a language should make use of both types.

## (iv) Field methodology and semantics.

The semantic analysis was shaped, to some extent, by the use of stimuli-based methods. This approach was adopted because of the problems that arise in the semantic analysis of little described languages, i.e., in an analysis that is done in the absence of easy access to native speaker intuitions, extensive text corpora and comprehensively documented grammatical structures. Despite their importance, questions of field semantics are rarely discussed in the semantic literature (e.g., Cruse 1986; Frawley 1992; Goddard 1998; J. Lyons 1977).

These four topics are further discussed throughout this chapter.

The chapter is structured as follows: Section 4.1 introduces the methodology. Section 4.2 analyzes the locative relational semantics of the postural verbs and of their causative counterparts. Section 4.3 discusses the semantics of the existential verb, and section 4.4 compares the semantics of the dispositional verbs to that of the locative verbs. Section 4.5 concludes this chapter. The next chapter (chapter 5) continues the semantic analysis, and discusses the classificatory potential of the locative verbs.

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<sup>2</sup> The locative verbs can be divided into two distinct semantic subgroups: existential and posturals. The existential is the superordinate term, while the posturals are its hyponyms (see section 4.3).

#### 4.1 Methodology

The semantic literature proposes different techniques for conducting semantic analyses (see, e.g., Cruse 1986; Frawley 1992; J. Lyons 1977; Zwicky and Sadock 1975). Most of them rely crucially on native-speaker intuitions about the acceptability or the equivalence of certain expressions. J. Lyons (1977: 379), for example, states that “[w]hat we are after is some intuitive notion of grammatical acceptability which native speakers have by virtue of their recognition of principles that are immanent in their own language-behaviour (...).”

The importance of native-speaker intuitions poses a problem for field linguists who, in many cases, are not native speakers of the languages they analyze. Field linguists necessarily have to resort to other types of data, in particular, to observational and elicited data. Semanticists often treat such data with skepticism. J. Lyons (1977: 28), for example, states that “(...) the identification of utterance-tokens as instances of the same utterance-type cannot be carried out in terms solely of external, observational criteria.” He (1977: 379) says further that “(...) this [i.e., the intuition, B.H.] is something that we cannot get at directly by asking them [i.e., the native speakers, B.H.] whether a putative sentence is or is not grammatical.”

In addition to this more general skepticism, two specific problems emerge in the analysis of little described languages. First, if the meaning of an expression is to be inferred from observing its use in context, a text corpus is needed. Since it is well known that many expressions occur only infrequently in natural language use or are restricted to certain registers, this corpus has to be large and diversified to ensure some degree of representativeness (see, e.g., Biber 1995) – but such a corpus is usually not available for little described languages. Second, if the meaning of an expression is to be inferred on the basis of elicited grammaticality and acceptability judgements, the grammatical structure of the language has to be reasonably well understood. In the absence of comprehensive grammatical descriptions, it will be difficult to construct appropriate test sentences or to delimit larger semantic types on the basis of grammatical criteria.

In view of these methodological problems, field linguists often find it difficult to carry out semantic analyses. Grammars often contain statements to the effect that it was not possible to determine the exact meaning of an expression, or that an expression could be used interchangeably with some other expression

without a change in meaning. For example, with reference to postural-like verbs, it is not uncommon to find statements like the following: “[i]n their existential function they are devoid of meaning and only serve a linking purpose” (W. Seiler 1985: 157).

In the semantic analysis of Goemai, different techniques were combined to circumvent the methodological problems. The data comes from two major sources: natural data (section 4.1.1) and stimuli data (section 4.1.2).

#### *4.1.1 Natural data*

Part of the natural data comes from the database of naturally occurring texts that contains a variety of genres (see table 2 in section 1.2). Although locative verbs and the locative construction occurred frequently in most genres, it was not possible to base their semantic analysis entirely on these texts (for a discussion of related issues, see Samarin 1967: 210; Vaux and Cooper 1999: 181-191). The following problems emerged:

- Although the construction occurs frequently, the distribution of verbs varies considerably: a small number of verbs is responsible for most occurrences, while others occur only infrequently.
- The verbs occur with a limited range of Figure and Ground objects only. For many conceivable locative relations, the linguistic data is not available. And, given the absence of negative information, it is unknown whether or not individual verbs are considered to be equivalent.
- The reference context is usually unknown, i.e., the position of the referent relative to its location in the real world cannot be reconstructed anymore.

For these reasons, the naturally occurring data was supplemented with semi-natural data from staged communicative events, i.e., events that do not serve any communicative purpose other than that of producing data (Himmelmann 1998). Goemai speakers were asked to talk about certain topics, which, in all likelihood, would generate locative descriptions. Whenever possible, visual props were present in the speech context. Speakers produced procedural texts about the manufacture of objects, they discussed an array of handicrafts placed in front of them (see also Levinson et al. 2001), they talked about the surrounding flora, they described the spatial layout of compounds and towns (see also Kita et al. 2001), and they gave route directions. In addition, speakers

were presented with picture books and video films and were asked to retell their content to some other member of the speech community (see also Berman and Slobin 1994).

The data collected with staged communicative events constituted a good compromise between natural and elicited data. Such events had the advantages that (a) locative expressions occurred with considerable frequency and that (b) the reference context could be monitored. Furthermore, once the context was given, most speakers talked freely about the specified topic. Wherever possible, conversations between native Goemai speakers were staged instead of monologues, thereby minimizing the problems involved in researcher-directed speech. Throughout the analysis, such data, together with naturally occurring data, was used to check the naturalness of the stimuli data.

#### 4.1.2 *Stimuli data*

Stimuli-based tasks were developed to explore the system of locative verbs.<sup>3</sup> All tasks relied on a common feature: the visual representation of locative relations in form of pictures, objects or videos, and their presentation to consultants. This setup kept some of the advantages of traditional elicitation (i.e., controlling for relevant parameters, standardization), but situated the responses in clearly defined and reconstructable contexts. They generated not translation equivalents, but natural-like responses – some tasks even allowed speakers to converse freely amongst themselves, without them being aware of the real nature of the task.

The following five properties make visual stimuli particularly interesting to work with:

First, visual stimuli provide speakers with possible contexts for their answers, and thereby minimize the risk of misunderstandings. Misunderstandings are likely to occur in any form of elicitation as speakers tend to judge the

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<sup>3</sup> The development of tasks was considerably influenced by work done in the Language and Cognition group at the MPI for Psycholinguistics (Danziger 1993; Danziger and Hill 1993; Wilkins 1995; Wilkins 1999b; Levinson and Enfield 2001). See also Levinson (1992) and Pederson et al. (1998) for discussions. See Berman and Slobin (1994), Chafe (1980), and Givón (1991) for the use of video films. See Eisenbeiss et al. (1994) for elicitation methods in the context of language acquisition studies, and see Turnbull (2001) for pragmatic studies. The introductory text books by Samarin (1967) and Vaux and Cooper (1999) also proved very useful in this respect.

acceptability of an utterance against its contextual use – if such a context is not provided, they have to create it themselves. J. Lyons (1977: 420), for example, states that “[w]hen our informants tell us that a particular utterance is deviant, anomalous, bizarre, etc., they may simply mean that they cannot immediately imagine the circumstances under which they would produce it.”

Second, since the extra-linguistic context is clearly defined, it can be reconstructed in the process of analysis.

Third, the procedure is very flexible in that it allows the researcher to probe for potentially relevant parameters as well as to test hypotheses systematically.

Fourth, since the context and the tested parameters are held constant, the same task can be used with different speakers for purposes of comparison.

Fifth, traditional elicitation is usually carried out with few consultants only, as it requires (a) some amount of training and is (b) time-consuming. The game-like nature of the tasks, by contrast, makes it possible to run them with many different, untrained, consultants, thereby generating a large amount of data in a short time. Most speakers were fascinated by the visual stimuli, and generally found them more interesting than questionnaires used in traditional elicitation (see also the discussion in Vaux and Cooper 1999: 55-59).

Table (3) in section 1.2 lists the tasks that were used in this study. Some draw on already existing tasks, others were specifically developed for the study of Goemai. In particular, the following types of tasks were used to generate data on locative descriptions: picture book tasks, sorting tasks and matching games.

In picture book tasks, consultants were presented with pictures of objects in various locative relations with each other. These included the following types: a large number of both known and novel objects; the same object in different (canonical and non-canonical) positions and at different (canonical and non-canonical) Grounds; multiple objects; multiple objects in different positions; and objects in unknown positions. Speakers were then asked “Where is Figure X?” For each picture, the following answers were noted: (a) the first answer of the consultant, (b) all spontaneous answers in the order in which they were given, (c) the acceptance and rejection of any form suggested by me, and (d) all other comments made by the consultant (suggesting alternative items, alternative contexts, folk explanations, etc.). Tasks involving video stimuli followed a similar procedure, except that the consultants were not presented



with static locative relations, but with caused and spontaneously emerging locative relations.

In the course of fieldwork, hypotheses about the relevant semantic parameters were constantly updated and tested, i.e., the set of stimuli was refined by adding new pictures and by removing others that had proven irrelevant. These tasks generated a large database on the expression of locative relations. Being a form of elicitation, speakers became quickly aware of my interests. They implicitly and explicitly compared the depicted relations to potential other relations or to relations that they had seen in previous pictures. As a result, the following two problems emerged:

(i) Speakers focussed on minute differences between pictures, often compressing a large amount of information into a single utterance (as illustrated in 1 below). As evidenced from natural texts, such descriptive utterances are not representative of everyday usage. Since such utterances occurred rarely as spontaneous answers to ‘where’ questions, a subset of speakers was asked for spontaneous answers only, i.e., with them, I did not probe for alternatives.

- (1) *Lu carrot hok paat t'oerep nd'ûûn tasa goeme.*  
 settlement/pile carrot DEF five lie(pl) INSIDE plate one

‘The five piles of carrot lie in one plate.’ [DRAW2\_69-C]

(ii) Speakers tended to give prescriptive answers and to reject alternative possibilities. They particularly rejected all possibilities that did not discriminate between pictures. The results obtained with picture book tasks differed in this respect from the results obtained with sorting tasks and matching games.

In sorting tasks, speakers were presented with a pile of pictures that depicted locative relations. They were then asked to group similar pictures together, based on the question “show me all pictures where Figure X *is located* or *is not located* at Ground Y.” The questions were asked with both locative and dispositional verbs in the verb slot, and the responses were written down. Sorting tasks were designed to complement the picture book tasks since they encouraged speakers to pay attention to similarities, rather than differences.

In matching games, two consultants were asked to play with each other. One consultant assumed the role of ‘director’ and the other the role of ‘matcher’. The two players were screened off from each other and received a set of

identical pictures depicting various locative relations. The director started the game by picking one of the pictures and describing it to the matcher, who had to find the matching picture in his or her set. Since the two players could not see each other's pictures, they had to rely solely on verbal descriptions for this purpose. When they were convinced that the picture was correctly identified, they put their pictures aside on a pile, and the director picked another one from the set. When all pictures were identified, the screen was removed, and the players compared their piles to check if they matched. Throughout the whole game, I stayed in the background, recorded the game on audio or video, and took additional notes to keep track of matches and mismatches.

The picture sets paid attention to the following two contrasts: (i) the same object in different positions (e.g., an upright pot contrasting with an upside-down pot), and (ii) the same object in the same position but at different locations (e.g., several upside-down pots: one in a tree, one on a table, etc.). The two types generated different response strategies. Whenever objects contrasted in their position, speakers chose those items that differentiated best between the different positions – such data are comparable to the picture book data. Whenever objects contrasted in their location, speakers only used a subset of the available items – such responses occurred only rarely in the picture book tasks. The two strategies are compared in detail in chapter 5.

Matching games share with picture book tasks the systematic manipulation of parameters. Because they were more difficult to set up (two speakers were needed, screens had to be provided, and video recording was advisable), and because they took more time, it proved easier to use picture book tasks to generate large amounts of extensional data. But matching games had two advantages over picture book tasks. First, these games were not overtly concerned with the speech of the consultants – rather, the task was to find the matching picture. Because of this setup, prescriptive language occurred only rarely. Second, being interactive genres, the matching games generated a wealth of conversational data: negotiations between speakers took place, explicit judgements about the appropriateness of specific items in specific contexts were made, and interpretations and misunderstandings could be observed on-line.

The extensional data generated with the different stimuli-based tasks, the staged communicative events and the naturally-occurring events were all taken into account for the semantic analysis presented in this and the next chapter.

## 4.2 The locative relational semantics of postural verbs<sup>4</sup>

This section discusses the locative relational semantics of the four postural verbs *lang* ‘hang/move’, *t’ong* ‘sit’, *d’yem* ‘stand’ and *t’o* ‘lie’. As illustrated in table (1), the posturals are not only used in reference to human postures, but occur with a wide variety of physical entities, including ambient phenomena such as smoke or moonlight<sup>5</sup> – in fact, their use to describe human postures is marginal as well as formally marked (see section 4.2.6 for a discussion). Table (1) is intended to give an impression of the kinds of entities that can co-occur with a postural. It is organized on the basis of entities, i.e., entities of a similar type occur in the same row. The table follows a similar presentation as Levinson (2000a), but it differs in that it depicts all attested collocations, not just the ones that cannot be predicted on the basis of either postural semantics or pragmatic implicatures.

As discussed in section 1.3.1, the semantic analysis in this study follows a monosemy bias, i.e., unless there is evidence to the contrary, only one sense is posited. In distinguishing between monosemy and polysemy, the following heuristic guideline is adopted: whenever it is possible to account for all occurrences of a postural with the help of a single definition, these occurrences are assumed to follow from a single sense. This sense will be characterized in terms of semantic components (i.e., in terms of those components that are present in all occurrences of the postural), but this characterization should not

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<sup>4</sup> The semantic and pragmatic analysis adopted in this section was especially influenced by Schultze-Berndt’s (2000) analysis of generic verbs and coverbs in the Australian language Jaminjung and by Levinson’s (2000a) analysis of postural verbs in the Papuan language Yéli Dnye.

Throughout this thesis, the terms ‘locative relation’ and ‘position’ are used interchangeably in reference to the locative relational semantics of the postural verbs.

<sup>5</sup> If there is no further comment specified in table (1), the postural is used with the canonically positioned entity.

**Table (1):** Extensions of postural verbs

<i>lang</i> 'hang/move'	<i>t'ong</i> 'sit'	<i>d'yem</i> 'stand'	<i>t'o</i> 'lie'
moving person, mammal, reptile, insect, fish, bird;	sitting person, mammal; bird on ground;	standing person, mammal; bird in air;	lying person, mammal; insect, reptile on ground;
moving car, bike, boat;	boat (on water, on ground);	fish in water;	
fruit, leaf in tree;	orange, pineapple, tomato;	car, bike;	fruit, leaf on ground; forest;
<i>s'oor</i> (calabash suspended from rafter);	container (calabash, bottle, plate); hat, <i>pepe</i> (woven cover);	tree (stump), millet, guineacorn;	container on side; any object in a container;
lamp on ceiling;	lamp, phone, radio, alarm clock; chair;	upside-down container; tall bottle, <i>wangheen</i> (pot buried in ground);	
fishing net, cloth on line;	coiled rope or cloth (headpad);	table;	rope, cloth, ribbon;
hook on wall, handle on door;		inserted arrow or nail;	<i>zaal</i> (ribbon tied around tree); watch, bracelet, ring, belt; bark around tree;
cloud, fog, smoke, wind, rain;		hut, house, wall;	pencil, paper, spoon;
sun, moon (also: <i>d'yem</i> );		leaning ladder, flower in vase;	masses (grass, water, flour, sand, ashes, dust, rubbish);
hand, tail, wing;		smoke, moonlight, darkness (in one place);	night, darkness;
heart, kidney, lung, liver;		sun, moon (also: <i>lang</i> );	tongue, beard;
landmark, settlement in distance	village, town	foot, horn, nose, ear, tooth; bone;	vein;
		well, cave, lake, pond, mountain	sea, river, road, place

be seen as being either universal or primitive – it is rather meant to constitute an English approximation to the postural semantics. Multiple senses are posited if (i) semantic components are added or removed or (ii) formal differences are observed to occur (i.e., a sense is associated with a different argument structure pattern, number agreement or suppletive causative counterpart) – provided that the observed differences cannot be explained with reference to either constructional semantics or pragmatics (see section 1.3.1 for details).

Although the coded lexical meaning of the posturals is thus assumed to be abstract and invariant, it is not denied that Goemai speakers have an encyclopedic knowledge at their disposal, nor that speakers may categorize on the basis of prototypes (see, e.g., Haiman 1980; Taylor 1989). However, under the approach adopted here, such knowledge is not necessarily part of the coded meaning, but may, instead, arise from pragmatic processes. In particular, one type of pragmatic process is explored throughout the thesis: implicatures that arise from the systemic opposition between posturals. The following line of argumentation is pursued: (i) on the basis of its canonical position, each Figure is assigned to one of the postural categories (i.e., its default or unmarked postural); (ii) if a Figure is non-canonically positioned, speakers have the option to shift to a different postural (i.e., a non-default or marked postural), which they choose on the basis of some similarity to those Figure/Ground relations that, by default, belong to the chosen postural category. These shifts to non-default posturals are assumed to be pragmatic in nature.

Throughout this chapter, reference is made to such default (or unmarked) uses, on the one hand, and non-default (or marked) uses, on the other. The implications of these different uses, however, are not explored until section 5.1. In that section, it is shown that all posturals occur in two uses: a ‘classificatory’ use (i.e., the default postural is used to categorize the Figure in terms of its canonical position) and an ‘assertional’ use (i.e., the speaker shifts to a non-default postural to assert the actual position of the Figure). In the assertional use – but not in the classificatory use – addressees pay attention to the actual position of the Figure. It is argued that these systematic differences in interpretation can be explained with the help of pragmatic principles that follow from the use of a default postural as opposed to the use of a non-default postural.

Sections 4.2.1 to 4.2.5 illustrate all attested uses of the stative posturals and their causative counterparts, both the ones that can be explained with reference

to the coded lexical meaning and those that can be explained with reference to pragmatic implicatures. Section 4.2.6 then summarizes the postural semantics, and section 4.2.7 the pragmatic shifts.

#### 4.2.1 lang ‘hang/move’

The postural *lang* ‘hang/move’ is used for Figures that are either suspended and dangling (as in 2a) or moving (as in 2b).

- (2a) *Mûep d’e d’i sai ni na ndoe lu nsh’i /*  
 3Pl exist LOC.ANAPH then 3Sg see some settlement bee/honey  
*ni lang n-t’eng.*  
 3Sg hang/move(sg) LOC-tree

‘They were there, then he saw a beehive, it hung in the tree.’ [FROG-C]

- (2b) *Sh’arap / la lang n-hangoed’e / ni su (...).*  
 fish COND hang/move(sg) LOC-water 3Sg run(sg)

‘If the fish move in the water, it (= crab) runs (after them) (...).’ [KABAL]

It could be argued that *lang* ‘hang/move’ is polysemous, and hence ambiguous between an ‘attachment’ sense (as in 2a) and a ‘movement’ sense (as in 2b). Nevertheless, there are reasons to assume that *lang* is not ambiguous, but rather semantically general over both uses. This assumption is based on the following two observations:

- (i) There are no formal differences between *lang* in its ‘attachment’ reading and *lang* in its ‘movement’ reading. For example, one could imagine that *lang* ‘movement’ (but not *lang* ‘attachment’) could be marked for progressive aspect or that it could co-occur with adverbs such as *d’ad’at* ‘quickly’. However, this is not the case – in both readings, *lang* can co-occur with the same aspectual markers and with the same types of adverbs.<sup>6</sup> Furthermore, *lang* cannot be used in reference to the same scenario in order to simultaneously assert one of the readings (e.g., attachment) while negating the other (e.g., movement). For example, (3) below is ungrammatical. If *lang* were ambiguous, one would expect sentence (3) to be grammatical (see, e.g., Zwicky and Sadock 1975 for a discussion of ambiguity tests).

<sup>6</sup> Incidentally, *lang* ‘hang/move’ cannot co-occur with *d’ad’at* ‘quickly’, nor can it be marked for progressive aspect (see section 3.1.2 for the lexical aspect of postural verbs).

- (3) \**wus lang<sub>1</sub> k'umpin / amma lang<sub>2</sub> d'i ba*  
 fire attach(sg) ceiling but move(sg) LOC.ANAPH NEG  
 \*‘the lamp is attached to the ceiling, but (it) does not move (= swing)  
 there’ [A-03/07/01]

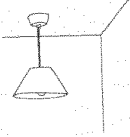
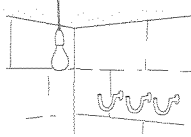
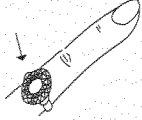
(ii) It is possible to account for both readings with the help of a single definition, i.e., “the Figure has the potential to move within the Ground”. The contextual reading would then depend on other factors, in particular, it would depend on properties of the Figure: an inanimate Figure would usually trigger the ‘attachment’ reading, while an animate Figure or a natural force would trigger the ‘movement’ reading. This definition is illustrated in more detail in the following paragraphs.

The ‘attachment’ reading typically occurs with inanimate Figures that are suspended from the Ground. Since such Figures are suspended, they can move (i.e., dangle or swing) within the Ground. As illustrated in the leftmost column of table (2) below, all speakers choose *lang* as their first and only response in reference to such scenarios. By contrast, speakers show considerable variation in the usage of *lang* with non-suspended attached Figures. In the middle column, *lang* is still a reasonably good option – presumably because such Figures are similar to suspended Figures in that both project away from the Ground. In the rightmost column, *lang* is only rarely chosen: the column depicts Figures that either encircle the Ground<sup>7</sup> or that are stuck to it, but that do not project away from it. Some speakers explicitly reject *lang* in reference to the scenarios depicted in the two last columns. And those speakers who produce *lang* spontaneously usually offer it as their second, alternative, response – they consistently prefer either a more specific dispositional verb (such as, e.g., *b'am* ‘stick’) or a more general verb (such as the existential predicate *d'e*) (see also the discussion in section 4.3.2).

Based on the distribution of *lang* ‘hang/move’, as it is illustrated in table (2), I assume that ‘attachment’ is, originally, not a semantic component of *lang*: all Figures in the first column have ‘the potential to move’ – the fact that they are suspended, and hence attached, is coincidental. Notice, too, that Figures do not even need to be attached: speakers consistently use *lang* with, e.g., ropes that are draped over tree branches where both ends can sway to and fro.

<sup>7</sup> It is not possible to reverse the roles of Figure and Ground. When the Ground encircles the Figure, *lang* ‘hang/move’ cannot be used for the Figure. Instead, *d'yem* ‘stand’ is an option (because the Figure is supported through the Ground).

**Table (2):** The use of *lang* ‘hang/move’ with attached Figures (spontaneous responses)

<i>lang</i> ‘hang/move’		
suspension, e.g.:	projection from Ground, e.g.:	attachment, e.g.:
		
[TRPS_63]	[TRPS_50]	[TRPS_10]
lamp at ceiling [63]: 7/7 <sup>8</sup> fruit in tree [45]: 7/7 leaves on twig [41]: 7/7	hook on wall [50]: 4/7 handle on door [61]: 4/7 straps on purse [66]: 4/7	ring on finger [10]: 3/7 bandaid on leg [35]: 2/7 butter on knife [12]: 1/7

The use of *lang* ‘hang/move’ with attached Figures seems to be a new development that is not (yet) firmly established in the speech community: some speakers produce *lang* (albeit not as their first choice), while others reject it. The extension of *lang* to attached Figures presumably became possible because (i) ‘hanging/moving’ Figures (of column 1) are typically attached and (ii) many attached Figures project from the Ground (as the Figures in column 2) and are thereby perceptually similar to suspended Figures. Such an extension requires the loss of one semantic component (i.e., ‘movement’) and the addition of another component (i.e., ‘attachment’). I therefore assume that, for some speakers, *lang* has two senses: ‘potential to move’ (covering the Figures in column 1), and ‘attachment’ (covering the Figures in columns 2 and 3).

<sup>8</sup> The number in square brackets refers to the item number in the TRPS stimuli (Bowerman and Pederson 1993). The numbers following the square brackets are to be read as follows: seven out of seven speakers used *lang* ‘hang/move’ spontaneously as a response to the question ‘where is the lamp?’ Each picture was tested with seven speakers of the language. Considering this small set, the table can only give an approximation. Nevertheless, the response pattern is consistent with the observed usage in natural texts.



The ‘potential to move’ sense can also account for the use of *lang* ‘hang/move’ with moving entities. Typically, it expresses a movement within the canonical habitat of an animate entity or a natural force. This concerns, for example, the movement of fish in water, of birds or clouds in the air, of animals on the ground, and of people in settlements. *Lang* can even be predicated of the stationary entity – it is only important that it has the potential to move. *Lang* is also often used with the reading of ‘being alive’, and, in this reading, is commonly opposed to *muut* ‘die’ (as in the second sentence of 4). See also the lexeme *t’yaklang* ‘life’, which is a compound based on *t’yak* ‘heart/neck’ and *lang*.

- (4) *Ji n-t’o d’i goe gok n-sûûn.*  
 Sgm.LogS PRES-lie(sg) LOC.ANAPH COM illness LOC-body.Sgm.LogS.Poss  
*Kat ji m-muut o ji n-lang o?*  
 maybe Sgm.LogS PERM-die(sg) INTERR Sgm.LogS PERM-hang/move(sg) INTERR  
 ‘Behold, he<sub>1</sub> is lying there with illness in his<sub>1</sub> body.  
 Maybe he<sub>1</sub> would die or maybe he<sub>1</sub> would live?’ [KUR]

Moving Figures are not attached to a Ground, but their movement is nevertheless confined to a single location, i.e., *lang* could not be used for translocational motion. For example, *lang* can occur as an auxiliary verb in the progressive construction together with a verb of non-translocational motion, whereby the auxiliary expresses the position of the referent during the activity coded in the main verb (as in 5a) (see chapter 9 for details of the progressive construction). To express a change of location, *lang* has to occur in a serial construction together with a goal-encoding motion verb, whereby *lang* expresses the position of the referent at the endpoint of its movement (as in 5b) (see section 8.2 for details of serial constructions).

- (5a) *Leng t’ong gu marap babur yi.*  
 hang/move(pl) PROGR 2Pl step/tread(pl) motorcycle PROGR  
 ‘You are riding motorcycles.’ (lit. ‘move treading’) [JOS]
- (5b) *La t’ong yool n-lu doe lang /*  
 COND IRR rise(sg) LOC-settlement come hang/move(sg)  
*bi goe-shin muk d’e ba.*  
 thing NOMZ-do 3Sg.Poss exist NEG  
 ‘If (he) would rise from home (and) come here (and) hang around,  
 there is nothing to do (for) him.’ [YOUTH]

Under the analysis presented in the above paragraphs, the occurrence of *lang* ‘hang/move’ is motivated by the same features in both the ‘attachment’ (as in

example 2a and in column 1 of table 2 above) and the ‘movement’ (as in example 2b) contexts: ‘the potential to move within a location’. There is thus no need to posit separate senses.

In addition to the above contexts, *lang* ‘hang/move’ is used with Figures that are located in a place – not at an object. The actual position is irrelevant in this case (i.e., the Figure is either moving, attached, self-supporting or externally supported). As a consequence, some other postural is usually an alternative option. If the speaker chooses to construe the scenario as a locative relation between a Figure and a Ground, (s)he will use the appropriate postural verb. But if (s)he chooses to construe it as a location in a place, (s)he will use *lang* instead.

For example, in (6a) and (6b) below, *lang* ‘hang/move’ is used with houses and roads located in the landscape. Notice that, in both examples, the speakers use the preposition *goe* ‘located at a place’ – not the preposition *N-* ‘located at an object’ (see section 6.2.1 for the two prepositions in Goemai).

(6a) *Ndoe pin lang goe-t'oor.*  
 some hut hang/move(sg) PLACE-flank

‘A hut hangs to the side.’ [LU-A]

(6b) *Wakaam lang k'us goe pin.*  
 road hang/move(sg) NEAR COM hut

‘The road hangs near the hut.’ [DRAW2\_13-N]

In particular, *lang* ‘hang/move’ is used with Figures that are located in high places.<sup>9</sup> Table (3) below summarizes the first responses of speakers to different types of Figures located either at the foot or the top of a hill. It illustrates two points. First, it shows that speakers shift to *lang* ‘hang/move’ for Figures in high places (e.g., on top of a hill). Second, it shows that speakers are more likely to use *lang* for small, inanimate Figures (e.g., balls, calabashes) than for large, naturally fixed Figures (e.g., trees). But although speakers rarely produce *lang* spontaneously for such Figures, they always accept it as an alternative option.

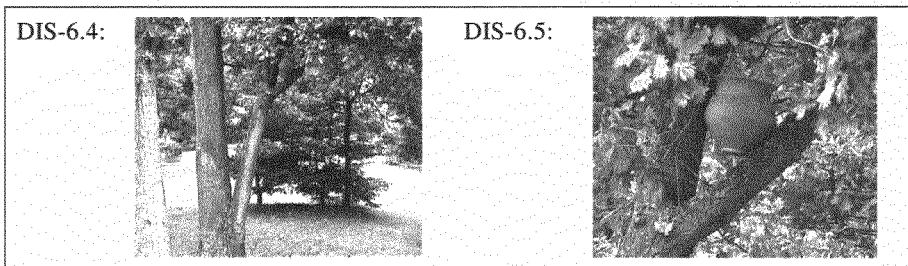
<sup>9</sup> It is possible that a similar extension from ‘hang’ to ‘location in a high place’ has occurred in the Bolivian language Movima (Haude 2003).

**Table (3):** The use of *lang* ‘hang/move’ with Figures located in a high place (first responses)

	object at foot of hill, e.g.:		object at top of hill, e.g.:	
	<i>lang</i> ‘hang/move’	other	<i>lang</i> ‘hang/move’	other
ball [DRAW2-83,-40]	-	5/5 <i>t’o</i> ‘lie’	4/5	1/5 <i>t’o</i> ‘lie’
calabash [DRAW2-67,-79]	-	5/5 <i>t’ong</i> ‘sit’	3/5	2/5 <i>t’ong</i> ‘sit’
tree [DRAW2-45,-95]	-	5/5 <i>d’yem</i> ‘stand’	1/5	4/5 <i>d’yem</i> ‘stand’

Speakers vary as to what they consider a high place. All speakers see trees, mountains and rooftops as high places, some also include human heads in this list, and a minority accepts tables and tree stumps. The construal of the Ground as a high place can be manipulated, e.g., through changing the perspective. In example (7) below, speakers discuss two photos of a pot located upright in the fork of a tree. As illustrated in figure (1), these photos differ only in the perspective: in photo 6.4, the floor is visible; in photo 6.5, only the pot and the tree are visible. In the first case, it is easier to construe the Ground as a high place, and the speakers use *lang* ‘hang/move’ accordingly (together with the preposition *goe*). But in the second case, they use *t’ong* ‘sit’ instead (together with the preposition *N-*). Similar responses occurred in all comparable contexts.

- (7) *Goe-lang / goe pyak t’eng-hoe a? (...)*  
 NOMZ(sg)-hang/move(sg) PLACE fork tree-exactly INTERR
- Goe-f’yer nnoe t’ong m-pyak t’eng zak-yit ai?*  
 NOMZ(sg)-become\_big(sg) LOC.ANAPH sit(sg) LOC-fork tree again INTERJ
- ‘(Is it) the one hanging in the tree fork? (= 6.4) (...)  
 ‘This big one sits now in the tree fork, right? (= 6.5)’ [DIS\_6.4/5-A/N]

**Figure (1):** Stimuli photos DIS-6.4 and DIS-6.5

In (8) below, two speakers explicitly discuss their motivation for using *lang* with a ball located on a tall stand. Although a ball would normally *t'o* 'lie', they argue that, in this case, *lang* is more appropriate because the ball is located in a high place. Notice also that, in the last sentence, speaker A. uses the adverb *goet'eng* 'upward' that is based on the preposition *goe* 'located at a place'.

(8) N: *Ball t'o k'a toom.*  
 ball lie(sg) HEAD(sg) chair

'The ball lies on the chair.'

A: *Mh/ ko ball lang k'a toom?*  
 yes maybe ball hang/move(sg) HEAD(sg) chair

'Yes, or (does) the ball hang on the chair?'

N: *Toom- /ball hok lang k'a toom. (...) T'o ba ai!*  
 chair ball DEF hang/move(sg) HEAD(sg) chair lie(sg) NEG INTERJ

*D'in la t'o t'ong t'o a n-yil. (...)*  
 PAST.CL COND lie(sg) IRR lie(sg) FOC LOC-ground

'The chair-, the ball hangs on the chair. (...) (It) doesn't LIE, right!  
 If (it) were lying, (it) would lie on the ground.' (...)

A: *Nye-pe lang n-lang goet'eng.*  
 kind-COMP hang/move(sg) ADVZ-hang/move(sg) upward

'Because (it) hangs hanging above.'

[DIS\_10.7-A/N]

It is likely that the use of *lang* 'hang/move' with Figures located in (high) places was originally motivated by their similarity to Figures that have 'the potential to move'. Recall that, in its basic sense, *lang* occurs with animate Figures in their habitats (i.e., with Grounds that can be construed as places) or with suspended Figures (i.e., with Grounds that are above the floor, in some higher region). In this case, the choice of preposition would reveal whether the

speaker chose to construe the Ground as a place (using *goe*) or as an object (using *N-*).

While such an origin is plausible, I assume that, in the meantime, ‘location at a place’ constitutes a distinct sense of *lang* ‘hang/move’. This assumption is based on two observations. First, the semantic component of ‘movement’ is irrelevant in this context.<sup>10</sup> Second, the component ‘at a place’ does not seem to be provided only by the preposition *goe*, but also by the verb *lang* itself: *lang* can co-occur with Ground phrase elements that are semantically general over ‘place’ and ‘object’ (see section 6.2 for a discussion of Ground phrase elements). In particular, *lang* frequently co-occurs with the following two Ground phrase elements:

(i) With *k’a* ‘head’ to express location in a high place (as in the second and third sentences in example 8 above). This collocation is also used to express an ‘on top of’ reading. For example, in (9) below, the speaker describes the location of two footballs in a basket (one on top of the other). He uses *lang* for the ball on top, and *t’o* ‘lie’ for the ball at the bottom. *T’o* is an alternative option for the topmost ball, but *lang* cannot be used for the lower ball.

- (9) *Ball t’oerep nd’âûn tukshi.*  
 ball lie(pl) INSIDE basket  
*Nde lang k’a goe-nye /*  
 one/other hang/move(sg) HEAD(sg) NOMZ(sg)-kind  
*nde t’o n-goede goe-nye.*  
 one/other lie(sg) LOC-bottom NOMZ(sg)-kind  
 ‘The balls lie in the basket.  
 One hangs on (its) neighbor,  
 the other lies under (its) neighbor.’ [PSPV\_56-A]

(ii) With *pûe* ‘mouth’ to express location at the edge of a place (as in 10 below).

- (10) *Pin naan hok lang pûe wakaam.*  
 hut God DEF hang/move(sg) MOUTH road  
 ‘The church hangs at the edge of the road.’ [DRAW1\_32-A]

Figure (2) below summarizes the discussion in this section. It is assumed that, for some speakers, *lang* has two senses, and for others, three senses.

<sup>10</sup> There may be some remnants of the ‘movement’ component, as speakers are more likely to use *lang* with non-fixed, moveable, objects (see the distribution of *lang* in table 3 above).

**Figure (2):** The semantics of *lang* ‘hang/move’

*lang* (sg), *leng* (pl) ‘hang/move’

- (1) Figure has the potential to move within the Ground.  
 Instantiated by:  
 (a) Inanimate entity that is suspended.  
 (b) Animate entity or natural force in their habitat.
- (2) Figure is attached to the Ground. (for some speakers only)
- (3) Figure is located at a place (i.e., not at an object).

4.2.2 *t'ong* ‘sit’

The postural *t'ong* ‘sit’ is used for Figures that support themselves in a stable way, i.e., for Figures that autonomously maintain their position without any support from the Ground. ‘Sitting’ Figures are always rigid (otherwise they could not maintain any position) and they tend to have a ‘base’ for support. As illustrated by the statement in (11) below, this base is typically called *goede* ‘bottom’.

- (11) *D'in la t'ong goe goede muk toe /*  
 PAST.CL COND sit(sg) COM bottom 3Sg.Poss EMPH  
*t'ong moe k'wal t'ong n-t'ong.*  
 IRR 1PI talk sit(sg) ADVZ-sit(sg)  
 ‘If (it) were sitting on its bottom,  
 we would say (it) sits sitting.’ [DIS\_1.3-A/N]

The existence of a *goede* ‘bottom’ is not sufficient, though: trees have a *goede* (their roots), and so do sticks (the part where they were cut off from the tree) and fruits (their growth-point). Yet none of them sits, since they cannot support themselves on their *goede* in a stable way. The term *goede* can thus co-occur with different posturals, e.g., with *d'yem* ‘stand’ (as in 12). To avoid confusion, I will talk about a ‘base’ (i.e., a supporting ‘bottom’).

- (12) *D'yem k'a tebul. (...) Nye-pe d'yem goe goede ai?*  
 stand(sg) HEAD(sg) table kind-COMP stand(sg) COM bottom INTERJ  
 ‘(The orange) stands on the table. (...) Because (it) stands on the bottom,  
 right?’ [DIS\_4.7-A/N]

Most ‘sitting’ Figures not only have a base but also a usage space. That is, ‘sitting’ Figures are asymmetrical in the sense that one part (the base) is

designed for support and another part (the usage space) is designed for usage. This category covers all types of containers (pots, calabashes, plates, bottles, troughs, boxes, etc.), but also objects such as petroleum lamps, fans, telephones, radios and television sets. Notice that the usage space need not be opposite the supporting base, but can be to its side (e.g., a television set).

Such Figures – those that have both a base and a usage space – constitute prototypical ‘sitting’ Figures in the sense that all speakers consistently and only ever use *t’ong* ‘sit’ in reference to them. However, the features ‘base’ and ‘usage space’ are not present in all occurrences of *t’ong*, and I therefore do not consider them part of its semantics. First, *t’ong* is (marginally) acceptable with Figures such as tables and chairs that do not have a supporting *goede* ‘bottom’, but rather supporting *sh’e* ‘legs’ (see section 4.2.3 for a discussion). Second, *t’ong* is used with covers that are canonically supported by their usage space, not their *goede* (see point (i) below). And third, Figures without a usage space can be perceived as ‘sitting’: unfeatured and flexible objects (point ii), fruits (point iii), and collectives (point iv). The following four types of Figures can ‘sit’:

(i) Covers such as hats or *pepe* (woven mats to cover vessels) are similar to containers in that they have a base and a usage space (i.e., the part that covers the head or vessel). Their only difference is in their canonical orientation: covers canonically ‘face down’. Their overall similarity to containers allows speakers to construe them as ‘sitting’, even when they are currently ‘face down’. But since they are not prototypically ‘sitting’, there is much variation in reference to them. Aside from *t’ong* ‘sit’, speakers can use *k’oon* ‘face down’ (to focus on the actual orientation) and *d’yem* ‘stand’ (to focus on the support through the Ground, i.e., through the head).

(ii) Unfeatured objects such as balls or stones do not have a clearly defined base. They do not ‘sit’, but rather ‘lie’. However, they differ from the flexible or mass-like Figures that typically ‘lie’ in that they (a) have some volume, (b) cannot alter their shape and (c) can maintain a given position reasonably well. Since these properties are typical for ‘sitting’ Figures, speakers can use *t’ong* ‘sit’. This construal is perhaps aided by an asymmetry inherent in such objects: the air hole (in the case of balls) or one of the surfaces (in the case of stones) can function as the base. Similarly, the coiled part of any coiled-up flexible

object (a headpad,<sup>11</sup> a snake, a rope) can be interpreted as the supporting base through which the Figure can ‘sit’.

(iii) Fruits like oranges, tomatoes, pineapples and bunches of bananas can *t’ong* ‘sit’, provided that they are located upright on their growth-point. In this case, their growth-point is perceived as the base that provides stable support. Fruits that would fall over when located on their growth-point cannot ‘sit’ (e.g., mangos, single bananas). Prototypically, fruits do not ‘sit’, since they do not have a usage space and are not canonically located on – and supported by – their base (canonically, they *lang* ‘hang/move’ from their stem on their plant). As a consequence, there is much variation in reference to them – aside from *t’ong* ‘sit’, speakers can use *t’o* ‘lie’ or *d’yem* ‘stand’. *T’o* ‘lie’ is the preferred option for a single fruit, or for fruits located at the foot of a tree (i.e., fruits that have fallen down). *T’ong* ‘sit’ or *d’yem* ‘stand’ are the preferred options in contexts involving a market place or a storage place, since most produce is displayed or stored in such a way that it rests on its growth-point (i.e., the fruits support themselves in either a stable or precarious way).

(iv) A base can be assigned to piles and collectives of any kind (e.g., balls, houses, fruits, or people). For example, in a market place, goods are usually divided into piles for sale. Such piles can be talked about with either *t’oerep* ‘lie (pl)’ (as in 13a) or *t’ong* ‘sit (sg)’ (as in 13b). In the latter case, the singular form is used, indicating that the Figures are not perceived as individuals, but as a collective (see also section 4.2.4 for the use of singular forms with masses). The plural form *t’wot* ‘sit (pl)’ is used for several piles (as in 13c). Notice that it is not the lexeme *lu* ‘settlement/pile’ that triggers the use of *t’ong* ‘sit (sg)’: a *lu* ‘stands’. Furthermore, *t’o* ‘lie’ remains an alternative option (as in 13a); and the lexeme *lu* need not be present at all.

(13a) *Lu*                      *carrot*   *t’oerep*   *nd’ûûn*   *tasa*.  
 settlement/pile   carrot   lie(pl)   INSIDE   plate

‘The piles of carrot lie in the plate.’ [DRAW2\_69-N]

(13b) *Carrot*   *t’ong*   *n-lu*                      *n-lu*.  
 carrot   sit(sg)   LOC-settlement/pile   LOC-settlement/pile

‘The carrots sit pile by pile.’ [DRAW2\_69-A]

<sup>11</sup> Headpads are coiled pieces of cloth that are used when carrying a load on the head. They are put between head and load.



- (13c) *Lu*                    *n-t'wot-nnoe*                    *fa?*  
 settlement/pile ADVZ-Cl:sit(pl)-DEM.PROX INTERR

'What about these sitting piles?' [A-02/10/01]

All Figures discussed under (i) to (iv) above share some similarities with prototypical 'sitting' Figures. They differ in that *t'ong* 'sit' is not the unmarked choice: speakers use *t'ong* to draw attention to some marked property of the locative relation, e.g., a cover that faces up, an unfeatured object or fruit that is temporarily located on its base, a flexible object that has temporarily assumed a base, or several Figures that form a collective. In all cases, some other postural would be used in reference to their canonical position.<sup>12</sup>

In addition to its basic sense (i.e., 'stable self-support'), *t'ong* 'sit' has three further senses. These three senses probably originated in the basic sense, but they have acquired different formal correlates, thereby justifying their analysis as distinct senses.

First, *t'ong* occurs in the sense of 'remain/stay' (as illustrated in 14).

- (14) *Mûep* *b'e*                    *moe-b'e /*                    *moe-nda*                    *men.*  
 3Pl give\_birth(pl) NOMZ(pl)-give\_birth(pl) NOMZ(pl)-father 1Pl.Poss

*Mûep* *b'e*                    *moe-b'e /*                    *men.*  
 3Pl give\_birth(pl) NOMZ(pl)-give\_birth(pl) 1Pl

*Men* *zak* *moe* *b'e.*  
 1Pl.I also 1Pl give\_birth(pl)

*Yil* *hok* *t'ong.*  
 ground DEF sit(sg)

'They gave birth to those who gave birth to our fathers.

They gave birth to those who gave birth to us.

And we, too, we gave birth.

The country remains/stays.' [TARIHI]

The sense of 'remain/stay' probably developed from the basic sense as follows: Figures that maintain a stable position tend to stay in this position for a prolonged time. In this secondary sense, *t'ong* does not occur with a lexically-specified location participant. Furthermore, its causative counterpart *d'u* 'cause

<sup>12</sup> As briefly mentioned in section 3.3, covers constitute a special case in this respect: there is no postural that could adequately describe the canonical position of a cover. Speakers can resort to the dispositional verb *k'oon* 'face down', but, like all dispositional verbs, *k'oon* constitutes a marked choice, i.e., its use draws attention to the current orientation of the Figure (see section 5.1.1.3 for a discussion of marked and unmarked alternatives).

sitting’ can co-occur (in this secondary sense) with a different postural verb (see example 33b in section 4.2.5 below) – such a co-occurrence would not be possible in its basic sense.

Second, *t’ong* ‘sit’ occurs in the sense of ‘be plenty’. In this case, only the singular form can be used. As illustrated in (15a), a plural subject noun phrase can combine with a singular verb – this would be ungrammatical in the basic sense. It is likely that this sense originated from the use of *t’ong* with piles and collectives: such Figures usually occur in large numbers, hence the ‘be plenty’ inference. Notice that examples (15b) and (15c) can have either a ‘collective’ only reading or a ‘collective’ plus ‘plenty’ reading.

- (15a) *A gurum moe-b’ang t’ong toe b’ak m-pe*  
 FOC person NOMZ(pl)-become\_red sit(sg) EMPH here LOC-place  
*n-d’e-nnoe.*  
 ADVZ-Cl:exist-DEM.PROX

‘Many Europeans stayed here in this existing place.’ [MIL-A]

- (15b) *T’ong goe kat d’u s’oe maar t’ong d’i k’a tebul.*  
 IRR 2Sgm find much food pile\_up sit(sg) LOC.ANAPH HEAD(sg) table  
*S’oe maar t’ong n-yil.*  
 food pile\_up sit(sg) LOC-ground

‘You will find much food sitting piled up there on the table.  
 (Much) food sits piled up on the ground.’ [SR\_MUCH\_1-A]

- (15c) *Gurum / d’ik lu mûep ngam-ngam.*  
 person build settlement 3Pl.Poss RED-many  
*Gurum kuma mûep t’el t’ong d’i.*  
 person also 3Pl collect(pl) sit(sg) LOC.ANAPH

‘The people built their many houses.  
 And (many) people sat together there.’ [MIL-A]

Third, *t’ong* ‘sit’ is used with any object that fits well into another object, i.e., without leaving any empty spaces in between (as in 16a and 16b). Again, only the singular form can be used. Furthermore, this sense is associated with a specific syntactic pattern in that *t’ong* co-occurs with a comitative preposition.

- (16a) *D’a d’yan wando muk / boe-f’yer ba /*  
 COND tie(pl) trouser 3Sg.Poss WHERE-become\_big(sg) NEG  
*boe-kat ba / t’ong goe ni kûût.*  
 WHERE-become\_small NEG sit(sg) COM 3Sg.I just

‘When (he) ties his trousers, (they are) not too big,  
 (they are) not too small, (they) just fit him.’ [SR\_CLOTH\_1-A]

- (16b) *K'oop hok / t'ong goe sh'e muk ba.*  
 shoe DEF sit(sg) COM foot 3Sg.Poss NEG

'The shoes do not fit his feet.' [SR\_CLOTH\_3-J]

It is likely that this sense developed from the use of *t'ong* in the locative construction. Compare the interpretation of the locative construction in (17a) below with that of the comitative construction in (16b) above. It is furthermore likely that this sense originated from the use of *t'ong* with piles and collectives (as in 17b). Piles and collectives fit together – otherwise, they would not be able to maintain their position.

- (17a) *a k'oop goe-pe t'ong n-t'ong n-sh'e muk nt'it.*  
 FOC shoe NOMZ-COMP sit(sg) ADVZ-sit(sg) LOC-foot 3Sg.Poss thoroughly

'(these) are shoes, which sit well at his feet.' (i.e., they fit) [SR\_CLOTH\_2-A]

- (17b) *Goe-n-d'e-nang a d'in t'ong nd'ûûn shak.*  
 NOMZ(sg)-ADVZ-Cl:exist-DEM.DIST FOC PAST.CL sit(sg) INSIDE each\_other

'That existing one sat in each other (= millet in millet-field).' [DIS\_12.1-A/N]

Figure (3) below summarizes the semantics of *t'ong* 'sit'. It is assumed that *t'ong* has four senses that correlate with different number agreement and syntactic patterns.

**Figure (3):** The semantics of *t'ong* 'sit'

*t'ong* (sg), *t'wot* (pl) 'sit'

- (1) Figure supports itself autonomously in a stable way at the Ground.  
 Instantiated by:
  - (a) Entity that has a base and a usage space. (unmarked choice)
  - (b) (Collective or individual) entity that has a base. (marked choice)
  - (c) Entity that has several *sh'e* 'legs'. (marginal use)
- (2) Figure remains/stays.
- (3) Figure is plenty.
- (4) Figure fits well with respect to the Ground.

4.2.3 *d'yem* 'stand'

The postural *d'yem* 'stand' is used for Figures that do not support themselves in a stable way, but in a precarious way. Like 'sitting' Figures, 'standing' Figures are rigid (otherwise they could not maintain any position).<sup>13</sup> But unlike 'sitting' Figures, stable support is not provided through the Figure itself, but through the Ground.

There are two subsets of 'standing' Figures. One subset consists of Figures that are in a stable position because they are supported externally – if the Ground would not support them, they would have difficulties maintaining their position. This subset includes Figures that are fixed in the Ground (e.g., trees, tree stumps, plants, hills, houses and walls), including those that are horizontally extended (e.g., nails and hooks protruding from a wall). As illustrated by the discussion in (18a), *d'yem* 'stand' can be used with any Figure that is tightly inserted into the Ground. Furthermore, *d'yem* occurs with all negative spaces (as in 18b) (e.g., holes in ground, wall, or ceiling; footprints, lakes, ponds). Such Figures are, in a way, fixed in the Ground. They differ only in that they have depth instead of height.

(18a) A: *Ni ru d'yem nd'ûûn wang ba b'e?*  
 3Sg enter(sg) stand(sg) INSIDE pot NEG EMPH

'It (= ball) didn't really enter (and) stand inside the pot, right?'

N: *A'a (...) D'in la ru nd'ûûn / hai /*  
 no PAST.CL COND enter(sg) INSIDE INTERJ

*d'in d'yem d'i.*  
 PAST.CL stand(sg) LOC.ANAPH

'No. (...) If (it) had entered inside, hey, then (it) would stand there.'  
 [DIS\_13.8-A/N]

(18b) *La goot d'yem sek t'eng.*  
 little(sg) hollow stand(sg) BODY tree

'A little hollow stands in the tree.' [FROG-A]

The same subset also includes Figures that lean against the Ground (e.g., ladders). In fact, whenever speakers stress a leaning relation, they shift to *d'yem* 'stand'. Compare (19a) and (19b) below, which occur in reference to the same locative relation (a bottle located almost horizontally in a basket, leaning against the inside of that basket). In (19a), the speaker chooses to construe the scene as a 'lying' relation and uses *t'o* 'lie'. In (19b), he chooses to construe it

<sup>13</sup> It is marginally acceptable with flexible Figures such as fire-hoses pointing upward through the water pressure.

as a ‘leaning’ relation and shifts to *d’yem* ‘stand’ – in this case, he considered *t’o* ‘lie’ ungrammatical.

- (19a) *Kwalba t’o n-goede tukshi.*  
 bottle lie(sg) LOC-bottom basket

‘The bottle lies at the bottom of the basket.’ [PSPV\_22-A]

- (19b) *D’ûût d’yem n-goede tukshi.*  
 lean stand(sg) LOC-bottom basket

‘(It) stands leaning at the bottom of the basket.’ [PSPV\_22-A]

This first subset of externally supported Figures thus contains both Figures that are canonically in this position (e.g., a tree or a ladder) and Figures that can temporarily assume this position (e.g., a ball inserted in a pot as in the discussion of 18a above, or a bottle leaning against a basket as in 19b). In both cases, *d’yem* ‘stand’ is the appropriate choice: in the first case, it is the unmarked choice, while in the second case, it is chosen to draw attention to a marked property of the current locative relation.

The second subset of ‘standing’ Figures, by contrast, only contains Figures that, canonically, occur with a different postural: Figures that maintain their position autonomously, but whose position is perceived as precarious. In their case, speakers only shift to *d’yem* ‘stand’ to indicate their marked, non-typical properties. This second subset includes especially the following two types of Figures:

(i) Upside-down containers.

Speakers can use *d’yem* ‘stand’ with all containers that are located upside down on their *pûe* ‘mouth’. This includes flat plates (as in 20a), suggesting that verticality is not relevant in this case. Notice that *t’o* ‘lie’ is always an alternative option (as in 20b).

- (20a) *Tasa hok k’oon / k’oon d’yem k’a tebul.*  
 plate DEF face\_down(sg) face\_down(sg) stand(sg) HEAD(sg) table

‘The plate is face down, (it) stands face down on the table.’ [PHOTO\_46-A]

- (20b) *Wang t’o n-yil a?*  
 pot lie(sg) LOC-ground INTERR

‘Does the pot lie on the ground?’ (= upside-down pot) [DIS\_1.3-A/N]

(ii) Exceptionally tall Figures with a base.

All tall Figures with a base can either *d’yem* ‘stand’ or *t’ong* ‘sit’. (‘Tall’ is used here as shorthand for a large ratio of height to width.) Table (4) below

illustrates the distribution of the two verbs. It summarizes the spontaneous responses to two sets of pictures (i.e., including multiple responses by the same speaker): one set with a normal-sized Figure, and one with an exceptionally tall and thin Figure. *D'yem* was almost never volunteered with normal-sized Figures, and, when prompted, usually rejected as inappropriate. With tall Figures, by contrast, speakers show considerable variation, allowing for both *d'yem* 'stand' and *t'ong* 'sit' (see also the discussion in section 4.2.7).

**Table (4):** The distribution of *t'ong* 'sit' and *d'yem* 'stand' (spontaneous responses)

	normal-sized Figure, e.g.:		tall Figure, e.g.:	
	<i>t'ong</i> 'sit'	<i>d'yem</i> 'stand'	<i>t'ong</i> 'sit'	<i>d'yem</i> 'stand'
candle [PHOTO-4, -98]	3/3	-	2/3	3/3
bottle [PHOTO-75, -101]	3/3	1/3	1/3	3/3
lamp [DRAW1-64, -99]	4/4	-	1/4	4/4
drum [DRAW1-73, -15]	5/5	1/5	2/5	5/5
trough [DRAW1-22, -43]	4/4	-	1/4	3/4

The explanations given by speakers indicate that they use *d'yem* 'stand' whenever the supporting element is perceived as a *sh'e* 'leg'. Example (21) comes from a conversation between two speakers who discuss a pineapple located upright on a table. In the end, they decide not to use *d'yem* because the pineapple does not have a *sh'e*.

(21) *Sh'e d'in la d'e d'i/ de ni d'yem yi d'i.*  
 foot/leg PAST.CL COND exist LOC.ANAPH COMP 3Sg stand(sg) SUB LOC.ANAPH

*T'ong goe goede.*  
 sit(sg) COM bottom

'If a leg were there, so that it (could) stand there.  
 (But it) sits on the bottom.' [DIS\_4.7-A/N]

The distribution of *d'yem* 'stand' in table (4) suggests that it is easier to assign a *sh'e* 'leg' to tall Figures than to normal-sized or small Figures.

In addition to the upside down containers and the tall Figures, a miscellaneous number of other Figures also falls into this category, e.g., small weightless paper boxes that can easily be blown away by the wind, pots located at the edge of a table about to fall off, or small bottles upright on an uneven stone. I assume that the common factor in all cases is that the Figures are perceived as being precariously supported. In the case of upside-down containers, it is possible that they are construed as having fallen over – hence they were precariously supported in the first place. Recall also that *t'o* 'lie' is an alternative option in their case: it is shown in section 4.2.4 that *t'o* is used with Figures that have fallen over. In a similar way, a long vertical axis makes it more likely that the Figure will not be able to support itself for a prolonged time.

Based on this discussion, I thus assume that there is a common element uniting the uses of *d'yem* 'stand' with fixed and leaning Figures, on the one hand, and with upside-down and tall Figures, on the other: the Figures do not support themselves in a stable way, i.e., they can only maintain a stable position if they are supported externally, otherwise they remain precariously supported. Since this definition can cover both uses, I do not think it necessary to posit two separate senses distinguishing between 'external support' and 'precarious support'. In some contexts, additional features seem to be present, in particular, 'standing' Figures are often vertically extended or they have a *sh'e* 'leg'. But since these features are not present in all contexts, I do not include them in the definition: they cannot explain the use of *d'yem* with a horizontally extended nail, a horizontally extended bottle buried in the Ground, a negative space, an upside down flat plate supported on its *pûe* 'mouth', or a tall bottle supported on its *goede* 'bottom'. This is not to say that verticality does not play a role – it does (in the sense that many 'standing' Figures happen to be vertically extended), but it does not seem to be a defining criterion.

In a second sense, *d'yem* 'stand' is used with cars and tables, i.e., with Figures that support themselves in a stable way. Two observations suggest that the use of *d'yem* with self-supporting Figures is a novel idea resulting from the metaphorical transfer of the concept of *sh'e* 'legs' to table-legs and car tires. I assume that, originally, *t'ong* 'sit' was used with such Figures. First, although speakers explicitly reject other posturals in elicitation sessions, the natural texts

contain examples where *t'ong* 'sit' is used with such Figures (as in 22). Second, chairs always 'sit', although they have the same overall structure as tables (i.e., they have *sh'e* 'legs').<sup>14</sup>

- (22) *Ndoe tebul n-t'ong d'i.*  
 some table PRES-sit(sg) LOC.ANAPH  
 'Behold, a table is sitting there.' [COMP\_2-A/N]

This use of *d'yem* 'stand' is posited as a separate sense because, in present-day Goemai, it has become the unmarked choice for entities that are stably supported on legs (e.g., tables, cars). It thereby differs from, e.g., tall bottles – these 'sit' by default and 'stand' only under certain conditions. Notice also that there are two causative counterparts of *d'yem* that differentiate between precarious self-support/external support (i.e., *twaam*), on the one hand, and stable self-support (i.e., *twet*), on the other (see section 4.2.5).

Finally, *d'yem* 'stand' is used in a third sense with all stationary entities, i.e., with entities that appear fixed and not moving (as in 23a). In this sense, there is no lexically-specified location participant, and *d'yem* can occur metaphorically with abstract entities (as in 23b). Furthermore, the notion of a stationary entity has probably given rise to the reading of 'plenty'. In fact, (23a) can be used either with one bird hovering in the air or with many birds covering the whole sky. Again, *d'yem* can occur with abstract Figures (as in 23c).

- (23a) *yar yool d'yem m-pe goe goeme*  
 bird rise(sg) stand(sg) LOC-place COM one  
 'the bird rose (and) stands (= hovers) in one place' [A-21/12/99]
- (23b) *shit d'yem*  
 work stand(sg)  
 'the work has stopped' [A-27/01/99]
- (23c) *tamtis d'yem Moek'wo jar*  
 folktale stand(sg) Kwande straight  
 'there truly are (= stand) many folktales in Kwande' [A-09/02/00]

Its use with stationary Figures has also acquired the reading of 'wait' (as in F.'s utterance in 24a). The use of *d'yem* to mean 'wait', in turn, has given rise to the

<sup>14</sup> The use of *t'ong* 'sit' with chairs may have to do with the transfer of the Goemai concept of chairs (which have a base) to the European type of chairs. Alternatively, the verb *t'ong* may collocate with the noun *toom* 'chair', irrespective of the shape of the chair.



fixed expression *d'yem goede X mou* (lit. 'not wait under X') 'to easily do X' (as in 24b).

(24a) G: *Rawani a n-d'ûe Goemai ba.*  
 turban FOC LOC-voice Goemai NEG

'*Rawani* (turban) is not in the Goemai language.'

F: *D'yem ntyem. To / bi shuur / k'a hula nda noe (...).*  
 stand(sg) FRONT okay thing squat HEAD(sg) hat father 1Sg.Poss

'Wait first. Okay, (*rawani* is) the thing (that) squats on the hat of my father (...).'

[ARAM]

(24b) *moto muk d'yem goede dam mou*  
 car 3Sg.Poss stand(sg) BOTTOM spoiling NEG

'his car spoils easily' (lit. 'does not wait to be spoiled') [A-29/12/99]

Figure (4) below summarizes the semantics on *d'yem* 'stand'. As discussed in this section, it is assumed that *d'yem* has three senses.

**Figure (4):** The semantics of *d'yem* 'stand'

*d'yem* (sg), *d'yam* (pl) 'stand'

- (1) Figure does not support itself autonomously in a stable way at the Ground.  
 Instantiated by:
  - (a) Entity is in a stable position because it is (unmarked or marked choice) supported externally.
  - (b) Entity supports itself autonomously in a (marked choice) precarious way.
- (2) Figure supports itself autonomously in a stable way at the Ground through *sh'e* 'legs'. (unmarked choice)
- (3) Figure is stationary (i.e., not moving; in large numbers; waiting).

#### 4.2.4 t'o 'lie'

The postural *t'o* 'lie' is used for Figures that do not project away from the Ground and whose entire position is therefore dependent on the Ground. This includes masses, in which case the singular verb has to be used (as in 25a). It is furthermore possible to present individual Figures as masses: in (25b), the speaker uses the singular verb *t'o* for trees, indicating that he sees them as a forest, not as a number of individual trees. The additional dispositional verb

*yuut* ‘in mass’ overtly expresses the mass reading (but notice that the dispositional could be omitted without changing the reading of the utterance).

- (25a) *D'u hangoed'e t'o b'ak t'ong su yi n-yil.*  
 much water lie(sg) here PROGR run(sg) PROGR LOC-ground  
 ‘Much water lies here running on the ground.’ [MIL-A]

- (25b) *T'eng yuut t'o sek p'ang.*  
 tree in\_mass lie (sg) BODY stone  
 ‘The trees lie in a mass near the hill.’ (= forest) [DRAW2\_24-A]

Aside from masses, ‘lying’ Figures include flexible objects (e.g., ropes, cloth) and string-like entities (e.g., sticks, pencils, roads, reptiles). The Figure need not be horizontally oriented – it can be vertically oriented, e.g., a fire hose against a tree trunk (as in the second part of 26 below); or it can encircle the Ground (e.g., belts, watches, bracelets, rings; *zaal*, i.e., ribbons tied around trees).

- (26) *Rubber t'o n-yil haan t'o sek t'eng.*  
 rubber lie(sg) LOC-ground climb(sg) lie(sg) BODY tree  
 ‘The fire hose lies on the ground (and) climbed (and) lies against the tree.’ (= fire hose partly against tree) [DRAW1\_38-A]

Unfeatured objects like balls and stones also *t'o* ‘lie’. They share with other ‘lying’ Figures that they do not have any clear internal structure, i.e., they do not have any part that is designed for supporting them. Nevertheless, they project away from the Ground, and they can thus also be construed as ‘sitting’ (see the discussion in section 4.2.2). Since they do not fall clearly in either category, there is much variation in the posturals used.

Furthermore, speakers have the option to shift to *t'o* ‘lie’ whenever the position of the Figure with respect to the Ground is irrelevant. This includes the following three scenarios:

- (i) Any Figure in a non-canonical position can *t'o* ‘lie’, e.g., fruits on the ground (by default, they *lang* ‘hang/move’ in the tree), upside-down containers (by default, they *t'ong* ‘sit’ on their base), or inclined trees (by default, they *d'yem* ‘stand’ upright). Example (27) is an extract from a story in which the protagonist talks about different Figures in non-canonical positions. Notice that, in all instances, he uses *t'o*.

- (27) *D'a hok n-t'o n-hangoed'e. (...)*  
 calabash DEF PRES-lie(sg) LOC-water
- Sh'ep-me hok na n-t'o dakt'ûe sh'im. (...)*  
 wood-barn DEF PRES PRES-lie(sg) MIDDLE yam
- Kwalba na n-t'o n-hangoed'e. (...)*  
 bottle PRES PRES-lie(sg) LOC-water
- Candle na n-t'o / n-goot t'eng.*  
 candle PRES PRES-lie(sg) LOC-hollow tree
- 'Behold, the calabash is lying in the water. (...)  
 Behold, the ladder is lying in the middle of the yam. (...)  
 Behold, the bottle is lying in the water. (...)  
 Behold, the candle is lying in the hollow of the tree.' [SR\_UNM\_1-A]

The same point can be illustrated with respect to trees. Table (5) lists the first responses to a 'where' question about the location of trees in different positions. It shows that *t'o* 'lie' is an option whenever the tree is non-canonically positioned. This is true even in cases where the tree is in a fairly upright position.

**Table (5):** The use of *d'yem* 'stand' and *t'o* 'lie' with trees (first responses)

	<i>t'o</i> 'lie'	<i>d'yem</i> 'stand'
tree cut on ground [DRAW1-14]	5/5	-
tree bent (leaves on ground) [DRAW1-47]	3/4	1/4
tree bent (leaves almost on ground) [DRAW1-66]	2/4	2/4
tree in cliff (pointing up) [DRAW1-70]	2/4	2/4
tree in cliff (pointing down) [DRAW1-11]	2/5	3/5
tree bent (90 degree angle) [DRAW1-95]	1/4	3/4
tree upright [DRAW1-79]	-	4/4

Whenever the speaker chooses *t'o* 'lie', (s)he thus considers the position of the Figure irrelevant. To focus on the position, (s)he has to shift to a more appropriate postural instead. For example, fruits on the ground could also *t'ong* 'sit' (in a stable way) or *d'yem* 'stand' (in a precarious way) (see section 4.2.2). Similarly, an upside-down pot could also *d'yem* 'stand' (see section 4.2.3). The best candidates for *t'o* 'lie' are containers located on their side as these are (a) in a non-canonical position, and (b) cannot occur with any other postural. In all other cases, speakers can choose either to assert non-canonicity or to assert the current position.

(ii) Any Figure located on the floor can *t'o* 'lie'. This includes both mixed objects in different positions (as in 28a), but also individual objects whose position could be described with a different postural (as in 28b).

(28a) *Bi n-t'oerep-nnoe / a bi shel.*  
 thing ADVZ-Cl.lie(pl)-DEM.PROX FOC thing game

'These lying things are playthings.' (= musical instruments, calabashes, pots, pieces of cloth and pictures) [HAND-J]

(28b) *T'o k'a k'aram goe-b'ang.*  
 lie(sg) HEAD(sg) mat NOMZ(sg)-become\_red

'(It) lies on the red mat.' (= upright calabash) [COMP\_4-A/N]

(iii) Any contained Figure can either *t'o* 'lie' or *d'e* 'exist' (see section 4.3 for a discussion of *d'e*). Table (6) below summarizes the first responses to pictures depicting containment scenarios. In all cases, the position of the Figure was clearly visible (given in the last column of the table). While some speakers used the postural appropriate for the position, several speakers shifted to either *t'o* or *d'e*. Figures in mixed positions (e.g., some 'standing', some 'sitting') were most likely to elicit *t'o*, but speakers also used *t'o* for individual Figures.

**Table (6):** The use of *t'o* 'lie' and *d'e* 'exist' with contained Figures (first responses)

	<i>t'o</i> 'lie'	<i>d'e</i> 'exist'	actual position
rabbit in cage [TRPS-54]	2/7	2/7	<i>d'yem</i> 'stand'
monkey in cage [DRAW1-19]	2/5	3/5	<i>d'yem</i> 'stand'
man in hole [DRAW1-40]	1/4	-	<i>d'yem</i> 'stand'
owl in hole in tree [TRPS-67]	2/7	2/7	<i>t'ong</i> 'sit'
fish in bowl of water [TRPS-32]	3/7	4/7	<i>lang</i> 'hang/move'
mixed bottles in basket [PSPV-60]	4/5	-	-
vs. upright bottle in basket [PSPV-62]	-	1/5	<i>t'ong</i> 'sit'
mixed cups in box [PHOTO-12]	3/3	-	-
vs. upright cup in box [PHOTO-93]	-	-	<i>t'ong</i> 'sit'
pot in box [PHOTO-87]	1/3	1/3	<i>t'ong</i> 'sit'
straw in bottle [DRAW2-21]	1/4	1/4	<i>d'yem</i> 'stand'
flower in vase [DRAW2-25]	1/4	3/4	<i>d'yem</i> 'stand'
tree among trees [DRAW2-63]	1/4	-	<i>d'yem</i> 'stand'

The three uses discussed under (i) to (iii) above can, in some ways, be derived from the use of *t'o* 'lie' with Figures that do not project away from the Ground and whose position thus depends on the Ground. First, non-canonically positioned Figures usually arrive in their position through some sort of accident, e.g., because they fell over (as illustrated by the reasoning in 29 below). They thus 'lie' because they were not supported by either themselves (allowing for the use of *t'ong* 'sit') or by the Ground (*d'yem* 'stand'). A similar explanation could account for the use of *t'o* with Figures on the floor: objects that fall usually fall on the floor. Second, contained Figures can be construed as not projecting away from the Ground (since they are contained in it). But notice that, in all cases, the Figure may actually project away – it may even be vertically extended.

(29) *D'in la kem t'ong t'o goe pûe hai. (...)*  
 PAST.CL COND tip\_over IRR lie(sg) COM mouth INTERJ

'If (it) had tipped over, it would really lie on the mouth.' [DIS\_5.8-A/N]

All three uses have in common that they are not concerned with the position of the Figure, i.e., with whether or not it projects away from the Ground. This shift of the meaning away from the position of the Figure probably results from a systemic opposition among the postural verbs. *T'o* 'lie' is the residual verb in the postural system: it is chosen when no other postural is appropriate (see figure 6 in section 4.2.6). Semantically, it is the least marked verb. As such, it can be recruited when none of the other, more specific, posturals applies, i.e., with Figures located in a non-canonical position or location. The actual position is irrelevant in this case. Since this reading can be explained as resulting from this systemic opposition, it is tentatively assigned to the realm of pragmatics, and is not analyzed as a distinct sense of *t'o* 'lie'.

Interestingly, Goemai has another verb, the existential *d'e*, which belongs to the same form class as the posturals, but has a more general semantics. Given its availability, it would be expected that there is no need for yet another unmarked or residual postural. It is true that there is some overlap between *t'o* 'lie' and *d'e* 'exist' in that both can be used for the same scenarios – but they focus on different aspects of the situation. The use of *t'o* makes clear that the position of the Figure is not important. The use of *d'e*, by contrast, indicates that the position is not known – it may be judged to be important, though (see section 4.3 for details).

Figure (5) below summarizes the semantics of *t'o* 'lie', as discussed in this section.

**Figure (5):** The semantics of *t'o* 'lie'

<i>t'o</i> (sg), <i>t'oerep</i> (pl) 'lie'		
(1)	Figure does not project away from the Ground.	
	Instantiated by:	
	(a) Masses.	(unmarked choice)
	(b) Flexible objects.	(unmarked choice)
	(c) String-like objects.	(unmarked choice)
	(d) Unfeatured objects.	(unmarked choice)
	(e) Objects whose position is irrelevant.	(marked choice)

#### 4.2.5 Caused positions

As shown in section 3.1.3, the postural *lang* 'hang/move' can occur both in the intransitive and the transitive construction. The other three posturals have causative counterparts that occur in the transitive construction. Table (7) lists all intransitive and transitive forms (repeated from table 4 in section 3.1.3).

**Table (7):** Intransitive and transitive posturals

	Intransitive	Transitive
'hang/move'	<i>lang</i> (sg), <i>leng</i> (pl)	<i>lang</i> (sg), <i>leng</i> (pl)
'sit'	<i>t'ong</i> (sg), <i>t'wot</i> (pl)	<i>d'u</i> (sg), <i>d'war</i> (pl)
'stand'	<i>d'yem</i> (sg), <i>d'yam</i> (pl)	<i>twaam</i> (sg), <i>twat</i> (pl)
'stand in a stable way'	=	<i>twet ~ toot</i> (sg), <i>twat</i> (pl)
'lie'	<i>t'o</i> (sg), <i>t'oerep</i> (pl)	<i>b'ûet</i> (sg), <i>d'ûe</i> (pl)
'exist'	<i>d'e</i>	<i>loe</i>

The transitive posturals are used with Figures that are caused to be in a location (in which they then assume the specified position) as, e.g., with the animate Figures in (30a) and (30b).

- (30a) *Mûep leng noemûat / mûep lang ni nd'ûûn kwalba.*  
 3Pl hang/move(pl) frog 3Pl hang/move(sg) 3Sg INSIDE bottle

'They hung (= put) the frogs, they hung (= put) it inside the bottle.'  
 [FROG-J]

- (30b) *Nyap goeshing twaam /*  
 prepare horse cause\_standing(sg)

*Yir yit goeshing / twaam goe wakaam lu.*  
 turn face horse cause\_standing(sg) PLACE road settlement

'(He) got the horse ready (and) stood (it),  
 (he) turned the face of the horse around (and) stood (it) on the road  
 towards home.' [PANG]

As illustrated in (31), the causer need not be animate, nor does it have to act volitionally.

- (31) *Bi-n-k'yak / shyoot / b'ûet k'a muk*  
 thing-LOC-heart/neck coil cause\_lying(sg) head(sg) 3Sg.Poss

*wa dakt'ûe lu.*  
 SIDE middle settlement

'The necklace coiled (and) lay its head on the side towards the town center.' [MT\_1.9-J/I]

With regard to their stative components, transitive and intransitive posturals are semantically almost identical. This identity is not surprising in the case of *lang* 'hang/move', as the same form is used both transitively and intransitively. It is not self-evident in the other three cases, as these involve suppletive forms. Because of the similarities, transitive posturals are only briefly discussed in this section (see sections 4.2.1 to 4.2.4 for details).

*Lang* (sg) and *leng* (pl) 'cause to hang/move' are used with animate Figures (see 30a above where an external agent puts a frog into a location, and thereby causes it to 'move' there) and prototypical attachment relations (potential to move in a location), including Figures that naturally 'hang/move' (e.g., leaves in a tree, which were 'hung' there by God). Some speakers can also use them with non-prototypical attachment relations. And all speakers can use them with Figures located at a (high) place (as in 32) or at the edge of a Ground.

- (32) *Ko la 'o' nnoe d'in goe d'ik goe lang*  
 even little(sg) 'o' LOC.ANAPH PAST.CL 2Sgm build 2Sgm hang/move(sg)

*mana!*  
 indeed

'Even this small 'o' (= round hut), couldn't you just build it (and) put it up (at a place)!'  
 [A-21/09/00]

*D'u* (sg) and *d'war* (pl) ‘cause to sit’ are used with Figures that support themselves in a stable way, either through a functional base (e.g., pots) or an assumed base (e.g., headpads, piles). The singular form shares with its intransitive counterpart senses (ii) (‘remain/stay’) and (iii) (‘plenty’). Sense (iv) (‘fit well’) was not observed. (33a) and (33b) below illustrate the sense of ‘remain/stay’. Since *d'u* does not specify a locative relation in this sense, it can co-occur with any other postural verb (as in 33b).

- (33a) *P'as*            *la*        *lat / t'ong*    *goe*    *kat*    *sool*.  
 harvest\_season    COND    finish    IRR        2Sgm    find    money  
  
*T'ong*    *goe*    *mang*    *goe*    *d'u*                    *pûanang*.  
 IRR        2Sgm    take        2Sgm    cause\_sitting(sg)    there/yonder  
  
*Ndoe*    *yi*    *d'a*        *wul / t'ong*    *goe*    *k'ara*    *ndoe*    *bi*    *k'a*.  
 some    year    COND    arrive    IRR        2Sgm    add        some    thing    HEAD(sg)  
  
 ‘When the harvest season is over, you will have money.  
 You will take (it and) keep it there.  
 When another year is over, you will add a bit (of money) on top.’  
 [YOUTH]

- (33b) *Mat*        *hok*    *d'u*                    *t'u*                    *n-d'yem*        *nd'ûûn*    *kwati*.  
 woman(sg)    DEF    cause\_sitting(sg)    calabash\_bottle    PRES-stand(sg)    INSIDE    box  
  
 ‘The woman keeps the bottle, behold, (it) is standing in the box.’ [CP\_59-A]

Example (34a) below illustrates the sense of ‘plenty’. Notice that the form *d'u* developed further into the quantifier ‘much/many’ (as in 34b).<sup>15</sup>

- (34a) *P'as*                    *mangoro*    *d'u*                    *nd'ûûn*    *me*    *ji /*                    *ngam*.  
 harvest\_season    mango                    cause\_sitting(sg)    INSIDE    barn    Sgm.LogS.Poss    many  
  
 ‘In the mango harvest season, (he<sub>1</sub>) sets (them) inside his<sub>1</sub> barn, many (of them).’ [SR\_MUCH\_2-A]  
  
 (34b) *Mûep*    *nyet*    *d'u*        *t'eng*    *yûûl*    *d'yam*    *d'i*                    *ngam*.  
 3Pl        leave    many    tree        rise(pl)    stand(pl)    LOC.ANAPH    many  
  
 ‘They allowed many trees to grow (and) stand there, many (of them).’  
 [MIL-C]

*Twaam* (sg) and *twat* (pl) ‘cause to stand’ are used with Figures that are either externally supported or precariously supported. They also share sense (ii) (‘stable support through leg’) with their intransitive counterparts. Sense (iii) (‘stationary’) does not occur. In addition, they are used metaphorically in reference to establishing an organization (as in 35).

<sup>15</sup> The quantifier *d'u* and the transitive postural *d'u* occur in different syntactic slots (see section 2.2.2.1).



- (35) G. *twaam* *komiti* (...).  
 G. cause\_standing(sg) committee  
 ‘G. established a committee’ [YIRLONG]

A second singular verb, *twet* ‘cause to stand’, can be used in place of *twaam* in order to draw attention to the fact that the Figure is self-supported in a stable way (i.e., tables and cars). Since both *twaam* and *twet* can be used in this case, it is likely that the two verbs are in a privative opposition, with *twaam* being semantically more general.

*B’ûet* (sg) and *d’ûe* (pl) ‘cause to lie’ are used with Figures that do not project from the Ground, e.g., masses. This includes the possibility of construing individual Figures as a mass (as in 36). Like the intransitive forms, they can be extended to non-canonically positioned Figures, Figures on the floor and contained Figures.

- (36) *Mûep* *d’ûe* *daask’oom*. *Mûep* *shyal* *ni*.  
 3Pl cause\_lying(pl) elders(pl) 3Pl accompany 3Sg  
 ‘They gathered the elders. They (= the elders) accompanied him.’  
 [TARIHI]

To summarize: aside from the causative component in their semantics, transitive posturals share with their intransitive counterparts the same basic semantics and most of the secondary senses.

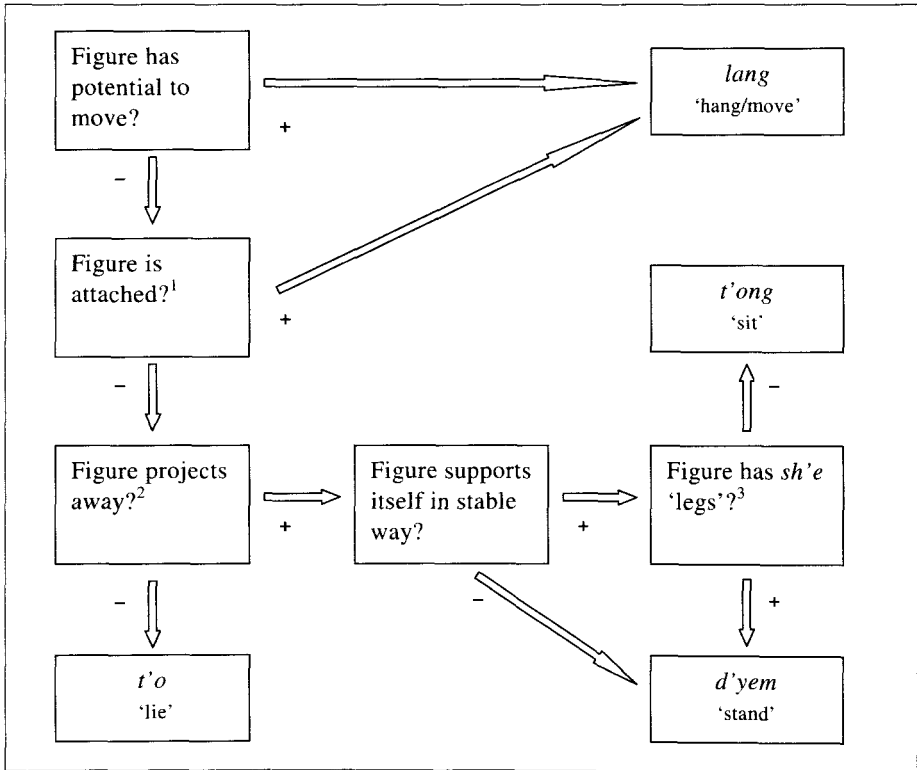
#### 4.2.6 Summary and discussion I: locative relational semantics

It was shown in the five previous sections that the postural verbs, in their basic sense, code a locative relation, i.e., the choice of the default or unmarked verb is determined by the position of the Figure with respect to the Ground. The criteria that determine the choice can be illustrated with the help of the flowchart in figure (6) on the next page (see also Levinson 2000a for a comparable type of representation of postural verbs in Yélf Dnye).

There seems to be an internal subdivision among the four posturals in that the choice of *t’ong* ‘sit’, *d’yem* ‘stand’ and *t’o* ‘lie’ is determined by whether or not a Figure maintains a position that projects from the Ground, and, if so, how it maintains this position. The three verbs thus express mutually exclusive relations. This question, by contrast, is irrelevant for the choice of *lang* ‘hang/move’ whose extensions overlap with those of the other three: e.g., a leaf in a tree can *lang* ‘hang/move’ (potential to move) as well as *d’yem* ‘stand’ (support through Ground). Semantically, *lang* ‘hang/move’ seems to be more

similar to the dispositional verbs – compare it to, e.g., the dispositionals *nap* ‘hang straight down’ or *yeng* ‘hang to the side’. Recall that *lang* also shares formal similarities with dispositional verbs (see section 3.3).

**Figure (6):** Flowchart illustrating the choice of an unmarked postural verb



<sup>1</sup> For some speakers only.

<sup>2</sup> Covering vertical extension, horizontal extension, depth (i.e., negative spaces), all Figures having a part designed for support (e.g., plates).

<sup>3</sup> Probably a new development.

Despite this subdivision, all four posturals code a locative relation. This type of relational semantics ties in with their lexical properties. Recall that they have stative semantics (section 3.1.2) and a location participant in their argument structure (section 3.1.3) – both properties are compatible with their use in reference to a locative relation. From a cross-linguistic perspective, their

locative relational semantics is unexpected, though. Available studies suggest that comparable verbs in other languages code a Figure-internal posture or shape. In this concluding section, the Goemai posturals are compared to posturals in other languages.

Stassen (1997: 55-61) shows that many non-related languages use postural verbs in their locative construction. Yet with the exception of studies on Germanic languages (Bowerman et al. in prep.; Kaufmann 1995; Kutscher and Schultze-Berndt submitted; Lemmens 2001; 2002; Maienborn 1990; 1991; Mulder and Wehrmann 1989; van Oosten 1986; Serra Borneto 1996), there are surprisingly few semantic studies available (but see Ameka and Levinson in prep.-a; Levinson 2000a; J. Newman 2002b). Many of the available studies are cast within a cognitive linguistics framework (Johnson 1987; Lakoff and Johnson 1980; Lakoff 1987) and center on a human-based prototype and its metaphorical extension to inanimate objects.

A human-based prototype approach would be a possible alternative way to analyze the Goemai data. In particular, it might help to explain the diachronic origin of the postural system. The system seems to be of comparatively recent origin, as closely related Chadic languages do not make use of posturals in their locative construction, although they have cognate forms, which they use in the description of human and animate postures (see Burquest 1973; Foulkes 1915; Frajzyngier 1993: 259-263; Jungraithmayr 1963a). It is furthermore striking that many non-related languages select posturals to express a locative relation, notably verbs like 'sit', 'stand', or 'lie'. Researchers often argue that the postures of sitting, standing and lying are basic level categories (Aikhenvald 2000a: 401-402; Heine et al. 1991: 32-39), i.e., they form the most inclusive categories for which a concrete image can be formed (Rosch 1978; Tversky 1986). Since they express cognitively salient concepts, basic level lexemes tend to occur frequently, thereby providing the input for metaphorical extensions and grammaticalization chains.

Such considerations may help to account for the diachronic origin of the postural verbs in Goemai. Nevertheless, the human-based prototype approach was not adopted for the description of the synchronic postural system. This decision follows from the observation that the synchronic semantics of these verbs do not include reference to a (human) posture. The following three factors contributed to this decision:

First, the existence of the verb *lang* ‘hang/move’ poses problems for the prototype approach. In the case of Goemai, this problem is not too serious as *lang* has a movement component in its semantics and can thus be used to describe moving humans. It could therefore be argued that all four posturals are based on a human prototype: a human resting (‘sit’, ‘stand’, ‘lie’) vs. a human moving (‘hang/move’).<sup>16</sup> Metaphorical extensions could then account for the use of these verbs with inanimate objects.<sup>17</sup> Based on formal criteria, it can even be argued that the inclusion of *lang* in the group of postural verbs is a later development (see above; see section 3.3). While *lang* could thus be integrated into a human-based prototype approach in the case of Goemai, such an integration may not be possible for other languages. Unrelated languages such as Arrernte (Wilkins to appear), Dutch (Bowerman et al. in prep.) and Yélf Dnye (Levinson 2000a) include a ‘hang’-type verb in the form class of postural verbs. In their case, ‘hang’ is not used for moving Figures.

Second, and more importantly, the postural verbs express a locative relation, i.e., someone or something can only ‘sit’ in relation to some reference object. As illustrated in (37), postural verbs can only refer to a (human) posture if they are formally marked (see section 3.1.3 for details).

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<sup>16</sup> The postural-based deictic classifier system of Guaicuruan languages also distinguishes between motion and non-motion/posture. However, the ‘motion’ classifiers differ semantically from *lang* ‘hang/move’ in Goemai in that they code a direction. They probably derive from verbs of directional motion (Aikhenvald 2000a: 362-363; Ceria and Sandalo 1995).

<sup>17</sup> A human bottom could have given rise to the concept of a sitting base. A standing posture could have been extended to precariously supported objects, and a lying posture to objects that do not project away from the Ground. The movement component could have been extended to suspended, dangling objects. These are not necessary extensions, though. For example, in Germanic languages, the schema of a base and of stable support is associated with ‘stand’, not ‘sit’: a cup thus ‘stands’ on a table in Dutch and German, but ‘sits’ on it in Goemai (Kutscher and Schultze-Berndt submitted; van Oosten 1986; Serra Borneto 1996). Furthermore, there are no one-to-one correspondences between postural verbs and body parts in Goemai: a supporting *goede* ‘bottom’ would sit (e.g., the bottom of a pot), but a non-supporting *goede* would ‘stand’ (e.g., the bottom of a fruit) – the important factor is the nature of the support. See also P. Brown (1994) who discusses the co-occurrence of (dis)positional verbs and body parts in Tzeltal. And see Levinson (1994) who shows that, in Tzeltal, the assignment of body parts to objects is determined by geometric properties of objects, rather than by metaphoric extensions based on a human prototype.

(37) *Ni yool / mûaan doe t'ong pûe kong. (...)*  
 3Sg rise(sg) go(sg) come sit(sg) MOUTH river

*Ni t'ong n-t'ong.*  
 3Sg sit(sg) ADVZ-sit(sg)

'She rose (and) went (and) sat here at the river. (...)  
 She sat sitting.' [SR\_SVCM-J]

It is unlikely that the relational aspect of their meaning can be explained with reference to a (human) posture. It is possible that, originally, the postural verbs coded a posture, while the relational semantics was contributed by the locative construction. But synchronically, the relational meaning constitutes part of the verb semantics (see also section 3.1.3).<sup>18</sup>

Third, the different behavior of postural verbs, on the one hand, and dispositional verbs, on the other, needs an explanation. Recall that dispositional verbs can refer to a human posture (e.g., *shuur* 'squat'). They differ from postural verbs in that they (a) do not require special marking to refer to a referent-internal posture and (b) only occur in the locative construction under specific marked circumstances (see sections 3.2.3 and 4.4). Their differences can be explained if one assumes that the relational component is part of the lexical semantics of the posturals, but not of the dispositionals.

For these three reasons, I did not adopt the human-based prototype approach for the analysis of the synchronic system. Instead, an analysis in terms of locative relational semantics is proposed (see also Maienborn 1990; 1991; Kaufmann 1995 for a comparable analysis of German postural verbs; see Guirardello-Damian 2002 for the coding of Figure/Ground and Ground information in the postural verbs of Trumai).

A recurring assumption in the literature is that postural verbs code mainly information about the Figure. In particular, it is assumed that postural verbs and deictic classifiers (deriving from postural verbs) code information about their referents' dimensionality (1D, 2D, 3D), extendedness (horizontal,

<sup>18</sup> A semantic reanalysis of the postural verbs in the locative construction may have taken place (from the meaning 'posture' to the meaning 'locative relation'), but in the absence of diachronic evidence, such a scenario must remain speculation. Given the considerable amount of structural borrowing attested in the Jos Plateau area (see Gerhardt and Wolff 1977), it is equally possible that the postural system was borrowed. It is known from Siouan and neighboring languages that such systems can be borrowed (Rankin 1988: 642). Unfortunately, we do not have any information about the coding of locative relations in neighboring Jos Plateau languages.

vertical) and/or material (flexible, rigid) (see Aikhenvald 2000a: 271-306; Denny 1979; Grinevald 2000: 71-74; van Oosten 1986; Serra Borneto 1996; see also Talmy 1985: 61-76). Objects tend to ‘stand’ when they are one-dimensional or vertically extended, to ‘lie’ when they are two-dimensional, horizontally extended or flexible, and to ‘sit’ when they are three-dimensional or non-extended. In Goemai, by contrast, these features play only a secondary role. As illustrated in table (8), Figures of all dimensions, extensions and grades of flexibility occur in almost all of the postural categories. (*Lang* ‘hang/move’ is excluded from the table because it does not play a role in the literature. It can also occur with Figures of all types.)

**Table (8):** Postural verbs and abstract shapes

	<i>t’ong</i> ‘sit’	<i>d’yem</i> ‘stand’	<i>t’o</i> ‘lie’
3D	pot	house	stone
2D	<i>pepe</i> (woven cover)	wall	cloth
1D	-	tree	stick
vertical	bottle	tree	bark of tree
horizontal	trough	nail in wall	stick
rigid	pot	tree	stick
flexible	(headpad)	(upright fire-hose)	rope

The table shows that the postural categories correspond only imperfectly to the abstract shape categories. There are very few restrictions, all of which follow from the relational semantics of the posturals: one-dimensional Figures cannot *t’ong* ‘sit’ (since they cannot support themselves in a stable way), and flexible Figures are only marginally acceptable with *t’ong* ‘sit’ and *d’yem* ‘stand’ (since they cannot maintain a position that projects away from the Ground). Information about internal properties of the Figure thus only plays a secondary role in that specific locative relations imply specific Figure properties in terms of shape, material or animacy.

The discussion in this section has shown that the semantics of the postural verbs in Goemai seems to differ considerably from those attested in other languages. They code a locative relation, i.e., they take into account the position of the Figure with respect to the Ground – and not an internal (human-based) posture or an abstract shape. Given the scarcity of semantic information on non-Germanic languages, it remains to be seen whether the type of

semantics attested in Goemai is idiosyncratic, or can be found in other languages as well.

#### 4.2.7 Summary and discussion II: pragmatic shifts to different posturals

Every Figure is associated with a default, classificatory, postural that is determined on the basis of its canonical position with respect to the Ground (see section 5.1 for details). Figure (6) in section 4.2.6 above illustrates the choice of such a default postural. If the Figure is in a non-canonical position, by contrast, speakers have the option to shift to another postural verb instead. The following two types of shifts are possible (as illustrated in figure 7 on the next page):

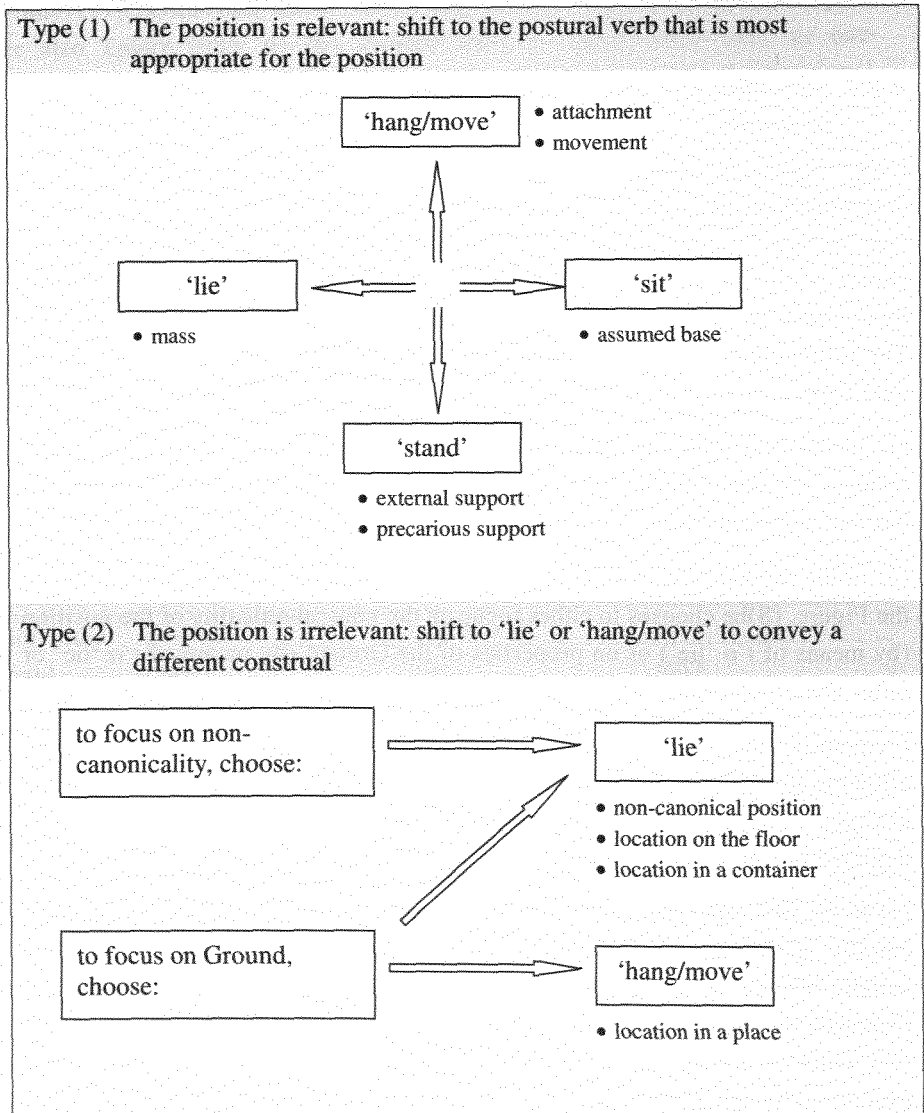
(1) In the first type, the speaker focuses on the position of the Figure. (S)he chooses the postural that best fits the temporary position: it is chosen on the basis of some similarity to those Figures that canonically fall into this category.

(2) In the second type of shift in figure (7), the speaker ignores the position of the Figure. (S)he chooses to either focus on the non-canonicity of the position (by means of *t'o* 'lie') or on properties of the Ground (by means of *t'o* 'lie' or *lang* 'hang/move').

Frequently, the same scene can be construed in different ways, thereby allowing for the use of different posturals. Furthermore, the default postural is always an alternative option, although its distribution differs in the two types depicted in figure (7) as follows:

(1) In the first type, speakers may consider both the default and the non-default equally appropriate. If the default is the first response, the non-default is usually offered spontaneously as an alternative. If the non-default is the first response, by contrast, the default is always rejected. Figure (8) illustrates these two patterns by summarizing the responses to a 'where' question about exceptionally tall Figures that have a base (see also table 4 in section 4.2.3 above). In pattern 1, speakers responded first with the default *t'ong* 'sit', but always produced or accepted the non-default *d'yem* 'stand' as an alternative. In pattern 2, they responded first with the non-default *d'yem* – but in this case, the default *t'ong* was invariably rejected. The same two patterns are found in all shifts of type (1).

**Figure (7):** Pragmatic shifts to different postural verbs





**Figure (8):** Two different response patterns (default and non-default posturals)

Pattern 1	Pattern 2
1. <i>t'ong</i> 'sit' (default)	1. <i>d'yem</i> 'stand' (non-default)
2. <i>d'yem</i> 'stand' (non-default)	2. * <i>t'ong</i> 'sit' (default)

This distribution in pattern 2 can be explained with reference to pragmatic principles. Following Levinson's (2000b) M-principle (see sections 1.3.1 and 5.1.1.3), the speaker chooses the marked, i.e., non-default, postural to draw attention to a marked property. Since this marked property is perceived as salient, the non-default postural is chosen. The default postural, by contrast, is rejected in subsequent responses – if it were appropriate, the speaker would have used it as a first response. If the speaker chooses the default, by contrast, (s)he does not consider the marked property to be salient enough to warrant a shift. But once location is established, (s)he can resort to the non-default to elaborate on the marked property. Sometimes, speakers even use both verbs together in different morphosyntactic contexts (as in 38): the default in the locative construction to establish the location, and the non-default in some other construction to elaborate on the orientation.

- (38) *T'eng hok d'yem n-yil kan n-kan t'o yi.*  
 tree DEF stand(sg) LOC-ground incline ADVZ-incline lie(sg) SUB  
 'The tree stands in the ground, lying inclined.' [DRAW1\_95-A]

In this respect, the distribution of non-default posturals mirrors that of dispositional verbs (see section 4.4).

(2) In the second type, speakers freely consider both options, i.e., both the default and the non-default posturals. But in the end, they decide on one of the options and explicitly reject the other. See example 8 in section 4.2.1 for an illustration of such a process: the speakers discuss the relative merits of using *t'o* 'lie' or *lang* 'hang/move', but finally decide on rejecting *t'o*.

In both types, the shift away from the default postural indicates that a marked situation holds. Section 5.1 discusses in more detail the contexts for such shifts, as well as their consequences for the interpretation of the utterance.

### 4.3 The existential *d'e*

The form class of locative verbs contains, in addition to the four postural verbs, an existential predicate (see section 3.1). It expresses the existence of an entity with respect to a Ground. The Ground is always overtly expressed – if it is non-specific, the locative anaphor *d'i* is used (see section 6.2.3). For example, in (39), the speaker introduces a pawpaw tree in his vicinity by means of the postural *d'yem* ‘stand’. Then he shifts away from the identified tree to talk about subspecies of this type of tree in general. In this context, he uses the existential *d'e* and the locative anaphor *d'i* to assert the general existence of male and female trees (at non-specific locations). Following this statement, he shifts back to the visible, female, tree.

- (39) *nde na n-d'yem. A (...) t'eng byaap-t'eng.*  
 one/other PRES PRES-stand(sg) FOC tree pawpaw-tree
- Byaap-t'eng goe-mis d'e d'i. (...)*  
 pawpaw-tree NOMZ(sg)-man(sg) exist LOC.ANAPH
- Byaap-t'eng goe-mat d'e d'i. (...)*  
 pawpaw-tree NOMZ(sg)-woman(sg) exist LOC.ANAPH
- Goe-sek la la.*  
 NOMZ-body give\_birth(sg) child(sg)
- ‘behold, another one is standing. (It) is a (...) pawpaw tree.  
 There are male pawpaw trees. (...)  
 There are female pawpaw trees. (...)  
 This one has produced fruit (= i.e., it is a female tree).’ [TREE-N]

Typologically, it is well known that there is a cline between locational and existential statements (Clark 1978; Heine 1997b: 202-207; Huumo 1996; J. Lyons 1977: 722-724). In Goemai, the existential is similar to the posturals in that it is used to assert existence with respect to a Ground. That is, like the posturals, it occurs with a Ground. Conversely, the posturals show similarities to the existential in that they occur in existential contexts (see section 5.1). These similarities account for the fact that the existential can replace the posturals in all their occurrences – but although it can, in principle, replace them, its actual distribution is more restricted, and can be predicted on the basis of pragmatic principles.

This section investigates the distribution of the existential, and compares it to that of the posturals. It is organized into subsections as follows: the use of the existential in the locative construction with locative relations that are either unknown (see section 4.3.1) or non-describable with a postural (see section 4.3.2); and the use of the existential in the presentative context with locative

relations that are irrelevant (see section 4.3.3); section 4.3.4 summarizes the discussion.

#### 4.3.1 Unknown locative relation

The existential is used when the locative relation is not known. This may be the case because the relation is invisible, e.g., because the Figure is contained in the Ground (as in 40) (see also table 6 in section 4.2.4 above).

- (40) *B'at moe goe na nd'ûûn muk ba /*  
 able(pl) 1Pl OBL see inside 3Sg.Poss NEG  
*ko m-fi o ko bi d'e nd'ûûn (...).*  
 maybe ADVZ-become\_dry(sg) INTERR maybe thing exist INSIDE

'We cannot see its inside,  
 whether (it) is empty or whether something is inside (...).' [DIS\_6.3-A/N]

When the locative relation is known, by contrast, the existential does not occur – instead, the appropriate postural is used. This distribution can be illustrated with the help of multiple objects in different positions. The following two responses to a 'where' question are conceivable (using a picture book stimulus, see section 4.1.2):<sup>19</sup>

- (i) to use the existential predicate with all Figures;
- (ii) to describe the position separately for each Figure by using the appropriate posturals.

In such situations, it would seem to be easier and less cumbersome to use the existential for expressing the locative relation of all Figures simultaneously. But, as illustrated by the typical response in (41a), speakers preferred the second option, and never volunteered the existential. When prompted, they accepted it (as in 41b), albeit reluctantly. This pattern can be explained as follows: the use of the existential implicates that a postural verb is not applicable (see the discussions in sections 4.3.2 and 4.3.3); i.e., if the Figures are clearly visible and describable by means of posturals, the existential is not an appropriate choice.

<sup>19</sup> Two further responses are available, which are discussed in different sections. First, speakers can use *leng* 'hang/move (pl)' or *t'oerep* 'lie (pl)' to shift the focus away from the locative relation (see sections 4.2.1, 4.2.4, and 4.2.7). Second, speakers can use the appropriate default, classificatory, verb (see section 5.1).

(41a) *Kwalba k'un t'wot k'a tebul / f'er t'oerep sek b'et muk.*  
 bottle three sit(pl) HEAD(sg) table four lie(pl) BODY BELLY 3Sg.Poss  
 'Three bottles sit on the table, four lie next to them.' (= typical response)  
 [PSPV\_46-D]

(41b) *kwalba dip d'e k'a tebul*  
 bottle all exist HEAD(sg) table  
 'the bottles, all (of them), are on the table' (= accepted by consultants)  
 [PSPV\_46]

Aside from its use with unknown locative relations, the existential is used in two further contexts: the 'where' question, and negative location. Example (42) below illustrates all three contexts. In (42-1), the speaker asks a 'where' question containing the existential. In (42-2), he uses the existential to talk about a potential, but unknown, location. Following that, in (42-3), he uses the existential in reference to a negative location. Notice that, in (42-4), he shifts to the postural verb *t'ong* 'sit': the Figure is found and its locative relation thus becomes known to the protagonist.

(42-1) *Yin / d'a hok d'e nnang?*  
 SAY calabash DEF exist where

(42-2) *Yin ko d'e a m-boega. (...)*  
 SAY maybe exist FOC LOC-well

(42-3) *D'a d'e d'i ba.*  
 calabash exist LOC.ANAPH NEG

(42-4) *Mûaan goe-goe ya n-goot t'eng / shyang /*  
 go(sg) RED-SEQ arrive LOC-hollow tree hunt/watch  
*kat d'a t'ong d'i.*  
 find calabash sit(sg) LOC.ANAPH

'(He) said, where is the calabash?

(He) said, maybe (it) is in the well. (...)

The calabash is not there.

(He) went and arrived at the hollow of the tree, (he) looked,

(he) found the calabash (and it) sat there.' [SR\_NEG\_2-A]

In all three contexts, the speaker focuses on a locative relation, but, for different reasons, cannot give information about its nature. In the case of an invisible Figure, the locative relation is not known. In the 'where' question, (s)he seeks information about a locative relation. Since (s)he does not presuppose anything about the relation, the existential is the preferred option. In the case of negative location, (s)he asserts the absence of any locative relation. That is, in the absence of a relation, positional information is not applicable.

4.3.2 Non-describable locative relation

The existential is used when no postural verb is available to describe the locative relation. This is always the case with abstract Figure/Ground relations (as in 43).

- (43) *Gok* *d'e* *m-pe* *goe-nnoe-hoe* /  
 illness exist LOC-place NOMZ(sg)-LOC.ANAPH-exactly  
*ko* *muut* *d'e* *m-pe* *goe-nnoe-hoe*.  
 maybe death(sg) exist LOC-place NOMZ(sg)-LOC.ANAPH-exactly

‘There is illness in this place, or there is death in this place.’ [LU-C]

There are also some non-abstract relations that cannot be described with posturals. One of them was already mentioned: non-prototypical attachment relations (see section 4.2.1). Recall that all speakers use *lang* ‘hang/move’ for suspended Figures, but only some can extend it to other forms of attachment. Speakers who cannot extend *lang* in this way tend to resort to *d'e* ‘exist’ instead. Table (9) below summarizes the attested speaker variation.

Table (9): Extensions of *lang* ‘hang/move’ with attachment relations

Speaker	Locative relation		
	suspension	projection from Ground	attachment
A, C, D	<i>lang</i> ‘hang/move’		<i>d'e</i> ‘exist’
I, N	—————→		←-----
J, K	—————→	←-----	←-----

explanation: ——— *lang* ‘hang/move’  
 ----- *d'e* ‘exist’

Despite the individual variation illustrated in table (9) above, all speakers show similar response strategies. These strategies are summarized in table (10) below. They are partly predicted by Levinson’s (2000b) Q-principle (see section 1.3.1) (see also Levinson 2000a): when there are two compatible alternates (e.g., a postural and an existential), the use of the informationally weaker alternate (= existential) Q-implicates that the stronger (= postural) does not apply. Hence, the stronger postural will not be used as a second response.

**Table (10):** Distribution of postural and existential verbs

Locative relation	1 <sup>st</sup> response	2 <sup>nd</sup> response
pattern 1 (postural applicable)	postural	existential
pattern 2 (postural marginally applicable)	(a) postural (b) existential	existential postural <sup>20</sup>
pattern 3 (postural non-applicable)	existential	-

A similar variation is attested in the description of negative spaces. Speakers use *d'yem* 'stand' for prototypical negative spaces, e.g., footprints in the sand, caves in the mountain or doors in the house (see section 4.2.3). Some speakers can extend *d'yem* to damaged parts of the Ground (e.g., holes in a towel, cracks in a cup), but others cannot. Again, the existential is an alternative option for such speakers. In this case, the same response strategies as illustrated in table (10) are observed.

The use of the existential is one possible way to refer to such 'non-describable' locative relations. Alternatively, speakers can use a more descriptive dispositional verb such as *b'am* 'stick' in the locative construction (as in 44a), in the transitive construction (as in 44b) or in the configurational serial construction (as in 44c).

(44a) *Stamp b'am k'a wasik'a.*  
stamp stick HEAD(sg) letter

'The stamp sticks on the letter.' [TRPS\_3-D]

(44b) *Mûep b'am ni k'a takarda.*  
3Pl stick 3Sg HEAD(sg) paper

'They stuck it (= the stamp) on the paper.' [TRPS\_3-I]

(44c) *Stamp b'am d'e k'a envelope.*  
stamp stick exist HEAD(sg) envelope

'The stamp is stuck on the envelope.' [TRPS\_3-N]

Table (11) illustrates that individual speakers prefer different strategies. Some (mainly older) speakers continue to use the locative construction, either with the existential or with a dispositional verb. Alternatively, they combine both

<sup>20</sup> The combination existential (1<sup>st</sup> response) and postural (2<sup>nd</sup> response) is not predicted. It is nevertheless attested in the Goemai data.

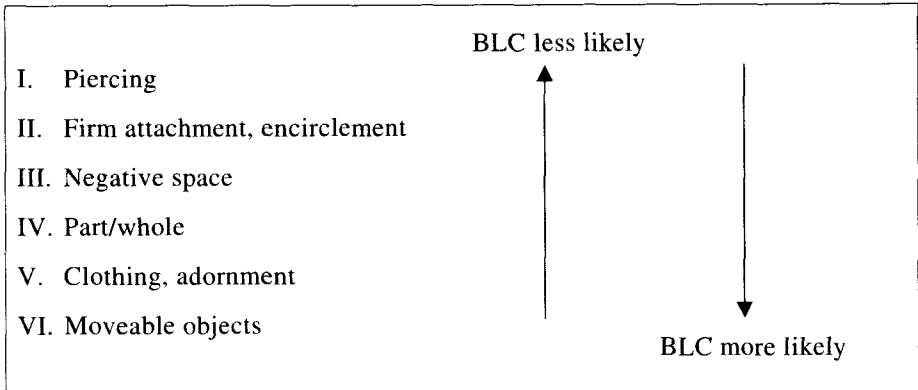
verbs in the configurational serial construction – a construction that developed from the locative construction (see section 8.2.2). Other (only younger) speakers prefer to use the dispositional verbs in the transitive construction.

**Table (11):** Individual strategies for the description of non-prototypical relations

Verb:	Existential	Existential and dispositional	Dispositional	
Construction:	Locative construction	Serial construction	Locative construction	Transitive construction
Speaker:	A, C, J, N	C, N	D	I, K
hooks on wall [TRPS-50]	'exist'	'stick exist'	'stick'	'stick'
stamp on letter [TRPS-3]	'exist'	'stick exist'	'stick'	'stick'
ribbon around candle [TRPS-4]	'exist'	'tie exist'	'tie'	'tie'

The distribution of the existential and the dispositionals (as opposed to the posturals) can be captured with the help of the “BLC hierarchy”. In the remainder of this section, this hierarchy is introduced and its applicability to the distribution of the existential and dispositionals illustrated.

A recent survey has shown that speakers of non-related languages tend to shift away from the basic locative construction (BLC) of their language to some other expression to describe attachment relations and negative spaces (Kita and Walsh Dickey 1998: 55-61; Levinson and Wilkins to appear-a). The BLC is identified as the construction that occurs in the answer to a ‘where’ question about a core locative relation (i.e., about an easily moveable inanimate Figure), but the actual form of the construction can vary cross-linguistically. Levinson and Wilkins (to appear-a) set up the implicational hierarchy illustrated in figure (9) below: if a language uses its BLC for a specific level of the hierarchy, it will also use it for all levels below.

**Figure (9):** The BLC hierarchy (based on Levinson and Wilkins to appear-a)

The lowest level (VI) of the hierarchy covers easily moveable inanimate figures. In Goemai, such figures are consistently referred to with postural verbs in the locative construction. The higher levels are concerned with attachment relations (IV, II and I) and negative spaces (III).<sup>21</sup> As discussed above, not all speakers can extend the posturals *lang* ‘hang/move’ and *d’yem* ‘stand’ to such relations. Instead, some speakers use the locative construction (i.e., the BLC) with a non-postural verb (existential, dispositional). Others shift away from the locative construction, and instead use dispositional verbs in the transitive construction. In both cases, the coding of relations on level VI differs from the coding of relations on levels V to I.

The existential verb is semantically appropriate on level VI, but it is never volunteered in this case: speakers accept it in place of the posturals, but do not consider it a good response. Its acceptability argues in favor of an entailment relation between the posturals and the existential. The semantics of the general existential verb (existence at a location) are entailed by the semantics of the specific postural verbs (existence at a location in a specific position). Being the general verb, the existential can occur in all contexts where postural verbs occur. Nevertheless, there is a pragmatic constraint against its use that can be captured with the help of Levinson’s (2000b) Q-principle (see above; see section 1.3.1). In Goemai, the use of the existential Q-implicates that the

<sup>21</sup> Level V depicts clothing/adornment scenes. These do not form a unified category in Goemai, but are treated as forms of attachment. I thus subsumed them under the attachment relations.



postural verb is not applicable: either the locative relation is unknown (see section 4.3.1) or it is not describable. Rephrased in terms of the BLC-hierarchy, the postural verbs pick out the easily describable relations of level VI, while the existential picks out the less easily describable relations beyond level VI.

### 4.3.3 Presentative context

In the presentative construction (see section 6.1.2) and the demonstrative word (see section 7.2.1), the existential is additionally used whenever the speaker believes that the relational information is not necessary for the identification of the referent. This is the case in the following two contexts: the referent has been previously introduced, or the referent is non-canonically located.

First, the existential is used whenever the referent is known from the previous discourse (as illustrated in the second sentence of 45a). Example (45a) is taken from a matching game in which speakers are asked to describe pictures. After a while, they realize that the background picture stays the same, e.g., every picture contains a ‘sitting’ box in the upper right corner. After this discovery, the positional information is judged unnecessary to identify the box, and the speakers shift to *d’e* ‘exist’. *D’e* has an anaphoric flavor here in that it re-introduces a known but backgrounded referent. By contrast, if the relational information is of relevance to the identification of the referent, the appropriate posturals have to be used. This is illustrated in (45b), where the posturals *t’o* ‘lie’ and *t’ong* ‘sit’ are used to differentiate between two referents.

(45a) *Goe na kwati n-t’ong d’i goe lemu k’a. (...)*  
 2Sgm see box PRES-sit(sg) LOC.ANAPH COM orange HEAD(sg)

*To/ ndoe kwati na n-d’e d’i zak-yit.*  
 okay some box PRES PRES-exist LOC.ANAPH again

‘Behold, a box is sitting there with an orange on top. (...)  
 Okay, behold, the box is there again.’ [COMP\_5/6-A/N]

(45b) *Goe-n-t’o-nnoe fa? (...)*  
 NOMZ(sg)-ADVZ-Cl:lie(sg)-DEM.PROX INTERR

*D’a goe-n-t’ong d’i n-d’e-nnoe fa?*  
 calabash NOMZ(sg)-ADVZ-sit(sg) LOC.ANAPH ADVZ-Cl:exist-DEM.PROX INTERR

‘What about this lying one (= calabash spoon)? (...)  
 What about this existing calabash (= calabash bottle) that is sitting  
 there?’ [HAND-A/N]

Second, the existential is used whenever the locative relation is non-canonical – possibly because a non-canonically located referent is already salient enough

to be identifiable. Its usage carries a Q-implicature, which is illustrated in (46) below. Taken from a matching game, it exemplifies a misunderstanding that took place because of the implicatures the chosen verb carried with it. In this example, speaker A. picks a photo with an upright bottle and introduces it by means of *d'e* ‘exist’ (46-1). Aside from the upright bottle, there are two other potential referents: an upside-down bottle, and a bottle on its side. In his response, speaker N. thus seeks clarification (46-2). Interestingly, he does not include the upright bottle in his response, but only the two non-canonically located bottles (the ‘lying’ bottle, and the ‘standing’, i.e., upside-down bottle). He apparently assumes that speaker A. would have used the more informative postural *t'ong* ‘sit’ if he had the upright bottle in mind. For speaker N., the shift from the appropriate postural to the existential thus Q-implicates that the more informative postural does not apply. Speaker A. does not intend this implicature, however, and assumes that speaker N. uses *d'yem* ‘stand’ for the upright bottle rather than for the upside-down bottle (46-3). Recall that ‘stand’ is a possible alternative expression for an exceptionally tall bottle (see section 4.2.3). Speaker A. seems to assume that speaker N. intends to convey such a reading.<sup>22</sup> At this point, speaker A. has picked the photo with the upright bottle, and speaker N. the photo with the upside-down bottle. Later in the discussion, speaker N. asks again for confirmation, this time he uses the dispositional *k'oon* ‘face down’ (46-4). It is only then that speaker A. realizes that they had been talking about two different bottles. He shifts to the default postural *t'ong* ‘sit’ for the upright bottle in its canonical position (46-5).

(46-1) A: *Ndoe kwalba hok na n-d'e zak-yit.*  
 some bottle DEF PRES PRES-exist again

‘Behold, another bottle is (here) again.’

(46-2) N: *Goenang nd'ûûn? Goe-t'o n-t'o nmoe a*  
 which(sg) INSIDE NOMZ(sg)-lie(sg) ADVZ-lie(sg) LOC.ANAPH INTERR  
*ko goe-d'yem n-d'yem?*  
 maybe NOMZ(sg)-stand(sg) ADVZ-stand(sg)

‘Which among (them)? (Is it) this one that lies lying,  
 or the one that stands standing?’

(46-3) A: *D'yem k'a tebul. (...)*  
 stand(sg) HEAD(sg) table

‘(It) stands on the table.’ (...)

<sup>22</sup> The pragmatic opposition between the postural verbs ‘sit’ and ‘stand’ is not covered through the Q-principle, but through the complementary I- and M-principles (see sections 1.3.1 and 5.1.1.3).

(46-4) N: *Goe-* / *k'oon* *n-k'oon* *a?*  
 NOMZ(sg) face\_down(sg) ADVZ-face\_down(sg) INTERR

‘(Is it) the one-, (is it) facing down?’

(46-5) A: *A'a*. (...) *T'ong* *k'a* *tebul*.  
 no sit(sg) HEAD(sg) table

‘No. (...) (It) sits on the table.’  
 [DIS\_14.5/6-A/N]

The discussion in this section shows that the existential has a wider distribution in the presentative context than it has in the locative context. This distribution is possibly due to two features that are unique to the presentative context (see sections 6.1.2 and 7.2.1).

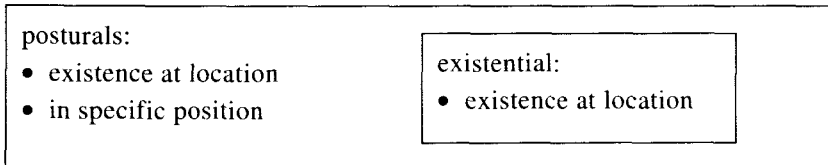
First, only the locative elements can occur in the presentative construction and the demonstrative. In the locative construction, by contrast, speakers can resort to a dispositional element to signal a marked, non-canonical relation. Since this option is not available in the presentative context, speakers have to signal non-canonicity in a different way, i.e., through the existential.

Second, the presentative construction and the demonstratives have the function of introducing new referents into discourse. In such cases, referents are identified by means of their locative relation – if they can be identified on other grounds, the positional information is not necessary anymore.

#### 4.3.4 Summary

As illustrated in figure (10), the semantics of the existential are entailed by the semantics of the posturals.

**Figure (10):** The semantics of the posturals and the existential



Although the existential could therefore replace all posturals in all their occurrences, it is not always pragmatically appropriate. It is used when (a) the locative relation is unknown, (b) the locative relation cannot be described by a postural or (c) the locative relational information is irrelevant (in the

presentative context only). The difference in distribution between the existential and the posturals was captured with the help of Levinson’s Q-principle: the existential is only used when the more informative posturals are not applicable.

#### 4.4 The dispositional verbs

Sections 4.2 and 4.3 discussed the semantics and distribution of the locative verbs, i.e., the posturals and the existential. It was shown that locative verbs lexicalize a locative relation between a Figure and a Ground, i.e., they specify how the Figure is supported with respect to the Ground. Usually, the supporting entity is overtly expressed in a locative adjunct (as in 47a). Occasionally, the locative adjunct does not express the supporting entity (as in 47b) – nevertheless, even in this case, the relational information is known from the verb.

(47a) A    *t’eng* *hok* / *d’yem*    *a*    *n-yil*    *zak*.  
 FOC tree    DEF stand(sg)    FOC    LOC-ground also

‘(It) is the tree, (it) also stands in the ground.’ (i.e., it is inserted in the ground) [DIS<sub>11.3-A/N</sub>]

(47b) *T’eng*    *d’yem*    *goe-t’oor*    *pin*    *naan*.  
 tree    stand(sg)    PLACE-flank    hut    God

‘The tree stands to the side of the church.’ (i.e., the tree is supported through insertion into the ground near the church) [PSPV<sub>49-A</sub>]

Recall that members of a different verb class, the dispositional verbs, can replace locative verbs in certain contexts (see section 3.2.3). These verbs code a type of spatial semantics that is similar to that coded by locative verbs: posture (e.g., *shuur* ‘squat’), orientation (e.g., *k’oon* ‘face down’), disposition (e.g., *shyoot* ‘coil’), distribution (e.g., *fu* ‘scatter’), or physical properties of contact (e.g., *b’am* ‘sticky Figure sticks’, *d’ûût* ‘inclined Figure leans’). But unlike the locative verbs, their focus is on the internal properties of the Figure. As shown in section 3.2.3, they can occur in the locative construction, in which case the internal properties are asserted in relation to a Ground – this reading follows from the locative construction, not from the dispositional verbs.

Typically, the dispositional verbs occur in reference to Figure-internal properties. This can be illustrated with the help of the following two contexts:

First, dispositional verbs occur in the location-object construction (see section 2.4.2.4). In this construction, they always occur with a part noun as their direct object, and they are used to assert the configuration of the referent with respect to this internal part. In (48), the disposition *dum* ‘bend forward’ is asserted in relation to the part *k’a* ‘head’ – not in relation to the external Ground *nyil* ‘on the ground’ (which is optional).

- (48) *Dum k’a muk (...) n-yil.*  
 bend\_forward head(sg) 3Sg.Poss LOC-ground

‘(It) is bent on its head (...) on the ground.’ (i.e., it is located on its head) [DIS\_15.4-A/N]

Second, recall that a subgroup of dispositional verbs can express the Ground as a direct object in the transitive construction (see section 3.2.3). In this case, these verbs express a relation (e.g., the transitive construction in 49a refers to a snake coiled tightly around a tree stump). Like other dispositional verbs, they can also occur in the locative construction – but in this case, they always express an internal disposition (e.g., the locative construction 49b refers to a coiled snake located on top of a tree stump).

- (49a) *Wo hok shyoot sh’ep hok.*  
 snake DEF coil wood DEF

‘The snake coiled around the wood.’ [TRPS\_55-I]

- (49b) *Wo hok shyoot k’a sh’ep.*  
 snake DEF coil HEAD(sg) wood

‘The snake is coiled on the wood.’ [TRPS\_23-I]

All dispositional verbs differ in their distribution from locative verbs. Example (50) illustrates this difference: the dispositional *k’oon* ‘face down’ is used without a Ground to focus on the Figure, while the locative verb *d’yem* ‘stand’ occurs with a Ground to focus on the locative relation.

- (50) *K’oon kûût ko a n-d’yem dakt’ûe pe?*  
 face\_down(sg) just maybe FOC ADVZ-stand(sg) MIDDLE place

‘Is (it) just face down or does (it) stand in the middle of the place?’ [DIS\_1.3-A/N]

In a similar way, (51) below illustrates the distribution of the two types of verbs in a longer stretch of discourse. The speakers talk about a pot that is located upside down on a tree branch. They are concerned with the identification of the Ground and discuss the alternative options *ns’ong t’eng* ‘on the tree branch’, *mpyak t’eng* ‘in the tree fork’, or *ns’a t’eng* ‘on the tree

branch'. As long as they focus on the Ground, they use a locative verb (*lang* 'hang/move', *t'o* 'lie', *d'e* 'exist') (51-1, -2, -4). But when the focus shifts away from the Ground, the speakers use dispositional verbs (*b'am* 'stick', *b'oot* 'tie', *k'oon* 'face down') (51-3, -4). Notice also the shift to a locative verb in the last clause when the discussion turns back to the Ground (51-4).

(51-1) A: *Goe na wang goe-lang n-s'ong t'eng*  
 2Sgm see pot NOMZ(sg)-hang/move(sg) LOC-branch tree

*n-d'e-nnoe-hoe a? (...)*  
 ADVZ-Cl:exist-DEM.PROX-exactly INTERR

'Do you see this existing pot that hangs on the tree branch?' (...)

(51-2) N: *M-pyak t'eng. (...) A n-t'o n-s'a muk.*  
 LOC-fork tree FOC ADVZ-lie(sg) LOC-hand 3Sg.Poss

*Man me a m-pyak muk ba. T'o n-s'a.*  
 PROH just FOC LOC-fork 3Sg.Poss NEG lie(sg) LOC-hand

'In the tree fork. (...) (It) is really lying on its branch.  
 It should not just (be) in its fork. (It) lies on the branch.'

(51-3) A: *Amma mûep b'am ni toe a (...)?*  
 but 3Pl stick 3Sg EMPH INTERR

'But did they stick it (to the tree) (...)?'

(51-4) N: *D'e goe-bi pe mûep b'oot a m-b'oot.*  
 exist as\_if COMP 3Pl tie FOC ADVZ-tie

*K'oon bi muk kûût kawai /*  
 face\_down(sg) thing 3Sg.Poss just just

*d'e n-s'ong t'eng hok.*  
 exist LOC-branch tree DEF

'(It) is as if they had tied it.  
 (But it) is only just face down by itself,  
 (it) is on the tree branch.'  
 [DIS\_1.4-A/N]

Since the two types of verbs code different types of information and are thus used to assert different aspects of the spatial situation, they can co-occur in the configurational serial construction (as in 52a) (see section 8.2.2). Locative verbs cannot co-occur with each other as they express mutually exclusive categories: a Figure can only be in one locative relation at a time, e.g., it cannot simultaneously support itself (*t'ong* 'sit') and be supported externally (*d'yem* 'stand'). But its internal properties can be described from different perspectives, thus allowing for the co-occurrence of dispositional verbs such as *d'ûût* 'lean' and *b'am* 'stick' in (52b).

(52a) *K'oon d'yem pûe tebul.*  
 face\_down(sg) stand(sg) MOUTH table

‘(It) stands face down at the edge of the table.’ [DIS\_1.1-A/N]

(52b) *n-d'ûût b'am d'yem sek gak*  
 ADVZ-lean stick stand(sg) BODY wall

‘leaning, (it) stands stuck against the wall’ [A-14/06/01]

Despite their non-relational semantics, dispositional verbs can enter the locative construction (see section 3.2.3 for details). However, they can only occur in this construction provided that the locative relation can be construed as the result of a prior state change. This is a consequence from their inchoative semantics: in the aorist form, the end state is an implicature, resulting from the fact that the state change is completed. Dispositionals occur in the following two contexts:

(i) Dispositionals can be used when the speaker has witnessed the event that preceded the state. (53a) and (53b) illustrate such contexts. In (53a), the dispositional *d'ûût* ‘lean’ occurs in the locative construction (which is included in the coordinate serial construction; see section 8.2.1), and specifies the locative relation of the dog at the endpoint of its movement. In (53b), *d'ûût* occurs in the locative construction, which was uttered by the speaker immediately after he had witnessed the state change.

(53a) *aas n-d'yem n-nayit zak shin “wu.”*  
 dog ADVZ-stand(sg) LOC-mirror also do ‘woof’  
*P'aar d'ûût sek nayit.*  
 jump lean BODY mirror

‘the dog standing at the mirror also did “woof”.

(It) jumped (and) leaned against the mirror.’ [AAS]

(53b) *Mat hok d'ûût sek gak.*  
 woman(sg) DEF lean BODY wall

‘The woman leans against the wall.’ (= said after the speaker had witnessed the leaning process) [DPP\_86-A]

(ii) Dispositional verbs can be used when the Figure is in a non-canonical locative relation (as in 54) (see also the discussion in section 4.3.2 above). Unlike canonical relations, such non-canonical relations are likely to be interpreted as the result of a prior event.

- (54) *Sai nwap ya s'a muk. A'a!*  
 then gum catch(sg) hand 3Sg.Poss INTERJ  
*S'a muk b'am d'i sek masha hok*  
 hand 3Sg.Poss stick LOC.ANAPH BODY friend(fem) DEF  
 'Then the gum caught his hand. Surprise!  
 His hand stuck there to the friend.' [FUAN]

While speakers regularly produced dispositionals with witnessed state changes and non-canonical locative relations, they rarely used them with pictures of static arrays or Figures in canonical locative relations. When asked, speakers often hesitated to accept dispositionals in these contexts.

Whenever dispositional verbs occur in the locative construction, their distribution vis-à-vis postural verbs follows two different patterns. In the first pattern, the speaker chooses a postural verb as the first response to a 'where' question, and freely considers the dispositional an alternative option. In the second pattern, (s)he chooses a dispositional first, and explicitly rejects the postural. Figure (11) illustrates these two patterns with the help of responses to a 'where' question about upside-down containers (*taking into account* the responses to all upside down containers depicted in the picture book elicitation material): it shows the acceptability of the locative verb *d'yem* 'stand', the dispositional verb *k'oon* 'face down', and the combination of both verbs in a serial construction.

**Figure (11):** Two different response patterns (posturals and dispositionals)

<b>Pattern 1</b>	<b>Pattern 2</b>
1. <i>d'yem</i> 'stand'	1. <i>k'oon</i> 'face down'
2. <i>k'oon</i> 'face down'	2. * <i>d'yem</i> 'stand'
3. <i>k'oon d'yem</i> 'stand face down'	3. <i>k'oon d'yem</i> 'stand face down'

These two patterns mirror the distribution of default and non-default posturals (see figure 8 in section 4.2.7). The same explanation seems to hold in both cases. In the first pattern, the speaker accepts the marked alternative as it constitutes a further elaboration of the depicted locative relation. In the second pattern, the speaker used the marked alternative (either the non-default as opposed to the default postural, or the dispositional as opposed to the postural), i.e., (s)he decided to focus on the markedness of the situation in the first place, and thus did not consider the unmarked alternative an option – hence, (s)he has



no reason to resort to it later. The unmarked alternative is usually semantically appropriate, though, as speakers never rejected it when it was used in a serial construction.

Example (55) illustrates this distribution in discourse. It is an exchange between two speakers in which speaker N. first uses a non-locative verb for a buried pot (*wum* ‘bury’), and then uses a serial construction (*wum d’yem* ‘stand buried’). But when speaker A. uses only the locative verb *d’yem* ‘stand’, speaker N. rejects it as inappropriate.

(55) N: *Wang wum n-yil. (...) Wum d’yem n-yil. (...)*  
 pot bury LOC-ground bury stand(sg) LOC-ground

‘The pot is buried in the ground. (...) (It) stands buried in the ground.’ (...)

A: *Mûep t’ong b’at k’wal bi (...) / wang hok d’yem n-yil.*  
 3Pl IRR able(pl) talk thing pot DEF stand(sg) LOC-ground

‘People would be able to say (...) the pot stands in the ground.’

N: *A’a / wang hok wum.*  
 no pot DEF bury

‘No, the pot is buried.’

[DIS\_8.4-A/N]

The distribution of dispositionals and non-default posturals is thus similar: they draw attention to a marked situation. They differ in that dispositionals are more specific. For example, the dispositional *k’oon* ‘face down’ is used for upside-down containers. In such cases, speakers could also shift to the non-default posturals *t’o* ‘lie’ or *d’yem* ‘stand’. However, in both cases, the orientation would be unknown: a ‘lying’ container could also be, e.g., on its side; and a ‘standing’ container could also be, e.g., inserted in the ground. The dispositional *k’oon* ‘face down’, by contrast, specifies the upside-down orientation of the bottle. It is thus used whenever speakers consider it necessary to provide more detailed spatial information (see example 46 in section 4.3.3 where speaker N. resorts to *k’oon* ‘face down’ to resolve a misunderstanding).

## 4.5 Summary and discussion

This chapter has explored the semantics of the locative verbs (i.e., the posturals and the existential), and compared it to that of the dispositional verbs.

Section 4.1 introduced the database of natural and stimuli-based texts. Section 4.2 focussed on the postural verbs, showing that they code locative relational

semantics. Figures are assigned to default posturals (on the basis of their canonical position), but speakers can shift to other, non-default, posturals to indicate a marked position. Such shifts belong to the realm of pragmatics. Section 4.3 compared the postural verbs to the existential verb. It was argued that (a) the semantics of the existential is entailed by that of the posturals, and that (b) their different extensions result from this privative opposition, i.e., it results from pragmatic principles. Section 4.4 focussed on the dispositional verbs. It showed that the dispositionals code non-relational spatial semantics and, as a consequence, occur in different contexts when compared to locative verbs. It also showed that, under specific conditions, they can replace the locative verbs in the locative construction. In this case, they act similar to non-default posturals in that they focus on a marked property of the spatial situation.

This chapter has shown that Goemai codes locative relational information in a set of contrastive verbs. Just like prepositions and spatial nominals (see section 6.2), the locative verbs constitute a clearly identifiable form class in Goemai. Goemai differs in this respect from languages such as English – and although Goemai has a semantically general verb *d'e* ‘exist’, this verb functions differently from English ‘be’: its occurrence is restricted and can only be explained by its opposition to the four postural verbs. Such systems are rarely recognized in the spatial literature. It is rather assumed, implicitly or explicitly, that relational information is coded in adpositions and case-markers only (see, e.g., Fillmore 1975: 16-27; Frawley 1992: 250-293; Landau and Jackendoff 1993; J. Lyons 1977: 636-734; Miller and Johnson-Laird 1976: 375-410; Talmy 1985: 61-76).

Furthermore, it is often assumed that spatial nominals code only little information about the Figure. For example, Landau and Jackendoff (1993: 228-229) state that “... a figure object is schematized at most as either a simple lump or blob (with no geometric structure whatsoever), a unit with structure along at most one of its dimensions, or a single versus distributed entity.” They assume a neurophysiological basis for this claim, whereby the two major pathways of the brain map directly onto linguistic categories. One pathway (‘what’-pathway, perception) maps onto nouns (coding detailed shape information) and the other pathway (‘where’-pathway, action) maps onto adpositions (coding sketchy locative relational information). The locative construction of Goemai, by contrast, makes use of locative and dispositional verbs. While the shape information in locative verbs is, admittedly, sketchy,

the shape information coded in dispositional verbs is very detailed. The contributions in Ameka and Levinson (in prep.-a) show that Goemai is not unique in this respect: many non-related languages code locative relational and shape information in verbs. It is hoped that the analysis presented in this chapter will advance our understanding of such systems.

The occurrence of verbs from two distinct classes in the locative construction is interesting from another perspective. Ameka and Levinson (in prep.-a) show that there are two types of languages: postural-type languages and (dis)positional-type languages:

- Postural-type languages use a small set of postural verbs in their locative construction (taken from the set ‘sit’, ‘stand’, ‘lie’, ‘hang’, ‘move/be in a natural habitat’). The posturals can be used in an assertional and a classificatory way.
- (Dis)positional-type languages use a large set of (dis)positional verbs in their locative construction. These code detailed information about the shape of the Figure, the Ground and/or the topological relation between the Figure and the Ground. The (dis)positionals can only be used in an assertional way. In languages of this type, postural verbs like ‘sit’ or ‘stand’ are included in the set of (dis)positional verbs, and thus share the properties of the other (dis)positional verbs.

The language-internal division between locative (or postural) verbs and dispositional verbs in Goemai corresponds, in a way, to these two distinct types. It is unusual for a language to use both types in its locative construction. In Goemai, the postural-type verbs are the prototypical verbs to occur in this construction – dispositional verbs only enter it under marked circumstances. For this reason, Goemai belongs to the postural-type languages. Nevertheless, both types can occur in the locative construction. And when they occur, they exhibit the different characteristics attested in the two types of languages.

Goemai is furthermore unusual in that it makes use of a separate existential verb. Postural-type languages often do not have an existential verb at their disposal, but rather use their posturals in an existential way. (Dis)positional-type languages, by contrast, have an existential verb that is used whenever the current locative relation cannot be asserted (e.g., because it is unknown or not describable with a dispositional). In this respect, Goemai shares similarities with both postural and (dis)positional-type languages: it can use the posturals

in an existential (or classificatory) way, but can also use the existential verb. The next chapter 5 discusses in detail the existential or (classificatory) aspects of the locative verbs.

This chapter discusses the classification of nominal concepts through locative verbs. It was already mentioned in the previous chapter that locative verbs can be used in one of two different ways: in a classificatory way to convey the existence of a Figure from a specific class at a Ground (whereby the current position of the Figure is irrelevant), and in an assertional way to assert the current position of a Figure with respect to a Ground. While the previous chapter focussed on the positional or locative relational semantics of the verbs, irrespective of the two uses, this chapter investigates the distribution of these uses and illustrates their consequences for the interpretation of the utterance.

The classificatory use of the locative, i.e., postural and existential, verbs is interesting from a cross-linguistic perspective. It is known that there are tendencies for postural verbs to develop classificatory overtones (Aikhenvald 2000a: 362-363). And some languages are known to have classificatory postural-based existential verbs or postural-based deictic classifiers (Aikhenvald 2000a: 153-159, 176-183) – although their typological status as ‘classifiers’ is controversial (see, e.g., Grinevald 2000: 67-69). One major problem for establishing their status is the scarcity of available data: there have been few detailed semantic studies of postural elements (see chapter 4 for references), and almost none of their classificatory potential (but see the contributions in Ameka and Levinson in prep.-a; see Levinson 2000a). The case study of Goemai presented in this chapter is intended to contribute to this typological discussion.

The chapter is structured as follows: section 5.1 introduces the Goemai data, section 5.2 relates the Goemai data to the typological discussion, and section 5.3 summarizes the findings.

## 5.1 Classification in Goemai

This section investigates first the classificatory use of the Goemai posturals (section 5.1.1), and then discusses the position of the existential within the classificatory system (section 5.1.2).

### 5.1.1 Classificatory and assertional uses of posturals

In chapter 4, typical, i.e., ‘default’ or ‘classificatory’, uses of posturals (as summarized in figure 6 in section 4.2.6) were distinguished from non-typical, i.e., ‘non-default’ or ‘assertional’, uses (as summarized in figure 7 in section 4.2.7). Both uses are exemplified in the following paragraphs.

Based on its canonical position, every Figure collocates with one default postural.<sup>1</sup> For example, animate entities, natural forces and fruits canonically *lang* ‘hang/move’; containers and other objects with functional bases canonically *t’ong* ‘sit’; trees and buildings canonically *d’yem* ‘stand’; and masses, flexible objects and unfeatured objects canonically *t’o* ‘lie’. The appropriate default is, of course, used whenever the corresponding Figure is canonically positioned. However, even if the Figure is in a non-canonical position, speakers can resort to the default. Consider the following examples where the default *t’ong* ‘sit’ is chosen for containers despite the fact that the containers are currently not located in a ‘sitting’ position. In (1a), (1b) and (1c), they are located in ‘standing’ or ‘lying’ positions (see sections 4.2.3 and 4.2.4). In (1d), multiple calabashes are located in different positions (usually triggering the use of different posturals; see section 4.3.1); and in (1e), the Figure is not located at all (usually triggering the use of *d’e* ‘exist’; see section 4.3.1).

- (1a) *Kwalba goe-t’ong k’a muk zak a haam yim.*  
 bottle NOMZ-sit(sg) HEAD(sg) 3Sg.Poss also FOC water/color leaf  
 ‘The bottle that sits on its top is also of green color.’ (= upside-down bottle) [COMP\_5-A/N]

- (1b) *Wang k’oon t’ong k’a kuk sh’ep.*  
 pot face\_down(sg) sit(sg) HEAD(sg) stump wood  
 ‘The pot sits face down on the tree stump.’ (= upside-down pot) [PSPV\_12-A]

<sup>1</sup> Throughout this thesis, the expressions ‘default postural’ and ‘non-default postural’ are used as shorthand for ‘postural used in a default/non-default way’.

- (1c) *D'a n-d'e-nnoe-hoe / t'ong a nd'ang? (...)*  
 calabash ADVZ-Cl:exist-DEM.PROX-exactly sit(sg) FOC how  
*T'ong n-t'ong a ko k'wa /*  
 sit(sg) ADVZ-sit(sg) INTERR maybe rather  
*d'yem n-d'yem goe t'oor?*  
 stand(sg) ADVZ-stand(sg) COM flank

'This existing calabash, how does (it) sit? (...)

Does (it) sit sitting or rather

stand standing on (its) side?' (= calabash on side) [COMP\_4-A/N]

- (1d) *Cup hok t'wot k'ek tebul.*  
 cup DEF sit(pl) HEAD(pl) table

'The cups sit on the table.' (= some upright, some upside down)

[TOP\_4-N, -J]

- (1e) *Hen (...) shyang nd'ûûn toeb'al. (...) Kwalba t'ong d'i ba.*  
 1Sg hunt/watch INSIDE calabash bottle sit(sg) LOC.ANAPH NEG

'I (...) looked into the calabash. (...) The bottle did not sit there.' (= non-existing bottle) [SR\_NEG-A]

In examples (1a) to (1e) above, the current position of the Figure is irrelevant for the choice of the postural. Instead, the speaker chooses to focus on the class of the Figure (i.e., a container belongs to the class of 'sitting' Figures). It is this default or classificatory use of the posturals that makes the Goemai system of interest to the typological study of systems of nominal classification.

Although there are default collocations between Figures and posturals, speakers do not always choose the default. Instead, they can choose to focus on the current position of the Figure, in which case they shift to another postural and use it in a non-default or assertional way. That is, they choose the postural that is most appropriate to the current position. For example, in (2) below, the speakers use four different posturals to talk about calabashes located in four different positions: upside down (*d'yem* 'stand', *t'o* 'lie'), upright (*t'ong* 'sit') and hanging at a wall (*leng* 'hang/move (pl)').

- (2) A: *Goe-k'oon n-k'oon d'yem nnoe-hoe. (...)*  
 NOMZ(sg)-face\_down(sg) ADVZ-face\_down(sg) stand(sg) LOC.ANAPH-exactly

*Goe man goe-k'oon t'o*  
 2Sgm know NOMZ(sg)-face\_down(sg) lie(sg)

*n-d'e-nnoe b'ak (...).*  
 ADVZ-Cl:exist-DEM.PROX here

'This standing face down one. (...)

You know this existing lying face down one here.' (...)

N: *D'a* *goe-n-t'ong* *d'i* *n-d'e-nnoe*  
 calabash NOMZ(sg)-ADVZ-sit(sg) LOC.ANAPH ADVZ-Cl:exist-DEM.PROX

*fa?* (...) *La* *leng* *t'ong* *m-pin* (...).  
 INTERR HAB hang/move(pl) HAB LOC-hut

‘What about this existing calabash (bottle) that is sitting there?’ (...)  
 (They) usually hang in the hut (...).’  
 [HAND-A/N]

In the assertional use, as illustrated in (2) above, the choice of the postural thus depends on the actual current position of the Figure relative to the Ground. But notice that any position can be construed in a number of different ways (see also the discussions throughout section 4.2). The four examples below illustrate different responses to the same locative relation: kola nuts in a tray. In (3a), *t'wot* ‘sit (pl)’ stresses that, in a market-place context, produce tends to be displayed resting on its growth-point (see section 4.2.2). In (3b), *t'oerep* ‘lie (pl)’ stresses that the kola nuts are in a non-canonical position (canonically, they *lang* ‘hang/move’ at a plant) (see section 4.2.4). Comparable construals are conveyed in (4a) and (4b): they differ only in that the speaker additionally uses the measure term *lu* ‘settlement, pile’ to stress that the kola nuts are located in piles (see section 4.2.2).

(3a) *Goro hok t'wot nd'ûûn tasa.*  
 kola DEF sit(pl) INSIDE plate

‘The kola nuts sit inside the plate.’ [DRAW2\_92-A]

(3b) *Goro hok t'oerep nd'ûûn tasa.*  
 kola DEF lie(pl) INSIDE plate

‘The kola nuts lie inside the plate.’ [DRAW2\_92-A]

(4a) *Lu goro t'wot nd'ûûn tasa.*  
 settlement/pile kola sit(pl) INSIDE plate

‘Piles of kola nuts sit in the plate.’ [DRAW2\_92-A]

(4b) *Goro hok t'oerep nd'ûûn tasa n-lu n-lu.*  
 kola DEF lie(pl) INSIDE plate LOC-settlement/pile LOC-settlement/pile

‘The kola nuts lie in the plate pile by pile.’ [DRAW2\_92-A]

The four examples above show that the postural is not chosen on the basis of the noun: both *goro* ‘kola’ and *lu* ‘settlement, pile’ can co-occur with different posturals. They also show that the same situation can be construed in different ways: speakers choose a postural to focus on specific aspects of the Figure in context while backgrounding others.

The remainder of this section illustrates the classificatory use in more detail and compares it to the assertional use. Section 5.1.1.1 introduces those contexts



that allow us to distinguish between the two uses; section 5.1.1.2 investigates their distribution; and section 5.1.1.3 gives a summary.

### 5.1.1.1 Distinguishing the two uses

The classificatory and assertional uses cannot always be distinguished easily. Specifically, whenever a Figure is canonically positioned, it is not possible to determine whether the postural is used in a classificatory or an assertional way. In other contexts, however, the two uses have different consequences. This becomes clear in (i) negative statements and (ii) descriptions of non-canonical positions.

(i) Negative statements containing posturals have two different readings: in the classificatory reading, the existence of the Figure at the Ground is negated (as in the last line of 5a), and in the assertional reading, the position of the Figure is negated (as in the last line of 5b). Examples (5a) and (5b) are both taken from a matching game. In (5a), the picture of speaker A. depicts a rope lying on a box, while the picture of speaker N. depicts an empty box. When speaker A. talks about the rope in his picture, speaker N. contradicts him and clarifies that there is no rope on his box. Notice that he negates the rope's existence by using the default postural for flexible objects (i.e., *t'o* 'lie') in the negative locative construction. In (5b), by contrast, both pictures depict a Figure on a Ground (a calabash on a mat), but the Figure differs in its position (upright in J.'s picture, upside down in M.'s picture). Speaker J. introduces his upright calabash (by using the default postural for calabashes, i.e., *t'ong* 'sit'), and speaker M. first accepts this characterization. Following that, the speakers compare their pictures and discover the different positions. Speaker M. remarks that they have made a mistake and uses the non-default postural *t'o* 'lie' in reference to his upside down calabash (i.e., he asserts its lying position). He then negates the postural *t'o* and thereby negates that speaker J.'s calabash is lying. Notice that speaker M. does not make use of the locative construction: whenever speakers assert or negate the current position, they shift away from the locative construction and mark the postural in specific ways – through cognate adverbs (as in the last line of 5b), comitative adjuncts, contrastive stress, or focus particles. Recall that these elements serve to suppress the location participant specified in the verbs' lexical argument structure (see section 3.1.3).

(5a) A: *K'yang* *goe-t'o* *k'a* *muk-hoe* *fa?*  
 rope NOMZ-lie(sg) HEAD(sg) 3Sg.Poss-exactly INTERR

'What about the rope that lies on its top?'

N: *Kwai. (...) K'yang t'o k'a ba.*  
 no rope lie(sg) HEAD(sg) NEG

'No. (...) There lies (= exists) no rope on top.'  
 [COMP\_7-A/N]

(5b) J: *D'a (...) t'ong d'i n-k'a/ k'aram hok.*  
 calabash sit(sg) LOC.ANAPH LOC-head(sg) mat DEF

'A calabash (...) sits there on top of the mat.'

M: *M-maan a poenoe. (...) A kuskure! (...)*  
 NOMZ-1Sg.Poss FOC thus FOC mistake

*T'o n-t'o. M-mak t'o n-t'o ba wa?*  
 lie(sg) ADVZ-lie(sg) NOMZ-2Sgm.Poss lie(sg) ADVZ-lie(sg) NEG INTERR

'Mine is like this. (...) (It) is mistake!

(It) lies lying. Yours does not lie lying, right?'

[COMP\_3-J/M]

The discussion of examples (5a) and (5b) above shows that only a postural in the (negative) locative construction can receive the (negative) existential reading, i.e., its interpretation in the negative locative construction is such that there is no Figure X at Ground Y. It could thus be argued that the existential reading is conveyed through the locative construction alone, independent of the verb that fills the verb slot of the construction. The following observation indicates that this is not the case: dispositional verbs can occur in the locative construction (see sections 3.2.3 and 4.4), but they can never receive an existential interpretation. In (6-1), the speaker negates the orientation of a calabash (by using the dispositional verb *k'oon* 'face down' in the negative locative construction). To negate the existence of an upside-down calabash (in 6-2), the speaker shifts to the comitative construction that does not contain any dispositional verb.

(6-1) *Goe-nnoe k'oon k'a kwati ba. (...)*  
 NOMZ(sg)-LOC.ANAPH face\_down(sg) HEAD(sg) box NEG

(6-2) *Goe-nnoe goe d'a ba.*  
 NOMZ(sg)-LOC.ANAPH COM calabash NEG

'This one is not face down on the box (= upright calabash on box). (...)  
 This one does not have a calabash (= no calabash on box). [NEG-N]

Dispositionals in the locative construction (as *k'oon* 'face down' in 6-1) thus receive the same interpretation as marked posturals (as *t'o nt'o* 'lie lying' in the last line of 5b). This observation suggests that the existential reading does not come from the locative construction alone, but from the unmarked posturals themselves. Furthermore, this reading is only available for default posturals. In (7) below, the non-default *d'yem* 'stand' is used in the negative locative

construction in reference to a ball located at the edge of a pot (recall that balls ‘lie’ by default; see section 4.2.4): this statement is used to negate the current position, not existence.<sup>2</sup>

- (7) *Ball lang pûe wang. (...) D’yem nd’ûûn wang ba.*  
 ball hang/move(sg) MOUTH pot stand(sg) INSIDE pot NEG  
 ‘The ball hangs at the mouth of the pot. (...) (It) does not stand inside the pot.’ (= ball located at edge of pot) [DIS\_13.8-A/N]

(ii) All non-canonical positions allow for the two different uses. Speakers can either use the default postural in a classificatory way (as in 1a to 1e above), or, alternatively, they can use a non-default postural in an assertional way (as in 2 above). Levinson (2000a) argues that the shift to a non-default element draws attention to a marked situation. There is, indeed, evidence that Goemai addressees interpret the use of defaults and non-defaults in different ways.

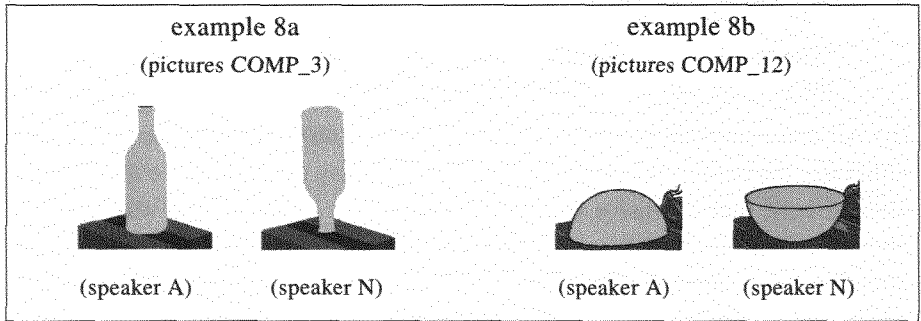
Differences in interpretation are illustrated in examples (8a) and (8b) below. Both examples are taken from a matching game where speakers compare several pictures, including those depicted in figure (1). In (8a), the picture of speaker A. contains an upright bottle, while that of speaker N. contains an upside-down bottle. Speaker A. uses the default postural for containers, *t’ong* ‘sit’, for his upright bottle; and speaker N. accepts and produces this postural as an appropriate characterization of his upside-down bottle. In (8b), a different situation holds. The picture of speaker A. contains an upside-down calabash, while that of speaker N. contains an upright calabash. Speaker A. uses the non-default postural *d’yem* ‘stand’ for his upside-down calabash. But this time, speaker N. pays attention to the current position of his calabash and, as a consequence, rejects *d’yem*. He shifts to *d’e* ‘exist’ to confirm the existence of

<sup>2</sup> The non-default in example (7) above focuses on the current position of the Figure. Recall, however, that there is a second type of non-default: the one that focuses on the current Ground (see figure 7 in section 4.2.7). For example, in (i) below, the speaker uses *lang* ‘hang/move’ to indicate location in a place (rather than location at an object, in which case he would have used the default for bridges, i.e., *d’yem* ‘stand’). Such non-defaults that focus on the Ground show similarities to defaults in that they can be used to negate existence at the Ground (as in i). They differ from defaults in that they do not categorize Figures into mutually exclusive sets, i.e., they do not code information about class membership.

- (i) *Ndoe gada dok lang d’i ba.*  
 some bridge PAST.REM hang/move(sg) LOC.ANAPH NEG  
 ‘There hung (= existed) no bridge in the past.’ [JOS]

the calabash, and then uses *t'ong* 'sit' together with its cognate adverb to assert its 'sitting' position.

**Figure (1):** Stimuli pictures (examples 8a and 8b)



- (8a) A: *Goe na kwalba n-t'ong k'a kwati.*  
 2Sgm see bottle PRES-sit(sg) HEAD(sg) box  
 'Behold, see a bottle sitting on the box.' (= upright)
- N: *Kwalba goe-n-t'ong k'a kwati hok a haam yim.*  
 bottle NOMZ-PRES-sit(sg) HEAD(sg) box DEF FOC water/color leaf  
 'Behold, the bottle that is sitting on the box is of green color.' (= upside down)
- A: *M-maan a haam jalan-ke. (...)*  
 NOMZ-1Sg.Poss FOC water/color egg\_yolk-chicken  
 'Mine is of yellow color.' (...)
- N: *M-maan a haam-yim. Ni t'ong d'i k'a.*  
 NOMZ-1Sg.Poss FOC water/color-leaf 3Sg sit(sg) LOC.ANAPH HEAD(sg)  
 'Mine is of green color. It sits there on top.' (= upside down)  
 [COMP\_3-A/N]
- (8b) A: *To / d'a n-d'yem k'a k'aram.*  
 okay calabash PRES-stand(sg) HEAD(sg) mat  
 'Okay, behold, a calabash is standing on the mat.' (= upside down)
- N: *D'a- / d'a na n-d'e d'i k'a k'aram. (...)*  
 calabash calabash PRES PRES-exist LOC.ANAPH HEAD(sg) mat  
*M-maan t'ong n-t'ong.*  
 NOMZ-1Sg.Poss sit(sg) ADVZ-sit(sg)  
 'The calabash-, behold, the calabash is being there on the mat. (...)  
 Mine sits sitting.' (= upright)  
 [COMP\_12-N/A]

The different interpretations illustrated with the help of (8a) and (8b) above show that the pragmatic status of default and non-default posturals differs. Their difference can be explained with the help of Levinson (2000b). Following his I-principle, an unmarked expression indicates a stereotypical situation; and following his complementary M-principle, a marked expression indicates a non-stereotypical situation (see section 1.3.1). In (8a), speaker A. uses the expected, and therefore unmarked, default postural. Since it does not draw specific attention to the current position, speaker N. accepts it as appropriate. In (8b), by contrast, speaker A. uses a non-expected, and therefore marked, postural. The M-principle predicts that a speaker would only shift in order to draw attention to a marked situation. When hearing the non-default postural, speaker N. thus assumes that the situation is marked, and pays attention to the position. As a consequence, he rejects the non-default as inappropriate.

### 5.1.1.2 Distribution of the two uses

The two uses, classificatory and assertional, occur in different contexts. These contexts are summarized in table (1) below.

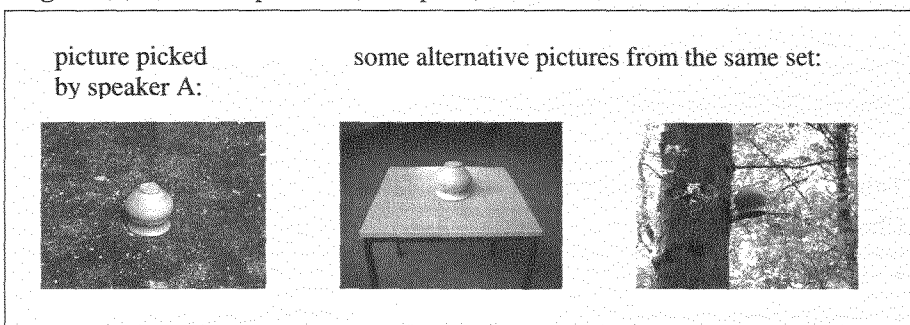
**Table (1):** The classificatory and assertional uses

Classificatory use	Assertional use
<ul style="list-style-type: none"> <li>• identify a location (see 9)</li> <li>• specify (non-) existence at a specific location (see 10a)</li> </ul>	<ul style="list-style-type: none"> <li>• identify a referent (see 11)</li> <li>• contrast with the position of another referent (see 12a)</li> <li>• contrast with another potential position (see 12b)</li> </ul>

The classificatory use is concerned with the identification of the location. Example (9) below illustrates such a context (it is taken from the matching game depicted in figure 2). The crucial utterance is in line (9-4) where speaker N. describes an upside-down pot in a classificatory way by using the default postural *t'ong* 'sit'. The context preceding this utterance is as follows: speaker A. first introduces an upside-down pot with the non-default postural *d'yem* 'stand' (9-1). Since there are three upside-down pots (on the ground, on the table, and in the tree), speaker N. asks for clarification (9-2). He guesses that speaker A. means the pot located on the ground, and thus uses *t'o* 'lie' in his

question (see section 4.2.4 for the uses of *t'o*). Speaker A. confirms this guess (9-3). Speaker N. now thinks that he has identified the referent correctly and asks for confirmation: he uses *t'ong nyil* 'sit on the ground' to clarify whether the referent is really the pot located on the ground – and not the one located on the table or in the tree (9-4). Notice that, in (9-4), he first uses the configurational serial construction *k'oon t'ong* 'sit face down', which would be a contradiction if both verbs referred to the orientation: a pot cannot be located simultaneously on its *pûe* 'mouth' (= *k'oon* 'face down') and its *goede* 'bottom' (= *t'ong* 'sit'). Notice also that, later in the discussion, the speakers shift to the assertional use and hence reject the use of *t'ong* (9-5, 6): since the pot is currently not in a 'sitting' position or orientation, the shift in focus (away from the location and back to the actual orientation of the pot) makes the use of *t'ong* impossible.

**Figure (2):** Stimuli pictures (example 9)



- (9-1) A: A *ndoe wang / k'oon na n-d'yem. (...)*  
 FOC some pot face\_down(sg) PRES PRES-stand(sg)  
 'Behold, a pot is standing face down.' (...)
- (9-2) N: *Wang goenang nd'ûn? (...)* *Goe-n-t'o-nnoe a?*  
 pot which(sg) INSIDE NOMZ(sg)-ADVZ-Cl:lie-DEM.PROX INTERR  
 'Which pot among (them)?' (...) '(Is it) this lying one?'
- (9-3) A: *Goe-n-t'o dakd'ûe m-pe n-d'e-nnoe-hoe.*  
 NOMZ(sg)-ADVZ-lie(sg) MIDDLE LOC-place ADVZ-Cl:exist-DEM.PROX-exactly  
 'This existing one (that is) lying in the middle of the place.'

(9-4) N: *Oh. Ai. K'oon t'ong bi muk.*  
 INTERJ INTERJ face\_down(sg) sit(sg) thing 3Sg.Poss

*T'ong n-yil ai?*  
 sit(sg) LOC-ground INTERJ

'Oh. Ai. (It) sits face down on its own. (It) sits on the ground, right?'

(9-5) A: *Aha. (...) K'oon d'yem n-yil a*  
 INTERJ face\_down(sg) stand(sg) LOC-ground INTERR

*ko k'oon t'ong n-yil? (...)*  
 maybe face\_down(sg) sit(sg) LOC-ground

'Yes. (...) Does (it) stand face down on the ground,  
 or does (it) sit face down on the ground?' (...)

(9-6) N: *K'oon d'yem n-yil. (...)*  
 face\_down(sg) stand(sg) LOC-ground

*D'in la t'ong goe goede muk toe /*  
 PAST.CL COND sit(sg) COM bottom 3Sg.Poss EMPH

*t'ong moe k'wal t'ong n-t'ong.*  
 IRR IPI talk sit(sg) ADVZ-sit(sg)

'(It) stands face down on the ground. (...)

If (it) were sitting on its bottom,  
 we would say (it) sits sitting.'

[DIS\_1.3-A/N]

Classificatory posturals are further used to express (non-) existence at a specific location. In (10a), the postural *t'o* 'lie' is employed in the negation of the existence of a specific ball in a specific basket. Notice that there is some overlap with the existential predicate, but the existential has a wider distribution in that it is used to assert existence in general (as in 10b) (see also section 5.1.2).

(10a) *nd'ûûn tukshi (...)/ ball t'o d'i ba.*  
 INSIDE basket ball lie(sg) LOC.ANAPH NEG

'in the basket (...), (but) the ball does not lie (= exist) there.' [SR\_NEG-A]

(10b) *Goe man men Goemai moe t'wot m-pe k'un.*  
 2Sgm know 1Pl.I Goemai 1Pl sit(pl) LOC-place three

*Goemai Moek'wo d'e d'i. Goemai Dorok d'e d'i.*  
 Goemai Kwande exist LOC.ANAPH Goemai Dorok exist LOC.ANAPH

*Goemai Muduut d'e d'i.*  
 Goemai Shendam exist LOC.ANAPH

'You know, we Goemai, we sit (= live, stay) in three places.  
 There are the Goemai of Kwande. There are the Goemai of Dorok.  
 There are the Goemai of Shendam.' [DIALECT]

The classificatory use thus focuses on the location: it is used to either identify a location or to convey the existence of a Figure from a specific class at a specific location. The position of the Figure is not in focus.

The assertional use, by contrast, is concerned with the uniqueness of the referent in context. As such, it occurs whenever referents are to be identified. This is the case in all presentative contexts, i.e., in the presentative construction (as illustrated in 11 below) (see chapter 6) and in the demonstratives (see chapter 7). Both introduce a new referent into discourse. They single out a referent from among the set of possible referents, and, by providing positional information, enable the addressee to identify the intended referent. Since Ground phrase elements are either omitted or give non-topological, deictic, information, the identification relies almost entirely on the posturals. To use the default postural in a classificatory way in reference to a non-canonical situation would thus obstruct this identification process.

- (11) *D'a k'oon na n-t'o d'i.*  
 calabash face\_down(sg) PRES PRES-lie(sg) LOC.ANAPH  
 'Behold, a calabash is lying there upside down.' [COMP2\_7-A/N]

In particular, the assertional use occurs whenever speakers explicitly or implicitly contrast referents (as in 12a), or, alternatively, contrast potential positions of a single referent (as in 12b).

- (12a) *La/ twen t'o n-yil n-d'e-nnoe-hoe. (...)*  
 little(sg) cloth lie(sg) LOC-ground ADVZ-CL:exist-DEM.PROX-exactly  
*La ndoe twen hok lang pûanang zak-yit.*  
 little(sg) some cloth DEF hang/move(sg) there/yonder again  
 'A small cloth lies on this existing ground. (...)  
 Another small cloth hangs over there.' [HAND-A/N]
- (12b) *Kan t'o yi. D'in la t'ong goe goede muk*  
 incline lie(sg) SUB PAST.CL COND sit(sg) COM bottom 3Sg.Poss  
*d'in kan t'ong.*  
 PAST.CL incline sit(sg)  
 'So (it) lies inclined. If (it) sat on its bottom, (it) would sit inclined.'  
 [DIS\_5.2-A/N]

Notice that the posturals in (12a) and (12b) occur in different structures. In (12a), *t'o* 'lie' and *lang* 'hang/move' occur with a Ground phrase element in the locative construction. In (12b), by contrast, *t'o* 'lie' and *t'ong* 'sit' do not occur with a Ground phrase element. Recall that posturals have a lexically-specified location participant, i.e., the Ground phrase can only be suppressed



under certain conditions (e.g., whenever posturals co-occur with dispositional verbs such as *kan* ‘incline’ or with comitative adjuncts such as *goe goede* ‘on the bottom’ in 12b) (see section 3.1.3).

The two structures exemplified in (12a) and (12b) respectively are used to assert different aspects of the spatial situation. In (12a), the speaker focuses on the position of the Figure relative to the Ground (i.e., the ‘lying’ cloth is supported entirely through the Ground, and the ‘hanging’ cloth is supported through suspension from the Ground). In (12b), by contrast, the speaker focuses on the internal configuration or posture of the Figure (i.e., the Figure ‘lies’ or ‘sits’ relative to its internal ‘bottom’). Since they focus on different aspects, the structures exemplified in (12a) and (12b) can co-occur in adjacent clauses in reference to the same situation. For example, in (13) below, the postural *d’yem* ‘stand’ is used in the locative construction to focus on the position of the Figure relative to the Ground (i.e., the tree is supported at one point through the Ground), while the postural *t’o* ‘lie’ is used to focus on the inclined orientation of the tree.<sup>3</sup>

- (13) *T’eng hok d’yem n-yil kan n-kan t’o yi.*  
 tree DEF stand(sg) LOC-ground incline ADVZ-incline lie(sg) SUB  
 ‘The tree stands in the ground, lying inclined.’ [DRAW1\_95-A]

### 5.1.1.3 Summary and discussion

It was shown in the preceding sections that the posturals are used in different ways. In their classificatory use, the posturals convey the existence of a Figure from a particular class at a Ground. And in their assertional use, they assert either the position of the Figure relative to the Ground or they assert an internal posture. All three possibilities are summarized in table (2) below.

I assume that the three possibilities correspond to different contextual readings of the posturals – not to three different senses. They can be explained with the help of pragmatic principles, specifically with reference to Levinson’s (2000b) I- and M-principles (see section 1.3.1). These state that an unmarked

<sup>3</sup> In fact, posturals that focus on the internal configuration of the Figure are interpreted in a way similar to dispositionals – i.e., to verbs that do not have a lexically-specified location participant (see section 3.2) and that specify a Figure-internal spatial property (see section 4.4). Recall that dispositional verbs can co-occur with posturals, but that two locative verbs, both focussing on the position of the Figure with respect to the Ground, cannot co-occur in the same clause (see section 4.4).

expression indicates a stereotypical situation (I-principle), while a marked expression indicates a non-stereotypical situation (M-principle).

**Table (2):** Different uses of posturals

Use	Focus	Context
1. classificatory	location	a. existence of Figure from class X at Ground
2. assertional	referent	a. position of Figure with respect to Ground b. internal posture of Figure

Uses (1a) (classificatory) and (2a) (assertional) are both concerned with the position of the Figure relative to the Ground (see section 4.2.6 for a summary of the locative relational semantics of the posturals), but they differ in how they construe the situation. In (1a), the default postural focuses on the class of the Figure – and this class, in turn, is determined by the canonical position of the Figure relative to the Ground. In (2a), the non-default postural focuses on a specific aspect of the current position of the Figure at the Ground while backgrounding others. All things being equal, posturals are used in their default or classificatory way: *this concerns Figures in canonical positions, but also scenarios that focus on the location*. By contrast, when speakers have reasons to focus on the non-canonicity of a scenario, they signal this focus through shifting to a non-default postural. As shown in section 5.1.1.1, such a shift is pragmatically marked. Because of its marked status, a non-default cannot be interpreted in a classificatory way.

Use (2b) (*assertion of internal posture*) also follows from a difference in markedness. Posturals have a lexically-specified location participant, but, as shown in section 3.1.3, the location participant can be suppressed if the postural is marked prosodically or morphologically (i.e., through contrastive stress, focus particle, cognate adverb, comitative adjunct, or dispositional verb). In these marked contexts, the focus shifts away from the locative relation between Figure and Ground to the internal posture – i.e., speakers implicitly answer the question ‘how does the Figure look?’, not the question ‘where is the Figure?’. Again, their marked status makes the classificatory reading impossible.

For these reasons, I do not analyze the three uses as separate senses. That is, within each sense of a postural verb (as established in sections 4.2.1 to 4.2.4), it

is not necessary to distinguish between a classificatory ‘sense’, an assertional relational or positional ‘sense’ and an assertional postural ‘sense’. Instead, these readings arise from pragmatic principles and, more specifically, from the availability of marked and unmarked alternatives.

Since the classificatory reading of the posturals is tied to their positional or locative relational semantics, it is found in all contexts where posturals are used to express the position of a Figure at a Ground, i.e., a locative relation: in the locative construction (see section 6.1.1), and in the coordinate and configurational serial verb constructions (see sections 8.2.1 and 8.2.2).<sup>4</sup> In aspectual contexts, the classificatory use is either absent (in the inchoative serial construction; see section 8.2.3) or takes on additional forms (in the progressive construction, and possibly in the ascriptive construction; see chapters 9 and 10). In presentative contexts (see chapters 6 and 7), the assertional use predominates. As argued in section 5.1.1.2 above, the presentative structures are concerned with the identification of referents, and thus occur in contexts that trigger the assertional use. The classificatory use is not absent, though, but takes a different form. Recall that non-canonicity in a presentative context triggers the use of the existential (see section 4.3.3) – it is rare for speakers to shift to a non-default postural. As a consequence, posturals in a presentative context are almost exclusively used in reference to canonically-located Figures. This is, in a way, similar to the classificatory use attested in the locative construction. It is similar in that (i) default collocations between posturals and Figures are found, and in that (ii) the shift away from the default signals a marked situation. It differs in that the use of the default postural carries a much stronger inference to the canonical position.

### 5.1.2 *Posturals and the existential*

The form class of locative verbs contains, in addition to the four posturals, an existential element. Its relationship to the posturals was discussed in detail in section 4.3. This section now summarizes those aspects of the discussion that are of relevance to its classificatory potential.

<sup>4</sup> The causative posturals can also be used in a classificatory way, e.g.:

(i) *Mūep kan ni n-kan / d'u yi.*  
 3Pl incline 3Sg ADVZ-incline cause\_sitting(sg) SUB  
 ‘They inclined it, so that (they) set (it) down.’ (= calabash on side) [COMP\_4-J/M]

First, the existential sets up a residual category: it collocates with Figures that cannot be subsumed under any of the four postural categories (i.e., abstract locative relations, and some concrete relations; see the discussion of attachment relations and negative spaces in section 4.3.2). It is akin to Aikhenvald's (2000a: 335) 'residue classifier', and its presence allows for an exhaustive categorization in that every Figure is placed in one, and only one, category.

Second, the existential replaces the posturals under one of the following conditions: (a) the position of the Figure is unknown but important (see section 4.3.1), (b) the focus is on the (non-) existence of a Figure in general (see sections 4.3 and 5.1.1.2), or (c) the Figure can be identified without resorting to positional information (in the presentative context only) (see sections 4.3.3 and 7.2.1). Being in a superordinate/hyponym relationship with the posturals, the existential is semantically appropriate in all contexts where a postural is appropriate, but its actual distribution is governed by pragmatic principles, more specifically, by Levinson's (2000b) Q-principle (as discussed throughout section 4.3). Since the pragmatic conditions for a shift can be specified, it acts in a way similar to a 'default classifier' (Aikhenvald 2000a: 335).

Table (3) summarizes the distribution of postural and existential elements.

**Table (3):** The distribution of the posturals and the existential

	<b>Postural (classificatory)</b>	<b>Postural (assertional)</b>	<b>Existential</b>
<u>Categorization:</u>			
The canonical position is ...	... describable with a postural	-	... not describable with a postural
<u>Pragmatic shifts:</u>			
The current position is ...	... irrelevant	... relevant and known	... relevant and unknown
<i>Non-presentative context:</i> the focus is on existence ...	... at a specific location	-	... in general
<i>Presentative context:</i> the Figure is ...	... identifiable through positional information		... identifiable otherwise

Table (3) above illustrates a second point: the postural and existential elements always contribute semantic and pragmatic information. This becomes especially clear in contexts where the postural/existential information is coded in different loci, e.g., in demonstrative and verb (as in 14a) or in progressive auxiliary and main verb (as in 14b). In such cases, speakers often use different posturals/existential.<sup>5</sup> For example, in (14a), the speaker chooses both the existential (in the demonstrative) and the postural *t'ong* 'sit' (as the verb). His choice is motivated by the fact that, in the demonstrative (i.e., in a presentative structure), postural information is only supplied if it helps identifying the referent – but since the postural information is already coded in the verb, it need not be repeated in the demonstrative (see sections 4.3.3 and 7.2.1 for details). In (14b), the speaker chooses two posturals. The first postural, *leng* 'hang/move (pl)', is used in a classificatory way to categorize the referent as animate. The second postural, *t'oerep* 'lie (pl)', is used in an assertional way to assert the actual position of the referent (see section 9.3.5 for details). In both examples below, the use of different posturals/existential in reference to the same scenario is made possible by the fact that the various constructions show differences in the distribution of existential, classificatory posturals and assertional posturals.

- (14a) *Bi n-d'e-nang t'ong k'a nde.*  
 thing ADVZ-Cl:exist-DEM.DIST sit(sg) HEAD(sg) one/other  
 'That existing thing sits on another one.' [COLOR\_I-J]
- (14b) *Mûep leng n-t'oerep yi nd'ûûn p'uk.*  
 3Pl hang/move(pl) PROGR-lie(pl) PROGR INSIDE market\_stall  
 'They used to live (= hang/move) lying in the market stalls.' [JOS]

## 5.2 The Goemai classificatory system in typological perspective

This section discusses the Goemai postural/existential system from the perspective of nominal classification. It first summarizes parts of the typological literature on verbal and deictic classifiers (section 5.2.1), and then

<sup>5</sup> Examples such as (i) below, where the same postural information is coded twice, are possible but rare.

- (i) *Zoli n-d'yem-nnoe-hoe d'yem dakd'ûe lu toe.*  
 entrance\_hut ADVZ-Cl:stand(sg)-DEM.PROX-exactly stand(sg) MIDDLE settlement EMPH  
 'This standing entrance hut stands in the middle of the compound.' [LU\_A]

compares the characteristics of the Goemai classificatory system to that of other classificatory systems (section 5.2.2).

### 5.2.1 *Nominal classification*

Section 5.1 has established that the postural/existential elements (i.e., both the verbs and the elements that occur in the demonstrative) can be used in a classificatory way, but it is debatable whether they can actually be called ‘classifiers’. While those elements that occur in the demonstrative are often labeled ‘classifiers’ in the literature, the corresponding verbs are rarely subsumed under this heading. Aspects of this discussion are summarized in this section.

Issues of nominal classification are given much coverage in the linguistic and cognitive literature – an interest that is sparked by the assumption that systems of nominal classification “... provide a unique insight into how people categorize the world through their language” (Aikhenvald 2000a: 5). Aside from descriptive information on individual languages, there are various proposals to integrate the attested classifiers into a typology (e.g., Aikhenvald 2000a; Allan 1977; Dixon 1968; Grinevald 2000). Despite differences in detail, all typologies use morphosyntactic criteria to differentiate between classifier types.<sup>6</sup> Usually, the following types are distinguished (adopting the terminology of Aikhenvald 2000a): noun classifiers (associated with the noun), numeral classifiers (in noun phrases with numerals), possessive classifiers (in possessive noun phrases), verbal classifiers (on verbs), locative classifiers (on adpositions) and deictic classifiers (on demonstratives or articles). It is assumed that these types show differences in their semantics, diachronic origins, grammaticalization patterns and discourse functions.

In the following two sections, verbal and deictic classifiers are discussed in more detail, as they are of immediate relevance to the analysis of Goemai.

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<sup>6</sup> Classifier systems are differentiated from noun class and gender systems, but it is widely accepted that the two systems are linked through a grammaticalization continuum (Aikhenvald 2000a; Dixon 1968; Grinevald 2000). Their most important difference is that noun class and gender systems, but not classifier systems, are concerned with the classification of linguistic expressions, i.e., with nouns (see the discussion in section 5.2.2.1).

### 5.2.1.1 Verbal classifiers

Typical verbal classifiers are expressed on the verb (either in form of classificatory noun incorporation or in form of verbal affixes) and categorize the *S/O* argument of the verb (Aikhenvald 2000a: 149-171; Grinevald 2000: 67-68; see also Mithun 1986; and W. Seiler 1986 for possible diachronic developments).<sup>7</sup> While their status as a distinct classifier type is generally accepted, the status of the related phenomenon of classificatory verbs is more controversial. Classificatory verbs are said to classify through the verb form itself and not through any classificatory morphemes. This property makes it difficult to argue that they are different from non-classificatory verbs that impose selection restrictions on their nominal arguments. For this reason, Grinevald (2000: 68) explicitly excludes classificatory verbs, which she considers to be "... a covert lexical means of nominal classification (...)" that "(...) can be found in any language." Aikhenvald (2000a: 153-159), Allan (1977: 287) and H. Seiler (1986: 77-86), by contrast, subsume classificatory verbs under the heading of verbal classifiers. Their reasoning is outlined in the remainder of this section.

Although typologically rare, classificatory verbs are well known from Athapaskan languages (e.g., Axelrod 2000; Barron 1982; Fernald and Willie 2001; Hoijer 1945; 1946; Landar 1965; Pinxten et al. 1983; Rice 1989: 779-795; Rushforth 1991; H. Seiler 1986: 77-86; Unterbeck 1999; Young and Morgan 1987: 128-130).<sup>8</sup> In these languages, nominal referents are categorized into up to 13 classes on the basis of shape, texture, consistency, animacy and number. Each class is associated with up to four sets of classificatory verb stems that are used in reference to members of that class being in a position of rest, handled, thrown or in motion. Classification thus takes place (a) with a limited number of referents (i.e., referents of concrete nouns) and (b) in restricted contexts (i.e., whenever the utterance happens to contain a classificatory verb). Both characteristics are known to exist in established classifier systems as well, and should not be taken as a reason per se to exclude classificatory verbs from the typology.

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<sup>7</sup> The possibility of verbs categorizing verbs or events is usually excluded (but see McGregor 2002; Schultze-Berndt 2000).

<sup>8</sup> Similar types of classificatory verbs are reported from other Amerindian languages and language families: Algonquian (Denny 1979), the Iroquoian language Cherokee (Blankenship 1997), and Uto-Aztecan (Casad 1996).

Barron (1982: 134), following Hoiyer (1945), proposes two criteria<sup>9</sup> to distinguish classificatory from non-classificatory and pseudo-classificatory verbs: (i) a single class (e.g., the class of ‘standing’ objects) occurs in at least two different morphosyntactic environments (or ‘predications’ in the Athapaskan terminology) (e.g., ‘being in a position of rest’ and ‘handling’), and (ii) *different classes contrast within one predication* (e.g., ‘stand’ contrasts with ‘lie’ in the predication ‘being in a position of rest’). Given these two criteria, the locative verbs in Goemai could be called classificatory: (i) every single ‘class’ occurs in two ‘predications’ (i.e., in the stative locative predication as, e.g., *d’yem* ‘stand’ and in the causative predication as, e.g., *twaaam* ‘cause/put standing’), and (ii) *different ‘classes’ contrast within one ‘predication’* (i.e., *d’yem* ‘stand’ contrasts with *t’o* ‘lie’).<sup>10</sup> However, it does not seem a satisfactory solution to base this decision on two types of predications only – especially on two types that are semantically related to such an extent that languages often use the same verb form for both (Levin and Rappaport Hovav 1995: 126-133). The two criteria nevertheless draw attention to one important prerequisite for all types of classifiers: *classifiers have to form a consistent paradigmatic subsystem of the language* (see also Aikhenvald 2000a: 153; H. Seiler 1986: 77-86). In the Athapaskan context, the criteria proposed by Barron and Hoiyer proved useful. Outside the Athapaskan context, other criteria have to be found that, in a comparable way, can establish the paradigmatic nature of the system. McGregor (2002: 16), for example, proposes that all or most members of an open class (such as nouns in noun class languages, or nominal referents in classifier languages) must collocate in certain well-defined grammatical environments with an element from another set, i.e., a classifier. This criterion would apply to the postural/existential elements in Goemai, as all Figures collocate in certain environments (i.e., *locative construction, coordinate and configurational serial constructions,*

<sup>9</sup> A third criterion specifies that the classification has to be achieved through the verb form. It is needed to exclude agreement phenomena.

<sup>10</sup> Strictly speaking, Goemai does not fulfill Barron’s criteria as, in Athapaskan languages, the two predications should be expressed by identical (perfective) stems. In Goemai, only the verb *lang* ‘hang/move’ has the same form in both predications. I do not consider ‘identical (perfective) stems’ a defining criterion of classificatory verbs because its applicability depends on the grammatical structure of the language. In an isolating language such as Goemai, the use of the same verb form in both transitive and intransitive predications is restricted. Instead, Goemai can make use of suppletive verb forms (see section 2.4.2.4).



presentative construction, and demonstrative) with these elements. But while this criterion is necessary, it is not yet sufficient to establish whether or not the posturals/existential are classifiers.

A number of languages are said to have classificatory existential verbs that categorize their S argument in terms of orientation or position.<sup>11</sup> This type is attested in North American languages: in Siouan (Barron 1982; Barron and Serzisko 1982; Rankin 1977; 1988; 2000; Rood 1979), Muskogean (Kimball 1991: 452-460), Kiowa (Speirs 1974; Watkins 1976), and a number of isolate languages spoken in the Siouan area (see the summary of areal features in Campbell 1997: 341-344). It is also known from various Papuan languages (Drabbe 1953: 39-41; 1957: 31-36; 1963: 21-22, 67; Foley 1986: 88-91; Lang 1975; Levinson 2000a; Merlan et al. 1997; Mühlhäusler 1995; Rumsey 2002; W. Seiler 1985: 154-160). Such verbs are often labeled 'classificatory' because they set up disjunctive classes. For example, a classificatory verb 'stand' sets up a class of 'standing' entities, probably including trees. The classificatory verb 'stand' is then used to characterize all trees, regardless of their actual position (e.g., it is used with an uprooted tree that currently 'lies') (Aikhenvald 2000a: 362-363; McGregor 2002: 18; H. Seiler 1986: 79-90). As shown in section 5.1, the postural/existential elements of Goemai are used in similar ways.

The discussion on classificatory existential verbs summarized in the paragraph above makes use of a second criterion for defining classifiers: classifiers have to be sortal in nature, i.e., they have to set up disjunctive classes (see J. Lyons 1977: 460-466). This assumption is uncontroversial, and part of the classifier literature explicitly addresses the question of how mensural classifiers (based on temporary quanta) and temporary-state classifiers (based on temporary configuration) compare to the prototypical sortal classifiers. It is generally accepted that an element is a 'classifier' only if the construction it occurs in is formally and functionally similar to the constructions that prototypical sortal classifiers occur in (Adams and Conklin 1973; Broschart 1997; Serzisko 1982). To exclude taxonomic categorization systems that operate on a lexical level it is important that these disjunctive classes are reflected in grammar (e.g., that they form a consistent paradigmatic subsystem of the language).

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<sup>11</sup> A different type is found in Tibeto-Burman languages where distinctions are based on animacy (cited in Aikhenvald 2000a: 154-156).

The classifier literature thus proposes two criteria for identifying classifiers: one criterion is formal (reflection in grammar), the other semantic (sortal nature). None of the criteria excludes the possibility of classification through verbs: as argued above, collocation patterns in well-defined *grammatical* environments can count as a ‘reflection in grammar’, and verbs can set up *disjunctive classes*. *In actual practice, however, classifiers are often identified as a separate form class that can be formally distinguished from major word classes. This practice poses a problem for suppletive classificatory verbs, which, as a consequence, are excluded from some of the typologies.*

### 5.2.1.2 Deictic classifiers

Deictic classifiers do not belong to a major word class, and are thus more readily accepted as classifiers (Aikhenvald 2000a: 176-183; Allan 1977: 287-288; Grinevald 2000: 68-69).<sup>12</sup> They are known from the Guaykuruan languages of South America (Ceria and Sandalo 1995; Grondona 1998; Klein 1979; Vidal 1997) as well as from Siouan and neighboring languages of North America (Barron and Serzisko 1982; Campbell 1997: 342; Rankin 1977; 1988; 2000; Rood 1979). They probably exist in a few other languages as well,<sup>13</sup> but only little is known about their semantics and usage. *Due to the scarcity of available data, their typological status is not entirely clear. Aikhenvald (2000a: 172) states that “[m]ore examples of these classifiers in the languages of the world would need to be discovered before their typological profile could be fully established.”*

The procedure for establishing the existence of a distinct classifier type is to determine whether, *in one language, different types can be distinguished on the basis of formal, semantic or functional criteria. Using evidence from the*

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<sup>12</sup> The term ‘deictic classifier’ is an established term in the classifier literature (see, e.g., Aikhenvald 2000a). It refers to classifiers that *occur* in deictic expressions (not to classifiers that classify deictic expressions). Notice that the term ‘deictic’ is used in a wide sense here, as it includes definite forms that may have an anaphoric, but not a deictic function. ‘Deictic classifiers’ are also known under various other names: ‘article’ or ‘demonstrative classifiers’ (Aikhenvald 2000b; Grinevald 2000), ‘intra-locative classifiers’ (Allan 1977: 287-288), ‘positional classifiers’ (Vidal 1997) or ‘noun classifiers’ (Klein 1979).

<sup>13</sup> They are reported to exist in the Bolivian language Movima (Haude 2003). In Africa, they are found in Khoisan languages (cited in Kuteva 1999: 204-205), the Nilo-Saharan language Mbay (Keegan 1997), and the Chadic language Mada (Theda Schumann, p.c.).

Arawakan language Tariana, Aikhenvald (2000b) argues for the existence of the distinct type of deictic classifiers.<sup>14</sup> The defining characteristics of this type are as follows (Aikhenvald 2000a: 182): (i) deictic classifiers appear on deictics and/or articles having scope over the noun phrase, and (ii) they categorize the referent of the head noun in terms of shape, extendedness, position and/or animacy.

The two criteria prove to be good working criteria, but it is arguable whether they can define the deictic classifiers as a distinct type. The first criterion cannot reliably exclude those noun classes that mark agreement on the demonstrative only,<sup>15</sup> nor those numeral classifier systems that are realized both on numerals and demonstratives (Aikhenvald 2000a: 206-210). Furthermore, the semantic properties specified in the second criterion are found in almost every classifier type (see, e.g., Adams 1986; Adams and Conklin 1973; Aikhenvald 2000a: 271-306; Allan 1977; Denny 1979; Friedrich 1970; Grinevald 2000: 71-74). The property ‘position’ seems to be less widespread, but is also found in the classificatory verbs of Athapaskan languages (Barron 1982; H. Seiler 1986: 77-86) and in the numeral classifiers of Mayan languages (Berlin 1968; Zavala 2000).

Taken together, the two criteria justify the label ‘deictic classifier’ in reference to the postural/existential elements that occur in the Goemai demonstratives. Yet there is no a priori reason why they should be ‘classifiers’ rather than, e.g., ‘modifiers’. For example, the Goemai demonstratives share formal similarities with the modifying construction (see sections 3.2.2 and 7.1.1 for a discussion of their similarities and differences): compare the form of the demonstrative *goent'onnoe* ‘this lying one’ in (15a) with the derived modifiers *goetep* ‘black one’ in (15a) and *goek'oon* ‘facing down one’ in (15b).

- (15a) *Eep*      ***goe-n-t'o-nnoe***.  
 open(sg) NOMZ(sg)-ADVZ-Cl:lie(sg)-DEM.PROX  
 A      ***goe-tep***                      *a?*  
 FOC    NOMZ(sg)-become\_black    INTERR  
 ‘Open this lying one. (Is it) a black one?’ [COLOR\_13-N/A]

<sup>14</sup> But see Grinevald (2000: 69) who argues that Tariana does not have multiple classifiers, but rather a complex agreement system.

<sup>15</sup> Examples of such noun class/gender systems are found in the Arawakan language Waurá and the Austronesian language Teop (Aikhenvald 2000a: 182-183), and also the Australian language Dyirbal (Dixon 1972: Sands 1995).

- (15b) *Goë-k'oon*                      *n-k'oon-hoe*.  
 NOMZ(sg)-face\_down(sg)    ADVZ-face\_down(sg)-exactly  
 'The facing down one.' [DIS\_4.6-A/N]

Based on this formal similarity, one could argue that the 'deictic classifiers' of Goemai are modifiers – not classifiers (see also Denny 1976; Dixon 1982a; Serzisko 1982 for a discussion of the *qualifying aspects of classifiers*; and see Diessel 1999: 47-49; Hanks 1992; J. Lyons 1977: 646-657 for a discussion of the *qualifying aspects of demonstratives*). The analysis of the postural/existential elements in the demonstrative is thus faced with a similar problem as the analysis of the postural/existential verbs: in both cases, the sortal aspects of the system need to be established. As shown in section 5.1, the deictic classifiers in Goemai are, indeed, sortal in that they set up mutually exclusive categories. This, then, justifies their analysis as classifiers (rather than, e.g., modifiers).

### 5.2.2 Classification through posturals/existential

The previous section has summarized the typological literature on verbal and deictic classifiers, focussing on the criteria that were proposed to define classifiers. Two criteria are of relevance to the Goemai data: the sortal nature of classifiers and their reflection in grammar. Based on these criteria, the postural/existential elements of Goemai can be said to be classifiers: they are sortal as they set up disjunctive classes that collocate with certain Figures in certain grammatical environments. The availability of the *existential* as a remainder category makes this classification exhaustive. It is true that the *posturals/existential* are a subset of a major word class, i.e., of verbs. And, for this reason, not all typologists would agree to label them 'classifiers'. Under this alternative view, they are predicates that can get recruited for sortal purposes because they presuppose something about the referent.

Regardless of whether or not the label 'classifier' is adopted, a *discussion of the postural/existential system of Goemai from the perspective of nominal classification is justified on the basis of two observations*. First, there is a diachronic link between the postural/existential verbs on the one hand and the deictic classifiers on the other (see section 7.4) – and the latter are usually accepted as 'classifiers' since they constitute a separate form class. Second, the postural/existential elements are used in a classificatory way, i.e., there are sortal aspects to the system. Somewhat ironically, the sortal aspects are more

pronounced in the verbs than they are in the deictic classifiers (see the discussion in section 5.1.1.3).

In this section, the characteristic features of the Goemai system are discussed and compared to languages that have postural-based elements and to languages that have nominal classifiers. The following topics are addressed: the classification of nominal concepts and the re-classification of nominal referents (section 5.2.2.1), the status of the existential (section 5.2.2.2), the locative relational semantics (section 5.2.2.3) and the discourse functions (section 5.2.2.4).

### 5.2.2.1 Classification and re-classification

The postural and existential elements of Goemai set up disjunctive categories. These categories are not concerned with linguistic expressions (as the same noun can occur in different categories (see examples 3a to 4b in section 5.1.1), nor are they concerned with referents (as their actual positions are irrelevant) (see examples 1a to 1e in section 5.1.1). Rather, the categorization takes place on the intermediate level of nominal semantics and concepts.

On this level, the posturals/existential do not mirror the semantic features of a noun, but rather serve to highlight certain aspects of its meaning potential. Goemai has a large number of semantically general nouns that do not differentiate between (a) a natural source and its natural or man-made produce or (b) an individual and its collective. Some such nouns are illustrated in table (4) below.

**Table (4):** Semantically general nouns in Goemai

Natural source and produce	Individual and collective
<i>d'a</i> 'calabash plant, fruit, vessel'	<i>gurum</i> 'person, people'
<i>gang</i> 'palm tree, fruit, leaf, mat'	<i>lu</i> 'settlement (house, town)'
<i>lwa</i> 'animal, meat'	<i>maar</i> 'millet (stalk, field)'
<i>nsh'i</i> 'bee, honey'	<i>neng</i> 'cow, cattle'
<i>sool</i> 'iron, money'	<i>p'ang</i> 'stone, hill'
<i>wan</i> 'red clay, brick'	<i>t'eng</i> 'tree, forest'

In many cases, the same noun is thus used in reference to different entities in the world. It is difficult to decide whether such nouns are ambiguous or

semantically general, as there is no clear evidence for either of the two possibilities. But, based on the following three considerations, they are tentatively assumed to be semantically general, i.e., it is assumed that Goemai does not make the same semantic distinction that is found in many other languages:<sup>16</sup>

(i) Polysemy tests of the kind proposed by Zwicky and Sadock (1975) do not show that these readings constitute different senses.

(ii) To analyze these nouns as ambiguous would make it necessary to posit separate senses for a majority of Goemai nouns. It is questionable whether an analysis in terms of such regular polysemy really reflects the lexicalization pattern of the language. In the case of Australian languages, which seem to have a comparable type of noun semantics, Wilkins (2000: 179-186) analyzes such nouns as semantically general, arguing that they reflect a worldview based on the persistence of entities through transformation.

(iii) Many nouns can refer to both substances and entities. Substances and entities can be distinguished in enumeration contexts where substances occur obligatorily with measure terms (e.g., with *buhu* ‘bag’ in 16a). Entities, by contrast, show variation, as they can occur either directly with numerals (as in 16b) or with measure terms (e.g., with *guda* ‘unit’ in 16c). Outside this enumeration context, substances and entities cannot be distinguished. For example, there is no nominal plural morpheme that could potentially make a distinction (see section 2.2.2.2).<sup>17</sup>

(16a) *Mûaan goe-goe s'eet kûûn hok / buhu vel.*  
 go(sg) RED-SEQ trade(sg) salt DEF bag two

‘(He) went and bought the salt, two bags.’ [SHOOM]

<sup>16</sup> Parts of this argument were influenced by Dew (1992).

<sup>17</sup> In many verbal classifier languages, nouns seem to be ‘transnumeral’, i.e., general with respect to number (Greenberg 1990 [1972]: 183-184; H. Seiler 1986: 105-106; Unterbeck 1999: 437-449). In Goemai, some diachronic changes took place in this domain (see section 2.2.1.1 for details). First, Goemai has a handful of suppletive plural nouns (such as *jap* ‘children’ in 16b and 16c); and a number of nouns exhibit old Chadic plural formatives (such as *gurum* ‘person/people’). Second, a recent development allows speakers to optionally use the prefixes *goe-* (sg) and *moe-* (pl) to differentiate between one individual (e.g., *goe-gurum* ‘person’) and several individuals (e.g., *moe-gurum* ‘people’).

(16b) *Mat ndoe gurum / b'e jap vel.*  
 woman(sg) some person give\_birth(pl) children(pl) two

'Someone's wife gave birth to two children.' [TIME-A]

(16c) *Ni na jap guda vel.*  
 3Sg see children(pl) unit two

'He saw two (units of) children.' [KEY]

Although the evidence is not conclusive, the three reasons given above suggest that an analysis in terms of them being semantically general is more promising. Ameka and Levinson (in prep.-b) suggest that semantically general nouns are characteristic for many languages that employ postural verbs in their locative construction (see also Wilkins 2000: 179-186; Merlan et al. 1997: 82). Broschart (2000) argues that a similar type of noun semantics is also found in noun-, possessive- and locative classifier systems.

A slightly different type of noun semantics is attested in numeral classifier languages, which are characterized through a large number of mass nouns, i.e., many common nouns and nouns denoting artifacts are treated as mass nouns, not as count nouns (see especially the discussion in Lucy 1992). As shown above, this type of noun semantics differs from the noun semantics attested in Goemai: Goemai nouns are often semantically general, i.e., they can be treated both as count nouns (as in 16b above) and as mass nouns (as in 16c above). Nevertheless, in both types (in the numeral classifier languages and in the Goemai-type classificatory systems), the classification seems to co-occur with a certain type of general or undifferentiated noun semantics. The classifiers in numeral classifier languages are then used to create an individual, bounded and contoured, unit that can be counted (Aikhenvald 2000a: 317-333; Broschart 2000; Denny 1986; Greenberg 1990 [1972]; Grinevald 2000; Lucy 1992; 2000; Lucy and Gaskins 2001; H. Seiler 1986: 94-110). The classifiers in Goemai, by contrast, are used to restrict the reference of the semantically general nouns.

The reference of such nouns can be restricted in two different ways. One possibility is their co-occurrence with generic nouns in noun-noun compounds. For example, *d'in* 'sheabutter' can be differentiated into *t'eng d'in* 'sheabutter tree', *la d'in* 'sheabutter fruit', *hûe d'in* 'sheabutter seed' or *mûer d'in* 'sheabutter oil'. Another possibility is that they co-occur with different postural/existential elements. For example, in (17a) and (17b) the posturals *leng* 'hang/move (pl)' and *d'ûe* 'cause to lie (pl)' differentiate between a natural source ('bees') and its produce ('honey') – the noun *nsh'i* 'bee/honey' is compatible with both entities. In (18a) and (18b), the posturals *d'yem* 'stand'

and *t'ong* 'sit' differentiate between an individual ('house') and a collective ('town') – again, the noun *lu* 'house/town' is compatible with both.

- (17a) *Aas* (...) *kuk* / *nsh'i* *goe-leng* *nd'ûûn*.  
 dog bark\_at bee/honey NOMZ-hang/move(pl) INSIDE  
 'The dog (...) barked at the bees that moved inside.' [FROG-A]

- (17b) *ji* *d'ûe* *nsh'i* *ji* *yi* *k'a*.  
 Sgm.LogS cause\_lying(pl) bee/honey Sgm.LogS.Poss SUB HEAD(sg)  
 'so that he<sub>1</sub> had put his<sub>1</sub> honey on top.' [MOESHA]

- (18a) *Nd'asoe-n-d'e-nnoe* *a* *lu* *d'yem* *d'em*  
 now-ADVZ-Cl:exist-DEM.PROX FOC settlement stand(sg) this\_time  
*bi* *ji* *toe*.  
 thing Sgm.LogS.Poss EMPH  
 'Right now a house<sub>1</sub> stands (there) on its<sub>1</sub> own.' [JOS]

- (18b) *Goe na a lu t'ong toe d'i zak-yit*.  
 2Sgm see FOC settlement sit(sg) EMPH LOC.ANAPH again  
 'You see (it) is a town (that) sits there now.' [MIL-A]

These entities, that the noun can refer to, occur in certain canonical positions: animate entities such as 'bees' canonically *lang* 'hang/move', while masses such as 'honey' canonically *t'o* 'lie'; and objects such as 'houses' that are supported in their position through the Ground canonically *d'yem* 'stand', while collectives such as 'towns' canonically *t'ong* 'sit' (see sections 4.2.1 to 4.2.4 for a discussion of the postural semantics). In a way, such canonical positions are similar to generic, timeless truths: e.g., animates generically *lang* 'hang/move' because they are alive – even though they may not currently be in this position or state (see also J. Lyons 1977: 193-197, 716-717 on generic states). It is on this level that the posturals set up disjunctive classes.

As shown in section 5.1, the classificatory aspects of the Goemai system are overshadowed by its assertional aspects. In fact, the assertional use seems to be a salient feature of all languages that have postural-based verbs (see the contributions in Ameka and Levinson in prep.-a). This use is comparable to the possibility of temporarily 're-classifying' referents: it is very common for classifier languages to use re-classification as a means to highlight different aspects of the referent in context (e.g., Adams 1986: 241-246; Denny 1976; Fernald and Willie 2001; Friedrich 1970: 384-386; McGregor 2002: 8-13; Senft 1996; Wilkins 2000). In such languages, the use of a non-expected classifier draws attention to a marked, non-canonical, referent – but they can only create such an effect because an expected, i.e., sortal, classifier would have been



available (see also Rumsey 2002; Rushforth 1991; Serzisko 1982: 150-153). As discussed in section 5.1.1.1 above, the same pragmatic effect is found in Goemai.<sup>18</sup>

Since the assertional use in Goemai has its parallels in established classifier systems, it should not be taken as an argument against the system being classificatory. The saliency of the assertional use rather poses a practical problem: it is not always easy to establish the existence of the classificatory use. In the analysis of Goemai, it was necessary to resort to the stimuli-based methods introduced in section 4.1 to (i) prove its existence and (ii) explore the factors responsible for its occurrence:

(i) In the stimuli-based tasks used for this thesis, the reference context (i.e., the actual position) was known. This made it possible to distinguish between the assertional and the classificatory use. For much of the natural data, by contrast, the reference context remained unknown. In retrospect, i.e., after taking the stimuli data into account, it was possible to form hypotheses about whether a certain use was assertional or classificatory – but these hypotheses were not falsifiable based on the natural data alone. For many languages, the information that is necessary to prove or disprove the existence of the classificatory use is not available.

(ii) As each task was designed to control for specific parameters, it was possible to separate the factors responsible for the occurrence of the two uses. In particular, the contrast between picture book tasks on the one hand and matching games on the other is revealing. Picture book tasks generated predominantly the assertional use, as they encouraged speakers to contrast referents and pictures, i.e., to look for differences. Matching games generated both uses, depending on whether Figures contrasted in their position (assertional use) or their location (classificatory use) (see also section 4.1.2).

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<sup>18</sup> Merlan et al. (1997) discuss re-classification in the postural-based systems of Papuan languages. They show that, in such systems, referents are re-classified (i.e., depending on its actual position, a referent is placed in different categories) – not nouns (as it is the case in noun class system). For this reason, they consider postural-based verbs non-classificatory. Although the differences between postural-based verbs and noun classes are, indeed, striking, the unit of comparison should be the classifier system, not the noun class system – and, as argued above, re-classification of referents is commonly found in classifier systems.

Given the considerable methodological problems involved in establishing the existence of the classificatory use, it is difficult to judge how representative the Goemai system is. Nevertheless, there are indications that the Goemai system is more widespread. Material available on Papuan (Drabbe 1953: 39-41; 1957: 31-36; Foley 1986: 88-91; Lang 1975; Levinson 2000a; Mühlhäusler 1995; Rumsey 2002) and Siouan languages (Barron and Serzisko 1982; Barron 1982; Rankin 1977; Rood 1979; H. Seiler 1986: 88) suggests that postural elements can be used in a classificatory way. In the case of Siouan, Rankin (1977) and H. Seiler (1986: 87-94) explicitly argue for a grammaticalization continuum with the postural verbs at one end and the postural-based definite articles at the other. They claim that the postural verbs already exhibit a classificatory use, which becomes more pronounced as they lose their predicative function (i.e., as they grammaticalize into definite articles or continuative auxiliaries).<sup>19</sup> The classificatory overtones of postural elements have been noted earlier (Aikhenvald 2000a: 362-363; H. Seiler 1986: 87-94), and Ameka and Levinson (in prep.-b) even argue that they are a characteristic feature of languages that employ postural verbs in their basic locative construction.<sup>20</sup>

### 5.2.2.2 Classification and existence

The classificatory postural-based verbs of Siouan and Papuan languages all function as existential verbs (Aikhenvald 2000a: 158-159; Drabbe 1953: 39-41; 1957: 31-36; 1963: 21-22; Levinson 2000a; Mühlhäusler 1995; Rumsey 2002). In Goemai, by contrast, a separate existential element is available. As shown in section 5.1.1.2, the classification in Goemai is not tied to existence in general, but to the existence of a Figure of a particular class at a specific location.

Furthermore, the existential element itself is part of the classificatory system. It acts both as a residue classifier (*setting up a remainder category, thereby allowing for an exhaustive classification*) and as a default classifier (replacing

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<sup>19</sup> This seems to differ from Goemai, where the classificatory use is salient in the verbs, but marginal in the demonstratives.

<sup>20</sup> Since most studies on postural verbs do not address the question of a classificatory use, it is difficult to assess the validity of their claim. In the case of the postural verbs in Dutch, Bowerman et al. (in prep.) explicitly argue against this claim (see also the reply in Ameka and Levinson in prep.-b). But since the classificatory use is attested for Goemai as well as for several Papuan and Siouan languages, it seems a reasonable working hypothesis to assume that postural verbs are, at least in some contexts, used in a classificatory way.

the posturals under specific pragmatic conditions). Since both functions are well-attested in established numeral and noun classifier systems (Aikhenvald 2000a: 334-337), the presence of the existential cannot be taken as a counter-argument against the system being classificatory. Nevertheless, postural-type systems rarely seem to include such a general existential verb:<sup>21</sup> it is not attested in either Siouan or Papuan. But see Rood (1979) who argues that Proto-Siouan probably had an additional general (maybe existential) verb. This verb seems to have constituted the source for the definite article in those Siouan languages that do not have deictic classifiers today.

### 5.2.2.3 Locative relational semantics

Established classifier systems categorize on the basis of inherent properties such as animacy, shape, extendedness, dimensionality, material or consistency (Adams 1986; Adams and Conklin 1973; Aikhenvald 2000a: 271-306; Allan 1977; Denny 1979; Friedrich 1970; Grinevald 2000: 71-74). For example, deictic classifiers are said to be based on the inherent properties of dimensionality and extendedness: ‘sit’ is used with non-extended three-dimensional referents, ‘lie’ with horizontally extended two-dimensional referents, and ‘stand’ with vertically extended one-dimensional referents (Denny 1979; Klein 1979; Rankin 2000; Rood 1979; H. Seiler 1986: 87-94). In Goemai, by contrast, categorization is done predominantly on the basis of position (i.e., of the position of the Figure relative to the Ground) – i.e., on the basis of a non-inherent property. Two observations help to explain this phenomenon:

(i) The categorization is not, in the classificatory use, concerned with the current position, but with the canonical position (see section 5.1.1). Although canonical positions are not inherent properties, their effects are similar: they set up disjunctive classes (see also W. Seiler 1985; and Merlan et al. 1997 who observe similar developments in the Papuan language Imonda). In this respect, it is interesting to observe that one dispositional verb is in the process of shifting to the class of locative verbs: the verb *k'oon* ‘face down’, which describes the canonical position of hats and covers. Its association with a typical referent is probably, at least to some extent, responsible for this shift.

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<sup>21</sup> A semantically general verb is found in the postural-type languages German and Dutch. In German, it seems to occur in similar environments as in Goemai (Kutscher and Schultze-Berndt submitted).

All other dispositional verbs, by contrast, are used to assert temporary, changeable dispositions and are not associated with a typical referent (see sections 3.2.3 and 4.4).

(ii) Canonical positions imply specific inherent properties of the Figure. For example, a moving Figure tends to be animate, a self-supporting Figure is preferably three-dimensional, any Figure that projects away from the Ground tends to be rigid (and vertically oriented), and a Figure that is supported fully by the Ground tends to be flexible (and horizontally oriented). Although there is only incomplete overlap between inherent properties and positions (see table 8 in section 4.2.6), it is nevertheless easy to see how *classifiers based on inherent properties* could have developed from *classifiers based on position*. There are some indications for the *beginning of such a process*. The postural *lang* ‘hang/move’ is used with entities that have the potential to move, including animate entities located in their typical habitat. It can be used with any animate entity, and it often receives the interpretation ‘alive’ (see section 4.2.1). It is possible that this postural develops further into a classifier for animate entities, and thereby loses its positional semantics.

But despite such possible developments, the semantic basis for classification in present-day Goemai differs from that of established classifier systems: the postural/existential elements categorize typical positions or locative relations.

#### 5.2.2.4 Discourse functions

In many classifier languages, classifiers are used with a reference-tracking function. Aikhenvald (2000a: 326) suggests that the deictic classifiers in Siouan languages are also used for this function. In Goemai, by contrast, the deictic classifiers do not have any anaphoric or reference-tracking function – in fact, they only ever occur with deictic reference (see section 7.3). Reference-tracking in Goemai is rather achieved through one of the following strategies:

- zero pronouns (co-reference with antecedent) contrasting with 3<sup>rd</sup> person pronouns (non-co-reference) (see section 2.4.1);
- logophoric marking in possessive clauses (co-reference with antecedent) contrasting with non-logophoric possessives (*non-co-reference*) (see section 2.2.1.2);
- locative anaphor (see section 7.3.2).

The proximal demonstrative containing the existential classifier, *goend'ennoe* 'this existing one', has some limited reference-tracking functions: it can be used in reference to a topical antecedent, and it can contrast with the distal demonstrative containing the existential classifier, *goend'enang* 'that existing one', to keep track of two separate referents (see section 7.3.2). In these two contexts, the existential does not contrast with the posturals, and thus cannot be said to classify. The observation that the posturals cannot be used with a reference-tracking function seems to be related to their identifying function in the demonstratives: after the referent is identified, the positional information is neutralized (see section 7.3.2) (see also Aikhenvald 2000a: 318; Carpenter 1986; Denny 1986; Erbaugh 1986; Hopper 1986 for descriptions of comparable neutralizations in different classifier languages). In a similar way, the deictic classifiers in the Guaykuran language Toba seem to be used with visible spatial referents only. This could suggest that they do not have any reference-tracking function (Klein 1979).

With respect to verbal classifiers, Merlan et al. (1997) suggest that they are never used for reference tracking – simply because they are predicative in that they are used to assert a temporary state. Since a temporary state is bound to change over short stretches of discourse, reference tracking through verbal classifiers would be difficult or even impossible. But they also observe that verbal classifier systems may stabilize over time. In the Papuan language Imonda, there is a tendency for verbal classifiers to collocate with the most typical action. The classifiers thereby set up stable disjunctive classes and, in this process, develop some marginal reference-tracking functions (see also the discussion in Rushforth 1991). Similar to the verbal classifiers in Imonda, the postural/existential elements in Goemai divide nominal concepts into disjunctive classes on the basis of typical locative relations. Nevertheless, the Goemai verbs are not used for reference tracking.

The reference-tracking function of classifiers is usually not seen as a defining criterion. Although it is found in many classifier languages (Aikhenvald 2000a: 320-333; Grinevald 2000: 76; Senft 1996), authors such as Denny (1976: 130-131) regard it a secondary characteristic, because (a) it is not attested in all languages, (b) it cannot explain the classifier semantics and (c) it requires a separate (pro)nominal element to co-occur with. Its absence in Goemai should thus not be taken as an argument against the system being classificatory.

### 5.3 Summary and discussion

In the preceding sections, classificatory aspects of the postural/existential system of Goemai have been discussed. It was shown in section 5.1 that, in specific grammatical environments, these elements show similarities to established classifier systems, in particular to verbal and deictic classifiers (as described in section 5.2.1). They group nominal concepts into mutually exclusive sets, whereby re-classification is used to focus on a marked temporary aspect of the referent in context (section 5.2.2.1). They restrict the set of possible referents by highlighting specific aspects of the meaning potential of semantically general nouns – interestingly, languages that have classifiers often seem to also have some sort of undifferentiated noun semantics (section 5.2.2.1). They exhaustively divide the nominal domain, whereby the existential is used both as a residue and as a default element (section 5.2.2.2). They only differ from established classifier systems in their semantics (as this is not based on inherent properties, but on typical or canonical locative relations; section 5.2.2.3) and in their discourse functions (as they are not used with a reference-tracking function; section 5.2.2.4). Nevertheless, given the overall similarity to established classifier systems, it was argued that the Goemai system can be called classificatory.

The Goemai system is not unique – other languages are known to have either classificatory postural-based existential verbs or postural-based deictic classifiers. Like Goemai, these languages also tend to have formally identical or similar postural-based elements that occur in a variety of morphosyntactic contexts (although it is not known whether they are classificatory in all contexts). For example:

- In Yuchi and Siouan languages, postural-based elements occur as deictic classifiers, locative verbs, derived verbs of placement, continuative auxiliaries and/or possessive copulas (Barron and Serzisko 1982; Barron 1982; Campbell 1997: 341-344; Rankin 1977; 1988; 2000; Rood 1979).
- In Guaykuran languages, they occur as deictic classifiers, deictic adverbs, 3<sup>rd</sup> person pronouns, interrogatives, quantifiers, locative verbs, existential verbs and/or serial verbs (Grondona 1998; Klein 1979: 94).
- In Papuan and Australian languages, they occur as locative verbs, existential verbs, progressive auxiliaries and/or copulas (Drabbe 1953: 39-

41; 1957: 31-36; 1963: 21-22, 67; Goddard and Harkins 2002; Merlan et al. 1997; Reid 2001; 2002; Rumsey 2002; W. Seiler 1985: 154-160).

- In Mbay, they occur as deictic classifiers, locative verbs, verbs of placement, progressive auxiliaries, and with ideophones (Keegan 1997: 69-70, 75-79, 113-114, 141-142; 2002).

Although the grammatical contexts where postural-based elements occur differ across languages, the above list suggests that a limited set of contexts seems to occur repeatedly: existential, aspectual, copula, and deictic constructions. Furthermore, in all languages, the same elements occur (or occurred at some point in the past) as postural verbs in the locative construction. From the typological literature, it is well known that there is a cline between locational and existential statements (Clark 1978; Heine 1997b: 202-207; Huumo 1996; J. Lyons 1977: 722-724). And it is also known that locative verbs tend to develop into aspectual morphemes and copulas (Austin 1998; Bybee et al. 1994: 127-133; Heine 1997b: 202-207; Kuteva 1999; Stassen 1997: 94-95, 214), and into deictic classifiers (Aikhenvald 2000a: 362-365; Grondona 1998; Rankin 1977; 1988: 639-640; Rood 1979).<sup>22</sup>

Given that the verbs in the locative construction seem to constitute the source for the other elements, they should assume a prominent role in any analysis. Ameka and Levinson (in prep.-b) suggest that there is a widespread type of postural-verb languages that use a small set of postural verbs in their locative construction (taken from the set 'sit', 'stand', 'lie', 'hang', 'move/be in a natural habitat').<sup>23</sup> These verbs are said to be used in both an assertional and a 'presuppositional' (i.e., my classificatory) way. They argue that such postural-verb languages contrast with other types, especially with (dis)positional-verb languages. The latter use a large set of (dis)positional verbs in their locative construction. That is, they use verbs that code detailed semantic information about the Figure, the Ground or the locative relation, and that are used in an

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<sup>22</sup> The deictic classifier system of Guaykuruan languages includes additional, non-postural, elements that may have originated in motion verbs (Aikhenvald 2000a: 362-363; Ceria and Sandalo 1995). In a slightly different way, the deictic classifiers of the Siouan language Ponca distinguish between objects in motion and objects at rest, whereby only the latter are classified according to their posture (H. Seiler 1986: 90-92).

<sup>23</sup> Recall that the relationship between existential and postural elements is not well understood (see section 4.5).

assertional way only. The best known examples of (dis)positional-verb languages are the Mayan languages (Bohnenmeyer and Brown submitted; P. Brown 1994; Lucy 1994; Martin 1977).<sup>24</sup>

As argued in section 4.5, Goemai belongs to the postural-type languages. But recall that dispositional verbs can occur in the locative construction, too (see sections 3.2.3 and 4.4). Locative (i.e., postural/existential) and dispositional verbs differ in their occurrence, though: while the locative verbs are the prototypical verbs to occur in the locative construction, the dispositionals only occur under specific circumstances. These differences follow from their formal and semantic differences, which are summarized in table (5) below (drawing on the discussion in this and the previous two chapters). Notice that only the postural/existential verbs have a classificatory use – but not the dispositional verbs.

**Table (5):** Differences between locative and dispositional verbs

<b>Locative verbs</b>	<b>Dispositional verbs</b>
<ul style="list-style-type: none"> <li>• location participant (ch. 3)</li> <li>• stative (ch. 3)</li> <li>• positional or locative relational semantics (ch. 4)</li> <li>• classificatory use (ch. 5)</li> </ul>	<ul style="list-style-type: none"> <li>• no location participant (ch. 3)</li> <li>• inchoative (ch. 3)</li> <li>• Figure-internal dispositional semantics (ch. 4)</li> <li>• no classificatory use (ch. 5)</li> </ul>

While both types of verbs can occur in the locative construction, only the locative verbs can occur in the presentative construction (chapter 6). Furthermore, the locative verbs have been grammaticalized to occur in a number of different morphosyntactic environments: the demonstrative or deictic classifier construction (chapter 7), different serial constructions (chapter 8), the progressive construction (chapter 9), and the ascriptive construction (chapter 10).

<sup>24</sup> Incidentally, many Mayan languages have developed numeral classifiers, which are based on the same (dis)positional verb roots that occur in the locative construction (Berlin 1968; Zavala 2000). Cross-linguistically, it seems to be rare that a classifier system is based predominantly on configuration (Allan 1977: 304-305; Serzisko 1982: 150-153).



Given that the same postural/existential elements of Goemai (as well as the comparable elements in Siouan, Guaykuran and Papuan languages) occur in different morphosyntactic environments, it seems worthwhile to discuss and compare all these environments. Singling out one environment to the exclusion of others would introduce an artificial division, making it impossible to capture similarities and differences. Deictic classifiers alone may well seem to be “rare and problematic classifiers” (Aikhenvald 2000a: 12), but they may not be so rare and problematic when seen as one possible grammaticalized outcome of a more widespread type, i.e., of the postural type.



## LOCATIVE AND PRESENTATIVE CONSTRUCTIONS

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### CHAPTER 6

The third part of this thesis discusses the morphosyntactic environments that contain locative verbs: the locative and presentative constructions (this chapter), the demonstrative (chapter 7), different serial verb constructions (chapter 8), the progressive construction (chapter 9) and the ascriptive construction (chapter 10). The locative construction plays a special role in this analysis because it diachronically precedes all other constructions. Furthermore, its constructional properties match the lexical aspect and argument structure of locative verbs (see sections 3.1.2 and 3.1.3 for the lexical properties of locative verbs, see section 3.2.3 for the properties of the locative construction vis-à-vis the lexical properties of locative and dispositional verbs). I therefore assume it to be the basic construction for locative verbs. The locative construction is described together with the presentative construction because their comparison provides insights into the respective contributions of the construction, the verb and the Ground phrase element to the overall interpretation of the utterance. The description in this chapter is intended to complement the discussions in chapters 3 to 5 that have focussed on the verbal element.

A study of the interaction between spatial elements is of interest to the field of spatial semantics. It is known that, in many languages, spatial information is distributed across different elements in the clause. While a few studies explicitly investigate the relationship between different classes of adpositions (Ameka 1995; Heine 1997a: 35-65; Sinha and Kuteva 1995), there is little information on the relationship between verbs and other spatial elements (but see the contributions in Levinson and Wilkins to appear-b; see also P. Brown 1994).

This chapter is structured as follows: section 6.1 summarizes the locative and presentative constructions (notice that most of the information has already been introduced in passing throughout chapters 3 to 5), section 6.2 discusses the Ground phrase elements, and section 6.3 concludes the chapter.

### 6.1 The locative and presentative constructions

Although their functions differ, both the locative and the presentative construction convey locative relational information. As illustrated in (1a) and (1b) in table (1) below, the information is distributed across the elements of Figure, verb and Ground phrase.<sup>1</sup>

**Table (1):** The locative and presentative constructions

	Figure	Verb phrase	Ground phrase
(1a)	<i>Wang</i> pot	<i>t'ong</i> sit(sg)	<i>k'a pepe.</i> HEAD(sg) woven_cover (locative construction)
(1b)	<i>Ndoe wang</i> some pot	<i>na n- t'ong</i> PRES PRES- sit(sg)	<i>d'i.</i> LOC.ANAPH (presentative construction)

The Figure (i.e., the entity being located) fills the subject slot in both constructions. It is not obligatory, as a third person subject can be omitted if it is recoverable from context (see section 2.4.1). The verb codes information about either the position of the Figure relative to the Ground (locative verbs) or about the disposition of the Figure (dispositional verbs). The Ground phrase fills the adjunct slot, and consists of the search region (i.e., the space that is anchored to the Ground and within which the Figure is located) and the Ground (i.e., the entity with respect to which the Figure is located). Different elements can occur in this slot: prepositions, spatial nominals or deictic/anaphoric adverbs (see section 6.2 for a discussion of the Ground phrase).

Section 6.1.1 introduces the locative construction, and section 6.1.2 the presentative construction. Section 6.1.3 summarizes the discussion.

<sup>1</sup> The terminology is adopted from Talmy (1985).

All elements occur in the order depicted. Recall that a focussed Ground remains in situ as in (i) (see section 2.3.3).

- (i) *Wai t'ong a n-Benin ko?*  
 SAY sit(sg) FOC LOC-Benin INTERR  
 '(They) said that (he) sits in Benin, didn't they?' [WITCH2]

### 6.1.1 The locative construction

The properties of the locative construction are summarized in figure (1) below.<sup>2</sup>

**Figure (1):** The locative construction

Form:	(Figure)	Verb	Ground
	(noun phrase)	locative verb	preposition + noun phrase spatial nominal (+ noun phrase) deictic/anaphoric adverb
Meaning:	The Figure is located in a region that is specified with respect to another entity (Ground). The Figure is canonically (or currently) <sup>3</sup> in a certain position with respect to the Ground.		
Function:	Describing or asserting a static location.		

The locative construction is used to describe or assert the static location of entities. This includes the location of both abstract (as in 2 below) as well as concrete entities (as in the last lines of 3a and 3b below).

- (2) *gwen vitamins d'e nd'ûûn muk.*  
 PL vitamin(pl) exist INSIDE 3Sg.Poss  
 'vitamins are in it.' [TREE-A]

<sup>2</sup> Recall that a construction is a template that is associated with an argument structure pattern and a meaning, i.e., it exists independently of its lexical fillers (see sections 1.3.1 and 3.2.3 for details). Throughout chapters 6 to 10, the construction under discussion is represented schematically as in figure (1). That is, first the form of the construction is given (whereby bracketed elements are optional). Following that, the lexical fillers are listed. Recall that, typically, the constructional properties match the properties of its lexical fillers (e.g., the properties of the locative construction match those of the locative verbs). However, sometimes a construction can occur with lexical fillers whose properties do not match those of the construction (e.g., the locative construction can occur with dispositional verbs) – in such cases, the construction adds or suppresses arguments, or coerces a certain meaning. These non-typical fillers are not listed in the schematic representation of the construction, but they are discussed in the course of the section. Following the list of possible fillers, the meaning and function of the construction are summarized.

<sup>3</sup> Recall that the difference between the canonical (i.e., default or classificatory) and the current (i.e., non-default or assertional) position is captured by pragmatic principles (see section 5.1.1.3).

This construction constitutes the typical answer to a ‘where’-question (as in 3a), and it occurs in all contexts that give spatial descriptions (as in 3b). Usually, speakers use it to assert the location of a Figure with respect to another object (by making use of the locative preposition *N-* or a spatial nominal), but they can also use it to assert the location of a Figure in a place (by making use of the spatial preposition *goe* or a deictic adverb) (see section 6.2).

(3a) N: *Yer neng d’e nnang a?*  
 milk cow exist where INTERR

‘Where is the milk of the cow?’

A: *D’e nd’ûûn mbai mûep.*  
 exist INSIDE calabash 3Pl.Poss

‘(It) is inside their calabash.’  
 [HAND-A/N]

(3b) *goe (...) kat pin T. / d’i n-s’a goe goe s’e.*  
 2Sgm find hut T. LOC.ANAPH LOC-hand 2Sgm.Poss COM right

*Kilip muk d’e n-s’a goe kul.*  
 kitchen 3Sg.Poss exist LOC-hand COM left

‘you (...) find T.’s hut there on your right side.  
 Her kitchen is on the left side.’ [LU-A]

Furthermore, recall that, in the locative construction, locative verbs can be used in a classificatory way to convey the existence of a Figure from a specific class at a Ground (see section 5.1). That is, the locative construction can be used to make an existential statement (as in the second part of 4).

(4) *nda muk muut / amma nûûn muk lang d’i*  
 father 3Sg.Poss die(sg) but mother 3Sg.Poss hang/move(sg) LOC.ANAPH

‘his father has died, but his mother lives (= exists there)’ [A-13/06/01]

As illustrated in figure (1) above, the locative construction contains an obligatory verb that specifies the position of the Figure.<sup>4</sup> Usually, this verb is

<sup>4</sup> Other Chadic languages express locative relations in non-verbal constructions (Frajzyngier 1987a; Pawlak 1994) – even closely related languages of the Northern Angas-Goemai group do not use a verb, but a prepositional strategy (of the form: NP (FOC) Prep-NP) (see, e.g., Burquest 1973; Frajzyngier 1993: 259-263). Mupun additionally uses the verb *d’ée* ‘be, become’ to express a temporary location (Frajzyngier 1993: 262).

My Goemai corpus contains only few examples without a verb, e.g., the utterance illustrated in (i) below. Notice that this utterance does not occur in a typical locative context, as the speaker does not use it to assert a locative relation, but to emphasize a

drawn from the set of locative verbs, but, under specific conditions, dispositional verbs can occur in place of the locative verbs. They can occur if the locative relation is perceived as the result of a prior state change, or if the locative relation is non-stereotypical (see section 4.4 for details). Otherwise, they occur only infrequently, they rarely constitute the answer to a ‘where’ question, and speakers do not always accept them. Furthermore, they can only co-occur with a preposition or a spatial nominal, but never with a deictic/anaphoric adverb (see also section 6.1.3 below). Their restricted distribution can be explained when comparing their lexical properties to the properties of the locative construction.

Such a comparison was already carried out in chapter 3. Recall that chapter 3 was concerned with the lexical properties of locative verbs. In the course of the discussion, the properties of locative verbs were compared to those of dispositional verbs and to those of the locative construction. This comparison was made in order to determine whether some properties are lexically specified or are rather supplied through the construction. Two of the arguments proposed in chapter 3 are of relevance to the present discussion. They can be summarized as follows (for details, see especially sections 3.1.2, 3.1.3 and 3.2.3):

(i) The locative construction has stative semantics. Its semantics are consistent with the stative semantics of the locative verbs (see section 3.1.2), but differ from the inchoative semantics of the dispositional verbs (see section 3.2). When dispositional verbs occur in the locative construction, the construction coerces a stative interpretation. Notice that this coercion is a major piece of evidence in favor of recognizing the existence of a separate constructional meaning (see section 3.2.3 for details of the evidence).

(ii) The Ground phrase is an obligatory part of the construction, and cannot be omitted. Even if it is known from previous discourse, it needs to be overtly expressed by means of the locative anaphor *d’i* (as in the second and third lines of 5 below). Again, this property is consistent with the lexical properties of

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place of origin. The construction used is the non-verbal equational construction (see section 10.1.1).

- (i) *Men a n-Kororofa.*  
 1PL.I FOC LOC-Kororofa  
 ‘We are of Kororofa.’ [TARIHI]

Occasionally, there are some utterances containing a Ground phrase only. Such utterances are fragments that are never used as answers to ‘where’ questions.

locative verbs (see section 3.1.3), but not with those of dispositional verbs (see section 3.2.3). When dispositional verbs occur in the locative construction, the construction supplies the Ground phrase (see section 3.2.3).

- (5) *Aas ruun k'a ji nd'ûûn kwalba /*  
 dog insert(sg) head(sg) Sgm.LogS.Poss INSIDE bottle  
*de goe na yi ko noemûat d'e d'i wo.*  
 COMP IRR see SUB maybe frog exist LOC.ANAPH INTERR  
*Noemûat d'e d'i ba.*  
 frog exist LOC.ANAPH NEG  
 'The dog<sub>1</sub> inserted its<sub>1</sub> head into the bottle  
 so that (it<sub>1</sub>) should see whether the frog was there.  
 There was no frog.' [FROG-A]

The discussion in chapter 3 has thus shown that the constructional properties match the lexical properties of locative verbs, but not those of dispositional verbs. As a consequence, the locative verbs are the most typical verbs to occur in the construction. The distribution of dispositional verbs, by contrast, is restricted.

### 6.1.2 The presentative construction

Figure (2) below summarizes the properties of the presentative construction.

**Figure (2):** The presentative construction

Form:	(Figure) <sup>5</sup>	Presentative + Verb (Ground)
	(noun phrase)	<i>na</i> + <i>N-</i> + locative verb (deictic/anaphoric adverb)
		<i>N-</i> + locative verb (spatial nominal (+ noun phrase))
		(preposition + noun phrase)
Meaning:	The speaker wants the addressee to see/perceive the Figure. He thinks that the addressee can identify the Figure on the basis of its position.	
Function:	Attention-directing (introducing a referent into discourse).	

<sup>5</sup> The Figure is only omitted if it has been previously introduced. See (11d) below for an example: the speaker first introduces the Figure by means of the presentative construction – when the addressee cannot identify the Figure, he repeats this construction, omitting the Figure, but adding topological information.



The presentative construction is used to introduce a referent into discourse, and, through providing positional information, enable the addressee to identify the intended referent. This function is illustrated in (6a) below: speaker A. uses the presentative construction to draw the attention of speaker N. to a ‘sitting’ pot. Notice that he is not successful in establishing reference: speaker N. tries to identify the pot, but fails and asks for further information. In the first line of (6b), another text example, reference is successfully established by means of the presentative construction. Once the referent is identified, all subsequent reference makes use of the locative anaphor (e.g., *goennoe* ‘this one’ in the second line of 6b).

- (6a) A: *Ndoe wang na n-t'ong d'i.*  
 some pot PRES PRES-sit(sg) LOC.ANAPH  
 ‘Behold, a pot is sitting there.’  
 N: *Goenang?*  
 which(sg)  
 ‘Which one?’  
 [DIS\_8.4-A/N]
- (6b) *Ndoe t'eng na n-d'yem nang-pûanang.*  
 some tree PRES PRES-stand(sg) there-there/yonder  
*Goe-nnoe a t'eng kyook.*  
 NOMZ(sg)-LOC.ANAPH FOC tree kyook\_tree  
 ‘Behold, a tree is standing over there.  
 This one is a *kyook* tree.’ [TREE-A]

The presentative construction is used predominantly to introduce referents that are located in physical space (as in 6a and 6b above). But, as illustrated in (7), it can also be used to introduce linguistic entities into discourse.

- (7) *Ndoe aram na n-d'e k'a ndoe reep (...).*  
 some story PRES PRES-exist HEAD(sg) some girl(sg)  
 ‘Behold, here is a story about a girl (...).’ [REEP]

Since it is used in reference to entities that are present in the current speech situation and at the current time (including a transposition to the place/time of a narrative), it cannot co-occur with any other TAM category, e.g.:

- (8) \**t'eng mangoro dok na n-d'yem*  
 tree mango PAST.REM PRES PRES-stand(sg)  
 \*‘behold, mango tree were standing (here) in the past’ [A-12/10/00]

Furthermore, this construction cannot be negated. This restriction follows from its function: it directs attention to an identifiable, and hence existing, referent –

it cannot direct attention to non-existing referents. The positional information is provided in order to enable the addressee to identify the intended referent from among the set of possible referents. Notice that this information is not asserted as part of the comment structure of the clause, and hence cannot be negated: speakers may dispute the identity of the referent, but they may not dispute the positional information (as illustrated in 9a). This is in contrast to locative clauses, where speakers frequently negate the positional information (as illustrated in 9b).

(9a) A: *Ndoe k'yang hok ba na n-t'o d'i. (...)*  
           some rope DEF return(sg) PRES PRES-lie(sg) LOC.ANAPH  
           ‘Behold, another one of the ropes is lying there again.’ (...)

N: *A k'yang ba.*  
       FOC rope NEG  
       ‘(It) is not a rope.’  
       [DIS\_3.3-A/N; A-03/07/01]

(9b) N: *T'ong k'a. (...)*  
           sit(sg) HEAD(sg)  
           ‘(It) sits on top.’ (...)

A: *T'o k'a.*  
       lie(sg) HEAD(sg)  
       ‘(It) lies on top.’

N: *T'o pûanang k'a. T'ONG ba.*  
       lie(sg) there/yonder HEAD(sg) sit(sg) NEG  
       ‘(It) lies there on top. (It) does not SIT.’  
       [DIS\_6.6-A/N; A-03/07/01]

The presentative construction is thus only used if the referent is identifiable. This restriction should not be confused with visibility – an invisible referent can be identifiable through other types of sensory information, e.g., through auditory information (as in 10a). Nevertheless, invisibility often triggers a shift away from the presentative construction. In (10b), the invisible (yellow) referent is introduced with the locative construction, while the two visible (blue and red) referents are introduced with the presentative construction and with the functionally equivalent demonstrative (see chapter 7).

(10a) N. *na n-lang d'i!*  
       N. PRES PRES-hang/move(sg) LOC.ANAPH  
       ‘Behold, N. is moving there!’ (= N. was heard approaching, but was not yet visible) [A-12/10/00]

- (10b) *Haam haas-ke (...) t'o nk'ong yoe. (...)*  
 water/color egg-chicken lie(sg) BACK 2Sgf.Poss
- Haam sergina n-t'o-nang / k'a gado (...)*  
 water/color blue\_soap ADVZ-Cl:lie(sg)-DEM.DIST HEAD(sg) bed
- Haam goe-b'ang n-t'o b'ak n-yil.*  
 water/color NOMZ(sg)-become\_red PRES-lie(sg) here LOC-ground
- 'The yellow one (...) lies behind you. (...) (= invisible)  
 That lying blue one, on the bed (...).(= visible)  
 Behold, the red one is lying here on the ground.' (= visible) [COLOR-1]

Like in the locative construction, the Figure can be omitted if it is recoverable from context (see footnote 5). But unlike in the locative construction, the Ground phrase can also be omitted (as in 11a). If it is present, it typically takes the form of a deictic and/or anaphoric adverb (as in 11b and 11c). Examples such as (11d), which contain both deictic and detailed topological information (in the form of prepositions and spatial nominals), are very rare: topological information is only volunteered if the speaker has reasons to assume that the addressee cannot identify the referent on the basis of the deictic information – and even then, speakers prefer to shift to the locative construction instead.

- (11a) *Dok t'ong goe na / kafin goe ru dakd'ûe lu /*  
 PAST.REM IRR 2Sgm see before 2Sgm enter(sg) MIDDLE settlement  
*gung long na n-t'o.*  
 forest chief PRES PRES-lie(sg)  
 'You would see (it), before you entered the town,  
 behold, the forest of the chief is lying (here).' [KWANDE]
- (11b) *Ase / s'oe na n-t'o b'ak m-pe nnoe-hoe.*  
 INTERJ food PRES PRES-lie(sg) here LOC-place LOC.ANAPH-exactly  
 'Surprise, behold, food is lying here in this place.' [FUAN]
- (11c) *Ndoe wang na n-lang d'i pûanang tyoklok.*  
 some pot PRES PRES-hang/move(sg) LOC.ANAPH there/yonder small  
 'Behold, a pot is hanging there over there, (it is) small.' [DIS\_6.4-A/N]
- (11d) *nde n-t'ong b'ak goe-t'oor noe goeme. (...)*  
 one/other PRES-sit(sg) here PLACE-flank 1Sg.Poss one  
*N-t'ong b'ak goe-t'oor noe*  
 PRES-sit(sg) here PLACE-flank 1Sg.Poss  
*n-goede gado n-d'e-nnoe-hoe.*  
 LOC-bottom bed ADVZ-Cl:exist-DEM.PROX-exactly  
 'behold, another one is sitting here to my side. (...)  
 Behold, (it) is sitting here to my side,  
 under this existing bed.' (= invisible) [COLOR\_6-N/A]

The use of the presentative construction by itself seems to convey the idea that the referent is identifiable – either because it is salient, or because the preceding discourse provides the necessary information. Since Ground phrase information is typically either omitted or sketchy, i.e., non-topological, it does not provide much help for identifying the intended referent. Additional relevant information is preferably given in the form of the obligatory locative verb. Recall that the distribution of the posturals vis-à-vis the existential is directly determined by the identifiability of the referent (see section 4.3.3): the speaker only uses the posturals if (s)he considers the positional information necessary for identifying the referent – if this is not the case, the semantically general existential is used. In the locative construction, by contrast, posturals have to be used unless the position is either unknown or non-describable with a postural (see sections 4.3.1 and 4.3.2). Recall, too, that the classificatory use of the posturals is limited in the presentative context (see section 5.1.1.3): since the presentative is concerned with identifying the referent, the use of default posturals in reference to non-canonical scenarios could obstruct this identification process.

Unlike in the locative construction, the locative verbs cannot be replaced by dispositional verbs. The only exception is the dispositional *k'oon* ‘face down’ (as illustrated in 12), which is acceptable to some speakers.

- (12) *kwalba hok na n-k'oon d'i k'a tebul*  
 bottle DEF PRES PRES-face\_down(sg) LOC.ANAPH HEAD(sg) table  
 ‘behold, the bottle is being face down there on the table’ [A-03/07/01]

The presentative construction probably originated in a complex construction that contained a main verb and a subordinated locative verb. The following two pieces of evidence argue in favor of such a diachronic origin: (i) the form of the presentative morphology, and (ii) the behavior of the construction under negation.

(i) The presentative morphology *na N-* (whereby *na* is optional) probably developed from the imperative form of the verb *na* ‘see’ and the adverbializing prefix *N-* (see section 2.3.1). It is likely that the verb *na* ‘see’ originally carried the presentative load (i.e., it directed the attention of the addressee), and that the adverbializer introduced a subordinate clause that described the location of the referent. A diachronic origin in an adverbialized clause would explain the optionality of the Ground: recall that adverbialization is a means of suppressing

lexically-specified participants, e.g., to suppress the location participant of locative verbs (see sections 2.4.2.3 and 3.1.3).

In present-day Goemai, the verb *na* ‘see’ and the presentative morpheme *na* have to be analyzed as two separate morphemes. They can even co-occur as in (13) below. In the course of grammaticalization, the form *na* ‘see’ has lost its status as a verb: the presentative morpheme *na* now occurs in the TAM particle slot immediately preceding the ‘*N-* plus main verb’ complex.

- (13) *t'ong goe na ball na n-t'o d'i.*  
 IRR 2Sgm see ball PRES PRES-lie(sg) LOC.ANAPH  
 ‘you will see a ball, behold, (it) is lying there.’ [COMP2\_5-A/N]

Since *na* ‘see’ has lost its verbal status, the adverbialized form ‘*N-*verb’ was reanalyzed as the main (and only) verb of the clause. As a consequence, the adverbializing prefix *N-* was reanalyzed as a TAM prefix. During this process, the particle *na* became optional. Examples (14a) and (14b) illustrate this difference between the adverbialized and the presentative form. In (14b), the presentative-marked verb *nt'ong* ‘sit’ heads a clause and introduces a locative adjunct (*d'i* ‘locative anaphor’) – this is not possible in the case of the adverbialized form *nt'ong* ‘sitting’ in (14a).

- (14a) *Ni t'ong n-t'ong k'a tebul.* (adverbializer)  
 3Sg sit(sg) ADVZ-sit(sg) HEAD(sg) table  
 ‘It sits sitting on the table.’ [DIS\_6.2-A/N]
- (14b) *T'ong k'a nkwati n-t'ong d'i.* (presentative)  
 sit(sg) HEAD(sg) box PRES-sit(sg) LOC.ANAPH  
 ‘(It) sits on the box, behold, (it) is sitting there.’ [COMP\_9-N/A]

Furthermore, while every verb can be adverbialized with the help of the adverbializer *N-*, only locative verbs can occur with the presentative morphology (*na*) *N-*. For these interrelated reasons, presentative and adverbializer are analyzed synchronically as two different forms.

(ii) The presentative construction cannot be negated (as illustrated in 15a; see also the discussion above). Interestingly, when asked for alternatives, speakers consistently offered a negated nominalized clause (as in 15b). Nominalization, just as adverbialization, is a pervasive mechanism in Goemai for subordinating clauses (see section 2.5.3). This response pattern could thus point to an origin of the presentative in a subordinate clause.

(15a) \**t'eng mangoro na n-d'yem ba*  
 tree mango PRES PRES-stand(sg) NEG

\*'behold, the mango tree are not standing here' [A-12/10/00]

(15b) *hen na ni goe-d'yem b'ak ba*  
 1Sg see 3Sg NOMZ-stand(sg) here NEG

'I did not see (it) the one that stands here' [A-12/10/00]

### 6.1.3 Summary and discussion

The preceding sections introduced two constructions, the locative and the presentative construction, which are both used to locate referents. Following Fillmore (1982: 43-45), locating expressions can be said to serve two primary functions: to give information about a location, and to identify. Each of the two constructions focuses on one of these functions. In the locative construction, the Figure is given and its location is asserted by giving information about the Ground and about the position of the Figure with respect to the Ground. The presentative construction, by contrast, introduces a new referent into discourse. It is concerned with identifying this referent by giving positional information.

The two constructions differ both formally and functionally, and although they can contain the same elements (Figure, verb and Ground; compare figure 1 in section 6.1.1 with figure 2 in section 6.1.2), the distribution of these elements differs. Their typical distribution, based on frequency, is illustrated in table (2) below.

**Table (2):** Typical elements in the locative and presentative constructions

	Locative construction	Presentative construction
Figure	zero, pronoun	lexical noun phrase
verb	locative verb dispositional verb possible	locative verb
search region	spatial nominal, preposition	zero, deictic/anaphoric
Ground	lexical noun phrase	adverb

The two parallel examples in (16a) and (16b) illustrate these differences. In both examples, speaker A. answers a 'where' question about the location of colored chips. In (16a), he uses the locative construction with a locative verb (*d'e* 'exist'), a spatial nominal (*nk'ong* 'behind') and a Ground (*goe* 'you'). In

(16b), he uses the presentative construction with a Figure (*nde* ‘one/other’), presentative morphology (*na N-*, *N-*) and a locative verb (*d’e* ‘exist’).

(16a) N: *Takarda yim / t’eng d’e wa nnang? (...)*  
 paper leaf tree exist SIDE where

‘At which side is the green paper?’ (...)

A: *D’e nk’ong goe.*  
 exist BACK 2Sgm.Poss

‘(It) is behind you.’  
 [COLOR\_9-A/N]

(16b) N: *Nde d’e nnang nde d’e nnang?*  
 one/other exist where one/other exist where

‘Where is one, where is the other?’

A: *Nde na n-d’e. (...) Nde n-d’e.*  
 one/other PRES PRES-exist one/other PRES-exist

‘Behold, one is being (here). (...). Behold, the other one is being (here).’  
 [COLOR\_5/6-N/A]

Both examples are typical instantiations of the locative and the presentative constructions respectively.

The differences in expressing Figure and Ground information follow from the different functions of the constructions and can be explained as follows:

(i) Speakers use the locative construction to assert the location of a known referent. The Figure is thus given information and can be recovered from context, hence it is usually omitted. The Ground, by contrast, is present as it is new information. Typically, detailed topological information is provided that enables the addressee to identify the location.

(ii) The presentative construction is used to introduce a referent into discourse by directing the attention of the addressee to it. Since the referent is new information, it tends to be expressed by a lexical noun phrase. Furthermore, deictic expressions are typically used, as they serve to direct attention (Diessel 1999: 93-114). Depending on the identifiability of the referent, Ground information can be sketchy or even omitted altogether.

Table (2) above also shows that the two constructions not only differ in how they fill the Figure and Ground slots, but also in how they fill the verb slot: locative verbs can occur in both constructions, while dispositional verbs can

only occur in the locative construction. This difference probably follows from the different distribution of information in the two constructions, i.e.:

(i) In the locative construction, locative relational information is distributed across two slots: the verb and the Ground phrase. Prototypically, the verb slot is filled by a locative verb (i.e., a verb that has a lexically-specified location participant and that codes the position of the Figure relative to the Ground) and the Ground slot by a preposition or spatial nominal (i.e., an element that expresses topological information). Alternatively, either of the two slots can be filled by an element that does not code locative relational information. The verb slot can be filled by a dispositional verb (i.e., a verb that codes dispositional and shape information, but does not define a search region). Or the Ground slot can be filled by either a deictic adverb (i.e., an adverb that codes distance information relative to a deictic center) or an anaphoric adverb (i.e., an adverb that expresses a known location). However, it is not possible for a dispositional verb to co-occur with a deictic/anaphoric adverb or the non-topological preposition *goe*. In this way, locative relational information is always coded in at least one of the two slots.

(ii) In the presentative construction, locative relational information is typically confined to the verb slot. The Ground phrase slot is either not filled at all or it is filled by a deictic/anaphoric adverb. As a consequence, only verbs that code a locative relation occur in the verb slot (i.e., locative verbs), but not verbs that code dispositional information (i.e., dispositional verbs).

The distribution of Ground phrase elements in the two constructions thus helps to explain the distribution of locative and dispositional verbs.

## 6.2 The Ground phrase

The Ground phrase is an obligatory part of the locative construction, but an optional part of the presentative. In both constructions, it has the syntactic status of an adjunct (see section 2.3.2 for the evidence). Usually, it contains a preposition (Goemai has two different prepositions, see section 6.2.1), a spatial nominal (there is a large set of spatial nominals that usually occur without prepositions, see section 6.2.2), or a deictic adverb (see section 6.2.3).<sup>6</sup>

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<sup>6</sup> Since this section does not aim at an exhaustive documentation of the Ground phrase, there are certain elements and readings that are not discussed further.



The properties of the Ground phrase construction are summarized in figure (3).

**Figure (3):** The Ground phrase construction

Form:	Spatial Relator	Ground
	(a) preposition	noun phrase
	(b) <i>spatial nominal</i>	(noun phrase)
	<i>spatial nominal</i>	(noun phrase)
	<i>spatial nominal + spatial nominal</i>	(noun phrase)
	<i>preposition + spatial nominal</i>	(noun phrase)
	(c) <i>deictic/anaphoric adverb</i>	
Meaning: A region is specified with respect to another entity (Ground). <sup>7</sup>		
Function: Defining a search region.		

Both the construction and its lexical fillers are semantically general over static location, goal and source (as the preposition *N-* in 17a to 17c).<sup>8</sup> Information such as 'static location' is instead coded in the verb (e.g., the locative verb) or

First, there are other elements that can occur in the Ground phrase. Some derive from verbs (e.g., *k'us* 'near', *duk* 'close', *seng* 'far', *wa ~ ba* 'side'), while others have a nominal origin (e.g., *goesampe* 'outside', *goet'eng* 'upward', *goetûûn* 'on the opposite/other side', *de* 'direction/vicinity'). Such elements are used infrequently, and they usually combine with a spatial nominal or a deictic adverb.

Second, this section is only concerned with the spatial semantics of Ground phrase elements. Especially the two prepositions *N-* 'locative' and *goe* 'place' have numerous non-spatial functions, e.g., derivational (nominalizing, adverbializing), number marking, aspectual and argument-marking functions (see sections 2.2.1.5, 2.3.1, 2.4.2.4, 2.4.3.3 and 2.5.3). A discussion of these functions and their diachronic connection is beyond the scope of this study (see Hellwig and Lüpke in prep).

<sup>7</sup> This construction is compatible with a topological interpretation, an intrinsic frame of reference interpretation, a relative frame of reference interpretation and a deictic interpretation. The interpretation is determined by (a) the semantics of the lexical fillers and (b) a pragmatic opposition between the lexical fillers. These are discussed in more detail in the following sections.

<sup>8</sup> There are no Ground phrase elements that code a source or goal differently from a location. Younger Goemai frequently borrow the prepositions *daga* 'from' and *zuwa* 'toward' from Hausa to express source and goal respectively (see Pawlak 1986; 1988 for a discussion of Hausa prepositions), e.g.:

- (i) *Yool daga Muduut zuwa Nagan n-sh'e muk.*  
 rise(sg) from Shendam toward Kurgwi LOC-foot 3Sg.Poss  
 '(She) went from Shendam to Kurgwi on her feet.' [CG\_6-J]

the construction (e.g., the locative construction) that the Ground phrase co-occurs with: in (17a), location is coded in the verb *t'ong* 'sit (at)', in (17b), goal is coded in the verb *doe* 'come (to)' and in (17c), source is coded in the verb *jik* 'come (from)'.

(17a) *D'emde gurum / mûep t'wot dakd'ûe lu /*  
 remainder person 3Pl sit(pl) MIDDLE settlement

*d'emde gurum / mûep t'wot n-s'et.*  
 remainder person 3Pl sit(pl) LOC-bush

'Some people, they sit in the town,  
 some people. they sit in the bush.' [ANIMAL5]

(17b) *La goe d'alang pe hok / sai goe doe n-Gunglong.*  
 COND 2Sgm pass(sg) place DEF then 2Sgm come LOC-Gunglong

'When you pass the place, then you come to Gunglong.' [ROUTE]

(17c) *la jik n-zam wa / (...)*  
 COND come\_from LOC-field return\_home(sg)

*tang haam goe-d'wang hok (...).*  
 search water NOMZ(sg)-become\_sour DEF

'when (he) comes home from the field, (...)  
 look for the sour water (...).' [MATWO]

The following three sections discuss the type of spatial semantics coded in the Ground phrase elements, and compare it to the type of information coded in the locative verbs.

### 6.2.1 Prepositions

Goemai has two prepositions that distinguish between location at an entity (*N-*) and location at a place (*goe*).<sup>9</sup> In the first case, a topological relation is asserted; in the second case, topology is irrelevant (see also J. Lyons 1977: 693 for a discussion on entities vs. places).

<sup>9</sup> Strictly speaking, *N-* is a prefix, not a preposition – although it probably originated in a preposition (Frajzyngier 1993: 195-204). For ease of reference, I will retain the term 'preposition' for both *N-* and *goe*.

It is possible that Goemai had a third preposition, *\*moe*. This element (or an assimilated element *mu*) is found in place names such as *Moek'wo* 'Kwande' or *Muduut* 'Shendam' (as in example 18c). Such place names are never marked by a preposition. It is thus possible that they originally derived from a (locative) preposition *\*moe* plus an ethnonym (e.g., *K'wo* 'Kwo-Goemai subsection', *Duut* 'Duut-Goemai subsection').

The preposition *N-* codes location at any type of Ground. Typically, it is used when the Figure is located in contact with a human/animal body part (as *s'a* ‘hand’ in 18a) or with a non-differentiated Ground (as *yil* ‘ground’ in 18b), including settlements (as the town *Jos* in 18c).

- (18a) *goe-sek poe ni koor*  
 NOMZ-body give 3Sg jealousy  
*k'a bi goe-d'e n-s'a mûai n-d'e-nnoe-hoe.*  
 HEAD(sg) thing NOMZ-exist LOC-hand friend(masc)ADVZ-Cl:exist-DEM.PROX-exactly  
 ‘this thing made him jealous  
 about the thing (= ring) that was on the hand of this existing friend.’  
 [NGOEGAN]

- (18b) *Wang hok t'ong n-yil.*  
 pot DEF sit(sg) LOC-ground  
 ‘The pot sits on the ground.’ [DIS\_10.5-A/N]

- (18c) *Hangoed'e yool b'ak (...) t'a Muduut*  
 water rise(sg) here fall(sg) Shendam  
*d'alang goe t'o n-Jos.*  
 pass(sg) SEQ lie(sg) LOC-Jos  
 ‘The river rose here (...) (and) arrived in Shendam,  
 (and) passed (there) and lies in Jos.’ [ARAM]

Examples (18a) to (18c) above illustrate typical contexts for the occurrence of the preposition *N-*, but the preposition can occur in reference to any type of topological location. For example, in (19a) below it expresses ‘inside’, in (19b) ‘on top of’, and in (19c) ‘at’. In all three cases, semantically more specific spatial nominals would have been available (see section 6.2.2): *nd'ûûn* ‘inside’ (in 19a), *k'a* ‘head’ (in 19b) and *sek* ‘body’ (in 19c).

- (19a) *K'ut la d'e n-hangoed'e / (...) neen la tu ni /*  
 crocodile COND exist LOC-water hunger COND kill(sg) 3Sg  
*t'ong at goe.*  
 IRR bite(sg) 2Sgm

‘When the crocodile is in the water. (...) when it is hungry,  
 it will bite you.’ [ANIMAL1g]

- (19b) *K'yang k'wat n-k'wat n-tebul.*  
 rope rolled\_up ADVZ-rolled\_up LOC-table  
 ‘The rope is rolled up on the table.’ [DIS\_9.1-A/N]

- (19c) *Tamtis noe t'o n-lyen.*  
 folktale 1Sg.Poss lie(sg) LOC-fence  
 ‘My folktale lies at the fence.’ (i.e., I have finished telling it) [GOELONG]

While the preposition can be used in the three contexts illustrated above, its use is not very common. Its distribution vis-à-vis the spatial nominals can be explained pragmatically with the help of Levinson's (2000b) I- and M-principles (see section 1.3.1). The use of the unmarked preposition indicates a stereotypical Figure/Ground relation (according to the I-principle), whereas the use of the marked spatial nominal indicates a non-stereotypical relation (according to the M-principle). For example, the expression *m-pin* 'LOC-hut' (using the preposition) would invite the interpretation 'in the hut' – to specify a different relation, a spatial nominal would be used, e.g., *k'a pin* 'on the hut'.

Goemai makes use of a second preposition *goe*, which occurs when the locative relation is perceived as a non-topological location at a place. In (20a), it is used with *loet'uk* 'market', and in (20b) with *yil* 'ground'. Notice that the nouns can occur with either of the two prepositions, in which case they receive different interpretations: compare *goe yil* 'in the country' (in 20b below) with *nyil* 'on the ground' (in 18b above).

- (20a) *Mûaan goe p'en t'em hok*  
 go(sg) SEQ remove(sg) sheep DEF  
*ya wakaam de-goe mûaan goe loet'uk n-ni.*  
 arrive road PUR go(sg) PLACE market COM-3Sg.I

'(He) went and removed the sheep  
 (and) took the road to go to the market with it.' [DAAT]

- (20b) *Ni t'ong goe yil K'wo ndoe men.*  
 3Sg sit(sg) PLACE ground Kwo CONJ IPI.I

'She sits in Kwo country with us.' [QUEST]

Some of the spatial nominals can combine with the preposition *N-*, and two of them, *\*t'oor* 'flank' and *pûe* 'mouth', can combine with either of the two prepositions (see section 6.2.2). In these two cases, the two prepositions retain their original semantics: *N-* is used when the Ground is perceived as an entity and the locative relation as a topological relation, *goe* is used when the Ground is perceived as a place. In (21a), for example, the speakers discuss the use of *goet'oor* 'to the side' and *nt'oor* 'at the side' in reference to a tree located at the side of a hill. In the end, they decide to use *nt'oor* because 'the hill touches the tree'. Similarly in (21b), the speakers discuss the use of *goepûe* 'at the edge' and *mpûe* 'at the mouth' in reference to a ribbon on a table. They decide to use *goepûe* because there is no topological 'middle'. But notice that, in both cases, the speakers first utter the preposition that they later reject (*goe-t'oor* in

21a, and *m-pûe* in 21b). This suggests that the same locative relation can be construed in different ways.

(21a) N: *D'yem goe-t'oor p'ang.*  
stand(sg) PLACE-flank stone

'(It) stand to the side of the hill.'

A: *D'yem goe-t'oor p'ang (...) ko d'yem n-t'oor p'ang?*  
stand(sg) PLACE-flank stone maybe stand(sg) LOC-flank stone

'Does (it) stand to the side of the hill (...) or does (it) stand at the side of the hill?'

N: *D'yem goe-t'oor ba. Goe man (...) p'ang b'em t'oor muk.*  
stand(sg) PLACE-flank NEG 2Sgm know stone touch flank 3Sg.Poss

'(It) does not stand to the side. You see (...) the hill touches its side.'  
[DIS\_15.4-A/N]

(21b) N: *T'o m-pûe tebul.*  
lie(sg) LOC-mouth table

'(It) lies at the mouth of the table.'

A: *T'o m-pûe tebul / ko a goe-pûe tebul a?*  
lie(sg) LOC-mouth table or FOC PLACE-mouth table INTERR

'(It) lies at the mouth of the table, or (is it) at the edge of the table?'

N: *T'o goe-pûe tebul. (...) D'in la t'o m-pûe muk /*  
lie(sg) PLACE-mouth table PAST.CL COND lie(sg) LOC-mouth 3Sg.Poss

*t'o goe-bi dakt'ûe d'e yi d'i.*  
lie(sg) as\_if middle exist SUB LOC.ANAPH

'(It) lies at the edge of the table. (...) If (it) would lie at its mouth, (it would) lie as if there would be a middle.'

[DIS\_3.1-A/N]

Neither of the two prepositions gives detailed spatial information – they only code that the Figure is located. Spatial nominals can replace the prepositions to give more detailed information about the geometry of the Ground (see section 6.2.2). And locative verbs combine with the prepositions to highlight certain readings. For example, the expression *n-yil* 'LOC-ground', can be used with Figures located in the ground or on the ground. In (18b) above, it co-occurs with *t'ong* 'sit', indicating that the pot is self-supported (and thus presumably located on the ground). In (22) below, it co-occurs with *d'yem* 'stand', indicating that the pot is externally supported (and thus presumably located in the ground).

- (22) *goede muk d'yem n-yil.*  
 bottom 3Sg.Poss stand(sg) LOC-ground.  
 'its (= pot) bottom stands in the ground.' (= inserted in ground) [DIS\_8.4-A/N]

### 6.2.2 Spatial nominals

All spatial nominals are of nominal origin. As such, they form a genitive construction with the lexical noun that constitutes the Ground, e.g., *k'a tebur* in (23a) reads as 'head of table'. When co-occurring with a pronoun, this pronoun thus occurs in possessive form (as in 23b). Prepositions, by contrast, co-occur with independent pronouns (as in 23c). Furthermore, spatial nominals differ from prepositions in that they can occur without a following noun phrase (as in 23d). This would be ungrammatical in the case of prepositions.

- (23a) *kwalba t'ong k'a tebur.*  
 bottle sit(sg) HEAD(sg) table  
 'a bottle sits on the table.' [DIS\_14.5-M/J]
- (23b) *Kwalba t'ong k'a muk.*  
 bottle sit(sg) HEAD(sg) 3Sg.Poss  
 'A bottle sits on it.' [COMP\_3-A/N]
- (23c) *Ko-wuroe goe hoom p'ue yil muk t'ong n-ni.*  
 every-who OBL hold mouth ground 3Sg.Poss sit(sg) LOC-3Sg.I  
 'Everyone should hold his piece of the land (and) sit on it.' [TARIHI]
- (23d) *La la nnoe haan d'yem k'a.*  
 little(sg) child(sg) LOC.ANAPH climb(sg) stand(sg) HEAD(sg)  
 'This little boy climbed (and) stood on top.' [FROG-C]

Most spatial nominals are formally identical to nouns that denote intrinsic parts of humans or animals. In (24a) below, the noun *k'a* 'head' expresses a human body part, and the preposition *N-* expresses a locative relation. In (24b), the same form *k'a* functions as a spatial nominal that, by itself, expresses a locative relation. Example (24c) below shows that the spatial nominal *k'a*, just like a preposition, occurs in the syntactic adjunct slot, i.e., following the particle *yi* (see section 2.3.3 for the use of *yi* to determine the syntactic status of an element).

- (24a) *Bi-n-k'a d'yem n-k'a mat hok.*  
 thing-LOC-head(sg) stand(sg) LOC-head(sg) woman(sg) DEF  
 'The headband stands at the head of the woman.' [TRPS\_46-A]

(24b) *La*      *hok*      *d'yem*      *k'a*      *pin.*  
 child(sg) DEF stand(sg) HEAD(sg) hut  
 'The boy stands on the hut.' [TRPS\_34-N]

(24c) *Ni*      *lang*      *t'ong*      *t'o*      *yi*      *k'a*      *gado.*  
 3Sg hang/move(sg) PROGR lie(sg) PROGR HEAD(sg) bed  
 'He always lies on the bed.' [SR\_SVCT-A]

Table (3) on the next two pages lists the most common spatial nominals and illustrates their usage. Notice that the list is not exhaustive – any noun that denotes an intrinsic part of an entity can function as a spatial nominal (as, e.g., *dang* 'tail' in 25a below). This is true even for lexicalized compounds such as *k'umpin* 'ceiling' (lit. 'ridge-hut') or *pûepin* 'door' (lit. 'mouth-hut'), which consist of a part noun (*k'um* 'ridge' or *pûe* 'mouth') plus another noun. For all purposes, such compounds behave like simple nouns. When occurring in the Ground phrase, however, they differ from simple nouns in that they do not need an additional preposition/spatial nominal – it seems that, in this syntactic context, the part noun functions like a preposition/spatial nominal, i.e., it adds an adjunct constituent. Compare example (25b) (containing the lexicalized compound *k'umpin* 'ceiling') with example (25c) (containing the English loan 'ceiling'): only (25b) is grammatical – (25c) would need an additional preposition/spatial nominal.

(25a) *Ru*      *wa*      *dang.*  
 enter(sg) return\_home(sg) tail  
 'Enter (and) return to the tail (of the car).' [RD\_8-I/J]

(25b) *Wus*      *lang*      *k'umpin.*  
 fire hang/move(sg) ceiling  
 'The lamp hangs at the ceiling (lit. ridge of the hut).' [TRPS\_63-A]

(25c)\* *wus*      *lang*      *ceiling*  
 fire hang/move(sg) ceiling  
 \*\*'the lamp hangs (at the) ceiling' [A-29/12/98]

When comparing the first and second columns of table (3), it can be seen that there is overlap between the spatial nominals, on the one hand, and the prepositions *N-* and *goe*, on the other:<sup>10</sup> some simple spatial nominals obligatorily occur with an initial nasal element (that originated in the preposition *N-*), others have alternating forms (a simple form without a

<sup>10</sup> See section 6.2.1 for the difference between *N-* and *goe*.

Table (3): Spatial nominals

Spatial nominal <sup>11</sup>		Usage
Simple	Complex	
<i>sek</i> 'body'	<i>sek b'et</i> 'body-belly'	'at/near the main body of the Ground' e.g., surfaces (ceiling, wall), long objects (stick, tree stem), three-dimensional objects (ball, stone)
<i>k'a</i> (sg), <i>k'ek</i> (pl) 'head' <sup>12</sup>	<i>n-k'a</i> (sg), <i>n-k'ek</i> (pl) 'LOC-head'	'at/near the top part of Ground' e.g., upper part of an object (table, water, tree), end part(s) of long objects (necklace, trough, banana)
<i>goede</i> 'bottom'	<i>n-goede</i> 'LOC-bottom'	'at/near the bottom part of Ground' e.g., lower part of an object (table, water), growth-point of natural objects (tree, fruit, banana, stick)
<i>pâe</i> 'mouth'	<i>m-pâe</i> 'LOC-mouth' <i>goe-pâe</i> 'PLACE-mouth'	'at/near the opening or the edge of Ground' e.g., openings (door, basket), edges (road, riverbank)

<sup>11</sup> The simple and complex forms of a spatial nominal do not differ semantically, but they are in pragmatic opposition. Their distribution is discussed later in this section.

<sup>12</sup> The plural form is used when Figures are located on different Grounds. For example, in (i), *k'ek* 'head (pl)' is used for three groups of trees, whereby each group is located on a separate Ground.

(i) *d'yam* *a* *k'ek* *mmoe?*  
stand(pl) FOC HEAD(pl) what  
'(they) stand on the tops of what?' [DIS\_11.2-A/N]



Table (3) (continued): Spatial nominals

Spatial nominal		Usage
Simple	Complex	
<i>nd'ûân</i> 'inside' (* <i>n-d'ûân</i> 'LOC-inside')	-	'inside Ground' e.g., partial/complete containment inside a container, a mass, an aggregate, or an encircling object
<i>dakd'ûe</i> 'middle'	-	'in the middle of the Ground' e.g., middle of a solid container, a mass, an aggregate, or an encircling object
<i>nk'ong</i> 'back' (* <i>n-k'ong</i> 'LOC-back')	-	'at/near back of Ground'
<i>nyem ~ nkyem</i> 'front' (* <i>n-nyem</i> 'LOC-front')	-	'at/near front of Ground'
* <i>t'oor</i> 'flank'	<i>n-t'oor</i> 'LOC-flank' <i>goe-t'oor</i> 'PLACE-flank'	'at/near side of Ground': e.g., side part of an object with a front/back axis (house, chair), long axis of long objects (tree, candle, bottle)

preposition, and a complex form with a preposition), and some always occur without prepositions. This variation can be explained with the help of the following two factors:

(i) Part of the variation reflects a diachronic development. Synchronically, the nasal element in *nd'ûûn* 'inside', *nk'ong* 'back' and *ntyem* 'front' is an unanalyzable part of the form: the same form occurs both as a noun (as in 26a below) and as a spatial nominal (as in 26b). In all three cases, old documents of Goemai mention corresponding nouns that do not contain a nasal element (as illustrated in 26c). It is therefore likely that, originally, the spatial nominals were formed by means of a preposition *N-* combining with the part nouns *\*d'ûûn*, *\*k'ong* and *\*tyem*. Later, these forms were lost, and the preposition was reanalyzed as part of the noun form.

It is possible that the preposition was originally an obligatory part of any Ground phrase. Part nouns were only added to further specify the search region. Over time, the part nouns were reanalyzed as spatial nominals, i.e., they can now add an adjunct constituent, and, as such, can occur without the preposition. It is possible that the reanalysis of the 'prefixed' forms *nd'ûûn*, *nk'ong* and *ntyem* has encouraged this development: after the 'non-prefixed' forms were lost, the same forms served both as nouns and as spatial nominals.

(26a) *Nk'ong muk ba guur / ba poenoe-hoe.*  
 back 3Sg.Poss return(sg) hooked return(sg) thus-exactly

'Its (= tortoise) back became carved, (it) turned just like this.' [KUR]

(26b) *Pûe muk t'o nk'ong t'u.*  
 mouth 3Sg.Poss lie(sg) BACK calabash\_bottle

'Its mouth lies behind the calabash bottle.' [DIS\_7.3-A/N]

(26c) *K'ong noe p'yaram.*  
 back 1Sg.Poss break(pl)

'My back is sore.' (Sirlinger 1937: 103)

(ii) Another part of the variation reflects pragmatic principles. Some spatial nominals optionally co-occur with a preposition (as illustrated in 27a and 27b). When the preposition is dropped, the spatial nominal functions as the head of the prepositional phrase. The two forms do not differ semantically, but they are in pragmatic opposition (see below for details).

(27a) *Ball t'o goede toom.*  
 ball lie(sg) BOTTOM chair

(27b) *Ball t'o n-goede toom.*  
 ball lie(sg) LOC-bottom chair

'The ball lies under the chair.' [TRPS\_16-K, TRPS\_16-J]

Typically, the spatial nominals express information about the intrinsic geometry of the Ground. For example, the spatial nominal *sek* 'body' in (28a) applies to the blade of a knife, while the spatial nominal *k'a* 'head' in (28b) applies to its handle. Although the relation between Figure and Ground is an 'on top of' relation in both cases, different spatial nominals are chosen because the Figure is located at different units of the Ground. The appropriate spatial nominal can be used with any object that is located at such a unit, or in a region projected from it.

(28a) *Tyem hok d'e sek shik hok.*  
 blood DEF exist BODY knife DEF

'The blood is on the blade of the knife.' [TRPS\_12-I]

(28b) *Tyem hok d'e k'a shik hok.*  
 blood DEF exist HEAD(sg) knife DEF

'The blood is on the handle of the knife.' [TRPS\_12-I, I-16/01/99]

In addition, many spatial nominals can be interpreted as expressing a relative frame of reference. Out of context, an example like (29) below can thus receive the following three interpretations:

(a) Topological interpretation: the ladder is in contact with the back part of the hut (i.e., the side that is opposite the door of the hut).

(b) Intrinsic frame of reference interpretation: the ladder is in a region projected off the back part of the hut.

(c) Relative frame of reference interpretation: the ladder is on the other side of the hut, i.e., the hut is between the speaker and the ladder.<sup>13</sup>

(29) *s'ani d'yem nk'ong pin*  
 ladder stand(sg) BACK hut

'the ladder stands at the back of the hut' [constructed example]

<sup>13</sup> In Goemai, an object is located in front (*ntyem*) if it is between the speaker and the Ground, and in the back (*nk'ong*) if it is on the other side of the Ground. This type of relative perspective corresponds to the 'facing' perspective familiar from English, but differs from the 'aligned' perspective known from the related Chadic language Hausa (Hill 1974; 1975; 1978; 1982).

It is likely that the topological and intrinsic interpretations diachronically preceded the relative interpretation as many spatial nominals originated from a combination of the topological preposition *N-* with a noun denoting an intrinsic part. Cross-linguistically, there is evidence for the extension of intrinsic body parts to topological relations to frames of reference (see Heine 1997a: 37-49; Svorou 1994: 89-100).

Spatial nominals that have alternating simple (i.e., a spatial nominal without a preposition) and complex (i.e., a spatial nominal with a preposition or with another spatial nominal) forms can distinguish between these interpretations. In their case, the simple forms tend to be used for topological relations (as in 30a), and the complex forms for non-topological relations (as in 30b). Interestingly, not all speakers make use of this opposition. Some speakers use the simple spatial nominal interchangeably for both topological and non-topological relations – in the latter case, the non-topological relation is conveyed through some additional material (e.g., through the adverb *goet'eng* ‘upward’ in 30c).

(30a) *Gwi t'ong k'a tebul.*  
calabash sit(sg) HEAD(sg) table

‘The calabash sits on the table.’ [TRPS\_1-A]

(30b) *Wus hok lang n-k'a tebul.*  
fire DEF hang/move(sg) LOC-head(sg) table

‘The lamp hangs above the table.’ [TRPS\_13-A]

(30c) *Wus hok lang goet'eng k'a tebul.*  
fire DEF hang/move(sg) upward HEAD(sg) table

‘The lamp hangs above the table.’ [TRPS\_13-C]

This distribution suggests that the simple spatial nominals receive a default topological interpretation, i.e., unless there is some indication to the contrary, speakers assume that a topological relation is conveyed. Such an indication to the contrary can consist of additional adverbs, but also, for some speakers, of the provision of complex spatial nominals. In all cases, additional information is inferred from the locative verb. In (30a) above, the use of *t'ong* ‘sit’ highlights the topological ‘on’ reading, while the use of *lang* ‘hang/move’ in (30b) highlights the non-topological ‘above’ reading.

The complex spatial nominals can furthermore convey a relative instead of an intrinsic viewpoint. In (31) below, a speaker describes a banana located on top of other bananas. It lies on top of their intrinsic part *t'oor* ‘flank’, and an intrinsic description would thus have used the spatial nominal *nt'oor* ‘at the

flank’. Instead, the speaker chooses *nk’a* ‘on the head’ to convey a relative interpretation, i.e., to convey the idea that the banana is in the top part of his visual field. Notice that he does not use the simple form *k’a*, but rather the complex form *nk’a*. Again, not all speakers employ the opposition between simple and complex forms to convey a distinction between an intrinsic and a relative frame of reference.

- (31) *Kuma ni t’o n-k’a.*  
 also 3Sg lie(sg) LOC-head(sg)

‘It (= banana) lies on top (of other bananas).’ [MT\_3.11-J/I]

Table (4) below summarizes the typical uses of the simple and complex spatial nominals.

**Table (4):** The distribution of simple and complex spatial nominals

Simple form		Complex form	
<i>sek</i> ‘body’	at Ground	<i>sek b’et</i>	projected off Ground
<i>k’a</i> ‘head’	at Ground	<i>nk’a</i>	projected off Ground; relative perspective
<i>goede</i> ‘bottom’	at Ground	<i>ngoede</i>	projected off Ground; relative perspective

The differences in distribution can be explained with the help of Levinson’s (2000b) I- and M-principles (see section 1.3.1). Following the I-principle, the use of an unmarked expression I-implicates a stereotypical situation. Typically, the simple spatial nominal would receive a topological interpretation, but notice that this I-implicature can be canceled: in (27a) and (30c) above, the simple forms are used with a non-topological relation. The complementary M-principle, by contrast, predicts that the use of a marked expression in a context where an unmarked expression could have been used, M-implicates a non-stereotypical situation. The use of the marked, complex, spatial nominal thus M-implicates either a non-topological relation or a relative perspective. But again, this M-implicature can be canceled. For example, in (32) below, the complex form is used in reference to an orange located at the bottom of the calabash – the orange is on top of the calabash (i.e., in the top region, if described from a relative perspective), resting on the intrinsic ‘bottom’ of the calabash.

- (32) *Lemu d'e n-goede gwi.*  
 orange exist LOC-bottom calabash

'The orange is at the bottom of the calabash.' [N-04/07/01]

Spatial nominals and locative verbs pay attention to different parts of the locative relation: spatial nominals focus on the Ground and its subdivision into units or regions, while locative verbs focus on the position of the Figure with respect to the Ground. They thus code complementary information that, taken together, give detailed information about the locative relation. In (33a) and (33b) below, for example, the search region is specified as *nt'oor t'eng* 'at the side of the tree'. The different positions of the Figures with respect to the 'side of the tree' are conveyed through different locative verbs: in (33a), *t'o* 'lie' indicates that no part of the Figure projects away from the Ground (see section 4.2.4); and in (33b), *lang* 'hang/move' indicates that the Figure is suspended from the Ground (see section 4.2.1).

- (33a) *Yauwa! B'em kuk hok dip. (...)*  
 okay touch stump DEF all  
*Nye-goe-sek t'o a n-t'oor. T'o n-t'oor t'eng.*  
 kind-NOMZ-body lie(sg) FOC LOC-flank lie(sg) LOC-flank tree

'True! (It) touches the whole of the stump. (...)

Because of this, (it) lies at its side. (It) lies at the side of the tree.'  
 [DIS\_4.1-A/N]

- (33b) *Yim hok (... lang d'i n-t'oor t'eng hok.*  
 leaf DEF hang/move(sg) LOC.ANAPH LOC-flank tree DEF

'The leaf (...) hangs there at the side of the tree.' [COMP2\_8-A/N]

Given that they code different types of information, there are no collocations between spatial nominals and locative verbs.

### 6.2.3 Deictic and anaphoric adverbs

In addition to the prepositions and spatial nominals, the Ground phrase can contain a deictic/anaphoric adverb that codes non-topological information.<sup>14</sup> The deictic adverbs *pûanang* 'there/yonder' and *b'ak* 'here', illustrated in (34) below, anchor the referent on a distance scale with respect to the speaker. Both

<sup>14</sup> Such adverbs can optionally combine with the non-topological preposition *goe* (as in i), but never with the topological preposition *N-*.

- (i) *Goe na la muk ma na n-leng goe d'i.*  
 2Sgm see child(sg) 3Sg.Poss also PRES PRES-hang/move(pl) PLACE LOC.ANAPH  
 'You even see its fruit, behold, (they) are hanging there.' [TREE-A]

adverbs are used with exophoric reference only; and it is possible to expand or decrease the distance scale to code relative proximity or distance.

- (34) *Nde d'yam pûanang nk'ong men. (...)*  
 one/other stand(pl) there/yonder BACK 1Pl.Poss  
*Ndoe flower na n-d'e b'ak m-pe nnoe n-yil.*  
 some flower PRES PRES-exist here LOC-place LOC.ANAPH LOC-ground  
 'Other ones stand over there behind us. (...)  
 Behold, a flower is being here in this place on the ground.' [TREE-N]

Deictic adverbs differ from demonstratives in three respects (see section 7.2 for details). First, the deictic center includes only the speaker in the case of the adverbs, but both the speaker and the addressee in the case of the demonstratives. That is, when a referent is located close to the addressee but far from the speaker, either the proximal demonstrative or the distal adverb is used. Second, the distal adverb can be used with non-accessible referents, but the distal demonstrative cannot. This includes, e.g., large-scale geographical space, where speakers shift away from the distal demonstrative to the distal adverb. Notice that the double gloss 'there/yonder' for *pûanang* is meant to capture its distribution in both the 'there' space (comparable to the distal demonstrative) and the 'yonder' space (unlike the distal demonstrative). Third, the deictic adverbs do not contain a postural/existential element, but the demonstratives do. Typologically, such elements rarely occur with deictic adverbs (Aikhenvald 2000a: 176-183; but see Keegan 2002: 348-349). It is possible that this restriction follows from the fact that demonstratives are concerned with identifying objects or things, rather than places (see the discussion in section 7.2.2).

A locative anaphoric adverb is used with a previously introduced location (as in the second line of 35a). It is irrelevant whether the location was introduced by a proximal or distal deictic adverb, or by a preposition or spatial nominal. The locative anaphor neutralizes all this information. The anaphor is furthermore used with non-specific locations (as in 35b) (see also section 4.3).

- (35a) *Goe ba goe ya nk'ong lu pûanang*  
 2Sgm return(sg) 2Sgm arrive BACK settlement there/yonder  
*t'ong moe kat a Gangare d'i.*  
 IRR 1Pl find FOC Gangare LOC.ANAPH  
 '(When) you return (and) go behind the settlement over there,  
 (then) we would find Gangare there.' [MIL-A]

- (35b) *Goe na k'yak goe-n-dam d'e d'i. (...)*  
 2Sgm see heart/neck NOMZ-ADVZ-spoil exist LOC.ANAPH  
*K'yak pya d'e d'i.*  
 heart/neck whiteness exist LOC.ANAPH

'You see, there is sadness. (...) And there is happiness.' [TIME-A]

### 6.3 Summary

Section 6.1 has discussed the locative and presentative constructions. Both constructions code locative relational information, but they differ in their functions: speakers use the locative construction to assert a location, while they use the presentative to introduce a referent into discourse. As a result of their different functions, they typically occur with different types of Ground phrase elements: the locative construction with prepositions and spatial nominals, and the presentative with deictic/anaphoric adverbs or without any Ground phrase. Locative verbs constitute the prototypical verbal fillers in both constructions (since lexical and constructional properties match). Dispositional verbs (whose properties do not match) can occur in the locative, but not in the presentative construction. It was argued that the different distribution of Ground phrase elements can account for the different distribution of verbs. In the locative construction, the locative relational information is distributed over two slots (the verb and the Ground phrase) – either of the two slots can be filled by an element that does not code locative relational information (e.g., by a dispositional verb). In the presentative construction, by contrast, the Ground phrase is either absent or expresses non-topological, deictic, information – as a result, only locative verbs occur there, i.e., verbs that code a locative relation (see section 4.2 for the locative relational semantics of these verbs).

Section 6.2 has discussed the Ground phrase elements. Goemai has two semantically general prepositions: *N-* (topological relation), and *goe* (location at a place). Contrary to many assumptions, detailed locative information is thus not coded in prepositions (see, e.g., Fillmore 1975: 16-27; Frawley 1992: 250-293; Landau and Jackendoff 1993; J. Lyons 1977: 636-734; Miller and Johnson-Laird 1976: 375-410). The prepositions can be replaced by spatial nominals, which code detailed information about the intrinsic structure of the Ground. They thereby complement the information coded in locative verbs (on the support relationship between Figure and Ground). Alternatively, the Ground phrase can contain deictic/anaphoric adverbs. This deictic system is discussed in more detail in the next chapter.



# DEICTIC CLASSIFIERS IN THE DEMONSTRATIVE<sup>1</sup>

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## CHAPTER 7

All five locative verbs have corresponding forms that occur as deictic classifiers<sup>2</sup> in the demonstrative word. The term ‘deictic classifier’ is taken from Aikhenvald (2000a: 176-183). Typologically, deictic classifiers constitute a distinct type of classifier: they occur with deictic expressions (e.g., in the demonstrative word as in Goemai), and they are said to categorize the referent of the head noun in terms of its shape, extendedness, position and/or animacy. Since the deictic classifier type is very rare, there is only little comparative data available (see section 5.2.1.2 for details of this type).

This chapter documents the deictic classifier system of Goemai and thereby contributes to our knowledge of the semantics and functions of such systems. It furthermore contributes to the following three topics:

(i) The semantics of deictic roots (see section 7.2.2).

In Goemai, the deictic center contains both the speaker and the addressee, regardless of the distance between them. So far, such a system has not been described in the typological literature (Anderson and Keenan 1985: 277-295; Diessel 1999: 35-55; but see Meira and Guirardello-Damian submitted).

(ii) The functions of demonstratives (see section 7.3).

The Goemai demonstratives are used with exophoric reference only – they have no (or, more precisely, almost no) anaphoric uses, and they can co-occur with both the locative anaphor and the definite article, suggesting that all three serve different functions. An analysis of their usage contributes data to on-going discussions about the basic functions of demonstratives (Diessel 1999: 93-114;

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<sup>1</sup> A shorter version of this chapter appears in Hellwig (submitted-c).

<sup>2</sup> I will use the term ‘postural classifier’ for the four posturals *lang-* ‘hang/move’, *t’ong-* ‘sit’, *d’yem-* ‘stand’ and *t’o-* ‘lie’, and the term ‘existential classifier’ for the existential *d’e-* ‘exist’. The term ‘deictic classifier’ covers all five forms.

Fillmore 1975; Hanks 1992; Himmelmann 1996; Levinson in press; J. Lyons 1977: 646-677).

(iii) The diachronic origin of demonstratives (see section 7.4).

The Goemai demonstratives have developed from the presentative construction (see section 6.1.2). An analysis of this process contributes to studies about the diachronic origin of demonstratives (see the summary in Diessel 1999: 150-153).

It is known that the semantic study of demonstrative systems poses methodological problems and that “fieldworkers often find it very difficult to determine the nuances of this aspect of the language under investigation” (Kemmerer 1999: 52). To solve the methodological difficulties involved, the following stimuli-based tasks were employed to collect data on the extensions of demonstratives (see section 4.1 for a general discussion on methodology):<sup>3</sup>

First, a demonstrative questionnaire (Wilkins 1999a) was used to elicit data on the non-contrastive exophoric use of demonstratives (for details, see table 4 in section 7.2.2 below).

Second, a matching game (Enfield and Bohnemeyer 2001) was used to generate data on the attention-directing function of demonstratives. In this task, colored chips were placed under toy objects. Their location and color were known to one participant (the ‘memorizer’), but not to the other (the ‘checker’). The checker was then instructed to find chips of a certain color. The memorizer helped him by directing attention to the relevant chips and objects.

Third, a number of staged communicative events were used to generate data on establishing and maintaining reference. In these cases, visual props were present to the speech situation (e.g., handicrafts, flora/fauna, compound layout), and speakers were asked to explain their uses, their manufacture, their quality, etc. (see also Levinson et al. 2001).

Fourth, picture books were used to generate data on the contrastive use of demonstratives. Speakers were presented with pictures of two identical objects

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<sup>3</sup> To investigate differences in the distribution of deictic classifiers, the tasks were modified as follows: some referents were placed in the same position (e.g., two upright calabashes), while others were placed in different positions (e.g., one upright and one upside-down calabash).

that varied only in one property (size, color, orientation, etc.). They were then asked to compare the two objects and explain which of them they liked better.

In addition to these four stimuli-based tasks, the distribution of demonstratives in the database of naturally occurring texts was analyzed.

This chapter is structured as follows: section 7.1 introduces the formal properties of demonstratives; section 7.2 discusses the semantics and usage of two morphemes that occur within the demonstrative word (the deictic classifiers and the deictic roots); section 7.3 analyzes the functions of the demonstrative word as a whole; section 7.4 investigates possible diachronic developments; and section 7.5 concludes this chapter.

### 7.1 The formal properties of demonstratives

This chapter is concerned with the demonstrative pronouns and modifiers in Goemai. In the course of the discussion, the demonstratives are compared to other forms, notably to the deictic adverbs and the locative anaphors. All forms are listed in table (1) below.

**Table (1):** Deictic and anaphoric forms

Context	Deictic		Anaphoric	
	sg	pl	sg	pl
pronoun	<i>goend'ennoe</i> 'prox' <sup>4</sup> <i>goend'enang</i> 'dist'	<i>moend'ennoe</i> 'prox' <i>moend'enang</i> 'dist'	<i>goennoe</i>	<i>moennoe</i>
modifier	<i>(goe-)nd'ennoe</i> 'prox' <i>(goe-)nd'enang</i> 'dist'	<i>(moe-)nd'ennoe</i> 'prox' <i>(moe-)nd'enang</i> 'dist'	<i>nnoe</i>	
adverb	<i>b'ak</i> 'prox' <i>pûanang</i> 'dist'		<i>d'i</i>	

This section discusses the formal properties of the Goemai demonstrative pronouns and modifiers, illustrating their unique morphological form (in section 7.1.1) and their unique position within the noun phrase (in section 7.1.2).

<sup>4</sup> The forms containing the existential classifier, *goend'ennoe* 'proximal' and *goend'enang* 'distal', are used as citation forms for the demonstrative pronouns and modifiers. See table (2) in section 7.1.1 for the full paradigm.

### 7.1.1 The form of the demonstrative

As illustrated in table (2) below, the demonstrative word is a complex form that contains a nominalizing prefix, an adverbializing prefix, a deictic classifier and a deictic root. A demonstrative constitutes a single word, and cannot be analyzed as, e.g., a word plus a deictic clitic. Since clitics always attach to the last element of a phrase (see section 2.3.3), they can be distinguished from affixes in those environments where the demonstrative is not the last element of the phrase. In such environments, the deictic roots behave like affixes, not like clitics. The diachronic development that led to the present-day complex form of the demonstrative is discussed in section 7.4. This section, by contrast, is only concerned with describing its form.

Notice that, throughout this thesis, I use the term ‘demonstrative’ in reference to the complex form illustrated in table (2), while the forms *-nnoe* ‘this’ and *-nang* ‘that’ are labeled ‘deictic roots’. Notice, too, that Goemai has a distinct locative anaphor *nnoe* (see table 1 above), which is phonologically identical to the proximal deictic root *-nnoe* (section 7.4 discusses reasons for their identity). This locative anaphor *nnoe* should not be confused with the proximal deictic root *-nnoe*: it will become clear in the course of this chapter that they occur in different morphological environments, syntactic slots and paradigmatic sets, and that they serve different functions. Finally, the term ‘deictic classifier’ labels a distinct morpheme that occurs within the demonstrative word – i.e., deictic classifiers are not fused with the deictic roots.

**Table (2):** The demonstrative word

Nominalizer		Adverbializer	Deictic classifier			Deictic root
sg	pl		sg	pl	gloss	
<i>goe-</i>	<i>moe-</i>	<i>n-</i>	<i>lang-</i>	<i>leng-</i>	‘hang/move’	<i>-nnoe</i> ‘proximal’
			<i>t’ong-</i>	<i>t’wot-</i>	‘sit’	<i>-nang</i> ‘distal’
			<i>d’yem-</i>	<i>d’yam-</i>	‘stand’	
			<i>t’o-</i>	<i>t’oerep</i>	‘lie’	
				<i>d’e-</i>	‘exist’	

The demonstratives illustrated in table (2) above are used both as modifiers within the noun phrase (as in 1a and 1b below) and as pronouns (as in 1c), but not as adverbs. The demonstratives mark number in their nominalizing prefixes

and in those deictic classifiers that originated in posturals (but not in the classifier that originated in the existential): in (1a), the demonstrative and the verb are marked for singular; and in (1b) and (1c), they are marked for plural.

- (1a) *Hoos* ***goe-n-d'e-nnoe*** *la.*  
tooth NOMZ(sg)-ADVZ-Cl:exist-DEM.PROX pain(sg)  
'This existing tooth hurts.' [DQ\_1-J]
- (1b) *Hoos* ***moe-n-d'e-nnoe*** *p'yaram.*  
tooth NOMZ(pl)-ADVZ-Cl:exist-DEM.PROX break(pl)  
'These existing teeth hurt.' [DQ\_1-D]
- (1c) ***Moe-n-d'e-nnoe*** *p'yaram.*  
NOMZ(pl)-ADVZ-Cl:exist-DEM.PROX break(pl)  
'These existing ones hurt.' [DQ\_1-D]

As is the case with all other number marking strategies in Goemai, the singular forms are used with either a single individual (as in 2a) or a collective (as in 2b), while the plural forms are used with several individuals (as in 2c). In (2a) to (2c), the relevant forms that are marked for number are printed in boldface.

- (2a) *B'ep* *goe* ***eep*** ***goe-n-t'ong-nnoe.***  
again 2Sgm open(sg) NOMZ(sg)-ADVZ-Cl:sit(sg)-DEM.PROX  
'Open this sitting one again.' [COLOR\_14-N/A]
- (2b) *A* *shit* ***goe-n-d'e-nnoe*** *hok* *toe /*  
FOC work NOMZ(sg)-ADVZ-Cl:exist-DEM.PROX DEF EMPH  
*a* *nkwak* *n-ni.*  
FOC every COM-3Sg.I  
'(It) is the purpose of this one (= two pieces of cloth),  
(of) every one of them.' [HAND-J]
- (2c) ***moe-n-d'e-nnoe*** (...) / ***mûep*** *d'e* *toe* *t'ong* ***eer*** *yi* (...).  
NOMZ(pl)-ADVZ-Cl:exist-DEM.PROX 3PI exist EMPH PROGR cry(pl) PROGR  
'these ones (...), they are crying (...).' [ANIMAL2]

The distribution of the singular prefix *goe-* shows some variation: it can replace the plural prefix *moe-*, i.e., it can co-occur with a plural deictic classifier in reference to plural entities (as in 3a below). I assume that this wider distribution of *goe-* is a remnant of the diachronic origin of the demonstratives. In section 7.4, it is shown that the demonstratives originated in nominalized relative clauses. Recall that Goemai nominalizes clauses by means of the invariant prefix *goe-* (see section 2.5.3). That is, this invariant prefix *goe-* co-

occurs with plural head nouns (as illustrated by means of the nominalized relative clause in 3b).<sup>5</sup>

- (3a) *Goe-n-t'oerep-nnoe / a haam moe-tep.*  
 NOMZ(sg)-ADVZ-Cl:lie(pl)-DEM.PROX FOC water/color NOMZ(pl)-become\_black  
 'These lying ones are black ones.' [COLOR\_9/6-J]
- (3b) *Jap t'eng goe-d'yam b'ak n-Jos n-d'e-nnoe hok.*  
 little(sg) tree NOMZ-stand(pl) here LOC-Jos ADVZ-Cl:exist-DEM.PROX DEF  
 'The/these existing small trees that stand here in Jos.' [JOS]

The nominalizing prefix *goe-* or *moe-* can be dropped from the demonstrative modifier (but not from the demonstrative pronoun): compare (4) below (a demonstrative modifier without the prefix) to (1a) above (a demonstrative modifier with the prefix).

- (4) *Hoos n-d'e-nnoe la.*  
 tooth ADVZ-Cl:exist-DEM.PROX pain(sg)  
 'This existing tooth hurts.' [DQ\_1-A]

Typically, the nominalizing prefix is omitted whenever number information is coded elsewhere in the clause. Compare the parallel examples below. In (5a), number information is coded in the nominalizing prefix of the demonstrative, but not elsewhere. In the last two examples, by contrast, number is coded in the quantifier (*la* 'little, sg' in 5b) and in the postural classifier (*t'o-* 'lie, sg' in 5c). As a consequence, the nominalizing prefix does not occur in (5b) and (5c). This distribution suggests that number marking is not always the result of agreement, but can add semantic content to the clause.

- (5a) *Takarda goe-n-d'e-nnoe-hoe (...).*  
 paper NOMZ(sg)-ADVZ-Cl:exist-DEM.PROX-exactly  
 'This existing paper (...)' [COLOR\_15-A/N]
- (5b) *Ndoe pe goe-gong la takarda n-d'e-nnoe-hoe.*  
 some place NOMZ-cover little(sg) paper ADVZ-Cl:exist-DEM.PROX-exactly  
 'Some place that covers this existing small paper.' [COLOR\_16-N/A]
- (5c) *K'aram n-t'o-nnoe-hoe a haam sergina.*  
 mat ADVZ-Cl:lie(sg)-DEM.PROX-exactly FOC water/color blue\_soap  
 'This lying mat is of blue color.' [COMP\_5-A/N]

<sup>5</sup> In example (3a), the form *goe-n-toerep-nnoe* 'these lying ones' clearly instantiates the demonstrative, not the nominalized relative clause: a nominalized relative clause could not occur without a head noun.

To summarize this section so far, demonstratives form morphologically complex words that contain a nominalizing prefix (which is optional in the case of the demonstrative modifier, but obligatory in the case of the demonstrative pronoun), an adverbializing prefix, a deictic classifier and a deictic root. They are the only forms in Goemai that contain all these elements. But despite their unique form, they show formal parallels to two other structures in Goemai. These are discussed in the remainder of this section.

(i) *Demonstratives vs. the modifying construction*

As mentioned in section 3.2.2, the demonstratives share formal similarities with the modifying construction. In that section, the modifying construction was defined and discussed in detail (see especially figure 1 in section 3.2.2). Recall that this construction was originally used to derive modifiers from other word classes, in particular from state-change verbs (such as from *nan* ‘become big (pl)’ in 6a below). Its defining characteristics are as follows: the derived modifiers agree in number with the head noun (e.g., in 6a, the plural head noun *mutane* ‘people’ is followed by the plural derived modifier *moenan* ‘big’); and they can be used pronominally in place of the whole noun phrase, i.e., as headless modifiers (e.g., *moenan* ‘big’ in 6b). Notice that these two properties serve to distinguish the modifying construction from (a) relative clauses (see section 2.5.3 for the properties of nominalized relative clauses) and (b) nouns in a genitive construction (see section 2.2.1.5). From now on, I use the term ‘derived modifier’ in reference to all forms that instantiate the modifying construction (i.e., subsuming modifiers that follow their head noun as well as headless modifiers), and the term ‘demonstrative modifier’ in reference to demonstratives that occur as modifiers within the noun phrase (as opposed to demonstrative pronouns).

Both defining properties of the modifying construction are also found in the demonstratives: compare the demonstrative modifiers and pronouns in (1b) and (1c) above to the derived modifiers in (6a) and (6b) below.

- (6a) *mutane men moe-nan* (...).  
 people(pl) 1Pl.Poss NOMZ(pl)-become\_big(pl)  
 ‘our big people (...).’ [WITCH2]
- (6b) *Mùep a moe-nan*.  
 3Pl.1 FOC NOMZ(pl)-become\_big(pl)  
 ‘They are big ones.’ [ANIMAL5]

These formal similarities suggest that the demonstrative modifiers and pronouns instantiate a subtype of the modifying construction and thus serve a function that is similar to that of the derived modifiers: they characterize their referent in terms of a specific property, i.e., in terms of its position. Derived modifiers, by contrast, typically characterize it in terms of its dimension, physical property, color or age (see section 3.2.2 for the available possibilities). But despite their formal similarities, the demonstratives differ from the modifying construction in the following two respects:

First, the nominalizing prefix is optional in the demonstrative modifier, but obligatory in the derived modifier. It is likely that its optionality in the demonstrative modifier results from the presence of the adverbializing prefix *N-*. State-change verbs that have an initial prenasalized consonant show a similar distribution: as derived modifiers, they can optionally occur without the nominalizing prefix (as illustrated with the help of *ngergek* ‘become round’ in 7a and 7b). Given the phonological structure of the language, it is likely that such prenasalized consonants originated in nasal prefixes (see section 2.1) – and possibly even in the adverbializing prefix *N-* (see section 2.3.1). Example (7c) illustrates the context that might have triggered the reanalysis of adverbialized verbs as modifiers within the noun phrase: it is easy to see how the adverb *mb’arak* ‘freshly’ could be reanalyzed as the modifier *mb’arak* ‘fresh’.

- (7a) *goe-nnoe*                      *a*      *d’a*      ***goe-ngergek***  
 NOMZ(sg)-LOC.ANAPH    FOC    calabash    NOMZ(sg)-become\_round  
 ‘this one is a round calabash’ [D-06/01/00]
- (7b) *goe-nnoe*                      *a*      *d’a*      ***ngergek***  
 NOMZ(sg)-LOC.ANAPH    FOC    calabash    become\_round  
 ‘this one is a round calabash’ [D-06/01/00]
- (7c) *goe*      *tarap*      *s’onkwa*      ***m-b’arak***.  
 2Sgm      snap(pl)      maize      ADVZ-become\_fresh/wet  
 ‘you break the maize freshly/in a fresh condition.’ [CROPS]

Second, the demonstrative modifiers and pronouns contain a deictic root (*-nnoe* ‘this’ or *-nang* ‘that’), which is not present in the derived modifiers.

These two properties – the optionality of the nominalizing prefix, and the obligatoriness of the deictic root – distinguish demonstratives from the modifying construction.



(ii) *Demonstratives vs. locative expressions in the modifying construction*

In section 3.2.2, it was shown that locative expressions can occur in the modifying construction (see also point i above). In this case, they obligatorily co-occur with the locative anaphor *nnoe*. Examples (8a) and (8b) below illustrate the form of such a modifying construction (printed in boldface). In (8a), the modifying construction includes the locative construction *t'o dakd'ûe men* 'lie between us'. And in (8b), it includes the configurational serial verb construction *gorong t'o* 'lie crooked'. Notice the superficial similarity of these structures to the demonstratives discussed above: they occur both as modifiers in the noun phrase (in 8a) and as pronouns or headless modifiers (in 8b), the nominalizing prefix can be omitted (in 8a), the nominalizing prefix marks number (e.g., singular in 8b), and the locative anaphor *nnoe* is present (which is phonologically identical to the proximal deictic root *-nnoe*) (in both 8a and 8b).

(8a) *Yi man longvilip n-t'o dakd'ûe men nnoe a?*  
 2Sgf know paper ADVZ-lie(sg) MIDDLE IPl.Poss LOC.ANAPH INTERR  
 'Do you know this book lying between us?' [DQ\_8-A]

(8b) *Goe-gorong t'o nnoe-hoe a?*  
 NOMZ(sg)-crooked lie(sg) LOC.ANAPH INTERR  
 'Is it this one lying crooked?' [DIS\_10.4-A/N]

Despite their formal similarities to demonstratives, locative expressions in the modifying construction are not analyzed as demonstratives. There are three reasons for this decision. First, their intonational properties suggest that they do not form a single word. Second, they do not code information about distance from the deictic center: they co-occur with the locative anaphor *nnoe*. This anaphoric element cannot be omitted, nor could it be replaced by, e.g., a demonstrative or by the definite article *hok*.<sup>6</sup> Third, they constitute an open set: any locative expression, provided that it contains a locative verb,<sup>7</sup> can occur in

<sup>6</sup> In section 7.3.2, it is shown that one of the demonstratives (i.e., the form that contains the existential classifier and the proximal deictic root) is in the process of acquiring some limited anaphoric uses. In its anaphoric use, it can replace the locative anaphor *nnoe* in utterances such as in (8a) and (8b). In such a context, it does not contrast anymore with the other demonstratives (i.e., those forms that contain a postural classifier and/or the distal deictic root).

<sup>7</sup> Locative expressions that do not contain a locative verb may occur in the modifying construction as in (i) below. Such examples are very rare, and, in elicitation sessions, they are often rejected.

this structure. Unlike demonstratives, they express detailed topological information, and they thus replace the demonstratives whenever the positional and deictic information is not sufficient to identify the referent. I assume that they are formed ad hoc in analogy to the established demonstratives.

### 7.1.2 The position in the noun phrase

The demonstratives occur in a unique slot within the noun phrase (see table 8 in section 2.2.2.1), and they can co-occur with other definiteness morphemes, i.e., with the definite article *hok* (as in 9a) or the locative anaphor *nnoe* (as in 9b).

- (9a) *goe eep fridge n-d'e-nnoe hok (...).*  
 2Sgm open(sg) fridge ADVZ-Cl:exist-DEM.PROX DEF  
 'you open the/this existing fridge (...).' [WITCH2]

- (9b) *Toeb'al n-t'ong-nang nnoe-hoe.*  
 calabash ADVZ-Cl:sit(sg)-DEM.DIST LOC.ANAPH-exactly  
 'That sitting calabash.' [HAND\_7-J]

As mentioned in section 2.2.2.4, the demonstrative is used with exophoric reference (see section 7.3.1 for details), the definite article *hok* is used for referents that are identifiable from the previous discourse, and the locative anaphor *nnoe* is used immediately after reference has been successfully established (see section 7.3.2 for details). Whenever a demonstrative co-occurs with the definite article or the locative anaphor, the two forms serve to express two different functions. For example, in (10) below, the speaker first introduces a referent with the demonstrative *nd'enang* 'that existing', but then makes a mistake in choosing the wrong postural verb (*t'ong* 'sit' instead of *t'o* 'lie'). In his subsequent utterance, he corrects his mistake by using the demonstrative *nt'onang* 'that lying'. But since the referent had been previously introduced and identified, he adds the locative anaphor *nnoe*.

- (10) *Bi n-d'e-nang zak-yit t'ong k'a nde.*  
 thing ADVZ-Cl:exist-DEM.DIST again sit(sg) HEAD(sg) one/other  
*Bi n-t'o-nang nnoe t'ong / t'o k'a nde.*  
 thing ADVZ-Cl:lie(sg)-DEM.DIST LOC.ANAPH sit(sg) lie(sg) HEAD(sg) one/other  
 'That existing thing also sits on another one.  
 That lying thing sits, lies on another one.' [COLOR\_2-J]

- 
- (i) *Goe-goe-pûe pûanang (...).*  
 NOMZ(sg)-PLACE-mouth there/yonder  
 'The one at the door over there (...).' [LU-J]

Cross-linguistically, such a co-occurrence is surprising, as demonstratives often belong to the same paradigmatic set as other determiners (J. Lyons 1977: 646-657; but see C. Lyons 1999: 17-21). Their co-occurrence possibilities suggest that they alone are not sufficient to confer a definiteness reading on the noun phrase – this is rather the function of the definite article.

## 7.2 The demonstrative morphemes

As illustrated in table (2) in section 7.1.1 above, the demonstrative word codes information about the position of the referent (in the deictic classifiers) and its distance from the deictic center (in the deictic roots). The following two sections investigate the semantics and distribution of the deictic classifiers (section 7.2.1) and deictic roots (section 7.2.2), focussing on their contribution towards establishing reference.

### 7.2.1 *The deictic classifiers*

As mentioned in the introduction to this chapter, the term ‘deictic classifier’ is adopted from Aikhenvald (2000a: 176-183). In Goemai, these classifiers are separate morphemes that occur within the demonstrative word, and that classify their referent in terms of its canonical position. Notice that the classifier literature has adopted the convention to name a classifier according to the morphosyntactic context in which it occurs, i.e., deictic classifiers occur in deictic expressions, but they do not classify them. Typologically, such deictic classifiers are very rare (see section 5.2.1.2 for references).

Chapters 4 and 5 have discussed in detail the semantics and uses of locative verbs and deictic classifiers. The main arguments can be summarized as follows (please consult the relevant sections for further details):

- (i) Like the locative verbs, the deictic classifiers code locative relational information (see section 4.2).
- (ii) Like the locative verbs, the deictic classifiers occur in an assertional use (i.e., to assert the current position of a referent) as well as in a classificatory use (i.e., to classify a referent in terms of its canonical position) (see section 5.1).
- (iii) The distribution of deictic classifiers patterns with that of locative verbs in the presentative construction – not with that of locative verbs in the locative

construction. That is, postural elements are used with canonically positioned referents and/or when the positional information is considered necessary for identifying the referent; in other contexts, the existential is used (see sections 4.3.3, 5.1.1.2 and 5.1.1.3). Considering that the demonstratives (a) serve a similar function as the presentative (see section 7.3.1) and (b) originated in the presentative (see section 7.4), these similarities are not surprising.

This section is not concerned with points (i) (locative relational semantics) and (ii) (assertional vs. classificatory use), but with point (iii): it investigates the distribution of the deictic classifiers, i.e., the distribution of postural as opposed to existential elements. Table (3) below summarizes the contexts that trigger the use of a postural or an existential classifier. Notice that these contexts are not mutually exclusive. For example, the referents may be non-canonically positioned (triggering the use of the existential), but nevertheless in different positions (triggering the use of a postural). The remainder of this section exemplifies their distribution in more detail.

**Table (3):** The distribution of the postural and existential classifiers

	<b>Postural classifiers</b>	<b>Existential classifier</b>
(i)	referent is canonically positioned	referent is non-canonically positioned
(ii)	possible referents are in different positions	possible referents are in same position
(iii)	first mention of referent	second mention of referent
(iv)	non-contrastive use	contrastive use
(v)	positional information is not coded elsewhere	positional information is coded elsewhere

(i) The postural classifiers are used with canonically positioned referents, while the existential is used in non-canonical contexts. This difference in distribution is illustrated in (11) below where the upside-down calabash (= non-canonical) is introduced with the classifier *d'e-* 'exist', while the upright calabash (= canonical) is introduced with the postural classifier *t'ong-* 'sit'.

(11) *Goe-n-d'e-nnoe* *a toeb'al (...).*  
 NOMZ(sg)-ADVZ-Cl:exist-DEM.PROX FOC calabash

*Goe-n-t'ong-nnoe* *a toeb'al (...).*  
 NOMZ(sg)-ADVZ-Cl:sit(sg)-DEM.DIST FOC calabash

'This existing one is a calabash (= upside down) (...).

This sitting one is a calabash (= upright) (...).' [HAND\_6/7-J]

(ii) The postural classifiers are used whenever the positional information helps to differentiate between referents. In the last line of (12a), speaker N. uses the postural *t'o-* 'lie' to distinguish between two toy blocks: referent 13 (which is 'lying') and referent 7 (which is 'standing'). The existential, by contrast, is used whenever the positional information cannot distinguish between referents, e.g., because they are in the same position. In (12b), the possible referents are two 'lying' exercise books. In this context, speaker A. uses the existential classifier, but gives additional information in a prepositional phrase.

(12a) N: *Na b'ak ntyem noe-hoe.* (= 13)<sup>8</sup>  
 see here FRONT 1Sg.Poss-exactly

'See (it) here in my front.'

A: *Ntyem goe n-d'e-nnoe-hoe a?* (= 13/7)  
 FRONT 2Sgm.Poss ADVZ-Cl:exist-DEM.PROX-exactly INTERR

'(Is it) in this your existing front?'

N: *Eep goe-n-t'o-nnoe.* (= 13)  
 open(sg) NOMZ(sg)-ADVZ-Cl:lie(sg)-DEM.PROX

'Open this lying one.'

[COLOR-N/A]

(12b) N: *Takarda goenang d'i nd'ûn?* (= 15/16)  
 paper which(sg) LOC.ANAPH INSIDE

'Which paper among (them) there?'

A: *Takarda goe-n-d'e-nnoe-hoe.* (...) (= 15)  
 paper NOMZ(sg)-ADVZ-Cl:exist-DEM.PROX-exactly

*D'e n-s'a goe s'e.* (= 15)  
 exist LOC-hand COM right

'This existing paper. (...)

(It) is at the right side.'

[COLOR-A/N]

(iii) Postural classifiers are frequently used at the first mention of a referent, while the existential is used at its subsequent mention (as illustrated in 13a). In

<sup>8</sup> Throughout this chapter, the numbers in brackets are used to label referents and to thereby keep track of multiple referents.

this context, the demonstrative containing the existential classifier has picked up some anaphoric functions (see section 7.3.2 for details of the argument). Posturals, by contrast, only occur at second mention if the addressee has obvious difficulties in identifying the referent. This is illustrated in the discussion of (13b) where speaker A. can only identify the intended referent after having received the positional information.

(13a) *Goe-n-d'yem-nnoe* *a lemu goe-rok.*  
 NOMZ(sg)-ADVZ-Cl:stand(sg)-DEM.PROX FOC orange NOMZ(sg)-become\_sweet

*Lemu goe-rok* *n-d'e-nnoe-hoe (...).*  
 orange NOMZ(sg)-become\_sweet ADVZ-Cl:exist-DEM.PROX-exactly

'This standing one is a sweet orange (tree).

This existing sweet orange (tree) (...).' [TREE-N]

(13b) N: *Nde n-d'e d'i pûanang ntyem goe. (= 4)*  
 one/other PRES-exist LOC.ANAPH there/yonder FRONT 2Sgm.Poss

'Behold, another one is over there in front of you.'

A: *B'ak m-pe nnoe-hoe a? (= 2)*  
 here LOC-place LOC.ANAPH-exactly INTERR

'(Is it) here in this place?'

N: *A'a.*  
 no

'No.'

A: *Goe-nnoe-hoe a? (= 1)<sup>9</sup>*  
 NOMZ(sg)-LOC.ANAPH-exactly INTERR

'(Is it) this one?'

N: *A'a. Kwai. Goe-d'e b'ak m-pe nnoe-hoe. (= 4)*  
 no no NOMZ(sg)-exist here LOC-place LOC.ANAPH-exactly

'No. No. This one being here in the place.'

A: *Goe-nnoe-hoe a? (= 3)*  
 NOMZ(sg)-LOC.ANAPH-exactly INTERR

'(Is it) this one?'

N: *Goe-n-t'o-nnoe dai.*  
 NOMZ(sg)-ADVZ-Cl:lie(sg)-DEM.PROX indeed

*Goe-n-t'o d'i nnoe-hoe. (= 4)*  
 NOMZ(sg)-ADVZ-lie(sg) LOC.ANAPH LOC.ANAPH-exactly

'(It is) this lying one. (...) This one lying there.'

<sup>9</sup> The locative anaphor indicates a contrast to other referents (see section 7.3.2).

A: A *loon.* (= 4)  
 FOC cloud  
 ‘(It) is blue.’  
 [COLOR-N/A]

(iv) Postural classifiers are frequently used in non-contrastive contexts. This includes contexts where several referents are enumerated without overtly contrasting them (as in 14a). The existential classifier, however, preferably occurs in contexts where speakers explicitly contrast the properties and values of different referents (as in 14b). In both examples below, the speaker talks about differently colored ‘lying’ papers.

- (14a) *Goe-n-t’o-nnoe*                      *a*    *yim*    *t’eng.* (= 7)  
 NOMZ(sg)-ADVZ-Cl:lie(sg)-DEM.PROX    FOC    leaf    tree
- Goe-n-t’o-nang*                      *a*    *yim*    *sergina.* (= 12)  
 NOMZ(sg)-ADVZ-Cl:lie(sg)-DEM.DIST    FOC    leaf    blue\_soap
- Goe-n-t’o-nang*                      *a*    *yim*    *goe-b’ang.* (= 21)  
 NOMZ(sg)-ADVZ-Cl:lie(sg)-DEM.DIST    FOC    leaf    NOMZ(sg)-become\_red

‘This lying one is a green paper.  
 That lying one is a blue paper.  
 That lying one is a red paper.’ [COLOR-N]

- (14b) *K’epmang ndoe goe-n-d’e-nnoe-hoe.* (= 7)  
 different    CONJ    NOMZ(sg)-ADVZ-Cl:exist-DEM.PROX-exactly
- Yim mangoro n-d’e-nnoe-hoe* (= 9/6)      *k’epmang ndoe shak.* (...)  
 leaf mango    ADVZ-Cl:exist-DEM.PROX-exactly    different    CONJ    each\_other
- Amma k’epmang ndoe goe-n-d’e-nang-hoe.* (= 8)  
 but    different    CONJ    NOMZ(sg)-ADVZ-Cl:exist-DEM.DIST-exactly

‘(It) is different from this existing one.  
 These existing green papers are different from each other. (...)  
 But (they) are different from that existing one.’ [COLOR-N]

(v) Postural classifiers are used whenever the positional information is not coded elsewhere in the clause. For example, if both a demonstrative and a locative verb are present, the demonstrative occurs with the existential classifier (as in 15a below).<sup>10</sup> Positional information is only rarely coded in both the classifier and the verb (as in 15b). If it is coded twice, it is usually distributed over different intonation units (as in 15c).

<sup>10</sup> Utterance (i) below is the only attested example where the positional information is coded in the classifier, and the existential information in the verb.

- (i) *Bi n-t’ong-nang goesampe nnoe d’e k’a.*  
 thing    ADVZ-Cl:sit(sg)-DEM.DIST    outside    LOC.ANAPH    exist    HEAD(sg)  
 ‘That sitting thing outside is on top.’ [COLOR\_1-J]

As discussed in section 5.1.2 (see especially the discussion of table 3 in section 5.1.2), constructions differ in the conditions that motivate the choice of an existential as opposed to a postural used in a classificatory way or a postural used in an assertional way. These conditions are, in turn, motivated by the different functions of the constructions. For example, the locative construction is concerned with asserting a location (see section 6.1.1), and posturals are used whenever the locative relation is known and describable (see sections 4.3.1 and 4.3.2). Presentative structures (i.e., the presentative construction and the demonstrative), by contrast, are concerned with identifying a referent (see section 6.1.2). In such structures, posturals are only used if the positional information is necessary for identifying the referent (see section 4.3.3). That is, if a demonstrative co-occurs with a locative construction (as in 15a to 15c below), the positional information is typically coded only in the verb (as in 15a).

(15a) *Bi n-d'e-nang t'ong k'a nde.*  
 thing ADVZ-Cl:exist-DEM.DIST sit(sg) HEAD(sg) one/other  
 'That existing thing sits on another one.' [COLOR\_1-J]

(15b) *Zoli n-d'yem-nnoe-hoe*  
 entrance\_hut ADVZ-Cl:stand(sg)-DEM.PROX-exactly  
*d'yem dakd'ue lu toe.*  
 stand(sg) MIDDLE settlement EMPH  
 'This standing entrance hut stands in the middle of the compound.'  
 [LU\_A]

(15c) *La n-t'ong-nnoe / la hok t'ong k'a nde.*  
 child(sg) ADVZ-Cl:sit(sg)-DEM.PROX child(sg) DEF sit(sg) HEAD(sg) one/other  
 'This sitting child, the child sits on another one.' [COLOR\_10-J]

The distribution of postural/existential classifiers in (i) to (v) above is motivated by the identifiability of the referent: if the positional information is judged to help identify the referent, it will be provided (see also section 7.3.1). That is, if a referent is identifiable on other grounds, the existential will be used, e.g.:

- The referent is non-canonically positioned, and the shift to the existential draws attention to this marked situation (see point i).
- The referent cannot be identified through positional information. In this case, more detailed information is provided in locative expressions that co-occur with the existential (see point ii).



- The referent has already been identified, and the existential is used to maintain reference to it (similar to the uses of the locative anaphor; see section 7.3.2) (see points iii and iv).
- The positional information is coded elsewhere (see point v).



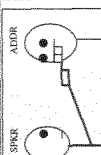
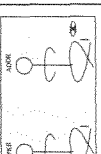
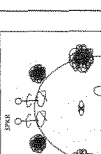
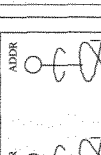
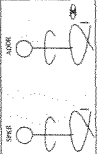
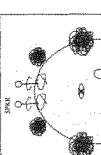
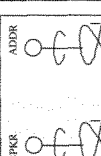







Furthermore, since demonstratives are concerned with the identifiability of the referent, the posturals usually reflect the current position of the referent – i.e., speakers rarely use the default, classificatory, postural in reference to a non-canonically positioned referent. If they would do this, the referent might not be identifiable to the addressee (see section 5.1.1.2).

### 7.2.2 *The deictic roots*

Goemai has two deictic roots, *-nnoe* ‘proximal’ and *-nang* ‘distal’, whose extensions are illustrated in table (4) on the next page. This table is based on the results of a questionnaire (Wilkins 1999a) that was designed to investigate the non-contrastive exophoric uses of demonstratives. The questionnaire consists of a number of target scenes (as depicted in table 4), which were re-enacted with objects in the real world. In addition to the questionnaire data, observational data was included in the table (i.e., whenever instances similar to the depicted scenes occurred in natural discourse, they were noted). Each column depicts scenes that are treated alike by the speakers. The arrows under the table indicate the extensions of *-nnoe* ‘proximal’ and *-nang* ‘distal’: the solid line covers scenes where the corresponding deictic root was considered the only or the best solution, and the dotted line covers scenes where the corresponding deictic root was acceptable under certain conditions.

As illustrated in table (4), speakers consistently use the proximal root *-nnoe* with objects that are physically close to speaker and addressee, whereby it is irrelevant whether the object is closer to the speaker or closer to the addressee (column 1). The distal root *-nang* is consistently used with objects that are beyond the reach of both speaker and addressee, but still within their interactional space (column 5). The scenes depicted in the other columns, by contrast, show some variation (in some cases, both deictic roots are acceptable, in others, speakers prefer not to use a demonstrative at all). This variation is discussed in the remainder of this section.

Table (4): Results of the Wilkins (1999a) demonstrative questionnaire (on the basis of 5 consulted speakers)

1	 (1)  (8)  (2)  (4)  (5)  (9)	2	 (10)  (17)  (12)	3	 (13)  (14)	4	 (13)  (15)  (21)	5	 (24)  (25)	6
---	--	---	---	---	---	---	--	---	---	---

-mnoe 'proximal'

-nang 'distal'

Column 2 depicts scenes where the referent is located close to the addressee, but far from the speaker. In natural discourse, only the proximal root was observed in such contexts. In the questionnaire data, speakers preferred the proximal root, but sometimes suggested and accepted the distal root as an alternative.

Example (16) below illustrates a typical context (for column 2). The speaker directs the addressee to open a cover. At first mention, both speaker and addressee are approximately four meters away from the cover, and the speaker uses the distal root (in the first line of 16). The addressee then moves towards the cover, stands right next to it, but does not show any other sign of having identified it as the intended referent. The speaker directs him again, but now he uses the proximal root (in the second line of 16), i.e., the space containing the unit of speaker and addressee has been enlarged.<sup>11</sup>

- (16) *Eep*    *goe-n-t'ong-nang*                      *pûanang-hoe (...)*  
 open(sg)    NOMZ(sg)-ADVZ-Cl:sit(sg)-DEM.DIST    there/yonder-exactly
- Goe-n-t'ong-nnoe.*  
 NOMZ(sg)-ADVZ-Cl:sit(sg)-DEM.PROX
- 'Open that sitting one over there (...).  
 This sitting one.' [COLOR\_2-N/A]

Such contexts are interesting because they show that Goemai speakers conceptualize the deictic center as a unit that contains both the speaker and the addressee. Any object that is located close to that unit is referred to with the proximal root. With the exception of Brazilian Portuguese, such a demonstrative system has not been described in the typological literature so far (Meira and Guirardello-Damian submitted).<sup>12</sup>

<sup>11</sup> The second demonstrative in example (16) does not have any anaphoric function (see section 7.3.2 for a discussion): the referent is not identified (i.e., the anaphor cannot be used yet), and the demonstrative contains the postural classifier *t'ong-* 'sit' (which is never used with an anaphoric function).

<sup>12</sup> A recent study suggests that there is more variation in the semantics of demonstrative systems than was previously suspected (Dunn and Meira in prep.). With respect to two-term systems, the study discusses the following possibilities: (a) a speaker-anchored proximal vs. distal opposition (with different extensions of the proximal/distal term in different languages), (b) a proximal plus a neutral term, (c) a distal plus a neutral term, and (d) a speaker- and addressee-anchored proximal vs. distal opposition (as in Goemai and Brazilian Portuguese). Generally, the first possibility is the only one discussed in the literature, while there is little information on the other three types.

Goemai differs from Brazilian Portuguese in that the distal term is an alternative, albeit less good, option. This difference probably results from differences in the system of deictic adverbs. Brazilian Portuguese combines a three-way distinction in the deictic adverbs (close to speaker, close to addressee, far from both) with a two-way distinction in the demonstratives (close to the unit of speaker and addressee, far from it). In reference to scenes of column 2, speakers of Brazilian Portuguese obligatorily use the proximal demonstrative together with the addressee-anchored deictic adverb. Notice that, in other contexts, deictic adverbs are not obligatory. It seems that the scenes in column 2 present a problem to speakers of Brazilian Portuguese, which they solve by using two different forms: demonstrative (coding proximity to the unit of speaker and addressee) and adverb (coding that the referent is closer to the addressee than to the speaker).

Goemai, by contrast, does not have an addressee-anchored deictic adverb (see table 1 at the beginning of section 7.1, see section 6.2.3). Nevertheless, like speakers of Brazilian Portuguese, Goemai speakers seem to find it necessary to convey the information that the referent is much closer to the addressee than to the speaker. They can do this in different ways: some speakers avoid using a demonstrative altogether (as in 17a), others use the proximal root together with the distal deictic adverb (as in 17b) (in a way comparable to speakers of Brazilian Portuguese), and some accept the distal root as an alternative option, but always augment it with a prepositional phrase (as in 17c).

- (17a) *Ball goe-d'e sek b'et goe nnoe (...).*  
 ball NOMZ(sg)-exist BODY BELLY 2Sgm.Poss LOC.ANAPH

'This ball being near you (...).' (= scene 16 in table 4 above) [DQ\_16-D]

- (17b) *Goe shyang n-goede goe-n-d'e-nnoe pûanang (...).*  
 2Sgm hunt/watch LOC-bottom NOMZ(sg)-ADVZ-Cl:exist-DEM.PROX there/yonder

'Look under this existing one over there (...).' (= close to addressee, but three meters away from speaker) [COLOR\_2-A/N]

- (17c) *Ball n-d'e-nang ba-ntyem goe (...).*  
 ball ADVZ-Cl:exist-DEM.DIST SIDE-front 2Sgm.Poss

'That existing ball in front of you (...).' (= scene 16) [DQ\_16-A]

Notice that Goemai speakers not only shift away from using a demonstrative in cases like (17a), but also whenever the referent is not accessible to the speaker (as in scenes 10, 15, 18, 25, and, especially, scene 11; these scenes are not

marked separately in table 4). This is often, but not necessarily, the case when the referent is invisible.<sup>13</sup>

Column 3 illustrates scenes where the referent is located between the speaker and the addressee, although none of them can actually reach it. In such cases, speakers accepted both the proximal and the distal roots, but, again, they preferred to use a non-demonstrative strategy. Interestingly, speakers of Brazilian Portuguese had similar problems with such scenes. Meira and Guirardello-Damian (submitted) suggest that the demonstrative system breaks down because the referents are far away from both participants (= distal), but clearly within the speaker/addressee common zone (= proximal).

Column 4 illustrates that there is some variation as to what constitutes the boundary between the proximal and the distal zone. In the scenes depicted in column 4, the referent is located out of reach of the speaker/addressee. The distal was the preferred option, but some speakers also allowed for the proximal as an alternative. In scene (14), the presence of a third point of reference (another person located further away than the referent) has probably helped to construe the referent as being within the proximal zone. The use of the proximal root in such contexts suggests that the system is not based on absolute distance, but on a relative, construed, distance.

Column 6 illustrates that speakers tend not to use the demonstrative for referents located in large-scale geographical space. Instead, they use the distal deictic adverb (as in 18). The distal adverb *pûanang* thereby takes over some of the demonstrative function. The proximal adverb *b'ak*, by contrast, is not used in a corresponding way.

- (18) *Lu d'e pûanang.*  
 settlement exist there/yonder

'The house is over there.' (= scene 24) [DQ\_24-A]

To summarize this section so far: the deictic center contains both the speaker and the addressee, and the deictic roots distinguish two grades of distance from the deictic center. In addition, there are restrictions on the usage of the demonstratives: they are not used with inaccessible or far distal referents.

<sup>13</sup> An invisible referent may be identifiable through, e.g., auditory information. In this case, the demonstrative is used, e.g.:

- (i) *Gurum n-lang-nnoe a I.*  
 person ADVZ-Cl:hang/move(sg)-DEM.PROX FOC I.  
 'This moving person is I.' (I. was heard approaching) [D-23/01/99]

Instead, other locative expressions are used to give more detailed topological information. Similar strategies are often employed when speaker and addressee are located at some distance from each other.

In section 7.2.1, it was shown that positional information is used to differentiate between possible referents. Interestingly, the deictic information is usually not used in a comparable way. For example, in (19) below, the two possible referents (i.e., two ‘standing’ toy cars) are located at different distances from speaker and addressee (referent 9 is further away than referent 8). It would thus be possible to use the deictic information to differentiate between them – yet this information is not used. As a result, there is some confusion about the identity of the referent: speaker A. talks about referent 9, but speaker N. cannot decide between referents 8 and 9. In the end, the problem is solved by speaker A. moving over and touching the intended referent. (See also 12b in section 7.2.1 above, which illustrates a comparable situation. There, the referent is identified with the help of a prepositional phrase.)

- (19) A: *Takarda goe-pya hok d'e n-goede la moto /*  
 paper NOMZ(sg)-become\_white DEF exist LOC-bottom little(sg) car  
*n-t'oor goe n-d'e-nnoe. (= 9)*  
 LOC-flank 2Sgm.Poss ADVZ-Cl:exist-DEM.PROX  
 ‘The white paper is under the small car,  
 at this your existing side.’
- N: *B'ak goe-t'oor n-d'e-nnoe-hoe a? (...) (= 8/9)*  
 here PLACE-flank ADVZ-Cl:exist-DEM.PROX-exactly INTERR  
*Moto goenang dai?*  
 car which(sg) indeed
- Goe-d'e goe-t'oor n-d'e-nnoe a? (= 8/9)*  
 NOMZ(sg)-exist PLACE-flank ADVZ-Cl:exist-DEM.PROX INTERR  
 ‘(Is it) here at this existing side?’ (...)  
 Which car is it now?  
 (Is it) this existing one being at the side?’  
 [COLOR\_8/9-A/N]

In fact, the distribution of the distal deictic root is very restricted: in small-scale space, speakers are reluctant to use it (as illustrated in 19 above), and in large-scale geographical space, they tend to replace it with the distal deictic adverb (as in column 6 of table 4 above). The proximal deictic root, by contrast, has a much wider distribution, and also encroaches more frequently into the distal domain.

The restricted distribution of the distal deictic root probably results from the presentative function of the demonstratives. It is shown in section 7.3.1 that the Goemai demonstratives are primarily used to establish joint attention to a referent that was previously not attended to. Hanks (1992) observes that, cross-linguistically, such a function is often expressed by means of the proximal term (see also Himmelmann 1996): apparently, when presenting a referent, this referent is moved into the proximal zone. This function could thus explain the reluctance of Goemai speakers to use the distal deictic root. But notice that there are indications for a language change in progress. Younger speakers are more likely to use the distal deictic root to distinguish between referents in small-scale space (as in 20a). Older speakers, by contrast, usually do not use this deictic information (as in 20b, see also 19 above). Given that the development of the demonstratives from the presentative construction is recent (see section 7.4), it is not surprising that the older speakers retain the original usage patterns and predominantly use the proximal term.

- (20a) *Goe-n-d'e-nnoe* (= 1)                      *tarap* /  
 NOMZ(sg)-ADVZ-Cl:exist-DEM.PROX    snap(pl)
- goe-n-d'e-nang* (= 2)                      *zak* /    *tarap*    *ba*.  
 NOMZ(sg)-ADVZ-Cl:exist-DEM.DIST    also    snap(pl)    NEG
- A toe hen zem goe-nnoe* (= 2)                      *hok yi*.  
 FOC EMPH 1Sg like    NOMZ(sg)-LOC.ANAPH    DEF    SUB

'These existing ones snapped,  
 those existing ones, however, didn't snap.  
 (This is) the reason (why) I like the/those ones.' [CONTR\_52-J]

- (20b) *Hen zem a twen* /  
 1Sg like FOC cloth
- goe-gong k'a gado n-d'e-nnoe-hoe* (= 1) /                      *nye-pe* /  
 NOMZ-cover HEAD(sg) bed    ADVZ-Cl:exist-DEM.PROX-exactly kind-COMP
- goe-n-d'e-nnoe-hoe* (= 2)                      *gong k'a gado t'ei ba*.  
 NOMZ(sg)-ADVZ-Cl:exist-DEM.PROX-exactly cover HEAD(sg) bed    already NEG

'I like the cloth  
 that covers the top of this existing bed, because  
 this existing one does not yet cover the top of the bed.' [CONTR\_99-A]

The wider distribution of the proximal root does not mean that it is neutral with respect to distance – it is not, as its use cannot be extended to distal referents (see the distribution in table 4 above). But, in the case of distal referents, speakers often shift away from a demonstrative to other strategies, e.g., to the distal adverb. That is, the distal adverb can be used in cases where the demonstrative containing the distal root cannot be used. This difference

probably follows from the fact that adverbs are concerned with place deixis (see Klein 2001; Meira and Dunn in prep.), i.e., they refer directly to space – which is structured into a proximal and a distal region. The demonstratives, by contrast, are concerned with object deixis. They are used to single out a referent from among a set of other referents, and thus give the information that is necessary for identifying this referent – in Goemai, this information is primarily positional information, and only secondarily deictic information. As a result, the demonstrative containing the distal deictic root cannot be used with non-identifiable or non-accessible referents (e.g., referents far away), but the distal adverb can.

### 7.3 The function of the demonstratives

The Goemai demonstratives have primarily exophoric functions, i.e., they are used with referents that are physically present to the speech situation. In other contexts (labeled ‘non-exophoric’ in this chapter), the locative anaphor is used (see table 1 at the beginning of section 7.1 for a list of the available forms). This section discusses the uses of the demonstratives, comparing them to those of the presentative construction and the locative anaphor. Section 7.3.1 investigates exophoric uses, and section 7.3.2 non-exophoric uses. For ease of reference, all uses are summarized in table (5) below.

**Table (5):** The functions of demonstratives, presentative construction and locative anaphor

Function	Form				
	demonstrative			pres.	loc.
	prox. + existential	dist. + existential	prox./dist. + postural	constr.	anaph.
exophoric:					
• gestural (see 22 to 25)	+	+	+	+	-
• symbolic (see 28b)	+	-	-	-	-
discourse deictic (see 29)	-	-	-	-	+
anaphoric (see 30a to 30c)	(+)	-	-	-	+
contrastive (see 33a to 34b)	(+)	(+)	-	-	+
recognitional (see 36)	-	-	-	-	+





second lines of 22-1 to 22-3): the locative anaphor in (22-3) (as long as the identified referent continues to be the topic) or a definite noun phrase in (22-1) and (22-2) (when the topic shifts away from the identified referent to, e.g., its general properties). For a similar distribution of the presentative construction see example (6b) in section 6.1.2.

(22-1) *Goe-n-d'e-nnoe* / *a sh'ep / gweba.*  
 NOMZ(sg)-ADVZ-Cl:exist-DEM.PROX FOC wood guava

*Moe d'e moe s'oe la muk yi. (...)*  
 1Pl exist 1Pl eat child(sg) 3Sg.Poss SUB

'This existing one is a guava tree.  
 We are eating its fruit. (...)

(22-2) *Goe-n-d'yem-nang nkyem / (...)* *a sh'ep k'umsharap.*  
 NOMZ(sg)-ADVZ-Cl:stand(sg)-DEM.DIST FRONT FOC wood tree\_species

*Sh'ep hok / mûep d'e n-shin ûen yi goe s'een muk. (...)*  
 wood DEF 3Pl exist PROGR-do medicine PROGR COM root 3Sg.Poss

That standing one in front (...) is a *k'umsharap* tree.  
 The tree, they are making medicine of its roots. (...)

(22-3) *Goe-n-t'o-nnoe* / *a maar sh'im. (...)*  
 NOMZ(sg)-ADVZ-Cl:lie(sg)-DEM.PROX FOC farm yam

*Goe-nnoe a maar.*  
 NOMZ(sg)-LOC.ANAPH FOC farm

This lying one is a yam field. (...)  
 This one is a field.'  
 [TREE-J]

Speakers continue to use the demonstratives for as long as the identity of the referent is questioned, asserted or corrected (as illustrated in 23a).<sup>15</sup> They only shift to the locative anaphor after the referent has been correctly identified and thereby becomes background knowledge that can be talked about (as illustrated in 23b).

(23a) N: *Goe-k'un n-d'e-nnoe-hoe. (= 3)*  
 ORD-three ADVZ-Cl:exist-DEM.PROX-exactly

'This existing third one.'

A: *Goe-n-d'e-nnoe ko a- (= 2)*  
 NOMZ(sg)-ADVZ-Cl:exist-DEM.PROX maybe FOC

'This existing one, or (is it)'

<sup>15</sup> Demonstratives differ here from the presentative construction, which is used at first mention only. Possibly, this difference results from their different syntactic status. That is, unlike the presentative construction, demonstratives constitute a noun phrase or noun phrase element.

N: A'a. Kwai.  
no no

'No. No.'  
[COLOR-N/A]

- (23b) A: *Goe-n-d'e-nnoe-hoe* a? (= 7)  
NOMZ(sg)-ADVZ-Cl:exist-DEM.PROX-exactly INTERR  
'(Is it) this existing one?'

N: *Mh.*  
yes

'Yes.'

A: *Goe-nnoe / yim loon.* (= 7)  
NOMZ(sg)-LOC.ANAPH leaf cloud

'This one is a blue paper.'  
[COLOR-A/N]

The demonstratives are also used to redirect attention to an already known but backgrounded referent. In the first line of (24) below, the referent, a sheabutter tree, is introduced with the help of demonstratives. In the second and third lines, the speaker talks about its general economic uses. Finally, in the last line, he uses the demonstrative again to redirect attention to the previously identified referent.

- (24) *Goe-n-d'e-nnoe / t'eng n-d'yem-nnoe /*  
NOMZ(sg)-ADVZ-Cl:exist-DEM.PROX tree ADVZ-Cl:stand(sg)-DEM.PROX

*s'em muk a t'eng d'in.*  
name 3Sg.Poss FOC tree sheabutter

*La muk / moe d'e moe s'oe yi. (...)*  
child(sg) 3Sg.Poss 1Pl exist 1Pl eat SUB

*Goe-n-d'e-nnoe / a sh'ep d'in toe.*  
NOMZ(sg)-ADVZ-Cl:exist-DEM.PROX FOC wood sheabutter EMPH

'This existing one, this standing tree,  
its name is sheabutter tree.  
Its fruit, we are eating (it). (...)  
This existing one, (it) really is a sheabutter tree.'  
[TREE-J]

The demonstratives are furthermore used to contrast individual members from among a set of referents. Usually, the attention of the speakers is already on this set, and all members of the set are within their visual field. Such a context is illustrated in (25), where speakers discuss and compare several different types of guitars located in front of them.



(27a) *Hen t'ong para kut noe nnoe (...).*  
 1Sg IRR begin speech 1Sg.Poss LOC.ANAPH

'I will begin this my speech (...).' [ANIMAL2]

(27b) *Poeb'it nnoe ni goe mûaan goe naan (...).*  
 morning LOC.ANAPH 3Sg OBL go(sg) COM God

'This morning, she ought to go with God (...).' [SPEECH1]

The only exception to this generalization is the use of the demonstrative containing the proximal deictic root together with the existential classifier to introduce a folktale (as in 28a, see also example 7 in section 6.1.2 for a comparable use of the presentative construction). The same form is further used with a non-gestural symbolic reference, i.e., in reference to the spatial setting of an event (as in 28b).

(28a) *Goe-n-d'e-nnoe a aram k'a pang.*  
 NOMZ(sg)-ADVZ-Cl:exist-DEM.PROX FOC story HEAD(sg) snake\_species

'This existing one is a story about a snake.' [PANG]

(28b) *bi goe-pe goe shin b'ak n-duniya n-d'e-nnoe (...).*  
 thing NOMZ-COMP 2Sgm do here LOC-world ADVZ-Cl:exist-DEM.PROX

'the things which you do here in this existing world (...).' [TIME-A]

### 7.3.2 Non-exophoric reference

While the demonstratives are used for exophoric reference, the locative anaphor is used for non-exophoric reference. The label 'non-exophoric' is taken to cover the following four uses: (i) discourse deictic, (ii) anaphoric, (iii) contrastive, and (iv) recognitional. Generally, demonstratives cannot be used in any of these four contexts. The only exception is the demonstrative that contains the existential classifier (as illustrated in table 5 at the beginning of section 7.3). In this section, the distribution of the locative anaphor is described and compared to that of the demonstrative containing the existential classifier.

#### (i) Discourse deictic use

The locative anaphor has discourse deictic uses, i.e., it refers to propositions and to points in time (as in 29 below; see also examples 27a and 27b in section 7.3.1 above). Demonstratives, by contrast, cannot be used in this context (with the exception of the one context illustrated in 28a in section 7.3.1).

- (29) A *bi de-goe kat a sool/*  
 FOC thing PUR find FOC money  
*amma Goemai b'oot goe-nnoe ba.*  
 but Goemai able(sg) NOMZ(sg)-LOC.ANAPH NEG  
 '(It) is a possibility to earn money,  
 but Goemai are not able (to do) this.' [YOUTH]

## (ii) Anaphoric use

The locative anaphor is furthermore used for anaphoric reference tracking, i.e., it is used after the referent has been successfully identified. It neutralizes all information on distance and position that was coded in the demonstrative. As a consequence, it can be used for objects introduced by, e.g., the proximal deictic root (as in 30a), the distal deictic root (as in 30b), or any type of deictic classifier (such as *t'ong-* 'sit' in 30c).

- (30a) *Goe-n-d'e-nnoe/ mutane nduni (...)/*  
 NOMZ(sg)-ADVZ-Cl:exist-DEM.PROX people(pl) many  
*d'e n-shin shit yi goe bi nnoe.*  
 exist PROGR-do work PROGR COM thing LOC.ANAPH  
 'This existing one, many people (...)  
 are making use of this thing.' [HAND-J]
- (30b) *K'epmang ndoe goe-n-d'e-nang-hoe.*  
 different CONJ NOMZ(sg)-ADVZ-Cl:exist-DEM.DIST-exactly  
*Tep nkyat ndoe goe-nnoe ba.*  
 become\_black equal CONJ NOMZ(sg)-LOC.ANAPH NEG  
 '(It) is different from that existing one.  
 (It) is not as black as that one.' [COLOR\_8-N]
- (30c) *T'u n-t'ong-nnoe-hoe. (...)*  
 calabash\_bottle ADVZ-Cl:sit(sg)-DEM.PROX-exactly  
*Mûep la yil goe-nnoe t'ong (...).*  
 3PI HAB write NOMZ(sg)-LOC.ANAPH HAB  
 'This sitting calabash bottle. (...)  
 They usually paint (on) this one (...).' [HAND\_7-A/N]

It was shown in sections 7.2.1 and 7.3.1 that demonstratives can occur at the second mention of a referent (e.g., a referent whose identity is still being disputed, or a backgrounded referent). Since joint attention has not yet been established, I do not consider these uses anaphoric. However, there is evidence that one of the demonstratives (i.e., the form *goend'enneo* 'this existing one', which contains the proximal deictic root and the existential classifier) is picking up an anaphoric function when occurring at second mention. The

evidence comes from examples where the first demonstrative contains the distal deictic root (and possibly a postural classifier), while the second demonstrative contains the proximal root and the existential classifier (as in 31). Such a distribution suggests that the second demonstrative does not code spatial distance, but refers back to the previously introduced referent.

- (31) *Bi n-t'ong-nang / goe-b'ang n-d'e-nnoe.*  
 thing ADVZ-Cl:sit(sg)-DEM.DIST NOMZ(sg)-become\_red ADVZ-Cl:exist-DEM.PROX  
 'That sitting thing, this existing red one.' [COLOR\_3-J]

Notice that all other demonstratives (i.e., those containing a postural classifier and/or the distal deictic root) cannot be used for anaphoric reference tracking. In its anaphoric use, the form *goend'enne* 'this existing one' can even be used to keep track of non-spatial referents (as in 32a). It differs from the locative anaphor in that it is only used to keep track of the theme (e.g., of *Liberty Dam* in the second line of 32b). There are no such restrictions on the use of the locative anaphor (e.g., in the second line of 32c, the locative anaphor is used with *lu nsh'i*, which does not constitute the theme).

- (32a) A: *Dorok d'a d'e n-k'wal k'wal yi /*  
 Dorok COND exist PROGR-talk talking PROGR  
*yin mûep 'DIBIT' mûep wul.*  
 SAY 3PI all 3PI arrive

'When people from Dorok are talking,  
 (they say) that: they 'ALL' (*dibit*) arrived.'

- N: *Mûep yong 'DIP'. Moe yong moe yi 'DIP'. (...)*  
 3PI call all 1PI call 1PI SAY all

*Mûep wul 'DIP'. 'DIBIT' n-d'e-nnoe a Muduut.*  
 3PI arrive all all ADVZ-Cl:exist-DEM.PROX FOC Shendam

'They say 'ALL' (*dip*). We say that: 'ALL' (*dip*). (...)

They arrived 'ALL' (*dip*). This existing 'ALL' (*dibit*) is (of) Shendam (dialect).'  
 [DIALECT]

- (32b) *Moe kat hangoed'e a n-Liberty Dam.*  
 1PI find water FOC LOC-Liberty\_Dam

*To / Liberty Dam n-d'e-nnoe*  
 okay Liberty\_Dam ADVZ-Cl:exist-DEM.PROX

*dok a Joseph Gomwalk dakd'ûe centre.*  
 PAST.REM FOC Joseph\_Gomwalk MIDDLE center

'We found water at Liberty Dam.

Okay, this existing Liberty Dam

was (called) Joseph Gomwalk (Way) in the center of town.' [MIL-A]

- (32c) *sai ni na lu nsh'i / lang n-t'eng. (...)*  
 then 3Sg see settlement bee hang/move(sg) LOC-tree
- Aas zem de-goe n-p'aar de-goe n-b'em lu nsh'i nnoe. (...)*  
 dog like PUR PUR-jump PUR PUR-touch settlement bee LOC.ANAPH
- Aas hoom t'eng / d'yem t'ong dung yi.*  
 dog hold tree stand(sg) PROGR shake PROGR
- 'then he saw a beehive, (it) hung in the tree. (...)  
 The dog wanted to jump to touch this beehive. (...)  
 The dog held the tree, (he) stood shaking (it).' [FROG-C]

(iii) *Contrastive use*

The locative anaphor has contrastive uses (as in 33a and 33b). It is irrelevant whether it refers to the proximal referent (as in 33a) or the distal referent (as in 33b) – it simply refers to 'the other one', i.e., it usually appears in the sequence demonstrative + anaphor.<sup>17</sup> It is possible that this contrastive use can be linked to the anaphoric use discussed under (ii) above: it can be argued that 'the other one' is indirectly anaphoric, i.e., a referent is contrasted to a previously identified referent.

- (33a) *Hen zem d'a / goe-n-d'e-nnoe /*  
 1Sg like calabash NOMZ(sg)-ADVZ-Cl:exist-DEM.PROX
- ma goe-nnoe.*  
 surpass NOMZ(sg)-LOC.ANAPH
- 'I like this existing calabash (= distal)  
 better than this (other) one (= proximal).' [CONTR\_17-J]
- (33b) *Hen zem kwalba n-t'wot-nnoe /*  
 1Sg like bottle ADVZ-Cl:sit(pl)-DEM.PROX
- ma goe-t'oerep n-t'oerep nnoe.*  
 surpass NOMZ(sg)-lie(pl) ADVZ-lie(pl) LOC.ANAPH
- 'I like these sitting bottles (= proximal)  
 better than that lying (other) one (= distal).' [CONTR\_58-J]

The locative anaphor also occurs in the sequence anaphor + anaphor. In this case, each anaphor appears in a separate clause, and the two clauses are exactly

<sup>17</sup> This distribution suggests that the locative anaphor does not code spatial distance, but contrast, i.e., Goemai does not have a three-way distance opposition (e.g., *goend'enang* 'distal', *goend'ennoe* 'medial', and *goennoe* 'proximal'). Another piece of evidence that would argue against a three-way opposition is that, in tabletop space, the three forms cannot be used in reference to three objects located at three different grades of distance – but this would be the expected pattern in demonstrative systems that make use of a three-way opposition (see Terrill and Meira accepted).



parallel in structure (for ease of reference, I label these two parallel clauses ‘contrastive construction’). For example, in (34a) below, the referent is first introduced with the help of a demonstrative. Following that, it is contrasted with another referent by making use of the structure *goennoe ... goennoe* ‘this one ... this (other) one’. Finally, the speaker uses a demonstrative to shift attention back to the first referent. Similarly in (34b), the actions of two protagonists are contrasted with the help of the structure *nnoe ... nnoe* ‘this ... this (other)’.

- (34a) *Goe-n-t'o-nnoe* (= 2) / *garaya n-t'o-nnoe* (= 2) /  
 NOMZ(sg)-ADVZ-Cl:lie(sg)-DEM.PROX guitar ADVZ-Cl:lie(sg)-DEM.PROX  
*goe-nnoe* (= 1) *a molo* / *goe-nnoe* (= 2) *a garaya* /  
 NOMZ(sg)-LOC.ANAPH FOC guitar NOMZ(sg)-LOC.ANAPH FOC guitar  
*garaya n-t'o-nnoe* (= 2) (...).  
 guitar ADVZ-Cl:lie(sg)-DEM.PROX  
 ‘This lying one, this lying *garaya*-guitar,  
 this one is a *molo*-guitar, this (other) one is a *garaya*-guitar,  
 this lying *garaya*-guitar (...).’ [HAND-J]

- (34b) *Mat nnoe yin / to / t'ong moe shin a nd'ang?*  
 woman(sg) LOC.ANAPH SAY okay IRR IPI do FOC how  
*La nnoe yin to / (...).*  
 child(sg) LOC.ANAPH SAY okay  
*Mat nnoe yin t'ong doe b'oot.*  
 woman(sg) LOC.ANAPH SAY IRR Sgf.LogS able(sg)  
 ‘This woman (said) that: okay, how shall we do (it)?  
 This boy (said) that: okay (...).  
 This woman<sub>1</sub> (said) that she<sub>1</sub> would be able (to do it).’ [LA]

The contrastive use, as described above, should not be confused with the exophoric contrastive use of the demonstratives discussed in section 7.3.1 (see example 25 above): the exophoric contrastive use is concerned with identifying referents by means of positional and deictic information (and contrasting them to other referents); the anaphoric contrastive use, by contrast, is concerned with signalling the existence of a contrast. Occasionally, the demonstratives that contain the existential classifier are also used to signal an anaphoric contrast (but not the demonstratives that contain the postural classifiers): the proximal form can occur in the contrastive construction (as in 35a), and the distal form can be used in reference to ‘the other one’ (as in 35b).

- (35) *goe-n-d'e-nnoe* (= 1) *d'yam goet'eng /*  
 NOMZ(sg)-ADVZ-CI:exist-DEM.PROX stand(pl) upward  
*goe-n-d'e-nnoe* (= 2) *k'ab'an n-k'ab'an.*  
 NOMZ(sg)-ADVZ-CI:exist-DEM.PROX face\_down(pl) ADVZ-face\_down(pl)

'these existing ones stand upright,  
 these existing ones face down.' [CONTR\_5-A]

- (35b) *Doe d'yem t'ong kuk pe yi (...).*  
 come stand(sg) PROGR bark place PROGR  
*La kuk / aas goe-n-d'e-nang (...).*  
 COND bark dog NOMZ(sg)-ADVZ-CI:exist-DEM.DIST  
 '(It = dog 1) stood here barking at the place (...).  
 When (it = dog 1) barked, that existing other dog (= dog 2) (...).' [AAS]

(iv) *Recognitional use*

The locative anaphor has recognitional uses (as in 36), i.e., it activates knowledge shared by the speaker and the addressee. Demonstratives are not used in this context.

- (36) *de-goe kat Hill Station Junction nnoe.*  
 PUR find Hill\_Station\_Junction LOC.ANAPH  
 'to find this Hill Station Junction.' [MIL-A]

To summarize this section, the locative anaphor is used for discourse deictic, anaphoric, contrastive and recognitional functions. Most demonstratives cannot be used in any of these four contexts. One of the demonstratives (*goend'enang* 'that existing one', i.e., the form that contains the distal deictic root and the existential classifier) has some limited contrastive uses, while another one (*goend'ennoe* 'this existing one', i.e., the form that contains the proximal deictic root and the existential classifier) has both anaphoric and contrastive uses.

It is thus primarily the form *goend'ennoe* 'this existing one' that has picked up non-exophoric functions. This is not surprising considering its distribution in exophoric contexts: the use of the existential classifier at the second mention of a referent (see section 7.2.1), and the wide distribution of the proximal root (see section 7.2.2). Like the locative anaphor, this demonstrative neutralizes all positional information. Interestingly, there are even examples where *nd'ennoe* 'this existing' replaces the locative anaphor *nnoe* in the demonstrative word itself. In (37a) and (37b), the demonstratives seem to contain two classifiers: a postural classifier (*lang-* 'hang/move' in 37a, *t'oerep-* 'lie, pl' in 37b) together with the existential classifier *d'e-*. In a similar way, *nd'ennoe* replaces *nnoe* in

the lexicalized expression *nd'asoenoe* 'now' in (37c). It is likely that the demonstrative form *nd'ennoe* 'this existing' is in the process of being reanalyzed as an invariant form 'this'.

- (37a) *Nye-goe-sek hen zem riga goe-fi /*  
 kind-NOMZ-body 1Sg like coat NOMZ(sg)-become\_dry(sg)  
*n-lang-n-d'e-nnoe* *púanang-hoe.*  
 ADVZ-Cl:hang/move(sg)-ADVZ-Cl:exist-DEM.PROX there/yonder-exactly  
 'Because of this, I like this hanging existing dry cloth over there.'  
 (instead of *n-lang-nnoe*) [CONTR\_87-A]

- (37b) *Moe-n-t'oerep-n-d'e-nnoe.*  
 NOMZ(pl)-ADVZ-Cl:lie(pl)-ADVZ-Cl:exist-DEM.PROX  
 'These lying existing ones.' (instead of *moe-n-t'oerep-nnoe*)  
 [COLOR\_6/10-N]

- (37c) *Nd'asoe-n-d'e-nnoe*  
 now-ADVZ-Cl:exist-DEM.PROX  
*a lu d'yem d'em bi ji toe.*  
 FOC settlement stand(sg) this\_time thing Sgm.LogS.Poss EMPH  
 'Right now a house<sub>1</sub> stands (there) on its<sub>1</sub> own.' [JOS]

## 7.4 Diachronic development

There is evidence that the Goemai demonstrative system underwent a major reorganization: in terms of the construction used, in terms of the semantic information coded, and possibly also in terms of the usage. The evidence comes from old Goemai manuscripts (Sirlinger 1937; 1942; 1946), from speaker variation, and from a comparison with the related language Mupun (Frajzyngier 1993). This section discusses the available evidence.

Table (6) below summarizes the assumed diachronic development. It forms the basis for the discussion in this section. Throughout this section, the starred forms are used with demonstratives/adverbs at earlier stages of their development, and the non-starred forms with present-day forms. For ease of reference, the demonstratives containing the existential classifier (*goend'ennoe* 'this existing one' and *goend'enang* 'that existing one') are used in place of all demonstrative forms, i.e., including those containing the postural classifiers.

**Table (6):** The diachronic development of the Goemai demonstratives

Stage	Anaphor	Demonstrative modifier	Demonstrative pronoun	Adverb
1	?	* <i>nòè</i> (prox.) * <i>nóé</i> (dist.)	* <i>ñnòè</i> (?prox./?dist.)	<i>b'ak</i> (prox.) * <i>nang</i> (dist.)
2	?		* <i>nnoe</i> (?prox./?dist.) * <i>goend'e nang</i> (dist.)	<i>b'ak</i> (prox.) <i>pûanang</i> (dist.)
3	<i>nnoe</i>		* <i>goend'ennoe</i> (prox.) * <i>goend'enang</i> (dist.)	<i>b'ak</i> (prox.) <i>pûanang</i> (dist.)
4	<i>nnoe</i>	( <i>goe</i> ) <i>nd'ennoe</i> (prox.) ( <i>goe</i> ) <i>nd'enang</i> (dist.)	<i>goend'ennoe</i> (prox.) <i>goend'enang</i> (dist.)	<i>b'ak</i> (prox.) <i>pûanang</i> (dist.)

#### 7.4.1 Stage 1

The first stage was probably characterized through a two-term demonstrative system. The distinction was marked tonally on the demonstrative modifier: \**nòè* 'proximal' vs. \**nóé* 'distal'. This tonal distinction was neutralized in the derived demonstrative pronoun \**ñnòè*. Like the demonstratives, the adverbs also exhibited a two-term opposition: *b'ak* 'proximal' vs. \**nang* 'distal'. The semantics of the demonstratives and adverbs cannot be reconstructed anymore – the labels 'proximal' and 'distal' are adopted for want of a better alternative. Furthermore, it is not known whether the demonstratives had any anaphoric uses.

There is no direct evidence for the existence of the two demonstratives \**nòè* and \**nóé*: Sirlinger (1942: 34), who does not note tone, only mentions an invariant form \**nnoe*. However, the following two observations suggest that such a tonal contrast existed at some point:

- (i) As illustrated in table (7) below, some older Goemai speakers do not use the deictic roots *-nnoe* 'proximal' and *-nang* 'distal', but rather the variant forms *-nòè* 'proximal' and *-nóé* 'distal'.

**Table (7):** Tonal contrast in Goemai demonstratives

	Common form	Variant form
proximal	(goe)nd'ennoe	(goe)nd'enòè
distal	(goe)nd'enang	(goe)nd'enóé

(ii) A comparable tonal contrast is attested in the demonstratives of the closely related language Mupun (Frajzyngier 1993: 83-84): *sòè* 'proximal' vs. *sóé* 'distal'.

It is therefore reasonable to assume that Goemai used to distinguish its demonstratives tonally. This distinction was lost at a later stage. Although the exact tonological process cannot be reconstructed anymore, the loss was probably triggered by the addition of a tone-bearing \*N- prefix, which was used to derive the demonstrative pronouns from the modifiers.<sup>18</sup> It is not productive anymore, but it must have been productive in the 1930s (as it is discussed in Sirlinger 1942: 34, 38-39). At that time, the non-prefixed form (\*noe) occurred within the noun phrase (as in 38a), while the prefixed form (\*nnoe) occurred as a pronoun (as in 38b).

(38a) *gurum noe*  
 person DEM.PROX  
 'this person' (Sirlinger 1946: 364)

(38b) *goe poe hen n-noe*  
 2Sgm give 1Sg NOMZ-DEM.PROX  
 'give me this one' (Sirlinger 1946: 364)

In present-day Goemai, the utterances illustrated in (38a) and (38b) above are ungrammatical: the present-day form *nnoe* cannot be used as a pronoun.<sup>19</sup> Instead, the two utterances above would look as follows:

<sup>18</sup> The same prefix was probably also used to derive the independent possessive pronouns from the possessive modifiers: compare, e.g., *m-muk* '3Sg.Poss (pronoun)' with *muk* '3Sg.Poss (modifier)' (see section 2.2.1.2).

<sup>19</sup> In (i) below, *nnoe* occurs in a nominal slot. This utterance is a fixed expression, though: if any part of it is changed (e.g., *d'ong* 'good' is replaced with *nyan* 'bad'), consultants reject the use of *nnoe*.

(i) *a nnoe toe d'ong*  
 FOC LOC.ANAPH FOC good(sg)  
 '(it) is this (that) is good' [A-21/02/00]

(39a) *gurum nnoe*  
 person DEM.PROX

‘this person’ [A-21/02/00]

(39b) *goe poe hen goe-nnoe*  
 2Sgm give 1Sg NOMZ(sg)-DEM.PROX

‘give me this one’ [A-21/02/00]

### 7.4.2 Stage 2

In the second stage, two further developments took place: the reanalysis of the form *\*nnoe*, and the development of the two distal forms *pûanang* and *\*goend’e nang*.

First, the original demonstrative pronoun *\*ñndè* was used as a demonstrative modifier, and the original demonstrative modifiers *\*nòè* and *\*nóé* were lost (as illustrated in 38a and 39a in section 7.4.1 above). That is, the nominalizing prefix *\*N-* was reanalyzed as part of the stem. This process must have already started in the 1930s: Sirlinger (1942: 39) mentions the possibility that “[t]he demonstrative pronouns may sometimes be used as demonstrative adjectives, but not vice versa.”. Comparable processes are well attested cross-linguistically. Diessel (1999: 62-71), for example, argues that demonstrative pronouns frequently occur in apposition to nouns, where they are then reanalyzed as demonstrative modifiers. In Goemai, this reanalysis resulted in the loss of the tonal distinction in both the demonstrative modifiers and the pronouns. Probably, the present-day nominalizing prefix *goe-* was then added to the form *\*ñndè* to derive pronouns: Sirlinger (1942: 38-39) already lists a form *\*goe-noe* ‘this one’ as an alternative demonstrative pronoun.

Second, parallel to the loss of the tonal distinction, the distal deictic adverb *\*nang* was recruited to take over the function of the distal demonstrative. As illustrated in (40), *\*nang* was originally used as an adverb.

(40) *goe na ni n-lang nang*  
 2Sgm see 3Sg PRES-hang/move(sg) there

‘see him walking there’ (Sirlinger 1937: 123)

Although the present-day deictic root *-nang* cannot occur in an adverb slot,<sup>20</sup> its adverbial origin is still recognizable. Unlike present-day *nnoe*, it cannot modify

<sup>20</sup> There is speaker variation: some speakers accept the utterance in (i), while others reject it.

a noun directly (as illustrated in 41a); furthermore, it occurs in an adverb slot in the fixed expression *nang-pûanang* ‘over there far away’ (as in 41b).

- (41a) *hoos nnoe/\*nang la*  
tooth LOC.ANAPH/\*DEM.DIST pain(sg)  
‘this/\*that tooth hurts’ [D-22/01/99]

- (41b) *Fûan n-lang nang-pûanang.*  
rabbit PRES-hang/move(sg) there-there/yonder  
‘Behold, the rabbit is running over there far away.’ [LIIT]

The original adverb *\*nang* has given rise to two new forms: (i) the deictic adverb *pûanang* ‘there/yonder’ and (ii) the present-day demonstrative *goend’enang* ‘that existing one’. These two developments probably took place in parallel.

(i) It is likely that the adverb *pûanang* ‘there/yonder’ was derived from the noun *pe* ‘place’ co-occurring with the adverb *\*nang*, i.e., ‘the place there’.<sup>21</sup> In present-day Goemai, *pûanang* is used in place of the original adverb *\*nang*.

(ii) It is furthermore likely that the present-day form *goend’enang* ‘that existing one’ originated in a nominalized presentative clause containing the original adverb *\*nang*. Recall that any clause can be nominalized by means of the nominalizing prefix *goe-* (see section 2.5.3). Examples (42a) and (42b) below illustrate a presentative construction and its nominalized counterpart.

- (42a) *Hoos na n-d’e b’ak.*  
tooth PRES PRES-exist here  
‘Behold, the tooth is here.’ [DQ\_1-A]

- (42b) *Hoos goe-n-d’e b’ak la.*  
tooth NOMZ-PRES-exist here pain(sg)  
‘Behold, the tooth that is here hurts.’ [DQ\_1-A]

A nominalized presentative clause containing the original adverb *\*nang* would look as follows: *\*goend’e nang* ‘the one that is there’ – notice its similarity to the present-day demonstrative *goend’enang* ‘that existing one’. Possibly, this

- 
- (i) ? *mûaan nang*  
go(sg) there  
‘(he) went there’ [D-23/01/99]

<sup>21</sup> In present-day Goemai, *pe* ‘place’ commonly co-occurs with deictic adverbs (e.g., *pe b’ak* ‘place here’). Similarly, in Mupun, the deictic adverbs *pûén sòè* ‘proximal’ and *pûén sóé* ‘distal’ were derived from the noun ‘place’ co-occurring with the deictic adverbs (Frajzyngier 1991a: 49-50).

nominalized clause contrasted with the proximal demonstrative *\*nnoe*. But, again, their semantics and functions cannot be reconstructed anymore.

A diachronic origin in the presentative construction would explain the present-day form of the demonstratives: the nominalizing prefix *\*goe-*, the presentative morpheme *\*N-*, the locative verb and the deictic adverb (see section 6.1.2 for the form of the presentative construction). All four elements were subsequently reanalyzed, but their diachronic origin remains transparent.

### 7.4.3 Stage 3

In the third stage, the present-day demonstrative system, as described in this chapter, developed: the proximal demonstrative *goend'ennoe* originated from a nominalized presentative clause, the nominalized clauses *\*goend'e nnoe* and *\*goend'e nang* were reanalyzed as instantiating the modifying construction, and the old form *\*nnoe* was retained for non-exophoric uses.

First, there is evidence that the distal and proximal forms of the demonstrative originated at different stages: Sirlinger (1942: 34, 38-39) already notes a distal form *goend'enang*, but does not mention a corresponding proximal form *goend'ennoe*. Presumably, the proximal form developed at a later stage. It is likely that its origin is a nominalized presentative clause that contained the original demonstrative *\*nnoe*. Recall that the presentative construction does not necessarily contain a deictic adverb (see section 6.1.2). Example (43a) illustrates such a presentative construction, and (43b) illustrates its nominalized counterpart. As shown in (43a) and (43b), the present-day locative anaphor *nnoe* would precede the presentative construction, but would follow the nominalized presentative construction. Notice that the form *goend'e nnoe* 'this one that is (here)' in (43b) looks very similar to the form of the proximal demonstrative *goend'ennoe* 'this existing one'.

(43a) *longvilip nnoe n-d'e*  
 paper LOC.ANAPH PRES-exist  
 'behold, this book is (here)' [D-22/01/99]

(43b) *longvilip goe-n-d'e nnoe a m-maan*  
 paper NOMZ-PRES-exist LOC.ANAPH FOC NOMZ-1Sg.Poss  
 'behold, this book that is (here) is mine' [D-22/01/99]

Second, the nominalized presentative clauses *\*goend'e nnoe* 'this one that is (here)' and *\*goend'e nang* 'the one that is there' were reanalyzed as instantiating the modifying construction (i.e., *goend'ennoe* 'this existing one'



and *goend'enang* 'that existing one'): they can now occur as headless modifiers (i.e., in a pronominal slot), and the nominalizing prefixes code a number distinction.<sup>22</sup> A similar process takes place in present-day Goemai. Recall that locative expressions can occur in the modifying construction, provided that they co-occur with the locative anaphor *nnoe* (as in 44) (see section 7.1.1). Superficially, these utterances look similar to nominalized presentative clauses (e.g., compare 44 below with 43b above). Nevertheless, they are instantiations of the modifying construction: they occur pronominally (as headless modifiers), and the prefixes distinguish number. It is likely that they originated in nominalized presentative clauses, and were then later reanalyzed – possibly by analogy to the demonstratives.

- (44) *Goe-n-t'o*                      *d'i*                      *nnoe-hoe*.  
 NOMZ(sg)-ADVZ-lie(sg)    LOC.ANAPH    LOC.ANAPH-exactly  
 'This lying one there' [COMP\_4-N/A]

Third, the development of the demonstrative *goend'ennoe* probably resulted in the semantic reanalysis of the old demonstrative *nnoe*: it lost its exophoric uses, but retained its anaphoric uses.

A clausal origin of *goend'ennoe* and *goend'enang* would account for their variable syntactic position. Preferably, the demonstratives follow all modifiers (as in 45b) and precede all determiners (as in 46b) (see also table 8 in section 2.2.2.1) – but alternatively, they can occur either closer to the head noun (as in 45a) or further away from it (as in 46a). This variation can be explained by its clausal origin: a clause occurs to the right of the noun phrase, but its reanalysis as a modifier/determiner brings it into the noun phrase. The demonstratives are the only noun phrase elements that show such a variation.

- (45a) *pin n-lang-nnoe*                      *goe-f'yer*                      *rûûp*  
 hut    ADVZ-Cl:hang/move(sg)-DEM.PROX    NOMZ(sg)-become\_big(sg)    collapse
- (45b) *pin goe-f'yer*                      *n-lang-nnoe*                      *rûûp*  
 hut    NOMZ(sg)-become\_big(sg)    ADVZ-Cl:hang/move(sg)-DEM.PROX    collapse  
 'this hanging big house collapsed' [A-22/06/01]

<sup>22</sup> A nominalized clause cannot occur without a head noun, and it does not code number (see section 2.5.3). It is thus likely that the nominalized presentative clauses in Goemai co-occurred at first with a head noun. Following their reanalysis (as instantiating the modifying construction), it became possible for them to occur in the pronoun slot. Frajzyngier (1996b) describes a similar development in other Chadic languages where complex head-modifier constructions were reanalyzed first as simple head-determiner constructions and then as pronominal demonstratives.

- (46a) *La ndoe twen hok n-lang-nang zak-yit.*  
 little(sg) some cloth DEF ADVZ-Cl:hang/move(sg)-DEM.DIST again
- (46b) *la ndoe twen n-lang-nang hok zak-yit*  
 little(sg) some cloth ADVZ-Cl:hang/move(sg)-DEM.DIST DEF again
- ‘Some (of) the/that small hanging cloth again.’ [HAND-A/N; A-22/06/01]

#### 7.4.4 Stage 4

In the fourth stage, the nominalizing prefixes *goe-* and *moe-* became optional in the demonstrative modifier. This development was made possible through the reanalysis of the presentative prefix *N-* as an adverbializing prefix. Recall that the initial prenasalized consonants of some property verbs are remnants of this adverbializing prefix (see section 7.1.1), e.g., *nd'yen* ‘become small (pl)’ probably derives from *\*n-d'yen* ‘adverbializer-become small’. As illustrated in (47), such property verbs can occur in the modifying construction without a nominalizing prefix – just like the demonstratives.

- (47) *jap bi nd'yen n-d'e-nnoe-hoe (...).*  
 little(pl) thing become\_small(pl) ADVZ-Cl:exist-DEM.PROX-exactly
- ‘these existing small things (...).’ [HAND-A/N]

#### 7.4.5 Summary and discussion

The preceding sections discussed possible origins of the Goemai demonstrative system. As illustrated in table (8) below, it is assumed that the demonstratives originated in nominalized presentative clauses that contained a nominalizing prefix, presentative morphology, a locative verb and the distal adverb *\*nang* or the deictic/anaphoric demonstrative *\*nnoe*. Later, these nominalized clauses were reanalyzed as demonstratives, instantiating the modifying construction.

**Table (8):** The development from nominalized clauses to demonstratives

Nominalized clause	Demonstrative
<i>goe-</i> ‘nominalizer’	<i>goe-</i> ‘nominalizer (sg)’ <i>moe-</i> ‘nominalizer (pl)’
<i>n-</i> ‘presentative’	<i>n-</i> ‘adverbializer’
locative verb	deictic classifier
<i>nang</i> ‘distal adverb’ <i>nnoe</i> ‘deictic/anaphoric demonstrative’	deictic root

Given our knowledge about earlier stages of Goemai (see Sirlinger 1937; 1942; 1946), it has to be assumed that the present-day demonstrative system developed over the past 60 years or so. The speed of this development is remarkable. It was triggered by the loss of a tonal distinction, which then led to a complete reorganization of the whole system (see also the discussion in section 11.1.3).

The diachronic origins discussed in this section explain two characteristic features of the Goemai demonstrative system: (i) their exophoric function, and (ii) the presence of deictic classifiers.

(i) The demonstratives are almost exclusively used for gestural exophoric reference, i.e., with referents that are physically present to the speech situation and that require a gestural presentation. It is likely that this use results from their presentative origin: generally, a presentative structure is considered to have a gestural exophoric function (see, e.g., Fillmore 1975: 41; 1982: 47; Hanks 1992: 62-64). Such an origin would also explain the observation that the parameter 'space' (i.e., distance) is less important to the Goemai system than the parameters 'attention-direction' and 'identifiability'.

Cross-linguistically, there is evidence that the gestural exophoric use is the basic use of demonstratives. Diessel (1999: 109-113), for example, argues that it is prior in language acquisition, that it is morphologically and distributionally unmarked, and that it constitutes the source for further grammaticalized uses (see also Halliday and Hasan 1976: 31-87; Levinson in press; J. Lyons 1977: 646-677). This interpretation is not shared by all researchers, though (see, e.g., Frajzyngier 1996b; Himmelmann 1996).

Himmelmann (1996) proposes that exophoric and non-exophoric uses have the same status. He shows that many non-related languages systematically code the same uses within one form, and argues that this situation makes it difficult to postulate the existence of one basic (exophoric) use, and to assume that its systematic extensions took place independently. It is true that many languages code exophoric, discourse-deictic, anaphoric or recognitional reference in a single form (see, e.g., Diessel 1999: 93-114; Fillmore 1975; Halliday and Hasan 1976: 31-87; Himmelmann 1996; Klein 2001; J. Lyons 1977: 646-677). The Goemai demonstratives, by contrast, clearly have basic exophoric uses – non-exophoric uses are either absent or can be shown to be later developments. Moreover, Goemai codes the different uses in different form classes whose members can co-occur (demonstratives, locative anaphor, definite article).

There are indications that other Chadic languages show a similar distribution of information (Frajzyngier 1996b).

Frajzyngier (1996b) suggests that anaphoric uses can precede exophoric uses. His argumentation is based on evidence from the closely related Chadic language Mupun. As illustrated in (48), the exophoric forms of Mupun are morphologically complex, incorporating an anaphoric adverbial element (*d'óé* ~ *d'é*), and an exophoric adverbial element (distal *sóé* or proximal *sòè*). Cross-linguistically, the reanalysis of adverbial elements as demonstratives is well attested (see Diessel 1999: 28-32). The interesting feature in the case of Mupun is the incorporation of an anaphoric element into the exophoric demonstratives.

(48) *Ba n-dem d'e-soe kas.*  
 NEG 1Sg-like DEM NEG

'I don't like it.' (Frajzyngier 1996b: 175)

The Goemai proximal form *goend'ennoe* contains the element *nnoe*, which is identical to the present-day locative anaphor. The exophoric form thus seems to have developed from the anaphoric form (similar to the development attested in Mupun). However, there are two reasons for not adopting such an analysis. First, *nnoe* is only present in the proximal form, not in the distal form. Second, there are indications that the present-day anaphor had exophoric uses in the past: in the Goemai catechism (Sirlinger 1931), *nnoe* is used with physical entities quoted in direct speech; and it occurs with symbolic exophoric reference. There is no evidence that would suggest an anaphoric origin of the exophoric demonstratives in Goemai.

In the case of Goemai, there is thus clear evidence for (a) a basic exophoric use, and (b) a diachronic origin in a form that had exophoric functions only. The non-exophoric uses of one of the demonstratives (the proximal form containing the existential classifier) are later developments.

(ii) The Goemai demonstratives contain deictic classifiers. Again, their presence can be explained with the help of the presentative origin: recall that the presentative construction contains a locative verb (see section 6.1.2). Furthermore, recall that some speakers accept the dispositional verb *k'oon* 'face down' in the presentative construction (see section 6.1.2): such speakers would also accept *k'oon* in the demonstrative (as in 49 below). No other dispositional verbs can occur in this slot.

- (49) *D'a*    *goe-n-k'oon-nnoe*                      *a*    *m-maan..*  
 calabash    NOMZ(sg)-ADVZ-face\_down(sg)    FOC    NOMZ-1Sg.Poss

'This facing down calabash is mine.' [A-22/06/01]

Interestingly, the deictic classifiers are in the process of being extended to other elements, i.e., to the definite article *hok* (as in 50a) and to the numerals (as in 50b).<sup>23</sup>

- (50a) *Moe d'e moe n-shin goe-n-d'e-hok*                      *yi.*  
 1PI    exist    1PI    PROGR-do    NOMZ(sg)-ADVZ-Cl:exist-DEF    PROGR

'We are doing the existing thing.' [FRIENDS]

- (50b) *Zarap moe-n-d'yam-vel (...)*  
 girls(pl)    NOMZ(pl)-ADVZ-Cl:stand(pl)-two  
  
*mûep d'yam t'ong pil pe yi.*  
 3PI    stand(pl)    PROGR    watch    place    PROGR

'The two standing girls (...)  
 they stand watching the place.' [STAGE\_80-N]

These are isolated examples, which are produced in natural texts, but rejected in elicitation sessions. Such a behavior suggests that a language change is taking place in this domain: it is possible that, at some point, the classifiers will regularly occur with non-demonstrative forms, thereby extending the classifying function beyond the spatial domain.

## 7.5 Summary

This chapter has discussed the formal properties of demonstratives, their semantics, their uses and their diachronic origins.

In section 7.1, the formal properties of demonstrative were investigated. It was shown that the *demonstratives* are characterized through a unique morphological form and a unique position in the noun phrase (where they can co-occur with other determiners).

In section 7.2, the semantics and distribution of deictic classifiers and deictic roots were discussed. The *deictic classifiers* code information about the position of the referent, whereby the *postural classifiers* are only used if this

<sup>23</sup> Usually, the existential classifier is used, but there are a few examples containing postural classifiers, e.g.:

- (i) *b'aal n-t'o-hok*  
 walking\_stick    ADVZ-Cl:lie(sg)-DEF  
 'the lying stick' [A-03/07/01]

positional information is necessary for identifying the referent; otherwise the existential is used. As such, their distribution is identical to the distribution of postural and existential verbs in the presentative construction. The deictic roots code distance with respect to the deictic center, i.e., the speaker/addressee common zone.

In section 7.3, the demonstrative functions were analyzed. It was shown that they have basic gestural exophoric uses. In addition, the proximal form with the existential classifier has acquired anaphoric and contrastive uses, thereby intruding into the domain of the locative anaphor. In its non-exophoric occurrences, the existential classifier has lost its classifying function, as it does not contrast with the posturals anymore. Instead, it is in the process of being reanalyzed as a semantically empty part of the demonstrative form.

In section 7.4, the diachronic development was discussed. It was shown that the demonstratives developed from nominalized presentative clauses. This origin can explain (a) their basic exophoric function and (b) the presence of deictic classifiers.

Goemai extensively uses verb serialization to express temporal relations among events (see section 2.5.1), additional participants of an event (see section 2.4.2.4) and different TAM categories (see section 2.4.3). Locative verbs frequently occur as the second verb in such serial constructions where they specify the position of a referent at the endpoint of its movement. In such contexts, their positional semantics is identical to that of locative verbs in the locative construction (see chapter 4 for details), but they convey an additional resultative aspect reading, which is not present in any other context. This chapter describes the role of locative verbs in serial constructions, focussing on the development of this resultative reading.

Their description is of interest for the following two reasons:

(i) While serialization is not common in present-day Chadic languages,<sup>1</sup> it is an areal feature that is shared by both Benue-Congo and Chadic languages spoken on the Jos Plateau. But aside from a few studies describing the serialization of motion verbs (Frajzyngier 1987a; 1987b; 1987c; 1991b) and the development of aspectual auxiliaries from serial verbs (Gerhardt 1994), little information is available on this areal phenomenon.

(ii) It is known that locative verbs develop into aspectual morphemes, but the discussion usually centers on the development of progressive and continuative forms (Bybee et al. 1994: 127-133; Heine 1997b: 195-207; Heine and Reh 1984: 122-126; Kuteva 1999) (see chapter 9). There is little information available on locative verbs developing into resultative elements.

This chapter is structured as follows: section 8.1 introduces the phenomenon of verb serialization in Goemai (independent of locative verbs), section 8.2 discusses the distribution of locative verbs in serial constructions, and section 8.3 concludes this chapter.

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<sup>1</sup> But see Frajzyngier (1996a) who suggests that serialization was a common phenomenon in Chadic languages in the past.

### 8.1 Serialization in Goemai

All serial verb constructions in Goemai are characterized by the following two properties: (a) the verbs share at least one core argument, and (b) they share the same temporal setting. On this basis, serial constructions are distinguished from multi-clausal constructions (see section 2.5).

(a) As illustrated in (1a) and (1b), the subject of the second verb is identical to the subject of the first verb.<sup>2</sup> Any direct object such as *ûes* ‘bone’ in (1a) or *sap* ‘axe’ in (1b) immediately follows the transitive verb that introduces it; it cannot follow the whole construction. If the direct object of the second verb is identical to that of the first verb (as in 1a), it is expressed only once, following the first verb.

(1a) *Aas mang ûes haar.*  
 dog take bone chew

‘The dog took the bone (and) chewed (it).’ [AAS]

(1b) *Goe-nye muk (...) mang sap goerep sh’ep hok.*  
 NOMZ(sg)-kind 3Sg.Poss take axe cut(pl) wood DEF

‘His neighbor (...) took an axe (and) cut the wood.’ [STAGE\_34-N]

(b) Since the events share the same temporal setting, this setting is marked only once (as in 2a and 2b). It cannot be marked on both verbs, nor can the two verbs be marked with different tense particles or time adverbials.

(2a) *P’ûûs ma dok wa ru.*  
 sun also PAST.REM return\_home(sg) enter(sg)

‘And the sun came back (and) arrived.’ [YOUTH]

<sup>2</sup> Example (i) below illustrates a second, infrequent, type of serialization. In this type, the direct object of the first verb corresponds to the subject of the second verb. Although such utterances instantiate a different construction type, they are subsumed under the label of ‘coordinate serial construction’ for the purposes of this chapter (see section 8.1.1). Like the coordinate construction, they are used to express a temporal or causal relationship between events. Furthermore, with the exception of the shared argument, their formal properties are identical to those of the coordinate construction. Notice that some authors would not consider them serial constructions because the subject argument is not shared, while others such as Crowley (1987: 37-42) discuss them as ‘causative’ serial constructions.

(i) *mûep het ni t’a n-yil*  
 3Pl hit 3Sg fall(sg) LOC-ground  
 ‘they hit him (and he) fell on the ground’ [A-17/02/00]



- (2b) *Naan wa ru goe men shini.*  
 God return\_home(sg) enter(sg) COM IPI.I today

‘May God come back (and) arrive with us today.’ [MIL-C]

The criterion of a ‘shared temporal setting’ does not mean that the different components of, e.g., a complex motion event, cannot be ordered sequentially. For example, our world knowledge tells us that ‘going’ and ‘returning’ in (3a) must have taken place at different points in time. However, these different points in time cannot be asserted independently using a serial construction. Instead, speakers have to resort to a multi-clausal construction (as in 3b).

- (3a) *hen mûaan n-Jos ba wa Moek'wo*  
 1Sg go(sg) LOC-Jos return(sg) return\_home(sg) Kwande

‘I went to Jos (and then) came back home to Kwande’ [A-10/11/00]

- (3b) *hen dyen mûaan n-Jos / hen ba wa shini*  
 1Sg PAST.HEST go(sg) LOC-Jos 1Sg return(sg) return\_home(sg) today

‘I went to Jos yesterday, I came back home today’ [A-10/11/00]

While all types of serialization share these two properties, subtypes can be distinguished on the grounds of (a) the marking of irrealis modality, (b) the use of locative adjuncts, (c) the scope of negation, and (d) their interaction with the sequential construction. Based on these four criteria, the serial verbs of some types can be said to form a tighter juncture than those of other types.<sup>3</sup>

This section compares the properties of three different serial constructions: the coordinate serial construction (section 8.1.1), TAM serialization (section 8.1.2), and the deictic serial construction (section 8.1.3) (all three are summarized in section 8.1.4). The purpose of this section is not to exhaustively document serialization in Goemai, but to give an overview of the phenomenon and to introduce criteria that can reliably distinguish between serial constructions. (These criteria are then used in section 8.2 to distinguish between constructions that contain a locative verb.)

<sup>3</sup> Although the literature proposes different tests to determine the tightness of verbs in serial constructions (e.g., the use of locative adjuncts or the scope of negation, see e.g. Durie 1997; Foley and Olson 1985; Foley and Van Valin 1984: 187-263; Pawley and Lane 1998; Van Valin and LaPolla 1997: 441-484, 517-575), it is nevertheless often difficult to find universally applicable criteria. This chapter aims at illustrating language-internal morphosyntactic environments where serial constructions show differences. Their different behavior is then used to draw conclusions about the relative tightness of their junctures.

### 8.1.1 Coordinate serialization

Goemai commonly uses verb serialization to express a temporal relation between two or more subevents or macro-events.<sup>4</sup> This type is labeled ‘coordinate serial construction’ throughout this thesis. It is assumed to be the prototypical serial construction for Goemai in the sense that it (i) occurs most frequently and (ii) constitutes the source structure for other types of serialization. Its properties are illustrated in figure (1) below.

**Figure (1):** The coordinate serial construction

Form:	[(Subject) Verb phrase <sub>1, 2, n</sub> ]Clause	(TIME)
	(NP) verb <sub>1</sub> (+ NP) + verb <sub>2</sub> (+ NP) etc.	(tense particle)
	(a) non-stative verb + non-stative verb (see this section)	(temporal adverb)
	(b) non-stative verb + stative verb (see section 8.2.1)	
	(c) stative verb + non-stative verb (see section 9.4.2)	
Meaning:	Within time $t_1$ , states of affairs <sub>1, -2, -n</sub> happen.	
Function:	Expression of states of affairs that are temporally related. The kind of relationship depends on the lexical aspect of the verb: a sequence of events or states (as in a and b) or a state coterminous with an event (as in c).	

<sup>4</sup> Following Bohnemeyer (2001) and van Staden and Reesink (submitted), the label ‘subevent’ is used for the smallest event entity that can be lexicalized in the language (subsuming both framing events and co-events in the terminology of Talmy 2000). The label ‘macro-event’ is used for a unit that is bound in time and that shares a set of semantic roles. Notice that the label ‘event’ also subsumes, e.g., states (i.e., non-dynamic states of affairs) and state changes. Throughout this chapter, states and state changes are treated as falling under this label (unless the focus is explicitly on either states or state changes as opposed to other states of affairs).

The coordinate construction is used to express either a single macro-event (e.g., a motion event that consists of a complex path) or a sequence of macro-events. Usually, only two verbs are serialized, but there are examples that contain up to five verbs (as in i).

- (i) *Fûan yool su p'et doe kat mûep.*  
 rabbit rise(sg) run(sg) e'it(sg) come find 3PI  
 ‘The rabbit rose, ran, went out and found them here.’ [FUAN2]

The properties that differentiate the coordinate construction from other serial constructions are as follows:

(a) If the construction is marked with one of the irrealis particles, this particle occurs with each verb (as *goe* ‘obligative’ in 4 below).

- (4) *de mûep goe mûen goe two mutane.*  
 COMP 3PI OBL go(pl) OBL kill(pl) people(pl)  
 ‘so that they should go (and) should kill people.’ [WAR]

(b) The events can take place at different locations, and each verb can therefore introduce a separate locative adjunct (as in 5).

- (5) *Wakaam (...) yool dakt’ûe lu wa Hill Station Hotel.*  
 road rise(sg) MIDDLE settlement return\_home(sg) Hill\_Station\_Hotel  
 ‘The road (...) started in the middle of town (and) returned to the Hill Station Hotel.’ [MIL-N]

(c) The negation particle follows the whole construction. Although this is the case in all serial constructions, its scope differs in the different constructions. In the coordinate construction, its scope is vague (as conveyed by the free translations in 6a): it negates either the whole construction or only the last verb, depending on the context. In (6b), the latter reading is forced by adding the form *ba* ‘return’. Notice that (6b) does not instantiate the coordinate serial construction: *ba* functions here as a conjunction ‘and/but’, having lost some of its verbal properties as well as its original semantics (see also section 2.5.6).

- (6a) *la hok mûaan ru d’i mou*  
 child(sg) DEF go(sg) enter(sg) LOC.ANAPH NEG  
 ‘the child did not go (and did not) enter there’  
 ‘the child went (but) did not enter there’ [A-14/06/01]
- (6b) *la hok mûaan ba ru d’i mou*  
 child(sg) DEF go(sg) return(sg) enter(sg) LOC.ANAPH NEG  
 ‘the child went but did not enter there’ [A-14/06/01]

(d) The sequence of events can be overtly marked through the sequential particles *goe* (as in 7a) or *goe-goe* (as in 7b). As illustrated in (7c), every subsequent event has to be introduced by such a sequential particle. Like (6b) above, the three examples below do not instantiate the coordinate serial construction – they merely illustrate the kind of relationship that holds between the coordinate serial construction and the sequential construction.

(7a) *Mûaan goe ru a ndoe pin.*  
 go(sg) SEQ enter(sg) FOC some hut  
 ‘(She) went and entered (into) a hut.’ [WITCH1]

(7b) *Mûaan goe-goe p’et.*  
 go(sg) RED-SEQ exit(sg)  
 ‘(He) went and exited.’ [STAGE\_53-N]

(7c) *Ba goe haan goe t’o k’a gado muk (...).*  
 return(sg) SEQ climb(sg) SEQ lie(sg) HEAD(sg) bed 3Sg.Poss  
 ‘(He) returned and climbed up and lay on his bed (...).’ [FROG-N]

Properties (a) to (d) suggest that the verbs in the coordinate construction form only a loose unit.<sup>5</sup>

In most cases, the events expressed by the verbs take place in a temporal sequence, and the verbs are ordered iconically to reflect this sequence (as in 8a). The interpretation of simultaneity only arises when a locative verb occurs as the first verb (as in 8b). Recall that locative verbs are stative verbs, i.e., a sequential interpretation (e.g., ‘sit down and then discuss’) is not possible in their case (see section 3.1.2). Except for property (d) above (use of sequential particle), the structure illustrated in (8b) shares all properties that define a coordinate serial construction, and is therefore seen as instantiating this construction. Since it receives a progressive-like reading, its further discussion is postponed until section 9.4.2.

(8a) *Patience yool mûaan n-lu hok.*  
 Patience rise(sg) go(sg) LOC-settlement DEF  
 ‘Patience rose (and) went to the house.’ [WITCH2]

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<sup>5</sup> It can be argued that tests involving a paraphrase (e.g., *ba* ‘return’ in 6b or the sequential particles in 7a to 7c) do not give information about constructional properties, but rather about the verb semantics (that allows them to occur in both the original and the paraphrased construction). However, many verbs can occur in different serial constructions, e.g., the two verbs ‘fall’ + ‘lie’ can occur in either the coordinate construction or in the inchoative construction (see section 8.2.3). If the sequential construction interacts with the coordinate construction, the sequential particle precedes ‘lie’ (i.e., a ‘falling’ event followed by a ‘lying’ event). If the sequential construction interacts with the inchoative construction, by contrast, the sequential particle cannot occur in this position (i.e., a single ‘lying down’ event). I therefore assume that paraphrase possibilities also tell us something about the relationship between constructions.

- (8b) *Mûep t'wot shin nye-d'ûe nnoe (...).*  
 3Pl sit(pl) do kind-voice LOC.ANAPH

'They sat having this discussion.' [LIT]

Frajzyngier (1993: 229-248) describes a similar type of serialization for motion verbs in Mupun, a language that is closely related to Goemai. He argues that the existence of this type is motivated because (i) prepositions do not differentiate between path components and (ii) motion verbs code a single semantic parameter only (source, goal, path, manner). As a consequence, a separate verb is needed for each parameter to be expressed. A similar characterization holds for Goemai: all path and manner components are coded in verbs, while the prepositions and spatial nominals specify a search region, but not a path (see section 6.2). It is a common pattern of verb-framed languages to express different path components in different verbs.<sup>6</sup> The means by which these verbs are then combined differ across languages: they may occur in form of multiple independent clauses, as main plus subordinate clauses, or as serial constructions (Bohnenmeyer 2001; Senft and Smits 2000: 102-110). Goemai and Mupun both make extensive use of the last possibility. But notice that the coordinate serial construction of Goemai is not restricted to motion verbs: all verbs expressing events that can be brought into a temporal or causal relationship can occur in the coordinate construction.

### 8.1.2 TAM serialization

TAM serialization is introduced to illustrate a grammaticalization process from verbs to particles. Goemai has a number of TAM particles that originated in serial verbs (see table 14 in section 2.4.3), and whose verbal origin is still

<sup>6</sup> I follow here Talmy's (1985; 2000) distinction between verb-framed and satellite-framed languages. Verb-framed languages code the framing event (i.e., path in the case of motion events) in the verb, and the co-event (e.g., manner) in the satellite (e.g., in particles or prepositions). Satellite-framed languages, by contrast, code path in the satellite and manner in the verb. Recent studies have shown that the differentiation into verb-framed and satellite-framed languages cannot capture some of the distinctions found within types. Serializing languages are especially problematic for the typology, as both path and manner are coded in verbs (Ameka and Essegbey to appear; Schaefer 1986; 1997; van Staden and Reesink submitted). However, for the purpose of this chapter, the characterization of Goemai as verb-framed is sufficient. (See also Schaefer and Gaines 1997 who follow a similar procedure in the case of different African languages.) An analysis of the applicability of the typology to Goemai is beyond the scope of this thesis.

visible in their relative position with respect to pronouns of set 2 (such as the logophoric pronoun *ji* in 9a to 9c below; see section 2.2.1.2 for the two sets of pronouns). In the coordinate serial construction, such a pronoun always follows the first verb (as in 9a). The same distribution is found in the case of those TAM particles that developed from serial verbs: this pronoun follows the TAM particle (e.g., in 9b, it follows the irrealis particle *t'ong* that originated in the verb *t'ong* 'sit'). TAM particles that developed from prepositions, by contrast, are always preceded by this pronoun (e.g., in 9c, it precedes the obligative particle *goe* that originated in the locative preposition *goe*).

(9a) *mang ji lang sek gak-hoe.*  
 take Sgm.LogS hang/move(sg) BODY wall-exactly  
 '(he) took (it and) hung (it) against the wall.' [SR\_TMAY-A]

(9b) *t'ong ji kat a mmoe?*  
 IRR Sgm.LogS find FOC what  
 'what would he find?' [YOUTH]

(9c) *ji goe kat pe (...).*  
 Sgm.LogS OBL find place  
 'he should find the place (...).' [PANG]

Although TAM morphemes such as irrealis *t'ong* originated in verbs, the following two contexts illustrate their present-day particle status:

First, whenever the coordinate serial construction is nominalized, the possessor (that corresponds to the subject of the verbal clause) follows the first verb (as in 10a).<sup>7</sup> When TAM constructions are nominalized, by contrast, both the TAM particle and the verb precede the possessor – regardless of whether the TAM particle originated in a verb (as in 10b) or a preposition (as in 10c).

(10a) *Goe-wa muk ya n-lu wa doe tal.*  
 NOMZ-return\_home(sg) 3Sg.Poss arrive LOC-settlement return\_home(sg) come greet  
 'When he returned (and) reached the house, (he) returned (and) greeted here.' [NTI]

(10b) *Ngan shin hak'uri / goe-t'ong kut men.*  
 Ngan do patience NOMZ-IRR speak 1Pl.Poss  
 'Ngan remained patient, while we would speak.' [GOELONG]

<sup>7</sup> See section 2.5.3 for details of nominalized clauses. Recall that nominalized clauses fulfill a function similar to relative clauses (as in 10c). When they occur without a head noun, they receive a temporal interpretation (as in 10a and 10b).

- (10c) *Yit goe-goe t'at men dip (...).*  
 face/eye NOMZ-OBL clear 1Pl.Poss all

'The face that we should all uncover (...).' [TIME-A]

Second, whenever the coordinate serial construction is subordinated with the help of the subordinating particle *yi*, this particle follows the first verb (as in 11a). Notice that the subordinating particle subordinates the whole clause – not one of the verbs with respect to the other. When TAM constructions are subordinated, by contrast, both the TAM particle and the verb precede the subordinating particle (as in 11b and 11c).

- (11a) *de ni d'alang yi ru n-lu.*  
 COMP 3Sg pass(sg) SUB enter(sg) LOC-settlement

'so that he passes (and) enters the town.' [TARIHI]

- (11b) *de hen t'ong kut yi.*  
 COMP 1Sg IRR speak SUB

'so that I will speak.' [MIL-C]

- (11c) *de moto goe haan yi.*  
 COMP car OBL climb(sg) SUB

'so that the car should ascend.' [MIL-C]

Despite its verbal origin, the TAM morpheme *t'ong* (illustrated in 10b and 11b above) thus has to be analyzed as a particle in present-day Goemai. Similar arguments can be made for the development of other TAM particles (see section 2.4.3).

### 8.1.3 Deictic serialization

This section introduces the deictic serial construction. Its purpose is to illustrate an intermediate stage between the coordinate serial construction (see section 8.1.1) and TAM serialization (see section 8.1.2). The verbs in the deictic construction form a tighter unit than the verbs in the coordinate construction, but they retain most of their verbal properties. Figure (2) summarizes the deictic construction. It consists of the verb *doe* 'come', followed by a non-motion verb (as illustrated in 12 below).<sup>8</sup>

<sup>8</sup> The verb *doe* 'come' can also occur in the coordinate construction, in which case it functions as a motion verb and exhibits properties that differ from its properties in the deictic construction.

**Figure (2):** The deictic serial construction

Form:	[(Subject)	Deictic verb	Verb phrase] <sub>Clause</sub>	(TIME)
	(NP)	<i>doe</i> 'come'	non-motion verb (+ NP)	(tense particle) (temporal adverb)
Meaning:	At time $t_1$ , a state of affairs (expressed in verb phrase) happens here.			
Function:	Expressing the deictic setting of a state of affairs.			

- (12) *Mûep k'wal mûep yi lwa n-s'et /*  
 3Pl talk 3Pl SAY animal LOC-bush  
*doe t'ong k'us ndoe d'wen.*  
 come sit(sg) near CONJ Pl.LogS.I

'They<sub>1</sub> said that the animal in the bush  
 sat here next to them<sub>1</sub>.' (lit. 'came and sat') [ANC]

This construction looks superficially similar to the coordinate construction, as it seems to express a temporal sequence. However, its formal properties differ considerably, suggesting that deictic *doe* forms a tight unit with the following verb (see below). The construction does not express a sequence (e.g., 'come and sit') but deixis (e.g., 'sit here'). Deictic *doe* can even co-occur with the motion verb *doe* 'come': in (13) below, the first *doe* is used as a motion verb, while the second *doe* is used as a deictic element.

- (13) *de goe doe yi doe kut kut*  
 COMP OBL come SUB come speak speech

'so that (he) should come (and) speak here' (lit. 'come and come and speak a speech') [A-13/06/01]

The properties of the deictic construction are as follows:

- (a) Irrealis modality is marked only once (as in 14), but has scope over both verb phrases.

- (14) *Gwa goe doe kat ji n-Lagos.*  
 Sgm.LogA OBL come find Sgm.LogS LOC-Lagos

'(He<sub>1</sub> said to him<sub>2</sub> that) he<sub>2</sub> should meet him<sub>1</sub> here in Lagos.' [WITCH2]

- (b) Locative adjuncts follow the last verb phrase (as in 15). It is not possible for deictic *doe* to introduce a separate locative adjunct.



- (15) *Wo doe lap ni n-goede t'eng.*  
 snake come receive 3Sg LOC-bottom tree

'The snake received her here under the tree.' [REEP]

(c) The negation particle always has scope over the whole event (as in 16a). It is therefore not possible to insert the form *ba* 'return' to convey a conjoined reading: the utterance in (16b) is ungrammatical.

- (16a) *Mûep (...) doe na noemûat ba.*  
 3Pl come see frog NEG

'They (...) did not see the frog here.' [FROG-D]

- (16b)\**mûep doe ba na noemûat ba*  
 3Pl come return(sg) see frog NEG

\*'they came but did not see the frog' [C-08/11/00]

(d) The sequential particle precedes the whole construction (as in 17). It cannot be inserted between the two verbs.

- (17) *ba goe doe kat wo nnoe (...).*  
 return(sg) SEQ come find snake LOC.ANAPH

'(she) returned and found this snake here (...).' [MATWO]

Based on these four criteria, the verbs in the deictic serial construction can be said to form a unit.

It can even be argued that deictic *doe* is on its way to become a grammaticalized particle: in some contexts, it occurs in the particle slot, while in others, it occurs in the verb slot. Its distribution is as follows:

(a) Pronouns of set 2 can either follow *doe* (as in 18a) or precede it (as in 18b). It occurs in the verb slot in the first case, but in the particle slot in the second.<sup>9</sup>

- (18a) *doe ji na (...).*  
 come Sgm.LogS see

'he sees (it) here (...).' [MATWO]

- (18b) *de ji doe kat ni yi (...).*  
 COMP Sgm.LogS come find 3Sg SUB

'so that he finds her here (...).' [FUAN]

(b) *Doe* occurs in the verb slot of nominalized clauses, i.e., it precedes the possessor (as in 19).

<sup>9</sup> It is possible that the distribution of *doe* as a verb vs. *doe* as a particle is conditioned by contextual and/or sociolinguistic factors. So far, no conditioning factors were found.

- (19) *goe-doe muk t'ong d'i (...)*  
 NOMZ-come 3Sg.Poss sit(sg) LOC.ANAPH

'while he sat here (...)' [A-13/06/01]

(c) *Doe* occurs in the particle slot of subordinated clauses: both *doe* and the non-motion verb precede the subordinating particle (as in 20).

- (20) *t'ong wa n-ni a b'ak Moek'wo / de doe t'ong yi*  
 IRR return\_home(sg) COM-3Sg.I FOC here Kwande COMP come sit(sg) SUB

'(he) would return with it here to Kwande, so that (he) sits here' [A-13/06/01]

As illustrated in (18) to (20) above, deictic *doe* has an indeterminate status in that it shows similarities to both verbs and particles. It is possible that it will eventually grammaticalize from a motion verb in a serial construction to a deictic particle.

#### 8.1.4 Summary

Table (1) on the next page summarizes the similarities and differences of the three constructions discussed in sections 8.1.1 to 8.1.3. Although they are not the only serial constructions in Goemai, they illustrate the kind of properties that can be used to differentiate between them. Notice that, for ease of reference, table (1) already includes information on locative verbs that occur in second position of the coordinate construction, the configurational construction and the inchoative construction. The following section investigates the properties of these constructions, and compares them to those of the coordinate serial construction from which they originated.

## 8.2 Locative verbs in serial constructions

This section discusses the occurrence of locative verbs in second position of serial constructions. It analyzes their co-occurrence with motion and caused motion verbs (section 8.2.1), with state-change verbs (section 8.2.2), and with *t'a* 'fall' or *yool* 'rise' (section 8.2.3). Section 8.2.4 summarizes the discussion.

### 8.2.1 Coordinate serialization: (caused) motion plus locative verb

Locative verbs can occur as the second verb in the coordinate serial construction (see figure 1 in section 8.1.1 for the coordinate construction, see table 1 for a summary of its properties). The properties of the coordinate

**Table (1):** Comparing different types of serial constructions

Criteria	Coordinate construction	TAM construction	Deictic construction	Configurational construction	Inchoative construction
<i>(1) core characteristics of serial constructions:</i>					
(a) sharing core argument	yes	yes	yes	yes	yes
(b) sharing temporal setting	yes	non-applicable	yes	yes	yes
<i>(2) criteria that illustrate the degree of independence between the elements:</i>					
(a) separate marking of irrealis modality	yes	non-applicable	no	yes	yes
(b) multiple locative adjuncts	yes	no	no	no	no
(c) negation can have scope over last element only	yes	no	no	no	no
(d) sequential particle can be added	yes	no	no	no	no
<i>(3) criteria that illustrate the verbal status of an element:</i>					
occurs in verb slot ...					
(a) ... relative to pronouns of set 2	yes	yes	yes/no	yes	yes
(b) ... of nominalized clauses	yes	no	yes	yes	yes
(c) ... of subordinated clauses	yes	no	no	no	yes
<i>(4) criteria that illustrate the retention of locative semantics (only applicable if construction contains a locative verb, see section 8.2):</i>					
(a) obligatory locative adjunct	yes/no	-	-	no	no
(b) durative marking	yes			yes	no
(c) presentative marking	yes			yes	no
(d) classificatory use	yes			yes	no

construction are not re-iterated in this section. Instead, this section concentrates on those aspects that are unique to locative verbs in this environment.

In the coordinate construction, locative verbs are preceded by either a motion verb (as in 21a) or a caused motion verb (as in 21b).<sup>10</sup> This structure expresses a dynamic path that has a static location at its endpoint.

- (21a) *Gurum goe tyoop muk ni mûaan d'yem n-kong.*  
 person COM health 3Sg.Poss 3Sg go(sg) stand(sg) LOC-river  
 'The healthy person, he went (and) stood at the river.' [GOERWANG]

- (21b) *Mûep twaam ni d'yem sek b'et muk.*  
 3Pl cause\_standing(sg) 3Sg stand(sg) BODY BELLY 3Sg.Poss  
 'They stood it (and it) stands next to it.' [COMP\_6-M/J]

When locative verbs occur in the coordinate construction, they retain their lexical aspect and argument structure. That is, like in simple verbal clauses, they are stative verbs that can be marked for durative aspect (as in 22a) or for the presentative function (as in 22b) (see sections 3.1.1 and 3.1.2); and they are (usually) followed by a locative adjunct (as in 23a and 23b) (see section 3.1.3). Furthermore, they occur in reference to the same kinds of Figure/Ground relations as locative verbs in the locative construction (see section 4.2), and they can be used in a classificatory way (see section 5.1).

- (22a) *Sh'ep ru yi d'yem n-yil.*  
 wood enter(sg) DUR stand(sg) LOC-ground  
 'The stick entered (and) is standing in the ground.' (= stick inserted in ground) (i.e., after it had entered, it stood continuously') [PSPV\_20-A]
- (22b) *La s'ong p'et na n-lang d'i goe-t'oor.*  
 little(sg) branch exit(sg) PRES PRES-hang/move(sg) LOC.ANAPH PLACE-flank  
 'A little branch came out (and) behold (it) is hanging there at the side.'  
 (= leaf hanging at tree) [COMP2\_4-A/N]
- (23a) *dok mûaan t'ong goe pe mûes.*  
 PAST.REM go(sg) sit(sg) PLACE place beer  
 '(he) went (and) sat in the beer parlor.' [SR\_SVCT-A]
- (23b) *mûaan goe pe mûes t'ong k'a toom*  
 go(sg) PLACE place beer sit(sg) HEAD(sg) chair  
 '(he) went to the beer parlor (and) sat on a chair' [A-13/06/01]

<sup>10</sup> Although (21a) and (21b) do not instantiate the same construction type, they are discussed together in this section (see footnote 2). See section 9.4.2 for a discussion of locative verbs occurring as the first verb in the coordinate construction.

So far, locative verbs in the coordinate serial construction and locative verbs in the locative construction do not behave differently. Their only difference is as follows: although locative verbs in the coordinate construction are usually followed by a locative adjunct, this adjunct is not obligatory (unlike in the locative construction). I assume that its optionality results from a developing resultative aspect reading. For the time being, I assume that their aspectual reading is not yet grammaticalized, but an implicature (resulting from the co-occurrence of a dynamic motion verb with a stative locative verb in a construction that expresses a temporal relation between states of affairs). Nevertheless, I take the optionality of the locative adjunct as an indication that a grammaticalization process has begun. In the remainder of this section, this argument is developed further.

Examples (24a) and (24b) below illustrate the occurrence of locative verbs in serial constructions without being followed by a locative adjunct. In both cases, the speaker focuses on the completion of a previous event. In (24a), the referent has returned home, and the locative verb *t'ong* 'sit' marks the end of this returning event (in a sitting position). In (24b), the speaker describes first another returning event, and then uses *t'wot* 'sit (pl)' in a serial construction to mark the end of this event (in a sitting position). Following that, he specifies further events that take place after returning (i.e., people take calabashes and drink from them, etc.). Notice that he first uses *t'wot* (presumably to stress again the completion of the returning event), but then interrupts himself and replaces *t'wot* with *lat* 'finish' – possibly because locative verbs do not have a resultative reading when occurring in a non-serial construction.

(24a) *A ni toe. (...) Wa t'ong.*  
 FOC 3Sg.I EMPH return\_home(sg) sit(sg)

'(This) is it. (...) (It) has returned home (and) sits.' [COLOR-N/A]

(24b) *Mûep t'ong yok k'ek sek mûep.*  
 3Pl IRR return\_home(pl) HEAD(pl) BODY 3Pl.Poss

*Mûep t'ong doe t'wot. Mûep la t'wot / uh / la lat /*  
 3Pl IRR come sit(pl) 3Pl COND sit(pl) INTERJ COND finish

*mûep t'ong war / gwi.*  
 3Pl IRR collect(pl) calabash

'They themselves would return home.  
 They would sit here. When they sit, er, when (they) finish,  
 they would take the calabashes.' [ANC]

The repair strategy used in the second line of example (24b) above suggests that the resultative reading of locative verbs is related to their co-occurrence with dynamic motion (or caused motion) verbs in a serial construction. Whenever a stative locative verb follows a dynamic motion verb, it carries an implicature to the effect that the prior motion event has ended (in a certain state). Interestingly, motion verbs in Goemai are usually not followed directly by a non-motion or non-locative verb, e.g., by *b'ûen* 'watch'. Instead, such verbs occur in the sequence 'motion verb' plus 'locative verb' plus 'other verb' – usually in a serial construction followed by a progressive construction (as in 25). This pattern differs from the pattern attested in many serializing languages, where motion verbs tend to directly precede other types of verbs (see Durie 1997: 310-313). Goemai speakers, by contrast, seem to prefer to specify the position of the referent at the endpoint of its movement before a subsequent event can be talked about. The locative verbs thus frequently mark the end of a motion event and the beginning of another event. For example, in (25) below, the motion event ends in a standing position, in which the subsequent activity (looking at someone) is carried out. It is not surprising that, in this context, the locative verbs receive a resultative reading.

- (25) *Yir ba doe d'yem / t'ong b'ûen nda muk yi (...).*  
 turn return(sg) come stand(sg) PROGR watch father 3Sg.Poss PROGR  
 '(It) turned (and) returned (and) stood here looking at its father (...).'

[AAS]

There are indications that, in the past, a stative locative-like verb *\*kam* 'stay' occurred in the coordinate serial construction and, in this environment, became grammaticalized as the resultative particle *kam*. Unlike the resultative reading of locative verbs, the resultative reading of *kam* is not an implicature, but part of its meaning. It is nevertheless possible that the locative verbs will eventually undergo a similar grammaticalization process. For this reason, the distribution of resultative *kam* is illustrated in the following paragraphs (and then compared to that of the locative verbs).

Resultative *kam* probably originated from a verb. Although the original verb is not used productively anymore, it still occurs in the fixed expression of (26a). In this expression, it occurs in a verb slot. Furthermore, the verbal origin of resultative *kam* is visible in its position with respect to pronouns of set 2 (see section 2.2.1.2 for the two pronoun sets): such pronouns follow the main verb but precede *kam* (as *yi* 'you' in 26b) – if *kam* had a non-verbal origin, the

pronouns would precede the main verb. Its position in (26b) is identical to the position of the second verb in the coordinate serial construction.

(26a) *hen paar reep noe / mûaan goe-goe kam d'i*  
 1Sg send girl(sg) 1Sg.Poss go(sg) RED-SEQ ?stay LOC.ANAPH  
 'I sent my daughter, (she) went and remained there' [A-09/02/00]

(26b) *Goe-pe wa yi kam (...).*  
 NOMZ-COMP return\_home(sg) 2Sgf RESULT  
 'After you have come home (...).' [TIME-J]

In present-day Goemai, the resultative particle *kam* co-occurs with verbs of motion, caused motion and change of state. Its interpretation depends partly on the lexical semantics of the verb and partly on the presence of a locative adjunct. The different interpretations can be illustrated with the help of the following three contexts:

(i) Whenever a locative adjunct follows any type of motion or caused motion verb (as in 27a and 27b), the resultative particle focuses on the locative state existing as the result of the prior movement. Notice that the position of the locative adjunct can vary. Most commonly, it follows the resultative particle (as in 27a and 27b), but it can also precede it (as in 27c). The semantics of (27a) and (27c) seem to be identical.

(27a) *doe kat gwen naan mûen kam n-zam (...).*  
 come find PL God go(pl) RESULT LOC-field  
 '(he) found here (that) God and his people had gone to the farm (...).'  
 (i.e., they are on the farm now) [GOELONG]

(27b) *mûep paar ni kam n-Jos*  
 3Pl send 3Sg RESULT LOC-Jos  
 'they sent her to Jos' (i.e., she is in Jos now) [A-14/02/00]

(27c) *doe kat gwen naan mûen n-zam kam*  
 come find PL God go(pl) LOC-field RESULT  
 '(he) found here (that) God and his people had gone to the farm' [A-17/12/99]

(ii) Whenever *kam* occurs with a manner of motion verb (as in 28a) or a caused motion verb (as in 28b) – but without a locative adjunct – it focuses on the continuity of the motion event. That is, the motion event has started, but has not ended yet.

(28a) *Yar hok zak su kam.*  
 bird DEF also run(sg) RESULT  
 'And the bird is also running/flying.' [FROG-D]

(28b) *t'uus neng muk kam n-ni poenoe*  
 push cow 3Sgm.Poss RESULT COM-3Sg.I thus

‘(he) is leading his cows this way’ (lit. ‘he is pushing his cows and stays with them thus’) [A-11/02/00]

(iii) Whenever *kam* occurs with a state-change verb, it focuses on the resulting end state (as in 29).

(29) *s'wa hok fu kam*  
 guineacorn DEF scatter RESULT

‘the guineacorn has scattered’ (i.e., it is scattered now) [A-11/02/00]

The coordinate serial construction with a locative verb can be used in place of the resultative construction in context (i) above (illustrated in 27a to 27c) – it differs in that it not only marks the end of the motion event, but also the resulting position. Locative verbs can furthermore occur in context (iii) (illustrated in 29), albeit not in the coordinate construction (see section 8.2.2 for details). But they cannot occur in context (ii) (illustrated in 28a and 28b).

The distribution and interpretation of locative verbs in serial constructions thus shows similarities to that of the resultative particle *kam*: they co-occur with the same types of verbs (motion, caused motion and state-change verbs), the locative adjunct is not obligatory, and they receive an aspectual reading. For the moment, however, I would not consider this aspectual reading part of their semantics, but an implicature. This decision is based on the observation that their occurrence is restricted to locative contexts (where they retain most of their original lexical semantics): they always specify a position, and they never occur with an aspectual reading alone (unlike *kam*).

While the coordinate serial construction does not code aspect (the resultative reading of the locative verbs is analyzed as an implicature), there are two other constructions that are overtly concerned with expressing aspectual (or rather aktionsart) functions: the configurational and the inchoative construction. Both of them contain a stative locative verb in second position. They differ formally from the coordinate construction in that the verbs form a tighter unit (see the summary in table 1 above). These two constructions are discussed in the following two sections.



8.2.2 Configurational serialization: state-change plus locative verb

Locative verbs occur as the second verb in the configurational serial construction, a construction that allows state-change verb to occur in reference to a state. The constructional properties are illustrated in figure (3).

Figure (3): The configurational serial construction

Form:	[(Subject) State-change verb Locative verb] <sub>Clause</sub> (TIME)
	(NP)                    dispositional verb                    (tense particle)
	property verb                            (temporal adverb)
	verb of joining/separation
Meaning:	At a time $t_1$ , the referent has come to be in a certain condition (a spatial configuration, a property or a part-whole relation) and is in a certain position.
Function:	Allowing state-change verbs to occur in reference to a state.

In this construction, a locative verb is preceded by an intransitive verb from the form class of state-change verbs (see section 3.2), e.g., a dispositional verb such as *k'oon* 'face down' (in 30a) or a property verb such as *b'ang* 'become red' (in 30b).<sup>11</sup>

- (30a) *Goe-nnoe                    k'oon                    d'yem                    k'a                    tebul.*  
 NOMZ(sg)-LOC.ANAPH    face\_down(sg)    stand(sg)    HEAD(sg)    table  
 'This one stands face down on the table.' [DIS\_1.2-A/N]

<sup>11</sup> Recall that all state-change verbs can also occur in the transitive construction and in the location-object construction (see section 3.2.1). In the transitive construction, they can co-occur with the causative counterparts of the locative verbs as in (i) below. Such utterances instantiate the coordinate serial construction. In the location-object construction, they can co-occur with locative verbs as in (ii) below. Such utterances instantiate the configurational serial construction.

- (i) *Mat                    hok                    kan                    la-t'eng                    hok                    b'uet                    k'a                    tebul.*  
 woman(sg) DEF    incline    child(sg)-tree    DEF    cause\_lying(sg) HEAD(sg) table  
 'The woman inclined the fruit (and) laid (it) on the table.' [CP\_11-A]
- (ii) *Masha                    dum                    sat                    d'yem                    t'ong                    pil (...)                    yi.*  
 friend(fem) bend\_forward    body.Sgf.LogS.Poss    stand(sg)    PROGR    watch    PROGR  
 '(Our) friend stands bent in relation to her body watching (...).' [STAGE\_48-N]

- (30b) *hangoed'e hok b'ang d'e nd'ûûn cup*  
 water DEF become\_red exist INSIDE cup  
 'the water is red in the cup' (speaker had observed the water turning red)  
 [A-15/06/01]

The configurational construction differs from the coordinate construction in several respects (see table 1 above for a summary). In particular, the two verbs of the configurational construction form a tighter unit. Only criterion (2a) of table (1) (i.e., the separate marking of irrealis modality) suggests that the two verbs have some independence from each other (as illustrated in 31a below). The other three criteria, by contrast, illustrate their dependence. First, state-change verbs in this construction cannot introduce a separate locative adjunct – any adjunct has to follow the locative verb (as in 30a and 30b above). Second, the negation particle always has scope over the whole event. This means that the form *ba* 'return' cannot be inserted to convey a conjoined reading (31b below is ungrammatical). Third, a sequential particle cannot be inserted between the two verbs, but has to precede the whole unit (as in 31c).

- (31a) *la hok goe shuur goe t'ong n-yil*  
 child(sg) DEF OBL squat OBL sit(sg) LOC-ground  
 'the child should sit squatting on the ground' [A-13/06/01]
- (31b)\**la hok d'ûût ba d'yem sek gak mou*  
 child(sg) DEF lean return(sg) stand(sg) BODY wall NEG  
 \*'the child leaned but does not stand against the wall' [A-14/06/01]
- (31c) *mûaan goe d'ûût d'yem sek gak t'ong k'ang hen yi*  
 go(sg) SEQ lean stand(sg) BODY wall PROGR wait\_for 1Sg PROGR  
 '(he) went and stood leaning against the wall waiting for me' [A-13/06/01]

The observation that a sequential particle cannot be inserted between the two verbs suggests that they express a single overall event. This single event can alternatively be expressed with the help of a main locative verb and an adverbialized state-change verb: compare the configurational construction in (32a) with the adverbialized form in (32b). Interestingly, if a speaker intends to use two state-change verbs in a single clause, one of them has to occur in the configurational construction (as *b'am* 'stick' in 32c), while the other has to occur in adverbialized form (as *k'oon* 'face down' in 32c).

- (32a) *Gorong t'o n-yil nnoe-hoe.*  
 crooked lie(sg) LOC-ground LOC.ANAPH-exactly  
 '(It) lies crooked on this ground.' [DIS\_10.2-A/N]

- (32b) *T'o jar ba / t'o n-gorong.*  
 lie(sg) straight NEG lie(sg) ADVZ-crooked  
 '(It) does not lie straight, (it) lies crooked.' [DIS\_14.2-A/N]
- (32c) *N-k'oon b'am lang sek gak (...).*  
 ADVZ-face\_down(sg) stick hang/move(sg) BODY wall  
 'Being face down, (it) hangs stuck at the wall (...).' [DIS\_2.5-A/N]

The properties illustrated above show that the two verbs form a tight juncture. For this reason, the state-change verbs are translated into English as adverbs. But despite this translation, they are clearly verbs: they can be marked for irrealis modality (as in 31a above), they are obligatorily followed by pronouns of set 2 (as in 33a below), and they occur in the verb slot of nominalized clauses (as in 33b). Nevertheless, some grammaticalization must have taken place, since they occur in the particle slot of subordinated clauses (as in 33c).

- (33a) *Amma goe kuk goe t'ong.*  
 but 2Sgm curled\_up 2Sgm sit(sg)  
 'But you sit curled up.' [YOUTH]
- (33b) *goe-d'ûût muk d'yem sek gak lat / gak t'a*  
 NOMZ-lean 3Sg.Poss stand(sg) BODY wall ANT wall fall(sg)  
 'after he stopped to stand leaning against the wall, the wall collapsed' [A-13/06/01]
- (33c) *Kan n-kan t'ong yi.*  
 incline ADVZ-incline sit(sg) SUB  
 'So that (it) sits inclined.' [DIS\_5.4-A/N]

The formal properties suggest that the state change and the state are not interpreted as sequential events, but as two different perspectives on a single event: a condition (usually a spatial configuration) and a position (either the actual or the canonical position). These two perspectives can be illustrated with the help of (34) below where the speaker describes an upside-down pot by using the two verbs *k'oon t'ong* 'sit face down' in the configurational construction. Notice that a state change coded by *k'oon* 'face down' could not result in the state coded by *t'ong* 'sit' – it would result in *d'yem* 'stand' (see section 4.2.3) or *t'o* 'lie' (see section 4.2.4). That is, the state of *t'ong* cannot be interpreted as the result of the state change of *k'oon*. Instead, the two verbs focus on two different aspects of the locative relation: the configuration of the referent (*k'oon*) and its (canonical) position (*t'ong*).

- (34) *Wang k'oon t'ong k'a kuk sh'ep.*  
 pot face\_down(sg) sit(sg) HEAD(sg) stump wood  
 'The pot sits face down on the tree stump.' [PSPV\_12-A]

Although the present-day configurational construction differs formally from the coordinate construction, the following three observations indicate that the configurational construction has probably developed from this construction:

(i) Given the lexical semantics of the verbs involved, it is possible that the construction originally had a sequential interpretation: a state change preceding a state. It is still not possible to reverse the order of the two events – this can only be done in a multi-clausal construction such as in (35).

(35) *Sh'ep d'yem k'a kuk / d'ûût sek t'eng.*  
 wood stand(sg) HEAD(sg) stump lean BODY tree

‘The stick stands on the stump, (it) leans against the tree.’ [PSPV\_38-A]

(ii) The locative verbs have retained most of their locative semantics. Like in the coordinate construction, they can be marked for durative aspect (as in 36a) and for the presentative function (as in 36b). They occur in reference to all Figure/Ground relations described in section 4.2, and they can be used in a classificatory way (as in 34 above). The locative adjunct is frequently omitted, though (as in 33a and 33c above).

(36a) *Kan yi t'o nd'ûûn (...).*  
 incline DUR lie(sg) INSIDE

‘(It) is lying inclined inside (...).’ [DIS\_5.1-A/N]

(36b) *A ndoe wang k'oon na n-d'yem.*  
 FOC some pot face\_down(sg) PRES PRES-stand(sg)

‘Behold, a pot is standing face down.’ [DIS\_1.3-A/N]

(iii) Speakers use the construction in the following two contexts only: with non-canonically located referents as in (30a) above (i.e., with referents that, in all likelihood, have undergone a state change), and after the completion of a witnessed state change as in (30b) above (where the speaker has seen an animated film of water turning red). In all other contexts, speakers use a nominalized construction instead (as in 37 below).

(37) *hangoed'e goe-b'ang hok d'e nd'ûûn cup*  
 water NOMZ(sg)-become\_red DEF exist INSIDE cup

‘the red water is inside the cup’ (= the state change was not witnessed)  
 [A-15/06/01]

For these three reasons, it is likely that the configurational construction originated in the coordinate construction (a dynamic state change followed by a resulting locative state). But despite its assumed diachronic origin, it now serves a different function: it expresses two perspectives on a single event

(configuration and position), and thereby asserts that the referent is currently both in a certain configuration and in a certain position.

It is assumed that the stative reading of this structure arises both from the construction and from the lexical aspect of the two verbs involved. A state-change verb cannot refer directly to a state. But recall that, when occurring in the aorist, a state-change verb expresses a completed state change (i.e., the resulting state is an implicature that arises from the fact that the state change has ended; see section 3.2). When such a verb is followed by a stative locative verb, the locative verb specifies that the referent is currently in a certain static position, and thereby asserts that the prior state change must have ended. The configurational construction ensures the simultaneous interpretation (of the completed state change and the locative state). As a consequence, the state-change verb can occur in reference to a current state.

**8.2.3 Inchoative serialization: inchoative plus locative verb**

Locative verbs occur as the second verb in the inchoative serial construction, a construction that allows stative locative verbs to occur in reference to a state change. The constructional properties are illustrated in figure (4) below.

**Figure (4):** The inchoative serial construction

Form:	[(Subject) Inchoative verb	Locative verb]	Clause (TIME)
	(NP)	<i>t'a</i> (sg), <i>t'ek</i> (pl) 'fall'	(tense particle)
		<i>yool</i> (sg), <i>yûûl</i> (pl) 'rise'	(temporal adverb)
Meaning:	At a time $t_1$ , the referent has come to be in a certain position.		
Function:	Allowing stative verbs to occur in reference to a state change.		

In this construction, a locative verb is preceded either by the verb *t'a* 'fall' (as in 38a) or by the verb *yool* 'rise' (as in 38b). No other motion verb could occur in this slot.

(38a) *Noemûat hok t'a t'ong d'i nd'ûûn.*  
 frog DEF fall(sg) sit(sg) LOC.ANAPH INSIDE

'The frog sat down there inside.' [FROG-D]

- (38b) *Ndoe gurum yool d'yem b'ak goet'eng b'et tebul.*  
 some person rise(sg) stand(sg) here upward BELLY table

'Someone stood up here near the table.' [STAGE\_76-N]

The verbs *t'a* 'fall' and *yool* 'rise' are labeled 'inchoative' verbs throughout this chapter. Notice that this is only a label to facilitate reference to them. This label is motivated by the observation that, in the inchoative construction, they serve primarily an inchoative function, as they contribute an inception component. As such, they can only combine with the stative locative verbs but not, e.g., with the inchoative dispositional verbs. As illustrated in (39), such an utterance is ungrammatical, presumably because the lexical semantics of *shuur* 'squat' already contain an inchoative component, i.e., *shuur* does not need to occur in the inchoative construction to receive an inchoative interpretation.

- (39) \**t'a shuur n-yil*  
 fall(sg) squat LOC-ground

\*'(he) squatted down on the ground' [A-28/12/99]

There is a second indication that the inchoative verb is not primarily interpreted as a motion verb: its positions when co-occurring with the deictic serial construction. Recall that the deictic construction consists of the deictic element *doe* 'come' followed by a non-motion verb (see section 8.1.3). This deictic construction can co-occur with other serial constructions (see section 8.2.4 below for a summary of co-occurrence possibilities), e.g., with the inchoative construction. In this case, *doe* precedes the inchoative verb (e.g., *t'a* 'fall' in 40a). By contrast, whenever the deictic construction co-occurs with the coordinate construction, *doe* follows the last motion verb (e.g., *t'a* 'fall' in 40b).

- (40a) *Ba [doe t'a t'o / k'a toom.]*<sub>inchoative</sub> <sub>deictic</sub>  
 return(sg) come fall(sg) lie(sg) HEAD(sg) chair

'(He) returned (and) lay down here on the chair.' [STAGE\_34-N]

- (40b) [*P'aar t'a m-boega [doe kat goesha.]*]<sub>deictic</sub> <sub>coordinate</sub>  
 jump fall(sg) LOC-well come find friend

'(It) jumped (and) fell in the well (and) found the friend here.' [KE]

The two inchoative verbs are sensitive to the direction of movement: *t'a* 'fall' is used for a downward movement, and *yool* 'rise' for an upward movement. For example, *t'ong* 'sit' usually occurs with *t'a* 'fall' because people usually 'sit down'. But, if the context permits, it can occur with *yool* 'rise' (as in 41).

- (41) *d'in t'o n-t'o / yool t'ong goet'eng*  
 PAST.CL lie(sg) ADVZ-lie(sg) rise(sg) sit(sg) upward  
 '(the tortoise) was lying, (then it) sat up' [A-07/02/00]

The inchoative verbs in this construction are clearly verbs: they are followed by pronouns of set 2 (as in 42a), and they occur in the verb slots of nominalized and subordinated clauses (as in 42b and 42c). Furthermore, irrealis modality is always marked with each verb (as in 42d).

- (42a) *Goe t'a bi goe kûût. Goe t'a goe t'ong.*  
 2Sgm fall(sg) thing 2Sgm.Poss just 2Sgm fall(sg) 2Sgm sit(sg)  
 'Just fall down by your own. Sit down.' [YOUTH]

- (42b) *Goe-t'a muk t'ong lat /*  
 NOMZ-fall(sg) 3Sg.Poss sit(sg) ANT  
*moe-gurum muk tal tal ndoe ni.*  
 NOMZ(pl)-person 3Sg.Poss greet greeting CONJ 3Sg.I  
 'After he had sat down, her people greeted him.' [REEP]

- (42c) *de ji t'a yi ji t'ong.*  
 COMP Sgm.LogS fall(sg) SUB Sgm.LogS sit(sg)  
 'so that he sat down.' [KWO]

- (42d) *Gwa goe t'a goe t'ong.*  
 Sgm.LogA OBL fall(sg) OBL sit(sg)  
 'He should sit down.' [LIIT]

It is likely that the inchoative serial construction originated in the coordinate serial construction: in both cases, a dynamic motion event results in a state. But its present-day formal properties show that the two verbs form a tighter unit than the two verbs in the coordinate construction. In fact, its properties are more similar to those of the configurational construction (see the summary in table 1 above). First, the inchoative verb cannot introduce a separate locative adjunct – the adjunct has to follow the locative verb (as in 38a and 38b above). Second, the negation particle negates the whole unit – it is therefore not possible to add the verb *ba* 'return' (as illustrated in 43a below). Third, the sequential particle always precedes the whole unit (as in 43b).

- (43a)\**yool ba d'yem ba*  
 rise(sg) return(sg) stand(sg) NEG  
 \*'(he) rose but did not stand' [A-14/06/01]

- (43b) *Nde ma mûaan goe t'a t'o d'i (...).*  
 one/other also go(sg) SEQ fall(sg) lie(sg) LOC.ANAPH  
 'And another one went and lay down there (...).' [YOUTH]

These properties suggest that the two verbs are interpreted as a unit that expresses a single event, i.e., a state change.

It is assumed that this state-change reading arises both from the co-occurrence of a dynamic verb with a stative verb and from the construction. Recall that locative verbs are stative verbs, i.e., they cannot by themselves be used inchoatively (see section 3.1.2). In the inchoative construction, locative verbs specify the resulting end state of a downward/upward movement. So far, this looks similar to the occurrence of locative verbs in the coordinate construction (see section 8.2.1). The difference is that the coordinate construction does not code a state change, but rather a temporal relation between two events (e.g., a motion event and a subsequent state). The inchoative construction, by contrast, codes a state change. Its non-stative semantics can be illustrated with the help of durative aspect marking. Recall that such a marking is possible whenever locative verbs occur in a stative environment (see section 3.1.2) – this includes locative verbs in the coordinate construction (see example 22a in section 8.2.1). In the inchoative construction, by contrast, durative marking is ungrammatical, indicating that it provides a non-stative context.

Given the tight unit of the inchoative and locative verbs, it is likely that the two verbs may eventually develop into co-lexicalized forms – especially since the locative verbs seem to have lost most of their original locative semantics (the adjunct is usually omitted, the locative verb cannot be marked for either durative aspect or presentative, and it cannot be used in a classificatory way). But, for the moment, the formal properties differ from those of co-lexicalized forms such as *ba wa* ‘return home’ (lit. ‘return’ + ‘return home’) or *wa wul* ‘arrive’ (lit. ‘return home’ + ‘arrive’).

#### 8.2.4 Summary

This section has shown that a locative verb occurs (optionally or obligatorily) as the second verb in the coordinate serial construction, the configurational construction and the inchoative construction. The properties of these three constructions are summarized in table (1) above.

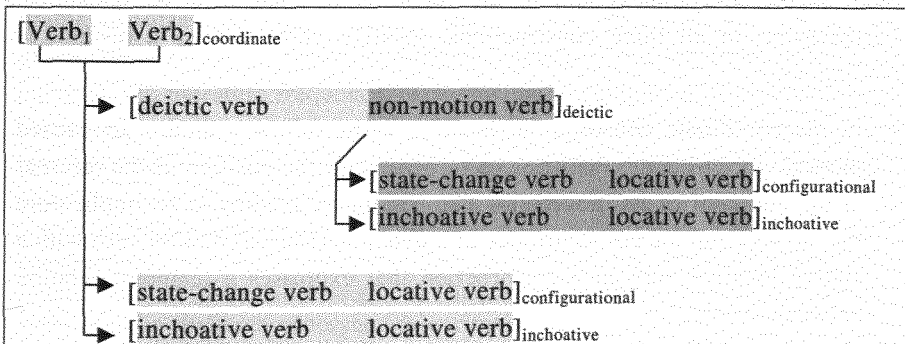
As mentioned above, different constructions can co-occur. For example, the coordinate construction can co-occur with the configurational construction (as in 44a) or the inchoative construction (as in 44b).



- (44a) [*Kwalba ru*      [*kan d'yem n-yil.*]<sub>configurational</sub> ]<sub>coordinate</sub>  
 bottle    enter(sg)    incline    stand(sg)    LOC-ground  
 'The bottle entered (and) stands inclined in the ground.' [PHOTO\_88-N]
- (44b) [*La p'et*      [*t'a t'o n-yil.*]<sub>inchoative</sub> ]<sub>coordinate</sub>  
 child(sg)    exit(sg)    fall(sg)    lie(sg)    LOC-ground  
 'The boy went out (and) lay down on the ground.' [FROG-N]

Under the construction grammar approach adopted here (see section 1.3.1), both constructions and lexical items form part of the lexicon, i.e., constructions (just like lexical items) can occur within other constructions – provided that their syntactic and semantic properties match those of the larger construction. Figure (5) illustrates the co-occurrence possibilities for the serial constructions discussed in this chapter. It shows that the deictic, configurational and inchoative constructions can occur either in first or second position of the coordinate construction (which only specifies that a verb, or more precisely a verbal construction, should occur). Furthermore, the configurational and inchoative constructions can occur in second position of the deictic construction (since they constitute non-motion verbs or rather constructions). By contrast, the configurational and inchoative constructions cannot co-occur (since neither of the two constructions can be viewed as a subpart of the other).

Figure (5): Co-occurrence of serial constructions



In some of the constructions discussed in this section, locative verbs can be replaced by dispositional verbs. This concerns especially locative verbs in the coordinate construction (e.g., *d'ûût* 'lean' occurs in the locative verb slot in 45a). Furthermore, the dispositional verb *k'oôn* 'face down' was observed to occur in the configurational construction (as in 45b). Such occurrences are very

infrequent, and they are restricted to those dispositional verbs that are semantically similar to locative verbs (see section 3.3 for details).

(45a) *P'aar d'ûût sek nayit.*  
 jump lean BODY mirror  
 '(It) jumped (and) leaned against the mirror.' [AAS]

(45b) *Dum k'oon yi.*  
 bend\_forward face\_down(sg) SUB  
 'So (it) faces down bending forward.' [DRAW\_2-A/N]

### 8.3 Summary and discussion

This chapter has discussed verb serialization in Goemai. Section 8.1 focussed on the coordinate serial construction, comparing it to TAM particles (that originated in the coordinate construction) and to the deictic serial construction. This comparison served to give an overview of verb serialization in Goemai, and to introduce criteria for distinguishing between different types of serialization.

Section 8.2 focussed on locative verbs occurring as the second verb in three different constructions: in the coordinate, configurational and inchoative constructions. It was shown that the verbs in the three constructions differ in their degree of tightness and in the retention of their locative semantics. Furthermore, in all three constructions, locative verbs convey a resultative reading, i.e.:

- In the coordinate construction, locative verbs follow a motion or caused motion verb, whereby the locative verbs specify the position of the referent at the endpoint of its movement. The resultative reading is an implicature that arises from the co-occurrence of a dynamic (caused) motion verb with a stative locative verb in a construction that expresses a temporal relation between events.
- In the configurational construction, locative verbs follow a state-change verb. They specify that the referent is currently in a certain static position, and thereby assert that the prior state change has ended. The construction ensures a simultaneous interpretation (of the completed state change and the locative state), and thereby allows state-change verbs to occur in reference to a current state.

- In the inchoative construction, locative verbs follow an inchoative verb. They specify the resulting end state of a downward/upward movement, i.e., after the movement has been completed. The construction ensures an inchoative interpretation, and thereby makes it possible for the stative locative verbs to be used inchoatively.

Recall that Goemai predominantly lexicalizes verbal concepts as inchoatives, rather than statives (see section 3.2). The locative verbs are among the very few stative verbs of the language. This lexicalization pattern probably accounts for the development of their resultative reading when occurring as second verb in a serial construction: whenever a dynamic motion or state-change verb is followed by a stative locative verb, the utterance receives a resultative reading. That is, the occurrence of the locative verb implicates that the prior event has ended (in a certain state or position). The constructional semantics then interact with this implicature, ensuring a sequential interpretation (coordinate construction), a stative interpretation (configurational construction) or an inchoative interpretation (inchoative construction).

From a cross-linguistic perspective, the Goemai pattern seems to be unusual: although resultative particles often originate in serial constructions, they tend to originate in verbs such as ‘finish’ – not in locative verbs.<sup>12</sup> The development of resultative readings from locative verbs is rarely mentioned in the grammaticalization literature (e.g., in Heine et al. 1993 who summarize attested grammaticalization processes in African languages; but see Reid 2002).<sup>13</sup> By contrast, the literature frequently discusses the development of prepositions or progressive auxiliaries from locative-type verbs in serial constructions (Crowley 1987: 42; Durie 1997: 336; Foley and Olson 1985: 40-42; Lord 1993:

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<sup>12</sup> It is not known whether or not closely related Chadic languages employ their serial constructions for similar purposes. Text collections for Angas (Foulkes 1915; Jungraithmayr 1964b) and Mwaghavul (Jungraithmayr 1963a) indicate that locative verbs occur in similar morphosyntactic environments.

<sup>13</sup> Heine et al. only mention Nama (1993: 207) and Kxoe (1993: 26), where a locative verb glossed as ‘stay, be at’ was grammaticalized into an anterior marker.

9-30; Svorou 1994: 110-113). In Goemai, progressive notions are only rarely expressed by means of a serial construction – they are instead expressed by means of the progressive construction (that developed from a subordinate clause; see section 9.4.1). The following chapter discusses the progressive construction in more detail.

## LOCATIVE VERBS IN THE PROGRESSIVE CONSTRUCTION

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### CHAPTER 9

The progressive construction expresses an activity that is on-going at reference time. It has developed from a complex structure consisting of a main locative clause plus a subordinate clause marked for irrealis modality. As a result of its diachronic origin, it contains an obligatory locative verb that is used to characterize the position of the referent while carrying out the main activity.

The following two aspects are of particular interest to this thesis:

(i) Although postural verbs are not among the cross-linguistically most common sources for aspectual markers, their development into progressive markers is well documented (see, e.g., Kuteva 1999). A comparison of documented grammaticalization paths with the Goemai data reveals some differences, both formal and semantic.

(ii) Locative verbs play an important role in the aspectual and modal system of Goemai. Not only do they mark progressive aspect, but also, in a different construction, the completion of an event (see chapter 8). Furthermore, the verb *t'ong* 'sit (sg)' has developed into the irrealis particle, which in turn has given rise to progressive and habitual particles. With the exception of the development of progressive markers, the other grammaticalization paths are not well documented cross-linguistically (see, e.g., Bybee et al. 1994).

The discussion in this chapter thus contributes to our knowledge about possible grammaticalization paths originating in locative verbs. Given the good documentation available on earlier stages of Goemai (Sirlinger 1937; 1942; 1946) as well as the weakly grammaticalized status of some of the aspectual constructions, such paths can be reconstructed with reasonable confidence.

This chapter is structured as follows: section 9.1 introduces formal properties of the progressive construction and section 9.2 its semantics; section 9.3 focuses on the locative verbs in this construction; section 9.4 explores possible

grammaticalization paths and discusses the role of locative verbs in the TAM system of Goemai; and section 9.5 concludes this chapter.

### 9.1 The formal properties of the progressive construction

Figure (1) summarizes the characteristic properties of the progressive construction. Its formal properties are illustrated in this section, and its semantics are discussed in section 9.2.

**Figure (1):** The progressive construction

Form:	(S)	V <sub>[locative]</sub>	(other)	PROGR	V <sub>[main]</sub>	(O)	PROGR	(other)
				<i>t'ong</i>			<i>yi</i>	
				<i>N-</i>				
				<i>la</i>				
Meaning:	Throughout a time interval <i>t</i> , the referent (S = subject) is in a specific position (locative verb) and carries out an activity (main verb).							
Function:	Expressing progressive aspect.							

Example (1a) illustrates the progressive construction. It contains a locative verb and the two particles *t'ong* and *yi*. The particle *t'ong* can be replaced with either the prefix *N-* (as in 1b) or the particle *la* (as in 1c). The three forms reflect diachronic variation (see section 9.4.2) and are semantically equivalent.<sup>1</sup>

- (1a) *Ni kat la hok t'o t'ong saam yi m-pin.*  
 3Sg find child(sg) DEF lie(sg) PROGR sleep PROGR LOC-hut  
 'She found the boy (and he) lay sleeping in the hut.' [SR\_SVCM-D]

<sup>1</sup> The progressive construction usually contains the particle *t'ong* (which derives from the irrealis particle *t'ong*, which in turn derives from the verb *t'ong* 'sit'; see section 9.4.3 for the assumed grammaticalization process), and most examples therefore illustrate this form. But unless explicitly stated otherwise, the argumentation also covers the prefix *N-*. The form *la* occurs only infrequently, and it was not possible to determine whether it differs semantically from the other two.

Throughout this thesis, the free translation of the progressive construction (e.g., 'lie sleeping' in 1a), is meant to convey its dual semantics: (a) its progressive aspect (e.g., 'is sleeping') and (b) its positional information (e.g., 'lie'). The translation should not be taken to convey a secondary predicate reading.

- (1b) *Mûep d'e n-vûang gurum yi ba.*  
 3Pl exist PROGR-insult person PROGR NEG

'They are not insulting anybody.' [QUEST]

- (1c) *Lede d'yam la jel ni yi.*  
 pig stand(pl) PROGR surround 3Sg PROGR

'The pigs stand surrounding him.' [MT\_4.4-I/J]

The position of the subject argument varies: nominal and pronominal subjects of set 1 (see section 2.2.1.2) precede the locative verb (as in 1a to 1c above), while pronominal subjects of set 2 follow the particle *t'ong* (as in 2a). Such pronouns can additionally precede the locative verb (as in 2b).<sup>2</sup>

- (2a) *D'e t'ong moe shin shit yi n-ni.*  
 exist PROGR 1Pl do work PROGR COM-3Sg.I

'We are doing work with it.' [HAND-J]

- (2b) *moe d'e t'ong moe shin shit yi n-ni nd'asoenoehoe.*  
 1Pl exist PROGR 1Pl do work PROGR COM-3Sg.I now-exactly

'we are doing work with it now.' [MIL-C]

Whenever a simple verbal clause is marked for progressive aspect, the verb and the direct object occur between the discontinuous particles *t'ong* and *yi*, while all adjuncts (as *mpin* 'in the hut' in 1a) and particles (as *ba* 'not' in 1b) follow to the right of *yi*. Since the argument and adjunct slots are differentiated, the progressive construction can be used as a diagnostic to determine aspects of the argument structure patterns of verbs (see sections 2.3.3 and 2.4.2.1).

Whenever a complex verbal clause such as a serial construction is marked for progressive aspect, only the first verb phrase precedes the particle *yi*. All subsequent verb phrases follow this particle and are additionally introduced by the irrealis particle *t'ong* (as in the serial construction *s'arap s'oe* 'trade eat' in 3 below).<sup>3</sup>

<sup>2</sup> The same distribution is found in the alternative construction containing the particle *la*. In the construction containing the prefix *N-*, pronouns of set 2 have to precede *N-* as in (i).

- (i) *Moe d'e moe n-shin goe-n-d'e-hok yi.*  
 1Pl exist 1Pl PROGR-do NOMZ(sg)-ADVZ-Cl:exist-DEF PROGR

'We are doing the existing thing.' [FRIENDS]

<sup>3</sup> The particle *t'ong* is analyzed here as the irrealis particle. An irrealis particle introduces the second verb not only in those multi-clausal constructions that are marked for progressive aspect, but also in those that are marked for irrealis modality or habitual aspect (see example 41b in section 9.4.1, and 61a in section 9.4.3.2).

- (3) *mutane d'e t'ong s'arap yi t'ong s'oe.*  
 people(pl) exist PROGR trade(pl) PROGR IRR eat  
 'people are buying (them and) eating (them).' [SR\_MUCH-A]

The direct object can be focussed, in which case the particle *yi* is omitted (as in 4). Its omission is probably related to the fact that a focus particle confers an adjunct status on the focussed element (see section 2.3.3), i.e., a focussed element cannot occur in an argument position.

- (4) *yin fuan lang t'ong shin a nungyit ndoe d'wen.*  
 SAY rabbit hang/move(sg) PROGR do FOC trick CONJ Pl.LogS.I  
 '(He said) that the rabbit moves playing a trick on them.' [FUAN2]

The negation particle follows the construction. By default, it negates the whole event (as in 5a), but it can also negate one of the verb phrases independently. In this case, the negated element is always specifically marked, e.g., through a cognate adverb (as in 5b) or a focus particle (as in 5c). In addition, it carries contrastive stress.

- (5a) *t'ong t'ong yil longvilip yi ba*  
 sit(sg) PROGR write paper PROGR NEG  
 '(she) does not sit writing a letter' (i.e., she is not writing) [A-22/06/01]
- (5b) *mat hok t'ong n-t'ong t'ong yil longvilip yi ba /*  
 woman(sg) DEF sit(sg) ADVZ-sit(sg) PROGR write paper PROGR NEG  
*d'yem a n-d'yem*  
 stand(sg) FOC ADVZ-stand(sg)  
 'the woman does not sit sitting writing a letter,  
 (but) stands standing' (i.e., she writes the letter in a standing position)  
 [A-22/06/01]
- (5c) *mat hok t'ong t'ong yil a longvilip ba /*  
 woman(sg) DEF sit(sg) PROGR write FOC paper NEG  
*t'ong t'ong b'uen a hoto*  
 sit(sg) PROGR watch FOC photo  
 'the woman does not sit writing a letter,  
 (but she) sits looking at a photo' [A-22/06/01]

The progressive construction can be marked for either past or future tense (e.g., for remote past as in 6a), and for irrealis modality (as in 6b). The tense/modal particle has scope over the whole construction; it is not possible to mark the locative verb separately or differently from the main verb. That is, both the locative and the main subevent have to occur within the same time frame.



- (6a) *Goe-pe hen dok d'e t'ong rang yi*  
 NOMZ-COMP 1Sg PAST.REM exist PROGR think PROGR

*k'a nye men (...).*  
 HEAD(sg) kind 1Pl.Poss

'When I was thinking about our own (...).' [DIALECT]

- (6b) *Amma mûep la k'oeleng k'ees hok /*  
 but 3Pl COND hear wound DEF

*mûep t'ong leng d'i*  
 3Pl IRR hang/move(sg) LOC.ANAPH

*t'ong yir yi sek wando hok.*  
 PROGR turn PROGR BODY trousers DEF

'But when they (= bugs) smell the wound,  
 they would live (= move) there  
 moving around within (your) trousers.' [ANIMAL5]

All properties that have been outlined in this section are characteristic of the progressive construction; and some of them are also present in its source construction (see section 9.4.1 for details).

## 9.2 The semantics of the progressive construction

The progressive construction codes an action that is on-going at reference time, but its overall reading depends on the lexical semantics of the verbs that fill the main verb slot.

Typically, it occurs with activity verbs such as *shin shel* 'play' (in 7a) or *ra* 'weave' (in 7b) and expresses the on-going activity.

- (7a) *T'ong goe kat jap / d'e t'ong shin shel yi.*  
 IRR 2Sgm find children(pl) exist PROGR do game PROGR

'You would find children playing games.' [KWANDE]

- (7b) *Mat hok shin a mmoe? T'ong t'ong ra k'aram yi.*  
 woman(sg) DEF do FOC what sit(sg) PROGR weave mat PROGR

'What does the woman do? (She) sits weaving a mat.' [PROGGO\_4-N]

It can also occur with inchoative verbs, in which case the on-going state change is expressed. Inchoative verbs are taken from two different verb classes: mental verbs such as *zem* 'like' in (8a) (that lexicalize both the stative and the inchoative; see section 3.2) and state-change verbs such as *t'eng* 'become tall' in (8b) (that lexicalize the inchoative only; see section 3.2). The construction cannot express the continuity of the state. For the latter purpose, state-change verbs occur either as verbs in the configurational serial construction (see

section 8.2.2), or as derived adverbs/nouns in the ascriptive construction (see section 10.2.1). Notice that both alternative constructions also contain a locative verb.

- (8a) *La-s'wal d'e t'ong zem reep hok yi.*  
 child(sg)-youth exist PROGR like girl(sg) DEF PROGR  
 'The young man is getting to like the girl.' [P01\_82; A-12/06/01]

- (8b) *T'eng hok d'e t'ong t'eng yi b'e.*  
 tree DEF exist PROGR become\_tall PROGR EMPH  
 'The plant is really growing tall.' (= said of a slowly growing animated plant) [DPP\_79-A, -N]

The progressive construction occasionally occurs with punctual verbs such as *p'yaram* 'break' (as in the second line of 9), in which case the utterance receives an iterative reading.

- (9) *p'yaram ûes /k'au-k'au-k'au. Goe-pe ni k'oeleng d'ûe ûes*  
 break(pl) bone k'au-k'au-k'au NOMZ-COMP 3Sg hear voice bone  
*goe-d'e t'ong p'yaram yi (...).*  
 NOMZ-exist PROGR break(pl) PROGR  
 '(he<sub>1</sub>) broke the bones, k'au-k'au-k'au. When he<sub>2</sub> heard the sound of the bones that were breaking (one after the other) (...).' [AAS]

The construction can furthermore occur with stative verbs like *t'o* 'lie' (as in 10a).<sup>4</sup> In this case, it receives a habitual interpretation. As illustrated in (10b), a progressive interpretation is not possible. Instead, speakers use the unmarked verb form to express an on-going state (as in 10c). Cross-linguistically, the development from locative-based progressive forms into habitual forms is well attested (see, e.g., Bybee et al. 1994: 151-160; Kuteva 1999: 210).

- (10a) *A bi goe-sa toe musu d'e n-t'o yi n-s'et ba.*  
 FOC thing NOMZ-make EMPH cat exist PROGR-lie(sg) PROGR LOC-bush NEG  
 '(It) is the reason why the cat never lies (= lives) in the bush.' [MUSU]
- (10b)\**goe-k'wal k'wal men / musu d'e n-t'o yi n-s'et*  
 NOMZ-talk talking IPl.Poss cat exist PROGR-lie(sg) PROGR LOC-bush  
 \*'while we talk, the cat is lying in the bush' [A-03/07/01]

<sup>4</sup> There are restrictions on the co-occurrence of two locative verbs in the progressive construction (one in the locative verb slot, one in the main verb slot): the locative verb slot has to be filled either with the existential (to express a generic or habitual activity; see section 9.3.4 for details) or with a postural used in a classificatory way (see section 9.3.5 for details).

- (10c) *goe-k'wal k'wal men / musu t'o n-s'et*  
 NOMZ-talk talking 1PI.Poss cat lie(sg) LOC-bush  
 'while we talk, the cat lies in the bush' [A-03/07/01]

The progressive construction is preferably used with animate referents, but this restriction is not part of its semantics: there are also examples with inanimate referents (as in 11). The preference for animate referents is probably a consequence of its function. Since inanimate referents rarely occur in contexts where they carry out a simultaneous activity or state change, they only rarely occur in the progressive construction (see also Barron and Serzisko 1982: 103 for comparable preferences in Siouan languages).

- (11) *Maar t'o n-zam t'ong dam yi.*  
 millet lie(sg) LOC-field PROGR spoil PROGR  
 'The millet lies on the farm spoiling.' [DRAW2\_80-A]

In all cases, the locative verbs occurring in the first verb slot of the progressive construction express the position of the referent engaged in the main activity. Recall that the locative verbs code a state (e.g., 'sit'), and not a state-change (e.g., 'sit down') (see section 3.1.2). As a consequence, a sequential interpretation cannot arise (e.g., 'sit down and then do X').

### 9.3 Locative verbs in the progressive construction

This section focuses on the locative verbs occurring in the first verb slot of the progressive construction. Section 9.3.1 illustrates their formal properties; the following three sections investigate the expression of positional information (section 9.3.2), typical activities (section 9.3.3), and generic statements (section 9.3.4); section 9.3.5 summarizes the discussion.

#### 9.3.1 Formal properties

It is generally observed that, in the course of their grammaticalization, locative verbs lose part of their verbal properties and develop into aspectual auxiliaries or particles instead (Bybee et al. 1994: 127-133; Heine and Reh 1984: 104-105). In Goemai, the locative verbs in the progressive construction have retained their verbal status. Being verbs, they (i) occur in a verb slot, (ii) can introduce a separate locative adjunct, and (iii) show prosodic independence from the main verb. Furthermore, being locative verbs, they can occur in (iv) the durative aspect and presentative constructions, and (v) different types of

serial verb constructions. This section discusses these five verbal properties.

(i) Recall that clausal nominalization can be used to determine the syntactic status of an element (see section 2.5.3). The possessor of the nominalized clause (which corresponds to the subject of the verbal clause) is preceded by one verb phrase only. That is, in a nominalized multi-verb construction, only the first verb precedes the possessor. By contrast, in nominalized aspectual constructions, both the verb and the aspectual particle precede it. Example (12) below illustrates a nominalized progressive construction. Notice that only the locative verb *d'e* ‘exist’ occurs before the possessor *noe* ‘my’, while the rest of the construction follows. This distribution suggests that the locative elements function as verbs. If they were aspectual particles, the whole construction would have preceded *noe* ‘my’.

- (12) *goe man bi goe-d'e noe t'ong shin yi (...).*  
 2Sgm know thing NOMZ-exist 1Sg.Poss PROGR do PROGR  
 ‘you know the thing that I am doing (...).’ (lit. ‘... the thing of my doing’) [ARAM]

(ii) The locative verbs can introduce adjuncts, thereby functioning like full verbs. This possibility has the following two consequences for the distribution of adjuncts in the progressive construction:

First, the progressive construction can occur with two locative adjuncts.<sup>5</sup> Recall that Goemai codes path information in verbs, not in Ground phrase elements (see sections 6.2 and 8.1.1). As a consequence, separate verbs are needed to introduce different path components. In the following example, the speaker uses the progressive construction to describe such a complex path (the pouring of millet from a sack into a basket). The locative verb *leng* ‘hang/move’ introduces a location (*nd'ûûn nhat* ‘in the wind’), while the main verb *yok* ‘return home’ introduces a goal (*nd'ûûn tukshi* ‘to the basket’).

- (13) *Maar hok leng nd'ûûn nhat*  
 millet DEF hang/move(pl) INSIDE wind  
*t'ong yok yi nd'ûûn tukshi.*  
 PROGR return\_home(pl) PROGR INSIDE basket  
 ‘The millet moves in the wind returning towards the basket.’  
 [PROGWA\_N-A]

<sup>5</sup> It cannot occur with two temporal adjuncts. This restriction follows from the semantics of the construction, which requires the locative subevent and the main subevent to occur within the same time interval (see section 9.1).

Second, adjuncts can occur in two different slots: either following the locative verb (as in 14a), or following the whole construction (as in 14b). All types of adjuncts can occur in either of the two slots, but it is more common for temporal adjuncts to follow the construction, and for locative adjuncts to follow the locative verb. This difference is likely to be a remnant of the lexical argument structure of locative verbs, which specifies a location participant (see section 3.1.3).<sup>6</sup> Notice, however, that this location participant is not obligatory in the progressive construction (as illustrated in 14c).

(14a) *haan t'o k'a gado t'ong saam yi.*  
climb(sg) lie(sg) HEAD(sg) bed PROGR sleep PROGR

'(he) climbed (and) lay on the bed sleeping.' [SR\_SVCT-A]

(14b) *ba doe t'ong t'ong saam yi k'a sh'ep toeb'ap.*  
return(sg) come sit(sg) PROGR sleep PROGR HEAD(sg) wood drum

'(he) returned (and) sat here sleeping on the drum.' [DWOOR]

(14c) *Mûep t'oerep t'ong saam yi.*  
3PI lie(pl) PROGR sleep PROGR

'They lie sleeping.' [FROG-N]

Both observations (the expression of two locations, and the possibility that adjuncts follow the locative verb) indicate that the locative elements function as verbs in this construction.

(iii) Locative verbs show prosodic independence from the unit containing the particle *t'ong*, the main verb and the particle *yi*. Evidence comes from intonation breaks and repair strategies. First, intonation breaks frequently occur between the locative verb and the following particle *t'ong* (as in 15a). Second, when speakers repair the choice of an inappropriate main verb, they always repeat the particle *t'ong* together with the main verb (as in 15b), but they never repeat the locative verb.

(15a) *Yir ba doe d'yem / t'ong b'ûen nda muk yi (...).*  
turn return(sg) come stand(sg) PROGR watch father 3Sg.Poss PROGR

'(He) turned (and) returned (and) stood here looking at his father (...).' [AAS]

<sup>6</sup> The locative adjunct usually follows the construction whenever there is another adjunct that follows the locative verb as in (i). Such contexts may have made it possible in the first place to move the locative adjunct to the right of the construction.

(i) *Lang d'em t'ong d'ar yi nkyem wo.*  
hang/move(sg) this\_time PROGR tremble PROGR FRONT snake  
'(She) moved around this time trembling in front of the snake.' [REEP]

- (15b) *Lokashi goe-pe b'et la d'e t'ong shin /*  
 time NOMZ-COMP belly COND exist PROGR do  
*t'ong dam men yi (...).*  
 PROGR spoil IPI PROGR

'When the belly is doing, is hurting us (...).' [TREE-A]

Despite the relative independence of the locative verb, the construction constitutes a unit with respect to negation (see section 9.1). The possibility for adjuncts to follow the construction also points to some unity: in a complex clause, the locative adjunct has to follow the locative verb directly (see example 45 in section 9.4.1). Both properties suggest that the progressive construction is formally similar to a simple clause.

(iv) Like in a simple clause, the locative verb in the progressive construction can be marked for durative aspect (as in 16a) (see section 3.1.2) or for the presentative function (as in both clauses of 16b) (see section 6.1.2).

- (16a) *Mat hok yi d'yem t'ong tu shing yi.*  
 woman(sg) DEF DUR stand(sg) PROGR pound mortar PROGR

'The woman is standing pounding (on) the mortar.' [PROGGO\_10-A]

- (16b) *Ni n-t'o t'ong saam yi.*  
 3Sg PRES-lie(sg) PROGR sleep PROGR

*K'oon zak n-lang t'ong dang fyap muk yi.*  
 buffalo also PRES-hang/move(sg) PROGR follow footprint 3Sg.Poss PROGR

'Behold, he is lying sleeping.

Behold, the buffalo is moving following him.' [NSHI]

(v) The progressive construction can co-occur with any serial verb construction that contains a locative verb in second position: the coordinate construction (as in 17a), the configurational construction (as in 17b) and the inchoative construction (as in 17c) (see section 8.2 for details).

- (17a) *Mariri zak ba d'yem t'ong shyang ni yi.*  
 antelope also return(sg) stand(sg) PROGR hunt/watch 3Sg PROGR

'And the antelope returned (and) stood watching him.' [FROG-A]

- (17b) *Gurum hok dum d'yem t'ong p'en s'et yi.*  
 person DEF bend\_forward stand(sg) PROGR remove(sg) bush PROGR

'The person stands bent forward removing grass.' [PROGWA\_C-N]

- (17c) *Ba doe t'a t'o t'ong saam yi.*  
 return(sg) come fall(sg) lie(sg) PROGR sleep PROGR

'(He) returned (and) lay down here sleeping.' [STAGE\_66-N]

The discussion in (i) to (v) above suggests that the locative elements in the first

slot of the progressive construction function as verbs and have retained most of their lexical properties. The only difference concerns the locative adjunct (its variable position and its optionality), which is explainable in terms of the aspectual function of the construction (see section 9.3.5).

### 9.3.2 Coding a locative relation

Sections 4.2 and 4.3 have shown that locative verbs in the locative construction code a locative relation (i.e., the position of a Figure with respect to a Ground), and not a human or animate posture. The same type of semantics is also present when they occur in the first verb slot in the progressive construction. Locative verbs in the progressive construction share the following four properties with locative verbs in the locative construction:

(i) The locative verbs in the progressive construction almost always occur with a locative adjunct specifying the Ground (as in 18). Its presence suggests that the construction is concerned with expressing a locative relation – in addition to expressing progressive aspect. But unlike in the locative construction, the adjunct can be omitted, or it can occur following the whole construction (see section 9.3.1).

- (18) *T'ong n-goede / goe-t'oor / t'ong s'oe s'oe yi.*  
 sit(sg) LOC-bottom PLACE-flank PROGR eat eating PROGR  
 '(He) sits at the bottom, at the side, eating food.' [STAGE\_36-N]

(ii) The locative verbs in the progressive construction are used in an assertional way, i.e., they are used to assert the current position of a referent. In all cases, the choice of a verb is based on the same parameters that also determine its choice in the locative construction (see chapter 4).

In the assertional use, the same activity can be expressed with the help of different locative verbs: in (19a), a story is told in a sitting position, and in (19b), it is told in a standing position. In a similar way, different locative verbs can be used with the same referent as (s)he changes position over time (as in 20 where the dog first moves, and later stands). Furthermore, recall that it is possible to background the current locative relation in favor of the current internal posture through adding, e.g., body part nouns (see sections 3.1.3 and 5.1.1.3). The same possibility is also found in the progressive construction (as in 21).

- (19a) *goe-pe mûep t'wot t'ong aram nnoe-hoe yi.*  
 NOMZ-COMP 3Pl sit(pl) PROGR (tell\_)story LOC.ANAPH-exactly PROGR  
 'where they sit telling this story.' [SR\_UNM-C]
- (19b) *mûep p'ûat d'yam t'ong k'wal aram yi.*  
 3Pl exit(pl) stand(pl) PROGR talk story PROGR  
 'they come out (and) stand telling stories.' [STAGE\_8-N]
- (20) *sai na / aas nnoe lang t'ong mûaan yi (...)*  
 then see dog LOC.ANAPH hang/move(sg) PROGR go(sg) PROGR  
*Doe d'yem t'ong kuk pe yi (...)*  
 come stand(sg) PROGR bark place PROGR  
 'then (he) saw this dog hanging/moving around walking. (...)  
 (He) stood here barking (at) the place (...).' [AAS]
- (21) *D'yem goe foerem muk t'ong b'ûat molo yi.*  
 stand(sg) COM knee 3Sg.Poss PROGR beat guitar PROGR  
 '(He) stands on his knees playing the guitar.' [PROGLA\_19-A]

The assertional use of locative verbs is salient in all contexts where speakers have witnessed the event: in reports from eye-witnesses, in the retelling of picture book stories (e.g., the 'frog story', see Berman and Slobin 1994) or video films (e.g., the 'staged events', see van Staden et al. 2001), and in picture elicitation tasks (e.g., Enfield 2002, Goemai stimuli) (see section 4.1 for a discussion of visual stimuli).<sup>7</sup> Other genres (e.g., narrated folktales or historical

<sup>7</sup> In picture elicitation tasks, speakers were presented with pictures of activities and were asked the question 'what is the person doing?'. Interestingly, whenever they had doubts about the position, they explicitly asked for it, e.g.:

- (i) J: *Ni t'ong n-t'ong a ko d'yem n-d'yem?*  
 3Sg sit(sg) ADVZ-sit(sg) INTERR maybe stand(sg) ADVZ-stand(sg)  
 'Does he sit sitting or does (he) stand standing?'

BH: *D'yem n-d'yem.*  
 stand(sg) ADVZ-stand(sg)  
 '(He) stands standing.'

- J: *Gurum hok d'yem n-tu bi yi.*  
 person DEF stand(sg) PROGR-pound thing PROGR  
 'The person stands pounding things.' [PROGGO\_79-J]

It is possible that this behavior results from a stimuli effect (i.e., speakers may have paid more attention to details of the depicted position). However, the tasks were not overtly concerned with the locative verbs (i.e., I usually did not probe for alternative locative verbs), and most pictures depicted culturally salient activities. Judging from the kind of responses given, speakers seemed to have been under the impression that this task was about eliciting the appropriate lexical items for the depicted activities –



accounts), by contrast, do not generate the assertional use. Instead, speakers use locative verbs in a classificatory way to give information about either the class of the referent (see iii below) or the activity (see section 9.3.3).

(iii) The locative verbs in the progressive construction can be used in a classificatory way. For example, *d'yam* 'stand (pl)' is used for moving cars in (22a), and *t'o* 'lie' is used for moving water in (22b). In both examples, the verbs do not express the current position or state of their moving referents, but rather their class (cars belong to the class of 'standing' entities, and water to the class of 'lying' entities; see sections 4.2.3 and 4.2.4). Their current position or state would rather be expressed by *lang* 'hang/move' instead. As illustrated in the discussion of (22c), *lang* is used to assert movement.

(22a) *Amma nd'asoenoe motoshi d'yam t'ong swo yi (...).*  
 but now cars(pl) stand(pl) PROGR run(pl) PROGR

'But now cars stand running (...).' [JOS]

(22b) *Hangoed'e t'o b'ak t'ong su yi n-yil.*  
 water lie(sg) here PROGR run(sg) PROGR LOC-ground

'The water lies here running on the ground.' [MIL-A]

(22c) A: *Ko lang t'ong su yi b'e?*  
 maybe hang/move(sg) PROGR run(sg) PROGR EMPH

'Maybe (it) (= the ball) moves around running?'

N: *Kwai / t'o m-pe goe-goeme.*  
 no lie(sg) LOC-place PREP-one

'No, (it) lies in one place.' [DIS\_1.8-A/N]

The distribution of *lang* 'hang/move' in the progressive construction is of particular interest. In its classificatory use, it classifies animate referents (as in 23a below; see also 6b above) – i.e., referents that have the potential to move, even though they are not currently moving (see section 4.2.1). This classificatory use has probably given rise to an extended reading when occurring in the progressive construction: the agent of the action deliberately keeps the action going (as in the second sentence of 23b) – inanimate referents could not deliberately keep an action going.<sup>8</sup>

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not about the locative verbs. Yet they paid close attention to the position of the referents.

<sup>8</sup> In its extended reading, some speakers accept *lang* also with abstract nominals (while others reject it), e.g., with 'war' in (i). The restricted use of posturals with such nominals follows from their original locative semantics (i.e., in the locative

- (23a) *Goemai na n-leng d'i t'ong mûarap yi*  
 people PRES PRES-hang/move(pl) LOC.ANAPH PROGR die(pl) PROGR  
*goeme goeme nye neen.*  
 one one kind hunger

'Behold, the people are living there dying one by one because of hunger.' [FUAN]

- (23b) *D'a goe k'wal goe-shini / a goed'aar goed'aar toe.*  
 COND 2Sgm talk PREP-today FOC tomorrow tomorrow EMPH  
*A bi goe-lang k'ur toe t'ong shin yi.*  
 FOC thing NOMZ-hang/move(sg) tortoise EMPH PROGR do PROGR

'When you say (it) today, (it is the same) tomorrow.

(It) is the thing that the tortoise kept on doing.' [FUAN]

(iv) The locative verbs show the same secondary senses in both the locative and the progressive constructions. For example, recall that *t'ong* 'sit' has the secondary senses 'remain, stay' and 'plenty' (see section 4.2.2). Both senses are also attested in the progressive construction: 'remain, stay' is illustrated in (24a), and 'plenty' in (24b).<sup>9</sup>

- (24a) *Yin moe-gurum mat muk wul*  
 SAY NOMZ(pl)-person woman(sg) 3Sg.Poss arrive  
*t'wot t'ong shin shal yi ndoe ni de-goe tu ni.*  
 sit(pl) PROGR do war PROGR CONJ 3Sg.I PUR kill 3Sg

'(He said) that the relatives of his wife arrived

(and) kept waging a war with him in order to kill him.' [LA]

- (24b) *d'emde noemûat d'em t'ong ngam / t'ong pil pe yi.*  
 remainder frog this\_time sit(sg) many PROGR watch place PROGR

'this time, many other frogs are (= sit) watching the place.' [FROG-N]

The discussion in this and the preceding section suggests that the locative verbs in the progressive construction retain most of their semantic and formal

construction, they are not used with abstract Figure/Ground relations; see section 4.2).

- (i) ? *shal (...) leng t'ong mûen yi a ndoe pe (...).*  
 war hang/move(pl) PROGR go(pl) PROGR FOC some place  
 'wars keep on going to other places (...).' [TARIHI, A-09/02/00]

<sup>9</sup> The activity of *shin shal* 'waging a war' collocates, by default, with *d'yem* 'stand' (see section 9.3.3). But in (24a), the speaker uses *t'wot* 'sit (pl)' to stress the continuity of the war. (*T'ong* occurs here with an interpretation similar to the continuative reading of *lang* 'hang/move' in 23b, but it does not convey the component 'deliberately'.) In (24b), the singular verb *t'ong* 'sit' is used for many frogs – this singular use is characteristic of the sense 'plenty'.

properties. Given this retention, it can be argued that the progressive construction is only weakly grammaticalized. It is not only concerned with coding an aspectual notion, but also with giving positional information. Speakers thus pay attention to the positional information, and, if necessary, correct it (as illustrated in 25).

- (25) *Goemai zak / jap            Goemai yen nd'ûûn Nasarawa p'uur.*  
 Goemai also children(pl) Goemai plenty INSIDE Nasarawa very  
*Mûep d'e t'ong- / t'wot t'ong shin shit yi b'ak.*  
 3Pl exist PROGR sit(pl) PROGR do work PROGR here  
 'And the Goemai, the Goemai became very numerous in Nasarawa.  
 They are-, remain (= sit) doing work here.' [MIL-A]

### 9.3.3 Coding a typical activity

In section 9.3.2, it has been shown that the distribution of locative verbs in the first verb slot of the progressive construction is comparable to their distribution in the locative construction. But unlike in the locative construction, the different locative verbs also collocate with typical activities. In the locative construction, by contrast, only the existential *d'e* can be used with (nominalized) activities (see section 4.3.2 for examples). Some collocations are illustrated in (26a) to (26e) and summarized in table (1) below.

- (26a) *Mûaan p'et lang n-s'et / t'ong s'wa toeba yi. (...)*  
 go(sg) exit(sg) hang/move(sg) LOC-bush PROGR drink tobacco PROGR  
*B'ûet an muk a k'a mmoe? A mûûr!*  
 cause\_lying(sg) mind 3Sg.Poss FOC HEAD(sg) what FOC stealing  
 '(He) walks (and) goes out (and) hangs around in the bush smoking. (...)  
 Where does (he) put his mind to? (To) stealing!' [YOUTH]
- (26b) *ba doe t'ong t'ong rang yi k'a goe-fe (...).*  
 return(sg) come sit(sg) PROGR think PROGR HEAD(sg) NOMZ-COMP  
 '(he) returned (and) sat here thinking about (...).' [WITCH2]
- (26c) *Ko-lokashi goenang*  
 every-time which(sg)  
*t'ong goe kat ni d'yem t'ong shin shit yi.*  
 IRR 2Sgm find 3Sg stand(sg) PROGR do work PROGR  
 'Every time you would find him (and he) is busy (= stands) doing work.'  
 [SR\_BUSY-A]
- (26d) *t'o t'ong hoor lwa yi*  
 lie(sg) PROGR stalk animal PROGR  
 '(he) lies stalking the animals' [A-29/12/00]

(26e) *Moe-jar*                    *d'e*    *t'ong*    *k'wal*    *yi*  
 NOMZ(pl)-jealous(pl) exist    PROGR    talk            PROGR  
*shewa mûep doe goe s'oot.*  
 COMP    3Pl        come    COM    witchcraft

'The co-wives are saying that they have come with witchcraft.' [MATWO]

**Table (1):** Collocations between locative verbs and typical activities

Locative verb	Typical activity
<i>lang</i> 'hang/move'	<ul style="list-style-type: none"> <li>• moving (see 28, 29)</li> <li>• loitering/hanging around (see 26a)</li> </ul>
<i>t'ong</i> 'sit'	<ul style="list-style-type: none"> <li>• eating and drinking (see 27)</li> <li>• weaving</li> <li>• story telling</li> <li>• mental activities (see 26b)</li> </ul>
<i>d'yem</i> 'stand'	<ul style="list-style-type: none"> <li>• farming activities</li> <li>• washing oneself</li> <li>• dancing and singing</li> <li>• fighting</li> <li>• being busy (see 26c)</li> </ul>
<i>t'o</i> 'lie'	<ul style="list-style-type: none"> <li>• sleeping</li> <li>• hunting/stalking activities (see 26d)<sup>10</sup></li> </ul>
<i>d'e</i> 'exist'	<ul style="list-style-type: none"> <li>• all other activities, e.g., most speech acts (see 26e)</li> </ul>

Examples (26a) to (26e) above all occurred in contexts where the position of the referent was unknown to the speaker. If the position is known and conflicts with the typical position for the activity, speakers have two options. They can either shift the focus back to the locative relation and choose the appropriate locative verb (compare, e.g., 19a with 19b in section 9.3.2 above), or they can focus on the activity itself and select the locative verb that is typical for the activity. Example (27) below illustrates such a conflict: the hedgehog is located in a lying position and is eating. When asked, the speaker explicitly rejected *t'ong* 'sit' in reference to the locative relation. Nevertheless, he produced *t'ong* spontaneously when he talked about the activity, i.e., eating.

<sup>10</sup> The collocation of *t'o* 'lie' with hunting/stalking activities is surprising. Possibly, it is related to the practice of approaching the game stealthily, i.e., hunting involves periods of waiting in a lying position.

- (27) *Goebor hok t'o n-yil. (...) T'ong t'ong s'oe bi yi.*  
 hedgehog DEF lie(sg) LOC-ground sit(sg) PROGR eat thing PROGR  
 'The hedgehog lies on the ground. (...) (It) sits eating something.' [D-13/01/00]

Whenever locative verbs are used to express a typical activity, the actual position of the referent is thus irrelevant. In this case, the verb cannot co-occur with a cognate adverb (as illustrated in 28). Since cognate adverbs are used to assert the current posture of a referent (see sections 3.1.3 and 5.1.1.3), they can only occur in contexts where this posture is in focus (see 5b in section 9.1 for an example).

- (28) \* *lang n-lang t'ong wul yi*  
 hang/move(sg) ADVZ-hang/move(sg) PROGR arrive PROGR  
 \*'(the buffalo) moves around approaching' [A-29/12/99; NSHI]

In a recent study, Newman (2002a) and Newman and Rice (2001) note collocation patterns between postural verbs and activities in English. They find that 'sit' collocates with social habits and intellectual pursuits, 'stand' with authority, some social habits (e.g., talking to groups) and also occurs as prelude to walking activities, while 'lie' collocates with sleeping. They argue that such collocation patterns are motivated by experiential reality, and are thus likely to be found in many different languages. By contrast, Enfield (2002), who notes collocation patterns in Lao, stresses the cultural relativity of such collocations. He argues that, although typical postures are grounded in experience (e.g., people tend to be lying while asleep), the understanding of typicality itself is a cultural notion (e.g., sleeping is typically done in a lying position). A similar argument can be made for Goemai since only culturally salient activities are associated with specific postures, while non-salient activities collocate with the existential – even if they tend to be carried out in a specific posture. For example, the activity of (*k'wal*) *aram* '(telling) a story' is culturally salient and typically associated with 'sitting'.<sup>11</sup> By contrast, comparable activities of speaking, talking, listening and answering (which are commonly done in a sitting position in the Goemai culture) are not perceived as salient and do not

<sup>11</sup> This activity is so salient that the expression *t'wot aram* 'tell a story', literally 'sit story', is in the process of becoming a lexicalized expressions as in (i). If taken literally, the utterance would not constitute a well-formed expression, since the intransitive verb *t'wot* could not be followed by a direct object.

- (i) *Ko m-b'it goenang mûep t'wot aram goe shak.*  
 every LOC-day which(sg) 3PI sit(pl) story COM each\_other  
 'Every day they sit together telling stories.' [SR\_UNM-A]

collocate with any posture – instead, the existential verb *d'e* is used. The collocation patterns in Goemai therefore cannot be explained in terms of experience alone, but are mediated by culture.

The existential is used as a general category to cover all remaining activities. For example, in the utterance below, only the first activity is carried out in a typical position (*lang* ‘hang/move’) – as a consequence, the speaker uses a postural in the first case, but the existential in the second (even though the referent is still moving).

- (29) *Pe ni lang t'ong mûaan yi /*  
 COMP 3Sg hang/move(sg) PROGR go(sg) PROGR  
*d'e t'ong rwop kut yi moesek muk (...).*  
 exist PROGR murmur speaking PROGR self 3Sg.Poss  
 ‘When he moved around walking,  
 (when) he was murmuring to himself (...).’ [DAAT]

### 9.3.4 Coding generic activities

Section 9.3.3 has illustrated the collocation of locative verbs with typical activities. The default assignments of activities to posturals are, however, overridden in one context: whenever the speaker does not intend reference to a specific quantifiable number of entities in the real world, but ascribes a general property to the entity in question. In this case, the existential has to occur in the locative verb slot (as in the second line of 30a). Compare also (30b) and (30c): the generic activities in (30b) are expressed with the existential, but the same, concrete, activities in (30c) are expressed with *d'yem* ‘stand’.

- (30a) *T'ong goe na goe-tep / t'ong goe na goe-pya. (...)*  
 IRR 2Sgm see NOMZ(sg)-become\_black IRR 2Sgm see NOMZ(sg)-become\_white  
*D'emde gurum d'e d'i mûep d'e t'ong s'oe s'oe<sup>12</sup> yi.*  
 remainder person exist LOC.ANAPH 3PI exist PROGR eat eating PROGR  
*D'emde gurum d'e goe s'oe ba.*  
 remainder person exist COM eating NEG  
 ‘You will see bad (times), you will see good (times). (...)  
 Some people are there, they are eating food.  
 Some people are (there) without food.’ [TIME-A]

<sup>12</sup> The apparent reduplication (i.e., *s'oe s'oe* ‘eat eating’) has no aspectual functions. Recall that the direct object of a transitive verb needs to be overtly expressed (unless it is recoverable from the preceding context). In the case of an unspecified direct object, the object slot is filled with a cognate object (see section 2.4.1).

(30b) *Ni a gurum goe-b'oot shit. (...)*  
 3Sg.I FOC person NOMZ-able(sg) work

*D'e n-wum bi wum yi. (...)*  
 exist PROGR-bury thing bury PROGR

*Ko kuma ni d'e n-maar s'et yi.*  
 maybe also 3Sg exist PROGR-farm bush PROGR

'He is someone who knows how to work. (...)

(He) is planting things. (...)

Or else he is farming the land.' [SR\_BUSY-J]

(30c) *goe kat ni d'yem t'ong maar maar yi.*  
 2Sgm find 3Sg stand(sg) PROGR farm farming PROGR

*T'ong goe kat ni d'yem t'ong wum bi yi.*  
 IRR 2Sgm find 3Sg stand(sg) PROGR bury thing PROGR

'you find him (and he) stands farming the land.

(Or) you would find him (and he) stands planting things.' [SR\_BUSY-A]

This generic reading is only available with the existential verb. With the exception of one context (see the discussion of example 35 in section 9.3.5 below), the posturals cannot occur here.

This semantic difference between the posturals, on the one hand, and the existential, on the other, has two formal reflections. First, the distribution of locative adjuncts differs: they preferably follow the postural verb (see the discussion of 14a and 14b in section 9.3.1), but only rarely the existential verb. Examples such as (31a) below (where the adjunct follows the existential verb) are infrequent, while examples such as (31b) (where the adjunct follows the construction) are very common.

(31a) *gurum ngam zak d'e d'i t'ong s'arap bi yi (...).*  
 person many also exist LOC.ANAPH PROGR trade(pl) thing PROGR

'and many people are there trading things (...).' [MIL-N]

(31b) *Wato mûep d'e t'ong d'ik lu yi d'i.*  
 this\_means 3Pl exist PROGR build settlement PROGR LOC.ANAPH

'This means (that) they are building houses there.' [MIL-A]

Second, postural and existential verbs can co-occur, whereby the existential always follows the postural (as in 32a and 32b). In this case, the posturals focus on the current position of the referent, while the existential focuses on the generic activity.

- (32a) *Ba goe t'a t'o d'e t'ong saam yi.*  
 return(sg) SEQ fall(sg) lie(sg) exist PROGR sleep PROGR  
 '(He) returned to lay down (and) is sleeping.' [SR\_SVCI-A]
- (32b) *Aas lang d'e t'ong t'an mûep yi.*  
 dog hang/move(sg) exist PROGR pursue 3PI PROGR  
 'The dog moves around (and) is following them.' [FROG-C]

Such co-occurrences are infrequent, and, when asked, not all speakers accept them. Nevertheless, the progressive construction is the only construction where such a co-occurrence was observed at all. It is conceivable that the existential verb develops further into a general generic/habitual marker, thereby losing its paradigmatic opposition to the postural verbs.<sup>13</sup>

The development of a generic/habitual reading probably accounts for the observation that stative verbs can occur in the main verb slot in this construction, e.g., *t'wot* 'sit (pl)' in (33): recall that stative verbs in this environment receive a habitual reading (see section 9.2).

- (33) *A bi goe-sa toe / t'ang / ndoe / guluk /*  
 FOC thing NOMZ-make EMPH large\_bat CONJ house\_bat  
*mûep d'e n-t'wot yi / m-pe goe-goeme ba.*  
 3PI exist PROGR-sit(pl) PROGR LOC-place PREP-one NEG  
 '(It) is the reason why the *t'ang*-bat and the *guluk*-bat,  
 they never sit in the same place.' [ANIMAL1]

<sup>13</sup> There is, indeed, one piece of evidence that points to the development of a separate generic/habitual construction that contains the existential verb. Younger speakers frequently use the phonetically eroded forms *t'en* or *t'oe N-* in place of the particle *t'ong* as in (i) and (ii) below. These eroded forms only occur when the existential verb is present and when the construction receives a generic interpretation. Apparently, the generic reading of the progressive construction is recognized (or is in the process of being recognized) by members of the younger generation as a separate construction.

- (i) *Mûep d'e t'en shin bi hok yi.*  
 3PI exist PROGR do thing DEF PROGR  
 'They are doing the thing.' [WITCH1]
- (ii) *Jap d'e t'oe n-shin gwen surutu yi.*  
 children(pl) exist PROGR PROGR-do PL noise PROGR  
 'The children are being noisy.' [FRIENDS]



### 9.3.5 Summary and discussion

In section 9.3.1, formal evidence has been presented suggesting that the locative verbs retain their original lexical properties when occurring in the first slot of the progressive construction: they (i) occur in a verb slot, (ii) introduce separate locative adjuncts, (iii) show prosodic independence, (iv) occur with durative aspect and presentative marking, and (v) co-occur with serial constructions.

In section 9.3.2, it was shown that the locative verbs also retain most of their locative relational semantics in this slot: they (i) frequently occur with locative adjuncts, (ii) are used in an assertional way, (iii) are used in a classificatory way, and (iv) show the same extended senses as in simple clauses. Goemai differs here from other languages where locative-based progressive auxiliaries primarily code human postures (Kuteva 1999; Newman and Rice 2001) (see also the discussion of locative relational semantics vs. human-based postural semantics in section 4.2.6).

As shown throughout this thesis, locative verbs and their derived elements can occur in different morphosyntactic environments. Frequently, two or more such environments are present in the same clause or in adjacent clauses. If the progressive construction is involved, the locative verb chosen is usually the same as the locative verb/deictic classifier occurring in the preceding clause: in (34a), *d'yem* 'stand' occurs in both the locative and the progressive construction; and in (34b), it occurs in both the demonstrative and the progressive construction.

- (34a) *Ndoe gurum d'yem b'ak (...). D'yem t'ong fin yi.*  
 some person stand(sg) here stand(sg) PROGR peel PROGR

'Someone stands here (...). (He) stands peeling (the banana).' [STAGE\_74-A]

- (34b) *Moe-n-d'yam-nang d'yam t'ong pil yi.*  
 NOMZ(pl)-ADVZ-Cl:stand(pl)-DEM.DIST stand(pl) PROGR watch PROGR

'Those standing ones stand watching.' [STAGE\_51-N]

However, it is not always the case that the same postural is chosen in different morphosyntactic environments. For example, in (35) below. the postural *lang* 'hang/move' occurs in the locative verb slot of the progressive construction, where it is used in a classificatory way to categorize the referent as animate. The main verb is another postural, *t'o* 'lie', that is used in an assertional way to assert the actual position of the referent located on the bed. This example

illustrates that different locative verbs can occur with the same entity in different environments. Their co-occurrence is possible because locative verbs are used in two different ways: in a classificatory and in an assertional way.<sup>14</sup>

- (35) *ko-t'atnang / ni lang t'ong t'o yi k'a gado*  
 every-when 3Sg hang/move(sg) PROGR lie(sg) PROGR HEAD(sg) bed  
 'all the time, he lives (= moves) lying on the bed' [A-15/06/01]

In all examples comparable to (35), the classificatory information is coded in the locative verb occurring in the first verb slot, while the assertional information is coded in the main locative verb. This distribution probably follows from the function of the progressive construction, i.e., it is used to assert a current or habitual state-of-affairs.

In section 9.3.3, it has been shown that the locative verbs can collocate with typical activities, in which case they have lost their locative relational semantics.<sup>15</sup> It is likely that this collocation pattern triggered the omission of the locative adjuncts in the first place: in this context, the verbs focus on an activity, while position and location are backgrounded. Recall also that the locative adjunct is omitted whenever locative verbs occur with an aspectual (i.e., resultative) interpretation in serial verb constructions (see section 8.2).

Finally, in section 9.3.4, it has been shown that speakers shift to the existential verb to indicate generic, rather than specific, reference. The progressive construction thereby receives a generic or habitual interpretation. This interpretation is only available for the existential, and, as a result, the

<sup>14</sup> As shown in section 9.3.4, the posturals and the existential can co-occur within the progressive construction. In this case, the posturals are always used in an assertional way, while the existential is used in an aspectual way (to code a generic activity). I assume that these two different uses are responsible for their co-occurrence.

<sup>15</sup> In this context, locative verbs look similar to dispositional verbs. Recall that dispositional verbs code a referent-internal disposition, but not a locative relation (see section 4.4). Dispositional verbs can even replace the locative verbs in the progressive construction as in (i) below. However, their occurrence cannot be taken as evidence for the loss of locative relational semantics in the progressive construction because (a) such replacements are infrequent, (b) dispositionals can replace locative verbs even in the locative construction (see section 4.4), and (c) the dispositionals do not collocate with typical activities (i.e., they are only used to assert a current disposition).

- (i) *Gurum hok d'ûût sek t'eng t'ong k'ang moto yi.*  
 person DEF lean BODY tree PROGR wait\_for car PROGR  
 'The man leans against the tree waiting for a car.' [PROGRLA\_18-A]

paradigmatic set of locative verbs shows an initial split into two different sets: posturals as opposed to the existential. But recall that the existential verb is not always used with a generic interpretation: it also serves as a remainder category that occurs with those locative relations and activities for which there is no postural available (see sections 9.3.2 and 9.3.3).

#### **9.4 The grammaticalization of locative verbs into aspectual markers**

It is assumed that the progressive construction is of recent origin because it (a) has retained its original locative semantics (as shown in section 9.3) and (b) is not documented in the grammatical sketch of Sirlinger (1942). This section discusses possible grammaticalization paths, whereby the analysis focuses on comparing the formal properties of the presumed source structures with those of the resulting aspectual structures. Section 9.4.1 investigates the development of the progressive construction, section 9.4.2 illustrates alternative constructions that express a progressive reading, section 9.4.3 discusses the role of the verb *t'ong* 'sit' in the TAM system of Goemai, and section 9.4.4 compares the Goemai data to that of closely related Chadic languages.

##### *9.4.1 The grammaticalization of the progressive construction*

It is a well known phenomenon that progressive structures grammaticalize from locative expressions (Anderson 1973; Austin 1998; Bybee et al. 1994: 127-133; Comrie 1976: 98-106, 129-130; Heine 1997b: 195-207; Heine and Reh 1984: 122-126; Kuteva 1999; J. Lyons 1977: 718-724; Newman and Rice 2001; Reid 2001). Commonly, this process involves a locative copula, an adpositional element and a nominalized verb. But it is also known that “[p]ostural and durative verbs form another important (...) source of progressive/incomplete aspect markers” (Heine and Reh 1984: 124; see also Comrie 1976: 102-105; Kuteva 1999).<sup>16</sup>

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<sup>16</sup> Sometimes, languages make use of different strategies. In such languages, the copula strategy seems to be used for the present progressive, and the postural strategy for the past progressive (Heine and Reh 1984: 125-126). Goemai does not employ the copula strategy, and the progressive construction does not show any restrictions to either past or present events. Notice also that the grammaticalization of a verb 'hang', which is part of the postural set of Goemai, has not been attested so far (Heine et al.

The formal properties of the progressive construction in Goemai suggest that the construction developed from a complex clause containing a main locative verb and a subordinate verb marked for irrealis modality. Example (36a) below illustrates such a complex clause. It consists of a main clause (a coordinate serial verb construction with the second verb *lang* ‘hang/move’ used transitively) and a subordinate clause (with the irrealis particle *t’ong* and the subordinating particle *yi*). Notice the superficial similarity to (36b), which illustrates the progressive construction and contains the verb *lang* ‘hang/move’ (used intransitively) and the progressive particles *t’ong* and *yi*.

- (36a) *Mang d'em lang n-k'a muk t'ong b'uat yi.*  
 take this\_time hang/move(sg) LOC-head(sg) 3Sg.Poss IRR beat SUB

‘This time, (he) took (it and) put (it) on his head that (he) would play (it).’ [STAGE\_47-N]

- (36b) *Mûai hok lang t'ong mûaan yi (...).*  
 friend(masc) DEF hang/move(sg) PROGR go(sg) PROGR

‘The friend moved around walking (...).’ [WITCHI]

In this section, the properties of such complex clauses are illustrated and compared to those of the progressive construction. Of relevance to the discussion are subordinate clauses that occur in the irrealis domain, i.e., those that are marked with the subordinating particle *yi* (see section 2.5.4 for the distribution of this particle in the irrealis domain):<sup>17</sup> clauses introduced by *ntyem* ‘before, front’, *goe-bi* ‘as if’, or *de* ‘complementizer (purpose)’. For example, in (37a) below, the purpose marker *de* co-occurs with the subordinating particle *yi*. In addition, such subordinate clauses are frequently marked overtly by an irrealis particle (as in 37b and 37c).

- (37a) *Ndoe bi (...) goe-pe hen zem/ de hen k'oeleng yi.*  
 some thing NOMZ-COMP 1Sg like COMP 1Sg hear SUB

‘(There is) something (...) that I want to hear.’ (lit. ‘... I want that I hear’) [QUEST]

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1993: 116). Recall that, despite the gloss, *lang* ‘hang/move’ is not a motion verb (see section 4.2.1).

<sup>17</sup> This particle may be cognate to the particle *d’i* in the closely related language Mupun. In Mupun, it occurs in a comparable syntactic position where it marks an embedded obligation clause. Frajzyngier (1993: 460-465) assumes that it developed from the locative anaphor.

- (37b) *gwa zem de gwa tong k'oerek ji yi wa?*  
 Sgm.LogA like COMP Sgm.LogA IRR remember Sgm.LogS SUB INTERR

'would he<sub>2</sub> want to remember him<sub>1</sub>?' (lit. '... does he<sub>2</sub> want that he<sub>2</sub> would remember him<sub>1</sub>') [NGOEGAN]

- (37c) *moe-gurum muk zem de ni goe mûaan d'ik yi.*  
 NOMZ(pl)-person 3Sg.Poss like COMP 3Sg OBL go(sg) marriage SUB

'her people want that she should marry.' [REEP]

As illustrated in (38), the presence of an overt complementizer is not necessary for the occurrence of the subordinating particle *yi*.

- (38) *D'emde ni b'oot goe shin yi.*  
 remainder 3Sg able(sg) OBL do SUB

'(There is another) one (who) is able to do (it).' [MIL-C]

Aside from the phonetic identity of the particle *yi*, such subordinate clauses share the following four formal properties with the progressive construction (compare these properties to those discussed in section 9.1):

(i) If the irrealis particle *t'ong* is present, pronouns of set 2 follow this particle (as in 39) (see section 2.2.1.2 for the two sets of pronouns).

- (39) *de t'ong moe b'ûat yi.*  
 COMP IRR 1Pl beat SUB

'that we would play (it).' [HAND-J]

(ii) Core arguments precede the particle *yi* (such as *pe* 'place' in 40a), while adjuncts and particles follow it (such as *mpe* 'in the place' in 40b).

- (40a) *de goe na pe yi.*  
 COMP 2Sgm see place SUB

'that you would see the place.' [MIL-A]

- (40b) *de goe kat zoom yi m-pe (...).*  
 COMP OBL find cold SUB LOC-place

'that (he) should find peace in the place (...).' [GOEDAI]

(iii) In subordinate multi-verb clauses, only the first verb precedes the particle *yi* (as in 41a). And if such a subordinate multi-verb clause is marked for irrealis modality, this particle has to precede each of the verbs (as in 41b).

- (41a) *de yo yi d'yem nk'ong goe-nye toe.*  
 COMP rise(sg) SUB stand(sg) BACK NOMZ(sg)-kind EMPH

'that (he) would stand up behind his neighbor.' (lit. 'rise and stand') [DIALECT]

- (41b) *Mûep zem m-mûep a pe goe-zoom*  
 3PI like BEN-3PI.I FOC place NOMZ(sg)-cold  
*de mûep goe rwo yi / goe t'wot d'i (...).*  
 COMP 3PI OBL enter(pl) SUB OBL sit(pl) LOC.ANAPH  
 'They want a peaceful place for them,  
 that they should enter (and) should sit there (...).' [NTWALANG]

(iv) The direct object can be focussed in which case the particle *yi* is omitted (as in 42).

- (42) *de goe hok a maar ji.*  
 COMP OBL dig FOC farming Sgm.LogS.Poss  
 'that (the guineafowl<sub>1</sub>) should dig its<sub>1</sub> farm.' [SHOOM]

Given these similarities, it is conceivable that the progressive construction originated in a main plus subordinate structure, whereby the subordinate clause was marked with the irrealis particle *t'ong* and the subordinating particle *yi*. Synchronically, the progressive construction differs from this complex structure in that its two verbs form a tighter juncture. The following three differences were observed:

(i) As illustrated in (43), the subject of the subordinate clause can differ from that of the main clause. In the progressive construction, it is not possible to make predications of two different subjects.

- (43) *Hen zem moe man shit muk yi.*  
 1Sg like 1Pl know work 3Sg.Poss SUB  
 'I want that we know its purpose.' [QUEST]

(ii) In the progressive construction, the default scope of negation is over the whole construction (see 5a in section 9.1). This is a default scope only, as each of the verbs can be negated independently, provided that it occurs in a marked form (see examples 5b and 5c). In the case of subordination, the default scope of negation is over the subordinate clause only (as in 44a). Occasionally, the whole complex clause is negated (as in 44b): the whole clause is within the scope of the discontinuous negation particles *kede ... ba*. But it is never possible to negate only the main clause.

- (44a) *Mûep goe na de hen s'wa wala yi ba.*  
 3PI OBL see COMP 1Sg drink trouble SUB NEG  
 'They should see (to it) that I would not suffer.' [FRIENDS]

- (44b) *Kede*    *gwa*        *boe-t'ong*    *d'ûût*    *sek*    *gwa* (...)   
 PROH    Sgm.LogA    PROH-IRR    lean    body    Sgm.LogA.Poss   
*de*    *gwa*        *t'ong*    *saam*    *yi*    *ba.*   
 COMP   Sgm.LogA    IRR        sleep    SUB    NEG

'He should not lean himself (...) that he would not fall asleep.' [SR\_SVCI-A]

(iii) In the progressive construction, the locative adjunct can either follow the locative verb or the whole construction, or it can be omitted (see 14a to 14c in section 9.3.1 above). In complex clauses that contain a main locative verb, the locative adjunct has to follow this verb directly (as in 45 below).

- (45) *mûep*    *t'wot*    *n-yil*        *rang*    *nye-rang*    *yi*   
 3PI        sit(pl)    LOC-ground    think    kind-think    SUB

'they sit on the ground that (they) could think thoughts' [A-22/06/01]

In the course of grammaticalization, a syntactic reanalysis must have taken place, so that the two verbs of the progressive construction now form a tighter unit than in the original complex structure (main plus subordinate clause). This syntactic reanalysis probably co-occurred with a semantic reinterpretation of the type illustrated in (46) below.

- (46) *t'o*        *t'ong*        *saam*        *yi*   
 lie(sg)    IRR        sleep        SUB   
 lie(sg)    PROGR               PROGR

Subordinate interpretation: '(he) lies that (he) would sleep'

Progressive interpretation: '(he) lies sleeping'

[constructed example]

The original structure expresses two overlapping events: a position (recall that the locative verbs are stative verbs; see section 3.1.2) and an intention. The temporal overlap has probably given rise to the development of a progressive interpretation, i.e., from 'be in a position with the intention to do X' to 'be in a position and do X' and, eventually, to 'be and do X' (cross-linguistically, purposive structures often constitute the sources for further grammaticalization processes, see Hopper and Traugott 1993: 83ff.). But recall that the progressive construction retains much of the original locative semantics (see section 9.3.2), i.e., it does not exclusively code the aspectual semantics of 'be and do X'.

The reinterpretation illustrated in (46) above was possible in contexts that backgrounded the locative relational semantics of the locative verbs, e.g., in contexts where the locative adjunct was omitted. These might have been contexts in which the locative verbs express the typical position of an activity

(see section 9.3.3): in such contexts, the verbs categorize an activity, i.e., they are not primarily concerned with a locative relation.

Drawing on data from Bulgarian and other languages, Kuteva (1999) discusses attested grammaticalization processes from biclausal structures (coding posture and simultaneous activity) to monoclausal aspectual structures (coding unboundedness).<sup>18</sup> She argues that such shifts in meaning are motivated through the extension of postural verbs to inanimate referents. That is, at first, the structure is ambiguous between a human posture reading and an aspectual reading – an ambiguity that is resolved only when the verbs lose their human posture semantics through being extended to inanimate referents. Her analysis can partly account for the Goemai data as well, since inanimate referents can occur in the progressive construction (see the discussion in section 9.2). However, I do not assume that the progressive construction was ever restricted to animate referents. The following three observations argue against this assumption:

(i) The present-day locative verbs code a locative relation, irrespective of the animacy of the referent. And while it is possible that some of the locative verbs originated in human-based posture verbs, such an origin cannot be easily assumed for all verbs (i.e., *lang* ‘hang/move’, *d’e* ‘exist’) (see section 4.2.6).

(ii) The retention of locative relational semantics suggests that the progressive construction grammaticalized from locative verbs in the locative construction (see section 9.3.2), i.e., from a construction that is concerned with locating referents, irrespective of their animacy. Kuteva (1999), Heine (1997b: 202-207) and Lichtenberk (2002) also assume that the use of postural-type verbs in the locative construction is a necessary prerequisite for their development into aspectual morphemes.<sup>19</sup>

(iii) Already the presumed source construction can occur with inanimate referents (as illustrated in 47).

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<sup>18</sup> The progressive construction in Goemai is not (yet) a monoclausal structure (e.g., the two verbs can be independently negated). However, as shown in this section, the two verbs form a tighter juncture than the two verbs in the original complex structure.

<sup>19</sup> By contrast, Heine et al. (1991: 117-118) argue that the grammaticalization of postural verbs to aspectual markers is motivated by an activity schema, not by a spatial/locational schema. And Song (2002) shows that location is not a semantic component in the progressive construction of Korean (that is based on postural verbs).



- (47) *Moe zem / ndoe k'wal / goe d'e goe ru yi /*  
 IPl like some talking OBL exist OBL enter(sg) SUB  
*s'akani / men (...) ba*  
 MIDDLE IPl.Poss NEG

'We do not want any (bad) words to be between us.' (lit. '... words should not be that they should not enter between us') [KWO]

For these reasons, I assume that the progressive construction did not develop directly from verbs that code a human posture, but from verbs that code a locative relation.

To summarize this section: there is formal evidence that the progressive construction originated in a complex clause containing a main locative verb and a subordinate irrealis marked clause. Later, a syntactic reanalysis took place (leading to a tighter juncture of the two verbs), and the construction received an aspectual reading. Notice that it is not the locative verbs by themselves that developed into aspectual markers, but the complex structure.

#### 9.4.2 Alternative constructions expressing a progressive reading

The progressive construction is the most common structure for expressing the progressive value, but there are three alternative structures that can be used instead. All of them contain a locative verb.

First, as mentioned in section 9.1, there are two alternative forms of the progressive construction in which the progressive particle *t'ong* is replaced by either *N-* or *la*. The three forms reflect diachronic variation and are semantically equivalent (but see footnote 1). The prefix *N-* is used almost exclusively by younger speakers of Goemai, while the particle *la* was used at the beginning of the last century (it is described in Sirlinger 1942: 68, but occurs only infrequently in present-day Goemai). Both forms probably developed from morphemes that occur in irrealis contexts: *N-* from the permissive marker (see section 2.4.3.4),<sup>20</sup> and *la* from the conditional marker (see section 2.5.5).

<sup>20</sup> There is an alternative scenario for the origin of *N-*. In footnote 13, it was shown that younger speakers use the phonetically eroded forms *t'en* and *t'oe N-* in place of the particle *t'ong*. It is tempting to speculate that *N-* is a further eroded form. However, as illustrated in (i) below, *N-* occurs in different contexts than *t'oe N-*: it occurs with a progressive interpretation (not with a generic interpretation), and it can

Second, a structure containing both a locative verb and the spatial nominal *k'a* 'head' expresses the progressive-like reading of 'busily doing something at reference time'. This structure can co-occur with the progressive construction (as in 48a), but it can also occur in a simple clause (as in 48b) or with a nominalized verb in a simple clause (as in 48c). In this structure, *k'a* seems to have acquired the semantic component of 'being busy'.<sup>21</sup>

(48a) *T'o k'a molo t'ong b'uat yi.*  
 lie(sg) HEAD(sg) guitar PROGR beat PROGR  
 '(He) is busy playing the guitar.' (lit. 'he lies on the guitar playing')  
 [PROGLA\_15-A]

(48b) *reep hok yi d'yem k'a fin*  
 girl(sg) DEF DUR stand(sg) HEAD(sg) grinding\_stone  
 'the girl is busy grinding' (lit. 'the girl stands on the grinding stone') [A-29/12/99]

(48c) *D'e k'a longvilip goe-n-yil.*  
 exist HEAD(sg) paper NOMZ-ADVZ-write  
 '(He) is busy writing a letter.' (lit. 'he is on the letter being written')  
 [TQ\_24-A]

Third, the coordinate serial construction containing a locative verb in first position can be used to convey a progressive-like reading (as illustrated in 49). This reading is not coded, but is an implicature that derives from the lexical semantics of the verbs (see section 8.1.1). Recall that locative verbs are stative verbs (see section 3.1.2), i.e., the subevent coded in the locative verb necessarily overlaps in time with the subevent coded in the subsequent verb. The construction thus receives an interpretation of simultaneity. Similar to the progressive construction, the locative verb expresses the position of the referent during the activity. And, also similar to the progressive construction, the locative adjunct is not obligatory.

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co-occur with posturals (not only with the existential). I therefore do not assume a diachronic connection between the two forms.

(i) *Ni kat la hok / t'o n-saam yi.*  
 3Sg find child(sg) DEF lie(sg) PROGR-sleep PROGR  
 'She found the boy (and he) lay sleeping.' [SR\_SVCM-J]

<sup>21</sup> Recall that *d'yem* 'stand' can be used in the progressive construction to convey the reading that the referent is busily engaged in an activity. In this case, *d'yem* does not need to combine with *k'a* 'head' (see table 1 in section 9.3.3). In some Kwa languages, the continuative is expressed by a similar structure that contains a locative verb and a postposition 'upper surface' (Felix Ameka, p.c.).

- (49) *Aas hok d'yem p'aar.*  
 dog DEF stand(sg) jump

'The dog stood (and) jumped (up and down).' [FROG-J]

The coordinate serial construction illustrated in (49) above occurs only infrequently – possibly because the progressive construction is available, i.e., a construction that codes progressive aspect (and not just implicates it). In discourse, speakers tend to immediately rephrase such serial constructions as progressive constructions: for example, the progressive construction in (50) below followed shortly after its serial counterpart in (49) above was uttered.

- (50) *Aas hok zak d'yem n-p'aar yi.*  
 dog DEF also stand(sg) PROGR-jump PROGR

'And the dog stood jumping (up and down).' [FROG-J]

Given the possibility to use a serial construction to express a progressive reading, it is interesting to note that the progressive construction did not develop from the serial construction. This is of relevance because such a grammaticalization chain is known from other serializing languages (Bybee et al. 1994: 127-133; Heine and Reh 1984: 116-119; Reid 2001). In Goemai, the progressive construction developed from a subordinate structure, while the locative verbs in the serial construction developed a resultative reading (see section 8.2).

#### 9.4.3 The verb *t'ong* 'sit' in the TAM system of Goemai

All five locative verbs can be used with a resultative aspect reading (in serial constructions; see section 8.2) and with a progressive aspect reading (in the progressive construction). In addition, the locative verb *t'ong* 'sit (sg)' developed into the irrealis particle *t'ong*, which plays a role in both progressive and habitual constructions. (The plural form *t'wot* 'sit (pl)' does not occur in the same contexts as its singular counterpart). In this section, the grammaticalization path of *t'ong* is traced.

##### 9.4.3.1 Irrealis modality

The particle *t'ong* expresses both irrealis modality and future tense. It is known that, in many languages, these two categories show some overlap: they may be expressed by the same form, the irrealis marker may be part of the same formal system as the past/present tense markers, or the future marker may have developed from the irrealis marker (Bybee et al. 1994: 251-271; Comrie 1985:

43-48; Dahl 1985: 103; J. Lyons 1977: 816; Palmer 1986: 49). In Goemai, *t'ong* codes basically a modality: it can occur in non-future contexts, future can be expressed with the help of the unmarked aorist, and *t'ong* is not part of the same paradigmatic set as the absolute tenses (see section 2.4.3 for an overview of the TAM system). In labeling it a modality category, I follow Comrie's methodological caution when he says that, in order to establish whether a language has a category of future tense, one has to ascertain first that its use "(...) cannot be treated as a special use of a grammatical category with basically non-tense meaning" (Comrie 1985: 46).

The particle *t'ong* is used in irrealis contexts. This includes the expression of epistemic modality (as in 51a), intention (as in 51b), polite requests (as in 51c), and counterfactual contexts (as in 51d).

- (51a) *t'ong d'e n-Jos nd'asoenoe*  
 IRR exist LOC-Jos now  
 '(I think that) (he) should be in Jos now' [A-16/02/00]
- (51b) *t'ong du k'wal a k'a goe-pe (...)*  
 IRR Pl.LogS talk FOC HEAD(sg) NOMZ-COMP  
 '(They<sub>1</sub> said that) they<sub>1</sub> should talk about (the fact) that (...).' [LIIT]
- (51c) *T'ong goe t'o s'ayo ba goe ne.*  
 IRR 2Sgm lie(sg) PROH return(sg) 2Sgm tire  
 'You should sleep lest you become tired again.' [TQ\_131-A]
- (51d) *D'in la goe zem d'ûe noe /*  
 PAST.CL COND 2Sgm like voice 1Sg.Poss  
*d'in t'ong goe bi fûan ba.*  
 PAST.CL IRR 2Sgm follow rabbit NEG  
 'If you had listened to my voice,  
 you would not have followed the rabbit.' [LIIT]

The particle is furthermore near-obligatory in future contexts (but see section 2.4.3.1), occurring in both intention-based (as in 52a) and prediction-based contexts (as in 52b). Some authors consider an occurrence in a prediction-based context a defining criterion of a future tense marker (Bybee et al. 1991: 20).

- (52a) *Goe-vel / hen t'ong poe a n-la noe.*  
 ORD-two 1Sg IRR give FOC BEN-child(sg) 1Sg.Poss  
 'The second one, I will give (it) to my child.' [GOESHANW]
- (52b) *La goe su goe p'et kuma / t'ong goe muut.*  
 COND 2Sgm run(sg) 2Sgm exit(sg) also IRR 2Sgm die(sg)  
 'And if you run (and) go out, you will die.' [GWAKTAK]

In present-day Goemai, irrealis *t'ong* has the syntactic status of a particle. For example, in nominalized clauses, it occurs in the particle slot, i.e., both *t'ong* and the verb precede the possessor (as in 53). If it had verbal status, only *t'ong* would have preceded the possessor (see the discussion of example 12 in section 9.3.1 above).

- (53) *La hok man bi goe-t'ong shin muk ba.*  
 child(sg) DEF know thing NOMZ-IRR do 3Sg.Poss NEG  
 'The boy did not know what he would do.' [FROG-A]

Despite its particle status, it is likely that *t'ong* originated as the first verb in a serial construction: like the first verb in such a construction, it precedes pronouns of set 2 (as in 54a). Recall that TAM particles that originated in prepositions have to follow pronouns of set 2 (as in 54b) (see section 2.4.3).

- (54a) *Nde shel n-d'e-nnoe / goe-pe t'ong moe shin.*  
 one/other game ADVZ-Cl:exist-DEM.PROX NOMZ-COMP IRR 1PI do  
 'This existing other game, which we would do.' [DIS\_2.1-J/M]
- (54b) *La s'em k'wal goe-pe moe goe shin toe.*  
 little(sg) name talking NOMZ-COMP 1PI OBL do EMPH  
 'The little piece of talking, which we should do.' [ARAM]

It is possible that the irrealis particle originated in a serial construction of the coordinate type as illustrated in (55). As argued in section 9.4.2 above, such a construction receives a simultaneous interpretation whenever a locative verb occurs as the first verb, i.e., the referent is considered to be in a specific position while engaged in an activity.

- (55) *Mûep t'wot rang nye-rang.*  
 3PI sit(pl) think kind-think  
 'They sat (and) thought a thought.' [LIT]

But while such an origin is formally plausible, it is not clear how the modality reading could have developed from the simultaneity reading.<sup>22</sup>

Bybee et al. (1994: 181-187, 258-264) suggest that the locative verb 'be' can grammaticalize into an agent-oriented modality (i.e., a modality that imposes conditions on the agent, e.g., obligation), from where it develops further into a marker for intention, and eventually into a marker for epistemic modality. They

<sup>22</sup> Most attested grammaticalization chains have verbs of motion, volition or desire as sources for irrealis/future markers (Bybee et al. 1994: 251-271; Heine and Reh 1984: 131). Locative verbs, by contrast, are not very common – Heine et al. (1993: 270, 272), for example, do not mention postural verbs among the possible sources at all.

argue that the source structure expresses two overlapping events (as in the serial construction of 55 above). Later, the agent is associated with a projected activity, allowing for an interpretation of ‘the agent commits himself to be at an activity’ (1991: 26-27; 1994: 258-264). Recall that present-day *t’ong* ‘sit’ has an extended sense of ‘remain, stay’ (see section 4.2.2), which requires a commitment of the agent to remain in a place. It is possible that this extended sense encouraged the reinterpretation from, e.g., ‘they sat/remained and thought’ (in 55 above) to ‘they had the intention to think’. Such a scenario could explain the fact that only *t’ong* ‘sit’ has been grammaticalized – the other locative verbs do not have such an extended sense.<sup>23</sup> But given the scarcity of available data on earlier stages of the language, this scenario has to remain speculative. It is even possible that its grammaticalization has already taken place in Proto-Angas-Goemai (see the discussion in section 9.4.4).

#### 9.4.3.2 Habitual aspect

The irrealis particle *t’ong* has given rise to (a) the progressive particle *t’ong* (see section 9.4.1) and (b) the habitual particle *t’ong*.<sup>24</sup> The habitual construction is a periphrastic construction that contains the two discontinuous morphemes *la ~ d’a* and *t’ong* (see also section 2.4.3.3). It is used for any event that is characteristic for an extended period of time, taking place habitually or repeatedly.<sup>25</sup>

<sup>23</sup> In many languages, ‘sit’ is the only postural verb that has been grammaticalized into a marker for progressive and/or habitual aspect (Austin 1998; Heine and Reh 1984: 124-126; Heine et al. 1993: 201). Alternatively, if several postural verbs have been grammaticalized, ‘sit’ is often used for permanent states (while the others are used for temporary states) (Comrie 1976: 102-105; Newman and Rice 2001). It is possible that the wide distribution of ‘sit’ is related to its common extension to notions such as ‘stay, remain, live’.

<sup>24</sup> Bybee et al. (1994: 151-160), Heine and Kuteva (2002: 278-279) and Newman (2002a) list the verb ‘sit’ as a lexical source for habitual markers. In Goemai, habitual *t’ong* did not directly develop from the verb ‘sit’, but via irrealis *t’ong*.

<sup>25</sup> There are two alternative possibilities to convey a habitual reading. First, the unmarked aorist form of non-stative verbs can be used in reference to generic actions as in (i). Second, the progressive construction receives a generic reading when it occurs with stative verbs (see section 9.2) and/or when it is marked with the existential *d’e* (see section 9.3.4). In all these cases, the habitual reading is restricted to generic actions/states that are true at reference time. The habitual construction, by contrast, receives a default past tense reading. This reading is not due to a semantic constraint – it is a pragmatic constraint that results from the opposition of the habitual

Its formal properties are similar to those of the progressive construction (see section 9.1): all core arguments precede the final particle, while adjuncts follow it (e.g., *n̄ni* ‘with it’ in 56a); nouns and pronouns of set 1 precede the particle *la ~ d’a* (e.g., *m̄nep* ‘they’ in 56a), but pronouns of set 2 follow it (e.g., *goe* ‘you’ in 56b).

(56a) *Goemai m̄nep la b’ûat t’ong n-ni.*  
 Goemai 3Pl HAB beat HAB COM-3Sg.1

‘Goemai, they used to play with it.’ [HAND-A/N]

(56b) *lu goe-pe dok la goe man t’ong.*  
 settlement NOMZ-COMP PAST.REM HAB 2Sgm know HAB

‘the town, which you used to know.’ [MIL-C]

It is very likely that the habitual construction is derived from the conditional construction. Recall that a conditional clause contains the particle *la ~ d’a* ‘when/if’, while the apodosis clause frequently contains the irrealis particle *t’ong* (see section 2.5.5). In a non-specific context, an utterance such as (57) could be interpreted as instantiating either the conditional construction (‘if you do X’) or the habitual construction (‘whenever you do X’).

(57) *Dok la goe p’et t’ong goe kat jap (...).*  
 PAST.REM COND 2Sgm exit(sg) IRR 2Sgm find children(pl)  
 HAB HAB

Conditional interpretation: ‘If you came out, you would find children (...).’

Habitual interpretation: ‘Whenever you came out, you found children (...).’

[KWANDE]

Although the conditional and habitual constructions differ formally in present-day Goemai (see below), the following four observations make their diachronic connection likely (structured freely after Chapman et al. 1989: 192-193):

construction to the two alternative constructions. Being an implicature, it can be cancelled.

- (i) *Gurum muk m̄nep s’oe s’oe m̄nep hab’al.*  
 person 3Sg.Poss 3Pl eat eating 3Pl become\_full  
*D’a goe k’wal goe-shini / a goed’aar goed’aar toe.*  
 COND 2Sgm talk PREP-today FOC tomorrow tomorrow EMPH  
 ‘His people they eat, they become full.  
 When you say (it) today, (it is the same) tomorrow.’ [FUAN]

(i) The particles are phonetically identical and show the same dialectal alternation (*d'a* in the Kwo dialect, *la* in Duut and Dorok). This dialectal alternation is restricted to the two particles – it is not otherwise attested in the language.<sup>26</sup>

(ii) My chief argument for assuming that the habitual construction originated in the conditional construction is thus based on their phonetic characteristics; and on the syntactic position of the particle *la ~ d'a*. This position is identical in both constructions: nouns and pronouns of set 1 precede it, while pronouns of set 2 follow it. Compare examples (58a) and (58b) below (for the conditional structure) with examples (56a) and (56b) above (for the habitual structure).

(58a) *Mûep la mûen / mûep t'ong kat / jap t'eng.*  
 3PI COND go(pl) 3PI IRR find little(pl) tree  
 'If they go, they will find some trees.' [ANC]

(58b) *Dok la goe mûaan goe yil Goemai (...).*  
 PAST.REM COND 2Sgm go(sg) PLACE ground Goemai  
 'If you went through Goemai country (...).' [LU-C]

(iii) My two arguments are thus based on phonetic characteristics and syntactic position; and on the observation that both the conditional and the habitual constructions can occur with non-verbal clauses (as illustrated in 59a and 59b respectively).

(59a) *la a robo muk (...)/*  
 COND FOC destiny 3Sg.Poss  
*t'ong wa n-ni a b'ak Moek'wo.*  
 IRR return\_home(sg) COM-3Sg.I FOC here Kwande  
 'if (it) is his destiny (...),  
 (he) would return with it here to Kwande.' [TARIHI]

(59b) *Pin nnoe d'a a goe-b'ang t'ong a?*  
 hut LOC.ANAPH HAB FOC NOMZ(sg)-become\_red HAB INTERR  
 'This hut used to be a red one, right?' [TQ\_70-A]

(iv) My three arguments are thus based on phonetic characteristics, syntactic position and occurrence in non-verbal clauses; and on the observation that the conditional and habitual constructions cannot co-occur. Since there is no

<sup>26</sup> There are two exceptions to this statement: (i) the particle *la ~ d'a* that occurs in the alternative form of the progressive construction (see section 9.4.2), and (ii) the future tense particle *la ~ d'a* (see section 2.4.3.2). It is possible that all particles (conditional, habitual, progressive, future) derive from the same source.



semantic restriction against a co-occurrence, this distribution could suggest that they have a common origin. To convey both the conditional and the habitual reading, the conditional co-occurs with an unmarked clause (as in 60). As indicated by the translations, the habitual reading is not entailed.

- (60) *hen la yil longvilip / t'ong wul*  
 1Sg COND write paper IRR arrive  
 'whenever I write a letter, (he) would come'  
 'if I write a letter, (he) will come' [D-15/01/00]

Amongst my arguments are thus such diverse elements as phonetic characteristics, syntactic position, occurrence in non-verbal clauses, and non-co-occurrence. These four elements make it likely that the habitual construction originated in the conditional construction. Synchronically, however, they show the following differences:

(i) Whenever a multi-verb construction is marked for habitual aspect, the habitual particle *la* occurs only once (as in the serial construction *t'ek t'wot* 'sit down' in 61a). In the conditional construction, all verbs are marked with the conditional particle *la* (as in the serial construction *hes lat* 'pierce finish' in 61b).

- (61a) *mûep la t'ek t'ong t'ong t'wot k'a gado*  
 3Pl HAB fall(pl) HAB IRR sit(pl) HEAD(sg) bed  
 'they used to sit down on the bed' (lit. 'they used to fall and would sit on the bed') [A-13/06/01]

- (61b) *Long K'wo la hes Niyu la lat /*  
 chief Kwo COND pierce(sg) Niyu COND finish  
*t'ong shin goe-bi b'it vel b'ak.*  
 IRR do as\_if day two here  
 'When the chief of Kwo finished piercing (= installing) the Niyu (= title of a chief),  
 (he) would stay approximately two days here' [TARIHI]

(ii) In the habitual construction, all adjuncts follow to the right of the construction (as *nni* 'with it' in 56a above). In the conditional construction, the conditional clause can introduce its own adjuncts (as *d'i* 'there' in 62 below).

- (62) *La goe d'alang d'i t'ong goe kat K.*  
 COND 2Sgm pass(sg) LOC.ANAPH IRR 2Sgm find K.  
 'If you pass there, you will see K.' [MIL-A]

(iii) In the habitual construction, the negation particle has scope over the whole construction (as in 63a). In the conditional construction, each clause can be

negated independently (as in 63b and 63c).

(63a) *Mûûr dok la yen t'ong ba.*  
stealing PAST.REM HAB plenty HAB NEG

'In the past, stealing was infrequent.' [MIL-C]

(63b) *la na gada vel ba / t'ong na / a'a (...).*  
COND see bridge two NEG IRR see INTERJ

'when (he) does not see two bridges, (he) will go 'surprise' (...).' [MIL-C]

(63c) *la f'yer t'ong goe ya k'a muk ba.*  
COND become\_big(sg) IRR 2Sgm catch(sg) head(sg) 3Sg.Poss NEG

'when (he) has grown big, you cannot teach him anymore' (lit. 'you do not reach his head') [J-21/11/00]

These three properties suggest that, unlike the conditional construction, the habitual construction is a monoclausal structure. In the course of the development from the biclausal conditional to the monoclausal habitual structure, a reanalysis of the clause boundaries must have taken place. The apodosis clause was omitted, irrealis *t'ong* was reanalyzed as habitual *t'ong*, and adjuncts from the conditional clause were moved to the right of the construction. In the present-day habitual construction, the particles *la* and *t'ong* occur within a single clause.

#### 9.4.4 Progressive, habitual and irrealis marking in Angas-Goemai

Closely related Chadic languages of the Angas-Goemai group show differences in their TAM systems (see Burquest 1973 for Angas; Frajzyngier 1993 for Mupun; and Jungraithmayr 1963a for Mwaghavul). There may be overlap in the categories, but the formal marking differs.<sup>27</sup> In the following paragraphs, the attested progressive, habitual and irrealis marking strategies are summarized.

The progressive structures of Angas, Mupun and Mwaghavul contain a form *\*p-* that possibly derives from a locative preposition (Burquest 1973; Frajzyngier 1993: 328-331; Jungraithmayr 1963a: 39-40). In all cases, the element following *\*p-* has some nominal properties: in Mwaghavul and Plains Angas, it occurs in the form of a verbal noun; and in Mupun, a subset of nominals can occur in this slot. It is therefore likely that the progressive structure originated in a locative preposition followed by a nominalized verb.

<sup>27</sup> Unfortunately, only little information is available on the semantics of the TAM systems. The comparison is therefore based entirely on formal properties.

With respect to the habitual structure, there is only data available for Mupun. In Mupun, the habitual morpheme shows similarities to the associative preposition (Frajzyngier 1993: 326-328). The same form seems to be used for coding progressive aspect in Hill Angas (Burquest 1973), and possibly also in Mwaghavul (Jungrathmayr 1963a: 38). Again, a prepositional origin seems likely.

Irrealis modality is not described for any of the languages, but future tense markers are attested. Angas uses pronouns marked for TAM to express the non-present category (i.e., past and future tense), and both Mwaghavul (Jungrathmayr 1963a: 41) and Mupun (Frajzyngier 1993: 314-315) employ a form *n-* to express future tense.

All structures mentioned above differ formally from the progressive, habitual and irrealis markers of Goemai. Given these differences, it is conceivable that the constructions discussed in this chapter are of recent origin.<sup>28</sup>

In addition to these structures, Mupun employs the following two auxiliary verbs that show similarities to Goemai *t'ong*:

First, the auxiliary *ntóng* 'maybe' is semantically compatible with irrealis *t'ong* in Goemai (i.e., expressing epistemic modality). It also shows syntactic similarities (in that first/second person pronouns follow it, while third person pronouns precede it). Frajzyngier (1993: 336) assumes that it originated from a verb in a serial construction. He does not venture any lexical source, but *ntóng* 'maybe' shows a formal similarity to the locative-like verb *tóng* 'sit, live, rest' (1991a: 61), which, in turn, is probably cognate to the Goemai verb *t'ong* 'sit'.<sup>29</sup> Given the semantic, syntactic and phonetic similarities, it is possible that the grammaticalization from the verb *\*t'ong* 'sit' to the irrealis marker had already taken place in Proto-Angas-Goemai. Another possibility is, of course,

<sup>28</sup> Both the habitual and the irrealis markers are already attested in Sirlinger (1942: 56) under the labels 'frequentative' and 'future'. The present-day progressive form is not recorded by him (see also section 9.4.2). Migration history suggests that speakers of Proto-Angas-Goemai did not split into different subgroups before the 18<sup>th</sup> century (Isichei 1982a). That is, the TAM marking strategies in Goemai must have developed at a later stage.

<sup>29</sup> The source of the morpheme *n-* could be the future tense marker *n-* (Frajzyngier 1993: 314-315). Notice that this is my interpretation of the Mupun data; Frajzyngier does not draw any connections here.

to attribute the similarity to contact phenomena. At the moment, it is not possible to decide this question.

Second, the auxiliary *tóng* ‘always’ is semantically similar to habitual *t’ong* in Goemai. According to Frajzyngier (1993: 336), it derives directly from the verb *tóng* ‘sit, live, rest’. Since its syntactic position (i.e., preceding the verb phrase) differs from that of the corresponding form in Goemai (i.e., following the verb phrase), it is likely that the habitual markers in the two languages are independent innovations originating from the same lexical source.

## 9.5 Summary and discussion

This chapter has discussed the progressive construction in Goemai, illustrating formal properties (section 9.1), semantics (section 9.2), distribution of locative verbs (section 9.3) and diachronic origins (section 9.4).

Of particular interest to this thesis is the role of locative verbs. When occurring in the progressive construction, they have retained part of their locative semantics in that they continue to code positional information (section 9.3.2). But they have developed an additional reading in that they express the position in which a given activity is typically carried out (section 9.3.3). In a way, the locative verbs can thus be said to categorize activities (based on the typical position in which they are carried out, regardless of the current position of the referent)<sup>30</sup> – similar to the locative verbs in the locative construction that categorize Figures (based on their typical position relative to a Ground). Furthermore, it was observed that the set of locative verbs is in the process of splitting into the existential verb on the one hand and the postural verbs on the other, as only the existential can be used with generic activities (section 9.3.4).

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<sup>30</sup> This type of categorization shows some superficial similarity to the phenomenon of verb classification in Australian languages. Many Australian languages have only a limited number of inflected verbs (often including some posturals). Most concepts that, cross-linguistically, are coded in verbs, are coded in coverbs instead. Since such coverbs obligatorily co-occur with one of the inflected verbs, the inflected verbs can be said to categorize events (McGregor 2002; Reid 2001; Schultze-Berndt 2000). In Goemai, by contrast, this phenomenon is very restricted. It is only found in the progressive construction (and in the ascriptive construction, see section 10.2.1). And there is only a limited number of activities that collocates with posturals (while the majority collocates with the existential) (see table 1 in section 9.3.3).

Cross-linguistically, it is well known that progressive aspect markers grammaticalize from locative expressions. Heine and Reh (1984: 114-119) argue that such aspectual markers primarily develop from a process of nominal periphrasis (i.e., an auxiliary verb is used for the aspectual function, while a nominalized verb expresses the main event). A less common development is via a process of serial periphrasis (i.e., from a serial verb construction). As shown in sections 9.4.1 and 9.4.2, neither nominal periphrasis nor serial periphrasis led to the development of the progressive construction in Goemai. Instead, the source structure was a complex clause containing a main locative clause and an irrealis marked subordinate clause. Comparable biclausal structures are also attested for other languages that use postural verbs in their progressive constructions (Austin 1998; Kuteva 1999; Newman and Rice 2001).

Section 9.4.3 has discussed the special role of one locative verb, *t'ong* 'sit (sg)', in the TAM system of Goemai. This verb has developed into an irrealis particle, which, in turn, has developed into (a) the progressive particle and (b) the habitual particle. The other locative verbs did not grammaticalize in comparable ways.



Goemai makes use of non-verbal strategies to express equative, ascriptive and possessive functions. In recent times, however, the locative verbs have taken over some of these functions: they occur in the ascriptive construction (that assigns a property to a referent), and one of the verbs, *t'ong* 'sit', occurs additionally in the inceptive equational construction (that expresses a change in status). Equational structures thus constitute yet another grammatical environment that employs locative verbs – despite the fact that non-verbal strategies are available in this context.

The intrusion of locative verbs into the non-verbal domain is interesting from the perspective of grammaticalization. It is known that locative verbs constitute possible sources for copulas (see, e.g., Stassen 1997: 94-95, 214). And although less well attested, postural verbs seem to follow similar grammaticalization paths (see, e.g., Devitt 1990: 113). However, their development apparently deviates from the better-documented cases: they retain their original semantic content; and they are often used for ascriptive functions, not equative. The case study of Goemai in this chapter again contributes to our knowledge about the possible grammaticalization paths of locative verbs.

This chapter is structured as follows: section 10.1 introduces the non-verbal strategies; section 10.2 illustrates the use of locative verbs in equational contexts; and section 10.3 summarizes the discussion.

### 10.1 Non-verbal constructions in Goemai

Goemai has two non-verbal constructions: the equational construction (see section 10.1.1) and the possessive construction (see section 10.1.2). The two constructions share some properties that set them apart from verbal constructions. First, pronouns are taken from the set of independent pronouns (as in 1a) (see section 2.2.1.2). Second, TAM marking is restricted to absolute tenses (as in 1b) and habitual aspect (as in 1c) (see section 2.4.3). And third,

non-verbal constructions cannot be nominalized with the help of the clausal nominalizer *goe-*, but only with the nominalizer *boe-* (as in 1d) (see section 2.5.3). Examples (1a) to (1d) below illustrate the equational construction, but the same argumentation holds for the possessive construction.

- (1a) *Men a moe-s'oot hok.*  
 1Pl.I FOC NOMZ(pl)-witchcraft DEF  
 'We are the witches.' [WITCH1]
- (1b) *Nda noe dok a long k'auye men toe.*  
 father 1Sg.Poss PAST.REM FOC chief village 1Pl.Poss EMPH  
 'My father was the chief of our village.' [LU-C]
- (1c) *Kup nnoe d'a a goe-b'aan t'ong (...).*  
 lake LOC.ANAPH HAB FOC NOMZ(sg)-become\_warm HAB  
 'This lake is usually a warm one (...).' [TQ\_34-A]
- (1d) *La boe-a muut a muut.*  
 COND WHERE-FOC death(sg) FOC death(sg)  
 'If (this is) where death is, (it shall be) death.' [KUR]

In other respects, non-verbal constructions are similar to verbal constructions: they can be negated with the help of sentence-final negation particles (as in 2a), and they can occur in complement clauses (as in 2b) as well as in conditional clauses (as in 2c).

- (2a) *Kumpyuur a long Muduut ba wa?*  
 Kumpyuur FOC chief Shendam NEG INTERR  
 'Isn't Kumpyuur a chief of Shendam?' [DIALECT]
- (2b) *Gu man goe-pe t'yaklang a bi goe-shyang mu?*  
 2Pl know NOMZ-COMP life FOC thing NOMZ(sg)-sweet INTERR  
 'You know that life is something sweet, right?' [TYAKLANG]
- (2c) *Mûep t'ong tu ni kat ni la a Tivi.*  
 3Pl IRR kill(sg) 3Sg maybe 3Sg.I COND FOC Tiv  
 'They would kill him if he was a Tiv.' [WAR]

In this section, the properties of the equational (section 10.1.1) and possessive (section 10.1.2) constructions are illustrated.

### 10.1.1 Equational construction

The properties of the equational construction are summarized in figure (1) below.



**Figure (1):** The equational construction

Form:	(Subject)	Focus element	Predicate
	(NP)	<i>a</i> 'focus'	NP adverb
Meaning:	The referent of the subject noun phrase is the same as (at least one of) the referents of the predicate.		
Function:	Expressing equative, ascriptive and possessive functions.		

As illustrated in (3a), the equational construction is formed by means of the focus particle *a* (see section 2.3.3).<sup>1</sup> Recall that Goemai grammar permits the omission of a 3<sup>rd</sup> person subject provided that it is recoverable from the linguistic context (see section 2.4.1), i.e., the subject slot of the equational construction need not be filled (as in both utterances in 3b). The predicate slot can be filled with either a nominal (as in 3a and 3b) or an adverb (as in 3c).

(3a) *Amma yin Ima a mis doe.*  
 but SAY Ima FOC man(sg) Sgf.LogS.Poss

'But (she<sub>1</sub> said) that Ima is her<sub>1</sub> husband.' [WITCH2]

(3b) N: *Ba har Pûeship/ a yil Kumpyuur dip.*  
 return(sg) even Bakin\_Kogi FOC ground Kumpyuur all

'(It) even returns (as far as) Bakin Kogi, (it) is the country of Kumpyuur, all (of it).'

<sup>1</sup> Cross-linguistically, both the development of focus markers into copulas and the opposite development of copulas into focus markers is attested (Heine and Reh 1984: 147-182; Stassen 1997: 76-91). Ameka (1992) investigates the distribution of focus particles in identificational sentences in Kwa languages. The focus particle in Goemai differs from that in Kwa languages in that it has scope over the element to its right (as in i). A similar situation is found in the equational construction where, e.g., intonation breaks suggest that the particle forms a unit with the predicate to its right (as in ii).

(i) *Pa t'ong tang a mis goenang yit?*  
 Sgf.LogA IRR search FOC man(sg) which(sg) again  
 'She would look for what kind of husband now?' [REEP]

(ii) *Mûep/ a jap K'wo.*  
 3PL.I FOC children(pl) Kwande  
 'They are children of Kwande.' [MASS]

A: *Ase / a long goe-f'yer.*  
 INTERJ FOC chief NOMZ(sg)-become\_big(sg)

‘Surprise, (he) is a big chief.’  
 [DIALECT]

(3c) *mûep a nduni*  
 3Pl.I FOC many

‘they are many’ [D-21/01/00]

In this construction, the focus particle *a* is not used to mark a pragmatic focus – to do so, speakers have to resort to other strategies. For example, in (4a), the emphasis particle *toe* is used to focus on the subject, and the equational clause occurs in subordinated form. Alternatively, in (4b), the particle *zak* is used to mark the proposition as contrastive. In (5a) and (5b), only the particles *toe* and *zak* are present, but not the particle *a*. I assume that both examples do not instantiate the equational construction, but rather a focus construction.

(4a) *Ngan nnoe-hoe ni toe a mat goe-misk'oom yi.*  
 Ngan LOC.ANAPH-exactly 3Sg.I EMPH FOC woman(sg) NOMZ(sg)-elder(sg) SUB  
 ‘This Ngan, (it) is her (who) would be the elder wife.’ [GOELONG]

(4b) *B. / a reep yarbawa. (...) J. hok zak / a reep pûanang.*  
 B. FOC girl(sg) Yoruba J. DEF also FOC girl(sg) there/yonder  
 ‘B. is a Yoruba girl (...). But J. is a girl from over there.’ [WITCH1]

(5a) *Nkya wai ji toe long. (...)*  
 vulture SAY Sgm.LogS.I EMPH chief  
*Dûûs yin ji toe long (...).*  
 cricket SAY Sgm.LogS.I EMPH chief  
 ‘The vulture<sub>1</sub> (said) that he<sub>1</sub> is chief. (...)  
 The cricket<sub>1</sub> (said) that he<sub>1</sub> is chief.’ [DUUS]

(5b) *yi muk a ya-gurum. Yi Ima zak s'ar-k'a-poemo.*  
 year 3Sg.Poss FOC twenty year Ima also sixteen  
 ‘her age was 20. But the age of Ima was 16.’ [WITCH2]

The particle *a* is probably a retention from Proto-Angas-Goemai. Closely related languages make use of a form *a* in both focus and equational structures (Frajzyngier 1986; 1993: 251-258; Pawlak 1994).

The equational construction of Goemai has three different functions, depending on its lexical fillers. It has an equative function as it is used to identify the referent of one expression with that of the other expression (as in 6a). Furthermore, it has an ascriptive function in which it assigns a property or status to a referent (as in 6b). And it has restricted possessive functions in that it expresses the concept of ‘belonging’. In this case, the possessum is coded as

the subject and the possessor as the predicate (as in both utterances of 6c) (see also section 10.1.2). The meaning of the equational construction (as given in figure 1 above) is meant to capture all three functions: in all cases, the referent of the subject noun phrase is identical to either the referent(s) of the predicate (e.g., the ‘cricket’ in 6a) or to a subset of these referents (e.g., it belongs to the subset of ‘black ones’ in 6b, and to the subset of ‘his/my belongings’ in 6c).

- (6a) *Yam nûûn / nago / a dûûs.*  
 son mother white\_stork FOC cricket  
 ‘The brother of the white stork is the cricket.’ [DUUS]
- (6b) *Sh’ep muk a goe-tep.*  
 wood 3Sg.Poss FOC NOMZ(sg)-become\_black  
 ‘Its wood is (a) black (one).’ [COMP\_4-A/N]
- (6c) *Goe-goe-pûe hok a m-muk yam nûûn noe (...).*  
 NOMZ(sg)-PLACE-mouth DEF FOC NOMZ-3Sg.Poss son mother 1Sg.Poss  
*Goe-dakd’ûe hok / (...) a m-maan.*  
 NOMZ(sg)-MIDDLE DEF FOC NOMZ-1Sg.Poss  
 ‘The one at the entrance is the one of my (...) brother.  
 The one in the center (...) is mine.’ [LU-J]

It is cross-linguistically common that all three functions are expressed with the help of the same or similar non-verbal structures (Hengeveld 1992; J. Lyons 1977: 469-475; Stassen 1997: 100-120). But notice that, with the exception of the equative function, there are alternative strategies available in Goemai: property verbs are used with an ascriptive function (see section 3.2.2), and the comitative strategy is used with a possessive function (see section 10.1.2).

### 10.1.2 Possessive construction

The properties of the possessive construction are illustrated in figure (2) below.

**Figure (2):** The possessive construction

Form:	(Subject)	Comitative preposition	Complement
	(NP)	<i>goe</i> <i>N-</i>	NP
Meaning:	The referent of the subject noun phrase possesses the referent of the complement noun phrase.		
Function:	Expressing possession.		

The possessive construction is used to express the concept of ‘having’ (see section 10.1.1 above for the concept of ‘belonging’): it makes use of the prepositions *goe* and *N-*, whereby the possessor occurs as the subject and the possessum as the argument of the preposition. The two prepositions are in complementary distribution in that *goe* precedes a noun and *N-* a pronoun (as illustrated in 7 below).

- (7) *M-maan*     *goe*     *t’eng* *ba.* (...) *Hen* *n-ni*     *ba.*  
 NOMZ-1Sg.Poss COM tree NEG 1Sg.I COM-3Sg.I NEG  
 ‘Mine does not have a tree. (...) I don’t have it.’ [COMP2\_8-A/N]

This construction probably originated in the comitative strategy. Recall that *goe* (before nouns) and *N-* (before pronouns) are used to code instrumental (as in 8a) and comitative functions (as in 8b) (see section 2.4.2.4).

- (8a) *Mang sap / d’yem*     *t’ong*     *goerep*     *sh’ep*     *yi*     *n-ni.*  
 take axe stand(sg) PROGR cut(pl) wood PROGR COM-3Sg.I  
 ‘(He) took the axe (and) stood cutting the wood with it.’ [STAGE\_26-N]
- (8b) *Sai goek’al*     *nnoe-hoe*     *su*     *goe*     *la*     *nnoe-hoe /*  
 then antelope LOC.ANAPH-exactly run(sg) COM child(sg) LOC.ANAPH-exactly  
*n-s’oom muk.*  
 LOC-horn 3Sg.Poss  
 ‘Then this antelope ran with this child on its horns.’ [FROG-C]

The possessive construction is a non-verbal structure that exhibits all properties illustrated at the beginning of section 10.1. Like the equational construction, it can be negated with the help of the sentence-final negation particle *ba* (see 7 above). Alternatively, the verb *wan* ‘lack’ is used in the transitive location-object construction (as in 9) (see section 2.4.2.4 for this construction).

- (9) *Sool wan*     *hen.*  
 money lack 1Sg  
 ‘I don’t have money.’ (lit. ‘money lacks in relation to me’) [FRIENDS]

The possessive constructions of Goemai and of closely related languages are very similar (Burquest 1973; Frajzyngier 1993; Jungrathmayr 1963a). Mupun, for example, uses the associative preposition *kóé* for expressing the possessive function (Frajzyngier 1993: 263-270). The complementary preposition *N-* does not occur in this context. Given their paradigmatic differences, it seems likely that the possessive markers in both languages are independent developments originating from the same (comitative/associative) source. Like Goemai, Mupun also uses a verb, *né* ‘be without’, to express negative possession

(Frajzyngier 1993: 266-270). But, again, independent developments have to account for their occurrence: not only are the forms phonetically different, they also differ in their syntax (a transitive clause in Goemai as opposed to a possibly intransitive clause with a prepositional adjunct in Mupun) and their distribution of semantic roles (the subject slot is filled by the possessum in Goemai, but by the possessor in Mupun).

## 10.2 The ascriptive function of locative verbs

Locative verbs can be used in some of the functional contexts illustrated in section 10.1 above: they occur in the ascriptive construction (see section 10.2.1), and *t'ong* 'sit' additionally occurs in the inceptive equational construction (see section 10.2.2).

### 10.2.1 The distribution of locative verbs

The locative verbs occur in the ascriptive construction whose properties are summarized in figure (3) below.

**Figure (3):** The ascriptive construction

Form:	(Subject) (NP)	Locative verb	Other <sup>2</sup> property noun <sup>3</sup> ideophone adverb numeral comparative clause
Meaning:	The referent of the subject noun phrase is in a position and has a property.		
Function:	Expressing the ascriptive function.		

<sup>2</sup> The order of subject and other can be reversed, depending on the topic-comment structure of the utterance. See the second sentence in (20) below for an example of such a reversed order.

<sup>3</sup> The label 'property noun' is used for all nouns that (a) are derived with the help of the modifying construction or (b) can be optionally marked with modifying morphology (see section 3.2.2).

The examples below illustrate the co-occurrence of locative verbs with property nouns (in 10a), ideophones and adverbs (in 10b), numerals (in 10c), and the comparative subordinate clause ‘as if’ (in 10d).

- (10a) *Yim d’e goe-tep mu?*  
 leaf exist NOMZ(sg)-become\_black INTERR  
 ‘The leaf is (a) black (one), right?’ [COMP\_1-A/N]
- (10b) *Bi muk t’o palalau. Bi d’ik d’e nduni ba.*  
 thing 3Sg.Poss lie(sg) IDEOPH thing building exist many NEG  
 ‘Its things lay dispersed. Not many buildings were (there).’ [MIL-C]
- (10c) *Ndoe loet’uk hok d’e goeme.*  
 some market DEF exist one  
 ‘There was the one market.’ [MIL-N]
- (10d) *Shyoot bi muk t’o goe-bi kûûs-hoe yi.*<sup>4</sup>  
 coil thing 3Sg.Poss lie(sg) as\_if headpad-exactly SUB  
 ‘(It) lies coiled up on its own as if (it were) a headpad.’ [PANG]

In all examples above, a property is assigned to the referent: a color in (10a), a distribution and quantity in (10b), a number in (10c), and a comparative standard in (10d). With the exception of ideophones (in 10b), all propositions above can alternatively be expressed with the help of the non-verbal equational construction (see section 10.1.1).

In the ascriptive construction, locative verbs are used for functions that, cross-linguistically, are often expressed in copulas (Hengeveld 1992; Stassen 1997). There are no language-internal reasons to assume that the Goemai locative verbs function as copulas. Their distribution is identical to that of other verbs, e.g., they are preceded by pronouns from the set of subject pronouns (as in 11a), they can be nominalized (as in 11b), and they can be marked for all TAM categories, including irrealis modality (as in 11c).

<sup>4</sup> The lexicalized expression *goe-bi* ‘as if’ consists of the comitative preposition *goe* and the noun *bi* ‘thing’. It commonly occurs in non-verbal clauses, either in a subtype of the possessive construction as in (i), or in the equational construction as in (ii).

- (i) *Ni goe-bi wang o?*  
 3Sg.I as\_if pot INTERR  
 ‘It is as if (it were) a pot, isn’t it?’ [HAND-A/N]
- (ii) *Ni a goe-bi dûûs.*  
 3Sg.I FOC as\_if cricket  
 ‘He is as if (he were) a cricket.’ [DUUS]

- (11a) *goe-pe gu d'e goeme ndoe mûep.*  
 NOMZ-COMP 2Pl exist one CONJ 3Pl.I

‘when you are one with them.’ [QUEST]

- (11b) *Nk'ong goe-lang goelong bi hok goe p'yan.*  
 BACK NOMZ-hang/move(sg) useless thing DEF OBL break(sg)

‘After wandering around uselessly, the thing ought to break.’ [FROG-D]

- (11c) *de goe t'ong yi kyoop.*  
 COMP OBL sit(sg) SUB health

‘so that (the girl) should sit in health.’ [DIALECT]

Example (11c) above is of particular interest as it also illustrates the adjunct status of the property noun *kyoop* ‘health’. Recall that only direct objects can precede the subordinating particle *yi*, while adjuncts follow (see section 2.3.3). The ascriptive construction is the only structure in Goemai that allows an intransitive verb to be followed by an unmarked adjunct.<sup>5</sup>

The ascriptive construction has probably developed directly from the locative construction (or possibly from the presentative construction). Evidence comes from the following three sources:

First, there are examples where one of the elements listed under ‘other’ in figure (3) above is added to the locative or presentative construction (as in 12a and 12b below). Both examples are concerned with the location of a referent: the locative verbs are followed by a locative adjunct, while the adjunct that expresses a property is added as a kind of afterthought. In (12b), this afterthought is even separated from the rest of the clause by a filled pause.

- (12a) *T'eng mangoro dok d'yam d'i ngam.*  
 tree mango PAST.REM stand(pl) LOC.ANAPH many

‘In the past, many mango trees stood there.’ [MIL-C]

- (12b) *Ball n-d'e d'i/ uh/ goe-tep.*  
 ball PRES-exist LOC.ANAPH INTERJ NOMZ(sg)-become\_black

‘Behold the ball is there, er, (a) black (one).’ [COMP\_3-A/N]

There are other examples where the order of the two adjuncts is reversed (as in 13a and 13b below). Their order, as well as the intonation break between the adjuncts in (13a), suggests that the focus is not on the location anymore, but on a property of the referent (who happens to be at a location).

<sup>5</sup> The location-object construction is similar in that intransitive verbs are followed by unmarked nouns. But, as shown in section 2.4.2.4, the unmarked nouns have the syntactic status of direct objects, not adjuncts.

- (13a) *Sh'im / d'e ngam / m-maar Yohana.*  
yam exist many LOC-field Yohana

'Yam is plenty in Yohana's farm.' [SR\_MUCH-J]

- (13b) *ndoe kwati n-t'ong goe-pya d'i.*  
some box PRES-sit(sg) NOMZ(sg)-become\_white LOC.ANAPH

'behold a box is sitting white there.' [COMP2\_5-A/N]

Examples such as (13a) and (13b) above constitute possible intermediate stages in the development from the locative or presentative construction (with a focus on location; as in 12a and 12b) to the ascriptive construction (where location is not expressed; as in 10a to 10d).<sup>6</sup>

Second, the distribution of the ascriptive construction in discourse is closely connected to that of the locative construction. Speakers frequently use first the locative construction to locate the referent, and then shift to the ascriptive construction to correct some mistake or to clarify a property of the referent. The following two examples may serve to illustrate this distribution:

In (14) below, speaker N. uses the locative construction with the singular verb *d'yem* 'stand' to describe the location of a tree. Speaker A. interrupts, arguing that there are two trees, not just one. He uses the ascriptive construction containing the plural verb *d'yam* 'stand (pl)' and the numeral *vel* 'two'. Following that, speaker N. corrects himself.

- (14) N: *T'eng d'yem d'i.*  
tree stand(sg) LOC.ANAPH

'A tree stands there.'

- A: *T'eng d'yam vel.*  
tree stand(pl) two

'The trees stand two.'

- N: *T'eng D'YAM.*  
tree stand(pl)

'The trees STAND.'

[DIS\_2.4-A/N]

<sup>6</sup> It is not always possible to clearly distinguish the locative from the ascriptive construction – especially in contexts that contain both a Ground phrase and a property-denoting element. In most cases, however, the nature of the lexical fillers makes it possible to distinguish between the two constructions: in the ascriptive construction, the intransitive verb is followed by an unmarked adjunct (see example 11c), which is not possible in the locative construction.



In (15) below, two speakers talk about different fish species, the *boeludi*- and the *k'wak*-species. Speaker A. is not aware of any distinction between them, and assumes that both expressions refer to the same type of white-colored fish. In (15-2), he uses the non-verbal equational construction twice to identify the fish and its color. In (15-3), speaker N. corrects this assumption. He first uses the existential verb in the locative construction to assert the existence of the *boeludi*-species. Following that, he uses the non-verbal equational construction to assert its white color. Finally, he shifts to the ascriptive construction to assert (a) the independent existence of the *k'wak* species (by using the existential verb *d'e*) and (b) its different color (by using the property noun *goeb'ang* 'red one').

(15-1) N: *Goe man boeludi a?* (...)  
2Sgm know fish\_species INTERR

'Do you know the *boeludi*-fish?' (...)

(15-2) A: *A k'wak. (...) A goe-pya ba a?*  
FOC fish\_species FOC NOMZ(sg)-become\_white NEG INTERR

'(It) is the *k'wak*-fish. (...) (It) is a white one, isn't it?'

(15-3) N: *Boeludi d'e d'i. A goe-pya. (...)*  
fish\_species exist LOC.ANAPH FOC NOMZ(sg)-become\_white

*Goe man k'wak hok / d'e goe-b'ang.*  
2Sgm know fish\_species DEF exist NOMZ(sg)-become\_red

'The *boeludi*-fish exists. (It) is a white one. (...)

You know the *k'wak*-fish, (it) is a red one.'

[DIALECT]

Examples (14) and (15) above are concerned with both the location of a referent and its properties. Such contexts usually trigger the use of the ascriptive construction.

Third, locative verbs in the ascriptive construction are used in reference to the same scenarios as locative verbs in the locative construction. They even have the same extended senses. For example, the singular verb *t'ong* 'sit' can be used with a large number of referents as in the ascriptive construction of (16) (see section 4.2.2).

(16) *Jap bi t'ong dip (...).*  
little(pl) thing sit(sg) all

'All the little things sit (...)' [MIL-A]

Like the verbs in the locative construction, the verbs in the ascriptive construction can be used either in an assertional or in a classificatory way (see

section 5.1). In their assertional use, speakers assert the current position of the referent. For example, in (17a) and (17b) below, two different posturals are used for the same activity, reflecting the different positions of the referents.

- (17a) *La gurum t'ong goek'wo / shin nye-rang.*  
 little(sg) person sit(sg) silent do kind-think

'The poor man sat silent, thinking something.' [GOEBETLA]

- (17b) *Mat hok d'yem goek'wo t'ong rang bi (...).*  
 woman(sg) DEF stand(sg) silent IRR think thing

'The woman stood silent (and) would think something (...).'

[SHENDAMW]

In their classificatory use, the locative verbs express the class of the referent, irrespective of its current position. In (18), *hangoed'e* 'water' is categorized as belonging to the class of 'lying' entities. In this example, the speaker cannot identify the referent and hence cannot assert its current position. He assumes that it is water, and thus uses the default verb for water, i.e., *t'o* 'lie'.

- (18) *Amma a hangoed'e t'o toe goe-pya*  
 but FOC water lie(sg) EMPH NOMZ(sg)-become\_white
- nnoe a?*  
 LOC.ANAPH INTERR

'But is (it) really water (that) lies this white?' [DIS\_11.2-A/N]

For these three reasons, it is assumed that the ascriptive construction has developed from the locative construction. However, in present-day Goemai, the two structures constitute different constructions that can even co-occur (as in 19).

- (19) [*Yim leng ngam*]<sub>ascriptive</sub> [*d'e k'a t'eng.*]<sub>locative</sub>  
 leaf hang/move(pl) many exist HEAD(sg) tree

'Many leaves hang (and) are on the tree.' [DRAW2\_22-A]

Functionally, the ascriptive construction shares similarities with (i) the configurational serial construction (see figure 3 in section 8.2.2) and (ii) the progressive construction (see figure 1 in section 9.1). The two similarities are as follows:

- (i) The configurational construction contains a state-change verb together with a locative verb, and the ascriptive construction often contains an adverbialized or nominalized state-change verb together with a locative verb. Both constructions are used to express a static property (coded in the state-change verb) together with a position (coded in locative verb), thereby allowing state-

change verbs to be used in reference to a state. Both constructions occur in identical contexts. For example, in (20) below, the speaker uses first the configurational serial construction and, following that, restates the same proposition by means of the ascriptive construction.

- (20) *Gorong t'o n-yil nnoe-hoe. N-gorong t'o.*  
 crooked lie(sg) LOC-ground LOC.ANAPH-exactly ADVZ-crooked lie(sg)  
 '(It) lies crooked on this ground. Crooked (it) lies.' [DIS\_10.2-A/N]

(ii) The progressive and ascriptive constructions complement each other. In the progressive construction, a locative verb combines with a main verb. If this main verb is a state-change verb, the construction expresses the state change in progress (as in 21a). The continuity of the state, by contrast, is expressed by means of an adverbialized or nominalized state-change verb in the ascriptive construction (as in 21b).

- (21a) *Goe-d'alang muk hangoed'e d'e t'ong b'ang yi.*  
 NOMZ-pass(sg) 3Sg.Poss water exist PROGR become\_red PROGR  
 'While she passes, the water is turning red.' [DPP\_83-A]

- (21b) *D'e nde goe-b'ang.*  
 exist one/other NOMZ(sg)-become\_red  
 '(It) is another red one.' [DIS\_2.5-A/N]

The progressive and ascriptive constructions share a further similarity: recall that locative verbs in the progressive construction can collocate with typical activities, e.g., *d'yem* 'stand' collocates with fighting activities (see table 1 in section 9.3.3). The same collocation patterns are observed in the ascriptive construction (as illustrated in 22).

- (22) *Yi d'yem shal ndoe reep nuun men.*  
 2Sgf stand(sg) war CONJ girl(sg) mother 1Pl.Poss  
 'You stand (at) war with our sister' [FRIENDS]

To summarize this section: the ascriptive construction is used to assign a property to a referent. As such, it is similar in function to the configurational serial construction, and complements the progressive construction. In all three constructions, locative verbs express the position of the referent and thereby retain parts of their locative semantics. Unlike the locative construction, these three constructions do not focus on a location, but on a property (or an activity). As a result, the locative adjunct is optional.

The ascriptive construction is also similar to the equational construction discussed in section 10.1.1 above: both constructions serve an ascriptive

function. Notice also that some of the lexical fillers, e.g., nominalized state-change verbs, can occur in both the equational construction and the ascriptive construction (see, e.g., 15-3 above, where color terms occur in both constructions). The ascriptive construction differs from the equational construction in two respects: it is concerned with the position of the referent, and it only codes the ascriptive function (but not the possessive and equative functions). Section 10.3 below discusses the intrusion of locative verbs into the domain of the equational construction.

### 10.2.2 The distribution of *t'ong* 'sit'

One of the locative verbs, *t'ong* 'sit', has a wider distribution than the other four verbs. It occurs in the inceptive equational construction whose properties are illustrated in figure (4) below.

**Figure (4):** The inceptive equational construction

Form:	(Subject)	Verb	Other
	(NP)	<i>t'ong</i> (sg), <i>t'wot</i> (pl) 'sit' <i>wa</i> (sg), <i>yok</i> (pl) 'return home' <i>yir</i> 'turn around' and other intransitive motion verbs	NP
Meaning: The referent has become something different.			
Function: Expressing an inchoative function.			

Examples (23a) and (23b) below illustrate the use of *t'ong* 'sit' to express identity or class membership. In such contexts, *t'ong* receives the non-stative reading 'become'.

(23a) *Mat t'ong mat.*  
 woman(sg) sit(sg) woman(sg)  
 'The woman sits (= becomes) a wife.' [DIALECT]

(23b) *A d'a mûep b'e*  
 FOC calabash 3Pl give\_birth(pl)  
*ni t'ong lude goe-n-yil yi.*  
 3Sg sit(sg) calabash\_spoon NOMZ-ADVZ-write SUB  
 '(It) is a calabash they produce,  
 so that it sits (= becomes) a decorated calabash spoon.' [HAND-A/N]

This non-stative reading is not part of the verb semantics, but arises either through the construction or through the context. These alternative options are discussed in the following paragraphs.

The inceptive equational construction can contain an intransitive motion verb such as *wa* ‘return home’ followed by a nominal (as in the third line of 24 below). The first two lines of this example state that young people pursue an education elsewhere and then return home afterwards. In the third line, the verb *wa* ‘return home’ takes up this topic, and expresses the view that the person returns home as a doctor/engineer. The inchoative reading of ‘having become a doctor/engineer’ seems to be implied.

- (24) *mûep* *d'e* *t'ong* *bi* *she* *yi*  
 3Pl exist PROGR follow learning/teaching PROGR  
*t'ong* *buk* *yok*  
 IRR return(pl) return\_home(pl)  
*de* *wa* *doctor / (...)* *de* *wa* *engineer.*  
 COMP return\_home(sg) doctor COMP return\_home(sg) engineer  
 ‘they were pursuing the education  
 (and then) would return home again  
 so that (he) returns (as) (= becomes) a doctor, (...) so that (he) returns  
 (as) (= becomes) an engineer.’ [YOUTH]

Alternatively, speakers can use *t'ong* ‘sit’ in place of *wa* ‘return home’. Example (25) below was uttered in a similar context as (24) above: the speaker talks about young people who obtain an education and become professionals. In (24), the speaker focuses on ‘returning home’, but in (25), he focuses on the continuation of the career. This focus is expressed through the verb *t'ong* (see below). Again, the inchoative reading seems to be implied.

- (25) *goe* *k'wat* *sool* *bi* *she* *mûep* *n-ni. (...)*  
 SEQ pay money thing learning/teaching 3Pl.Poss COM-3Sg.I  
*Ba* *t'ong* *d'em* *ba.* *Ni* *kat* *doctor* *muk* *t'a* *t'ong.*  
 NEG sit(sg) this\_time NEG 3Sg find doctor 3Sg.Poss fall(sg) sit(sg)  
*Ni* *t'ong* *engineer.* *Ni* *t'ong* *ko-goenang.*  
 3Sg sit(sg) engineer 3Sg sit(sg) every-which(sg)  
 ‘and pay their school fees with it. (...)  
 This time, (he) does not sit (= remain). He receives his (= becomes)  
 doctor (and) settles down (with it).  
 (Or) he sits (as) (= becomes) an engineer. (Or) he sits (as) (= becomes)  
 whatever.’ [YOUTH]

Different intransitive motion verbs could occur in place of *wa* ‘return home’ or *t’ong* ‘sit’. In all cases, they would retain their lexical semantics, just like *wa* in (24) or *t’ong* in (25).

Examples (24) and (25) suggest that the inchoative reading arises through the context. However, even out of context, speakers always translate comparable structures with ‘become’ as illustrated in (26a) and (26b). This pattern would suggest that the semantics of the construction is responsible for the inchoative reading – not the context.<sup>7</sup>

(26a) *ni t’ong gurum goe-f’yer*  
 3Sg sit(sg) person NOMZ(sg)-become\_big(sg)

‘he became an important person’ (= translation offered by speaker) [D-21/01/00]

(26b) *moe t’wot gurum moe-nan*  
 1Pl sit(pl) person NOMZ(pl)-become\_big(pl)

‘we became important people’ (= translation offered by speaker) [D-21/01/00]

*T’ong* ‘sit’ is the only locative verb that can occur in this construction. It is likely that its occurrence follows from its extended sense of ‘remain, stay’ (see section 4.2.2). Such a connection is suggested by the second and third sentences of example (25) above: in these sentences, *t’ong* is used in its extended sense – prior to its use in the inceptive equational construction in the fourth and fifth sentences.<sup>8</sup> Notice that the closely related language Mupun has also developed an ‘inceptive copula’, which originates in a verb *d’ée* ‘stop, remain’ (Frajzyngier 1993: 255-257) – this verb is probably cognate to the existential verb *d’ee* in Goemai.

<sup>7</sup> It is still possible that the construction has equational semantics, not inchoative semantics. The default inchoative reading could then arise through its pragmatic opposition to the unmarked non-verbal equational construction (discussed in section 10.1.1) (following Levinson’s 2000b M- and I-principles, see section 1.3.1). For the moment, both interpretations are equally possible.

<sup>8</sup> The use of *t’ong* ‘sit’ may also be related to the irrealis/future particle *t’ong* (which, in turn, has developed from the verb ‘sit’; see section 9.4.3.1). There is a plausible connection between irrealis modality and future tense on the one hand, and inchoative semantics on the other. But notice that the inceptive construction makes use of the verb ‘sit’ (i.e., of both the singular and plural forms as illustrated in 26a and 26b) – not of the invariant irrealis particle.

### 10.3 Summary and discussion

It has been shown in this chapter that Goemai uses two non-verbal constructions to express equative, ascriptive and possessive functions: the equational (section 10.1.1) and the possessive constructions (section 10.1.2). Alternatively, the ascriptive construction (section 10.2.1) can be used to assign a property to a referent. Unlike the non-verbal constructions, it contains a locative verb that specifies the position of the referent. In addition to these three stative constructions, Goemai has an inceptive equational construction that can contain the locative verb *t'ong* 'sit' (section 10.2.2).

Locative verbs in Goemai have taken over part of the domain of the non-verbal equational construction. So far, they are only used with an ascriptive function, but there are some indications that they may eventually be used to express possessive and equative functions as well. For example, in present-day Goemai, nominalized possessive pronouns can occur in the locative construction to stress a contrastive location (as in the second sentence of 27a). And locative verbs can co-occur with the comitative preposition to express accompaniment (as in 27b). It is conceivable that these structures may develop further to express general possession.

(27a) *Sh'arap d'e n-hangoed'e. K'ab'al d'e m-muk goetûn.*  
 fish exist LOC-water crab exist NOMZ-3Sg.Poss beyond

'The fish lives in water. The crab exists/has its own beyond.' [KABAL]

(27b) *La hok / hoom aas hok / d'yem n-ni.*  
 child(sg) DEF hold dog DEF stand(sg) COM-3Sg.I

'The boy holds the dog, (he) stands with it.' [FROG-J]

The ascriptive construction itself does not serve any equative or identificational function, but *t'ong* 'sit' occurs with such a function in the inceptive equational construction. It is possible that the other locative verbs may eventually enter this construction as well.<sup>9</sup>

Despite these possible further developments, the locative verbs in present-day Goemai only serve an ascriptive function. Cross-linguistically, such a development is surprising. Locative verbs do constitute sources for copulas (Devitt 1990: 113; Heine 1997b; Heine et al. 1993: 202, 206, 268; Heine and Kuteva 2002: 278, 282; Stassen 1997), but, in most cases, only one locative verb has been grammaticalized – usually, a semantically general verb that then

<sup>9</sup> Recall also that locative elements occur in the presentative and demonstrative constructions, which serve an identifying function (see section 6.1.2, see chapter 7).

assumes a linking function. Such “linking” verbs seem to preferably code the equative function. Stassen (1997: 94-95, 214), for example, shows that, in many languages, such a non-conditioned gradual copularization of locative verbs takes place. And Heine (1997b: 202-207) proposes a grammaticalization path that leads from locative verbs via possessive and existential copulas to the copula of identity.

As shown in this chapter, the locative verbs of Goemai have followed a different path: a contrastive set of verbs has been grammaticalized, the verbs are not semantically “empty”, and they do not occur with an equative function. The fact that a contrastive set of verbs has been grammaticalized – not a single verb – may be responsible for the attested differences. Unfortunately, there is little comparative data on the development of such sets of postural-type verbs into copulas. For some languages, the available material suggests that the grammaticalization is tied to the ascriptive function (Barron and Serzisko 1982: 94; Drabbe 1957: 33-34; 1963: 67; Goddard and Harkins 2002; Hayase 1999; Keegan 1997: 75-76; Reid 2002; W. Seiler 1985: 154-156), but for other languages, equative and possessive functions seem to be more common (Lichtenberk 2002; Kilian-Hatz 2002; Rumsey 2002).

The different coding of ascriptive and equative functions in Goemai can be captured with the help of Stassen (1997), who presents a typology of intransitive predication. He differentiates between four strategies that are prototypically associated with different domains: verbal (for the coding of activities and states), adjectival (for the coding of property concepts), nominal (for the coding of class membership and identification) and locational (for the coding of location and existence). It is often observed that strategies intrude into the prototypical domains of other strategies. In particular, languages often lack a distinct adjectival strategy (see also Dixon 1982b). This is also the case in Goemai, which does not have an adjectival strategy (see sections 2.2.1.5 and 3.2.2). Instead, the domain of property concepts is expressed by state-change verbs (as in 28a) (verbal strategy), by nouns in the non-verbal equational construction (as in 28b) (nominal strategy), or by nouns in the ascriptive construction (as in 28c, repeated from 15-3 above) (locational strategy).

(28a) *Mûep la nan (...) / dang hok b'ang.*  
 1PI COND become\_big(pl) tail DEF become\_red

‘When they have grown big (...), the tails have become red.’ [DIALECT]



(28b) *T'at nde / yit hok / a goe-b'ang.*  
 day one/other face DEF FOC NOMZ(sg)-become\_red

*T'at nde / a haam / yim.*  
 day one/other FOC water/color leaf

'Sometimes, the face is a red one.  
 Sometimes, (it) is of green color.' [WITCH1]

(28c) *d'e goe-b'ang.*  
 exist NOMZ(sg)-become\_red

'(it) is a red one.' [DIALECT]

While Goemai uses the locational strategy in the adjectival domain of property concepts, it cannot use it in the nominal domain of class membership and identification.

According to Stassen (1997: 179-200, 583-586), the intrusion of the locational strategy into the adjectival domain is infrequent.<sup>10</sup> Its use in Goemai is probably motivated by two factors. First, it is connected to the lexical aspect of property verbs. As these are inchoative verbs, the verbal strategy conveys an inchoative reading. To convey a stative reading, speakers nominalize these verbs and use them in either the nominal or the locational strategy.<sup>11</sup> Second, the locational strategy adds an important piece of information: the position of the referent. As shown throughout this thesis, such information is obligatorily expressed in many different morphosyntactic environments. The ascriptive construction thus conforms to a pervasive pattern of the language. In particular, as shown in section 10.2.1, the distribution of the ascriptive construction partly overlaps with that of the configurational serial construction and that of the progressive construction – both of which contain a locative verb.

The Goemai system is probably unique when compared to that of closely related languages of the Angas-Goemai group. As shown in section 10.1, the

<sup>10</sup> This statement is true for non-tensed languages (type A in his typology) that do not have the grammatical category of tense (defined as morphologically bound to the verb and conveying a past/non-past distinction). As shown in section 2.4.3, Goemai counts as a non-tensed language. In tensed languages (type B), the locational strategy intrudes more frequently into the adjectival domain (Stassen 1997: 590-599).

<sup>11</sup> Stassen (1997: 126-129, 162-164) argues that the distribution between the verbal and the nominal strategy is governed by time-stability (i.e., only time-stable concepts are expressed by nouns). In a way, this argumentation applies to Goemai as well, as it can be argued that the stative nominal strategy is more time-stable than the inchoative verbal strategy. But notice that the distribution of the locational strategy (as opposed to the nominal strategy) cannot be explained with the help of time-stability.

forms of the non-verbal structures are nearly identical in all languages, but only Goemai can additionally use locative verbs. It is likely that this possibility follows from the use of a contrastive set of locative verbs in the locative construction: section 10.2.1 has shown that the development of the ascriptive construction is closely tied to the locative construction – and only Goemai employs locative verbs in its locative construction, while all other Angas-Goemai group languages use non-verbal strategies (Burquest 1973; Frajzyngier 1987a; 1993: 259-263; Pawlak 1994). The only (partial) exception is Mupun that uses the verb *d'ée* in (i) the locative context to express a temporal location (Frajzyngier 1993: 262) and (ii) the equational context to express the inception of a state (1993: 255-257). Frajzyngier (1991a: 15) gives its basic meaning as 'stop, remain', and he assumes a diachronic connection between its locative and equational uses. The verb is probably cognate to Goemai *d'e* 'exist'. But, unlike Goemai, Mupun does not employ any other verbs in its locative construction.

This chapter summarizes the descriptive findings of this thesis together with their contributions to linguistic theory (section 11.1), and it sketches possible lines of further research (section 11.2).

### **11.1 Summary of the thesis**

The thesis has focussed on a selected part of the Goemai language: the grammar, semantics and pragmatics of postural and existential elements (*lang* 'hang/move', *t'ong* 'sit', *d'yem* 'stand', *t'o* 'lie', and *d'e* 'exist'). This focus was motivated by the importance of these elements throughout the grammar: in a variety of morphosyntactic contexts, Goemai speakers are required to choose a postural/existential and to thereby pay attention to the position of animate and inanimate referents in space.

After having introduced the grammatical structure of Goemai (chapter 2), the thesis has analyzed the formal properties, semantics and usage of posturals and existential elements: chapters 3 to 5 have discussed their lexical properties, and chapters 6 to 10 their occurrence in different constructions. This final chapter summarizes the thesis: it describes first the structure of the database (section 11.1.1), and then outlines the main findings of the thesis, i.e., the findings with regard to (a) the lexical properties of postural and existential elements (section 11.1.2) and (b) their occurrence in different constructions (section 11.1.3). Section 11.1.4 concludes this summary.

#### **11.1.1 Structure of the database**

This thesis constitutes the first major documentation of Goemai, a West Chadic language of Central Nigeria. The documentation was based on 10 months of fieldwork that resulted in the collection of a text corpus of 17 hours of recorded natural texts of various genres (plus 20 texts written by Goemai speakers) (see table 2 in section 1.2), and another 15 hours of recorded responses to visual

stimuli (plus 80 texts that noted down responses in writing) (see table 3 in section 1.2). All texts were transcribed, annotated and archived in an electronic format where they are available for future studies.<sup>1</sup> The information contained in this corpus made it possible, throughout the thesis, to retrieve relevant non-elicited text examples in support of the argument advanced. Further detailed grammatical elicitation with Goemai consultants was based, whenever possible, on discussing such examples. By using this technique, an attempt was made to include contextual information and to thereby minimize the risk of misunderstanding that occurs when relying on translation equivalents.

In particular, the thesis benefited from the use of visual stimuli that were designed specifically for the analysis of locative relations in Goemai (e.g., matching games, picture book and video elicitation tasks, sorting tasks). These stimuli generated a diversified database that comprehensively illustrates the occurrences of locative elements in reference to different kinds of situations (including known and novel situations, canonical and non-canonical situations, etc.). Furthermore, some of the stimuli generated conversational data that permitted a detailed investigation into the conditions under which a certain element (e.g., postural, existential or dispositional) or use (e.g., classificatory or assertional) occurred, and, generally, enabled an analysis in terms of pragmatic implicatures. That is, these stimuli generated data that made it possible to capture semantic and pragmatic aspects of the Goemai system that otherwise would have gone undetected (see especially the argumentation in sections 4.1 and 5.2.2.1).

### *11.1.2 Lexical properties of postural and existential elements*

In chapter 3, the formal properties of postural and existential verbs were analyzed. These verbs constitute a form class that is characterized through a unique distributional pattern, stative lexical aspect and a lexically-specified location participant in its argument structure. The distribution of the verbs (and their derived elements) is summarized in table (1) below (repeated from table 2 in section 3.1.1).

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<sup>1</sup> The structure and description of the Goemai corpus, though not the actual data, can be accessed through the IMDI Browser. The Browser can be downloaded at <http://www.mpi.nl/tools/imdibrowser.html>.

**Table (1):** Distribution of locative elements

<b>Construction</b>	<b>Form</b>
Locative	Subject + <b>Locative Verb</b> + Adjunct
Presentative	Subject + Presentative + <b>Locative Verb</b>
Demonstrative	(Nominalizer) + Adverbializer + <b>Classifier</b> + Deictic Root
Serial:	
• coordinate	Subject + (Caused) Motion Verb + <b>Locative Verb</b> (+ Adjunct)
• configurational	Subject + State-change Verb + <b>Locative Verb</b>
• inchoative	Subject + 'fall' / 'rise' + <b>Locative Verb</b>
Progressive	Subject + <b>Locative Verb</b> + Progr. + Main Verb Phrase + Progr.
Ascriptive	Subject + <b>Locative Verb</b> + Property-denoting Element

As illustrated in table (1) above, the postural/existential elements occur in two different parts of speech: as locative verbs (in a number of different constructions) and as deictic classifiers (in the demonstrative word). The locative verbs can be distinguished from other verbs on the basis of their lexical aspect (i.e., stative) and their argument structure (i.e., lexically-specified location participant). Recall that, under certain conditions, this location participant can be suppressed (see section 3.1.3). This includes all adverbialized structures (e.g., the presentative construction), but also serial, progressive and ascriptive constructions. I assume that the construction suppresses this participant – i.e., I assign the differences in whether or not it is expressed to the constructional level, not the lexical level. However, I also acknowledge that it is difficult to draw a boundary between 'locative verbs' (that have a lexically-specified participant, which is suppressed under certain conditions) and 'non-locative verbs' (that do not have such a participant). The main reason for assigning the responsibility to the constructional level is that, in all constructions, the locative verbs retain most or all of their locative relational semantics (see chapters 6 to 10 for details).

In chapters 4 and 5, the semantics and pragmatics of the postural and existential elements were analyzed. Their analysis was based on the assumption that the overall interpretation of an utterance follows from the interaction of lexical semantics, constructional semantics and pragmatic implicatures (see below for further details). That is, whenever a specific reading could be attributed to the construction or the pragmatics, it was assumed to not constitute a separate sense of the lexical item under investigation.

Table (2) below summarizes the meaning and the different readings of the postural/existential elements (excluding those that are idiosyncratic to one element). Chapter 4 has shown that the postural/existential elements code the position of a Figure with respect to a Ground, i.e., they specify a locative relation between a Figure and a Ground. And chapter 5 has shown that, in most

**Table (2):** Meaning and readings of postural/existential elements

Meaning/Readings	Morphosyntactic environment
Meaning: position of Figure (F) with respect to Ground (G)	
Readings:	
1 classificatory (position is irrelevant)	use of default element
(a) nominal concept	(in all constructions, except for the inchoative serial construction)
(b) activity	(in the progressive and ascriptive constructions)
2 assertional (relational) (asserts position of F relative to G)	use of non-default element <sup>2</sup> (in all constructions)
3 assertional (postural) (asserts internal posture of F)	prosodic/morphological marking of element (in locative, coordinate serial, configurational serial, and progressive constructions)
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4 resultative (prior event has ended in a static position)	serial constructions
5 simultaneity (activity/state takes place in a position)	configurational serial, progressive and ascriptive constructions

constructions, these elements occur in three different readings: classificatory,<sup>3</sup> assertional (relational) and assertional (postural). It has been argued that these

<sup>2</sup> With canonically-positioned Figures, default elements are used. In such contexts, it is not possible to decide whether these elements are used in a classificatory or an assertional way.

readings arise from a pragmatic opposition between unmarked and marked alternatives. In some constructions, additional readings are present that arise from the constructional semantics and the lexical aspect of the co-occurring verbs: either a resultative reading or a simultaneity reading. Since all five readings can be derived (from pragmatics, from constructional semantics), they are not analyzed as separate senses of the postural/existential elements.

Furthermore, it has been shown (in chapter 3) that the posturals belong to the same form class as the existential. Their formal similarities motivated a comparison of their semantics and distribution (in chapters 4 and 5), making it possible to specify the conditions under which the existential, as opposed to the posturals, occurs (as summarized in table 3 below). It has been argued that their different distribution can be explained with the help of general pragmatic principles that result from the privative opposition between the general existential semantics (Figure is located with respect to Ground) and the specific postural semantics (Figure is located with respect to Ground in position X).

**Table (3):** Distribution of the existential *d'e*

<b>Distribution of the existential <i>d'e</i></b>	
1	remainder category (categorizes nominal concepts and activities that do not have a typical position)
2	default category (replaces posturals under specific conditions)
•	existence at non-specific location (locative construction)
•	position is unknown but important (locative, serial, progressive, and ascriptive constructions)
•	referent is identifiable without positional information (presentative and demonstrative constructions)
•	activity is carried out habitually (progressive construction)

<sup>3</sup> I assume that both classificatory readings illustrated in table (2) (nominal concept, activity) follow from the same principle: the coding of the typical position of the Figure with respect to the Ground. In reading (1b), this typical position is additionally associated with an activity (i.e., activities are carried out in typical positions, e.g., people typically 'stand' fighting a war). Since these activities are supplied by the construction, I do not assume that reading (1b) constitutes a distinct sense.

The locative verbs (i.e., postural and existential verbs) were furthermore compared to dispositional verbs (e.g., *k'oon* 'face down', *d'ûût* 'lean'). Dispositional verbs belong to a distinct form class that exhibits important formal, semantic and pragmatic differences from the class of locative verbs (as summarized in table 4 below). Despite their differences, they can replace the locative verbs under certain marked circumstances (i.e., whenever the locative relation can be construed as the result of a prior state change). In such cases, *dispositionals* can be used in an assertional way. Since they constitute a marked alternative, they cannot be used in a classificatory way (i.e., they always draw the attention of the addressee towards a marked situation).

**Table (4):** Differences between locative and dispositional verbs

	<b>Locative verbs</b>	<b>Dispositional verbs</b>
lexical aspect	stative	inchoative
location participant	yes	no
semantics	locative relation	disposition
use	classificatory, assertional	assertional

The analysis presented in chapters 3 to 5 illustrates the explanatory value that is to be gained from distinguishing between lexical semantics, constructional semantics and pragmatic implicatures. This concerns especially the following three aspects of the analysis:

(i) *Explaining the occurrence of verbs of two different verb classes in the locative construction.*

Verbs of two different verb classes (locative verbs, dispositional verbs) can occur in the locative construction. It has been shown that the properties of the locative verbs match those of the locative construction (location participant, stative semantics), while the properties of the dispositional verbs differ (no location participant, inchoative semantics). For this reason, the locative verbs constitute the typical lexical fillers of the construction. The dispositional verbs, by contrast, only occur in marked situations. Their restricted distribution suggests that they are not ambiguous between a stative relational meaning and an inchoative dispositional meaning – if they were, there would be no explanation for their restricted distribution. It is more likely that, under the specified conditions, dispositionals can occur in the locative construction,



which in turn adds the location participant and coerces the stative semantics. Such an interpretation is possible if the existence of a separate constructional level is recognized (see Goldberg 1995, see section 1.3.1). As shown in section 3.2.3, there is enough evidence to posit its existence in Goemai. Such a constructional approach was maintained throughout the thesis: constructions were identified on the basis of their form and meaning, and the integration of lexical fillers into these constructions was explained in terms of matching lexical and constructional properties (in the case of locative elements) and coercion (in the case of dispositional elements).

*(ii) Explaining the distribution of different elements.*

Throughout chapters 4 and 5, the analysis relied on the concept of ‘default interpretations’, which arise from the pragmatic opposition between (a) the expression that is actually used and (b) the availability of alternative expressions that could have been used instead (see Levinson 2000b, see section 1.3.1). This concept made it possible to explain systematic differences in distribution and interpretation of semantically general elements (e.g., the existential) as opposed to more specific elements (e.g., the posturals), as well as of unmarked elements (e.g., the posturals, the classificatory use of posturals) as opposed to marked elements (e.g., the dispositionals, the assertional use of posturals).

*(iii) Explaining grammaticalization processes.*

Both locative and dispositional verbs occur in the locative construction, which in turn constitutes the source construction for a number of other constructions – yet only the locative verbs were grammaticalized as central members of this construction, not the dispositionals. This difference is likely to result from the fact that the dispositional verbs constitute a marked alternative, and thus only occur in the locative construction in marked contexts. The locative verbs, by contrast, are the typical verbs to occur there. The recognition of a separate constructional level and of pragmatic implicatures thus helps to explain part of the attested grammaticalization chains (see also section 11.1.3).

The three points raised above show that the analysis benefited considerably from distinguishing between lexical semantics, constructional semantics and pragmatic implicatures (and, in turn, they show the usefulness of maintaining such a distinction). Speakers rely on information from all three sources to

interpret an utterance in context. Yet despite the importance of all three sources, it seems that the lexical semantics is the driving force in this process: it determines whether or not a verb can be integrated into a construction, and it determines its markedness status when occurring in this construction – which in turn feeds the pragmatic implicatures (as is the case with locative vs. dispositional verbs). The sense relations between lexical items provide a further input for pragmatic interpretations (as is the case with the semantically general existential vs. the semantically more specific posturals).

The analysis that was conducted within this theoretical framework resulted in a number of findings that contribute to the typological literature in (i) spatial semantics and (ii) nominal classification, which I now summarize in turn.

*(i) Spatial semantics.*

In contrast to other languages, the postural elements in Goemai do not code either a human-based posture (Lemmens 2001; 2002; van Oosten 1986; Serra Borneto 1996) or an abstract shape (Aikhenvald 2000a: 337-340; Denny 1979), but a locative relation. With some exceptions (Kaufmann 1995; Maienborn 1990; 1991; Mulder and Wehrmann 1989), posturals are usually not discussed from the perspective of their locative relational semantics. In fact, it is generally assumed that locative relational semantics is coded in adpositions and local cases, but not in verbs (see, e.g., Fillmore 1975: 16-27; Frawley 1992: 250-293; Landau and Jackendoff 1993; J. Lyons 1977: 636-734; Miller and Johnson-Laird 1976: 375-410; Talmy 1985: 61-76). The Goemai data, by contrast, show that relational information may, indeed, be coded in verbs.

There are indications that the use of postural-type verbs in locative relational contexts is more common than previously thought. Ameka and Levinson (in prep.-b) suggest that languages such as Goemai belong to a distinct type, i.e., the ‘postural’ type, which is characterized through a certain semantics (i.e., using a small set of semantic types such as ‘sit’, ‘stand’, ‘lie’, ‘hang’, ‘move/be in a natural habitat’), usage (i.e., having a classificatory and an assertional use; see point ii below) and grammaticalization patterns (see section 11.1.3 below). As such, the postural type can be distinguished from the ‘(dis)positional’ type (as found in, e.g., Mayan languages): such languages have a large set of (dis)positional verbs (coding detailed semantic information about the Figure, the Ground or the locative relation), which they use in an assertional way only.

Goemai is an example of the postural type,<sup>4</sup> and the grammatical, semantic and pragmatic description presented in this thesis is, to my knowledge, the first in-depth study of such a system. As such, it fills a descriptive gap in the literature and contributes to the on-going discussion about the coding of spatial information in different parts of speech (e.g., verbs vs. prepositions vs. spatial nominals) and types of verbs (e.g., posturals vs. existential vs. dispositionals).

(ii) *Nominal classification.*

The postural/existential elements have a classificatory use in that they categorize nominal concepts, and, in some environments, activities. This use makes the Goemai data relevant to questions raised in the literature on nominal classification. Aside from providing descriptive information on classifier systems that are typologically rare (classificatory verbs, deictic classifiers), the thesis contributes to the following on-going discussions:

- (a) The discussion about whether or not verbs can classify (see Aikhenvald 2000a: 153-159; Grinevald 2000: 67-68). It is argued that the Goemai postural/existential verbs exhaustively categorize nominal concepts, and thereby classify in a way that goes beyond imposing selection restrictions on their nominal arguments.
- (b) The discussion about what is being classified in a classifier system (see, e.g., Lucy 2000) (notice that, even though this is an important question, many classifier studies do not address it). It is shown that categorization in the Goemai system takes place on the level of nominal semantics and concepts – not on the level of either linguistic expressions or nominal referents.
- (c) The discussion about the relationship between sortal and temporary aspects of classifier systems (i.e., my ‘classificatory’ and ‘assertional’ uses) (Berlin 1968; Broschart 1997; Denny 1986; Serzisko 1982). The thesis shows how

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<sup>4</sup> Goemai possibly differs from other postural-type languages in two respects. First, many languages seem to use either postural-type verbs or (dis)positional-type verbs, but not both. (Goemai belongs to the postural type because the (dis)positionals only constitute a marked choice.) Second, the Goemai posturals interact with the existential – this seems to be common in (dis)positional-type languages, but not so common in postural-type languages. But notice that there is too little information available to decide whether the properties characteristic of the Goemai system are also characteristic of the postural type as a whole.

the classificatory and assertional uses interact, and how their distribution and interpretation can be explained with the help of pragmatic principles.

Ameka and Levinson (in prep.-b) argue that the classificatory use is a characteristic feature of languages that employ postural-type verbs in their locative constructions (but not of (dis)positional-type languages). In Goemai, the postural/existential elements categorize nominal concepts exhaustively into mutually exclusive categories, e.g., a Figure is typically either self-supported in a stable way ('sitting') or externally supported ('standing'), but never both. The (dis)positionals, by contrast, cannot do this. Instead, they offer different perspectives on a current spatial situation, e.g., a referent may be both 'face down' and 'leaning'. As such, it is understandable why only posturals are used in a classificatory way, but not the (dis)positionals.<sup>5</sup> Unfortunately, for many languages, it is not possible to either support or contradict Ameka and Levinson's claims, because the necessary semantic and pragmatic data is not available. This lack of data seems to be due, at least in part, to methodological problems (see section 5.2.2.1). In the case of Goemai, only the stimuli-based techniques made it possible to establish the existence of the classificatory use, and to capture the complex interactions of classificatory and assertional uses.

### *11.1.3 Distribution in different constructions*

Chapters 6 to 10 have analyzed the constructions in which postural/existential elements occur. These constructions are summarized in table (5) on the next page.

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<sup>5</sup> Many Mayan languages have developed numeral classifiers that are based on the same (dis)positional verb roots that occur in the locative construction (Berlin 1968; Zavala 2000). These classifiers are only used in an assertional way, though.

**Table (5):** Constructions and the functions of postural/existential elements

Construction	Function of construction	Function of postural/ existential element in construction <sup>6</sup>
locative	asserting location	position of referent
presentative	attention-directing,	position of referent
demonstrative	identificational	
serial		
• coordinate	temporal relation between events	position of referent at endpoint of movement
• configurational	occurrence of state-change verbs in reference to state	position of referent after completed state change
• inchoative	occurrence of stative verbs in reference to state-change	referent has assumed a position
progressive	progressive aspect	position of referent during activity/state change
ascriptive	ascriptive function	position of referent during state

The locative construction constitutes the source construction from which all the other constructions listed in table (5) above developed. Notice that it is not the locative verbs by themselves that were grammaticalized, but the locative verbs occurring in a certain structure. That is, there are diachronic links between the constructions. Their diachronic development is reconstructed in table (6) on the next page.<sup>7</sup>

Only some of the grammaticalization paths depicted in table (6) are well attested in the literature, while others are rare or not attested at all (see below). In fact, our knowledge is largely restricted to the grammaticalization of single locative verbs, while there is little information on the processes by which contrastive sets of postural/existential verbs grammaticalize. Nevertheless, it is

<sup>6</sup> This column does not distinguish between different readings of postural/existential elements (e.g., classificatory vs. assertional). See table 2 in section 11.1.2 for details.

<sup>7</sup> Table 6 does not include the development that is idiosyncratic to the postural verb *t'ong* 'sit' (see sections 9.4.3 and 10.2.2 for details).

known that such sets do grammaticalize. A survey of the literature suggests that these elements occur in a similar set of morphosyntactic environments in many non-related languages (not only in Goemai, but also in Siouan, Guaykuruan and many Papuan languages). However, given the scarcity of comparative information, it is difficult to assess which of the paths depicted in table (6) are unique to Goemai and which are typical of postural-type languages in general. In any case, the descriptive findings of this thesis contribute to our understanding of possible grammaticalization patterns.

**Table (6):** The grammaticalization of postural/existential verbs in Goemai

<b>Postural/existential verbs ...</b>		
... in the locative construction	=> ... in the presentative construction (via main clause plus adverbialized locative constr.)	=> ... as deictic classifiers in the demonstrative (reanalysis of word boundaries)
	=> ... in the coordinate serial construction (resultative aspect reading) (via serial constr. expressing an event plus a subsequent locative state (coded in locative constr.))	=> ... in the configurational and inchoative serial constructions (reanalysis of juncture type)
	=> ... in the progressive construction (via locative constr. plus irrealis marked subordinate clause)	
	=> ... in the ascriptive construction (via locative constr. plus property-denoting element)	

In Goemai, the grammaticalization was probably motivated by the following two factors:

(i) *A reorganization of the deictic system.*

Cross-linguistically, the existence of deictic classifiers is very rare (see the summary in Aikhenvald 2000a: 176-183; Grinevald 2000: 68-69). In Goemai, they developed from postural/existential verbs in the presentative construction.

This development was probably motivated by an historical co-incidence: the neutralization of a tonal distinction in the old demonstrative system. Since this tonal distinction conveyed a semantic distinction, another construction (i.e., the presentative) was recruited to take over the function of the distal demonstrative. Later, the same morphology was extended to the proximal demonstrative. In present-day Goemai, it is possible to observe a further spread of this morphology to the definite article and the numerals. Such an historical accident, of course, does not explain the typological association of posturals with deictics.

(ii) *Lexical aspect.*

Goemai predominantly lexicalizes verbal concepts as inchoatives, rather than statives. The postural/existential verbs are among the very few stative verbs in the language. This pervasive lexicalization mechanism probably accounts for most of the attested grammaticalization chains depicted in table (6):

- (a) The development of a resultative aspect interpretation in serial verb constructions: whenever a dynamic motion or state-change verb is followed by a stative locative verb, the utterance receives a resultative reading. That is, the occurrence of the locative verb implicates that the preceding event has ended, and an end state has been reached. A further reanalysis of the juncture types (in the configurational and inchoative constructions) now allows state-change verbs to occur in reference to a state, and stative verb to occur in reference to a state change.

Although the occurrence of postural/existential verbs in serial constructions is a well-known phenomenon in serializing languages, these verbs tend to develop into progressive auxiliaries – not into resultative markers (Crowley 1987: 42; Durie 1997: 336; Foley and Olson 1985: 40-42; Lord 1993: 9-30; Svorou 1994: 110-113). The development of the resultative reading may thus be idiosyncratic to Goemai.

- (b) The development of the progressive construction: whenever a stative verb precedes another verb, an interpretation of simultaneity arises, which then allows for a progressive interpretation.

The use of postural/existential verbs in progressive contexts is well attested cross-linguistically (Bybee et al. 1994: 127-133; Comrie 1976: 98-106, 129-130; Heine 1997b: 195-207; Heine and Reh 1984: 122-126; Kuteva 1999).

- (c) The development of the ascriptive construction: in Goemai, the inchoative verbs (e.g., those expressing property concepts) cannot be used to express a state. To describe a state, they are nominalized and co-occur with a stative predicate, i.e., with a postural/existential verb.

The development of contrastive postural/existential verbs into equative or ascriptive ‘copulas’ is known (Devitt 1990), but not well documented. In Goemai, their development differs from the cross-linguistically better documented development of single locative verbs (Heine 1997b: 202-207; Stassen 1997: 94-95, 214): they are only used for ascriptive functions, not for equative functions.

When compared to other Chadic languages, there are two remarkable aspects to the developments attested in Goemai: the fact that Goemai uses postural/existential verbs in locative relational contexts at all, and the speed of their further development. Chadic languages commonly employ non-verbal strategies, and even closely related Angas-Goemai group languages do not use their cognate postural forms in the locative construction (but only for the description of human postures).<sup>8</sup> In Goemai, the locative verbs have probably entered the locative construction before the 1940s: their occurrence in the locative and presentative constructions is already described in Sirlinger (1942). Their occurrence in other environments, by contrast, is not attested in these old documents – i.e., the development of the postural/existential system, as it was described in this thesis, may have taken place within the last 60 years. Due to a lack of comparative data, it is not known, which factors motivated the spread of these verbs: it may have been an independent development, but it may also have resulted from contact phenomena.

#### 11.1.4 Summary

To summarize the discussion of sections 11.1.1 to 11.1.3 above, the thesis has made methodological and theoretical contributions to different areas of linguistics. First, the methods employed in the study of the postural/existential system illustrate the importance and usefulness of visual stimuli for semantic and pragmatic analyses – some aspects of the system could not have been studied otherwise. Second, the semantic analysis pursued in this thesis

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<sup>8</sup> Migration history suggests that speakers of Proto-Angas-Goemai did not split into different subgroups before the 18<sup>th</sup> century (Isichei 1982a). That is, the postural/existential system of Goemai has probably developed at a later stage.



illustrates the explanatory value of distinguishing between lexical semantics, constructional semantics and pragmatic implicatures. Third, the findings are of relevance to the typological literature in spatial semantics, nominal classification and grammaticalization.

## 11.2 Questions for further research

The data that was discussed in this thesis raises a number of questions and possible lines of future research.

From a typological perspective, the semantics, functions and diachronic developments of postural-type systems are in need of documentation. The scarcity of data is rather surprising given that, according to Stassen (1997: 55-61), the use of postural verbs in locative constructions is very common. It is even more surprising given the considerable attention that is paid to the coding of locative relations in adpositions and local cases (e.g., Fillmore 1975: 16-27; Frawley 1992: 250-293; Landau and Jackendoff 1993; J. Lyons 1977: 636-734; Miller and Johnson-Laird 1976: 375-410). Detailed descriptions of the postural-type systems of individual languages are necessary for a better understanding of the characteristic features of this type, its grammaticalization patterns and its classificatory potential.

From a cognitive perspective, a categorization system by means of postural-type elements is of potential interest to studies in the relationship between language and cognition (see, e.g., Gumperz and Levinson 1996; Lucy 1992; Pederson et al. 1998; Whorf 1988 [1939]). In particular, the following observations are of relevance to such studies: speakers of postural-type languages are forced to pay attention to positional information in a variety of contexts; and nouns may be semantically general, while posturals restrict their reference. Based on these observations, the following two lines of research could prove promising:

First, since speakers of postural-type languages have to attend to positional information, it is possible that they verbalize their experiences differently from speakers of non-postural-type languages. Such differences will be revealed by studies in the organization of discourse – comparable to Slobin's (1996: 2000) research on the encoding of motion events in verb-framed and satellite-framed languages.

Second, the linguistic characteristics of postural-type languages may have consequences for non-linguistic cognition. Some studies on languages having different categorization systems (numeral classifiers, classificatory verbs) suggest that cognitive effects may be found in this area. In one such study, the Mayan language Yukatek is compared to English (Lucy and Gaskins 2001). The two languages differ in their noun semantics: many nouns in the numeral classifier language Yukatek denote substances, while comparable nouns in English denote entities (e.g., artifacts). The study shows (with the help of non-linguistic triads and complex categorization tasks) that speakers of Yukatek attend more to the material of objects, while speakers of English attend more to their shapes. In another study, word association tasks show that classificatory verbs in Navajo (which pay attention to the shape of objects) are closely associated with the objects they categorize, while non-classificatory verbs are associated with other verbs (Ervin and Landar 1963). This last study is also interesting from a second angle: classificatory verbs set up object categories, yet these categories are not morphologically marked. This poses the question of how such implicit categories can be acquired (see, e.g., Bowerman and Choi 2001; Choi et al. 1999).

From a Chadic perspective, the diachronic origin of the Goemai postural-type system is of interest. Most Chadic languages do not use postural/existential verbs in their locative constructions, but resort to verbless strategies (Frajzyngier 1987a; Pawlak 1994). The same pattern is found in languages of the Northern Angas-Goemai group, i.e., in languages that are closely related to Goemai. Given their similarities in other linguistic areas, this difference needs an explanation. At the moment, neither an independent development nor contact phenomena can be ruled out: little is known about the Southern Angas-Goemai languages (to which Goemai belongs), and the coding of locative relations in surrounding Benue-Congo languages has not been investigated (Shimizu 1980; Sibomama 1981).

The use of the Goemai postural-type system is furthermore interesting from the perspectives of language contact and multilingualism. There are indications that the regional lingua franca Hausa is replacing Goemai. All Goemai speakers are fluent in Hausa and use it on a regular basis to communicate with their non-Goemai neighbors. Younger Goemai even use Hausa when communicating amongst themselves, and their variety of Goemai shows considerable influence from Hausa. In the larger settlements, children grow up with Hausa as their first, and often only, language. Unlike Goemai, Hausa does not make use of a

postural-type system. It is unknown how this difference influences the encoding of locative relations by Goemai people speaking either Goemai or Hausa.

It is hoped that this summarizing section has shown that the study of postural-type systems is of interest to different areas of linguistics. Since we know very little about such systems, more descriptive case studies of the kind presented in this thesis are needed to establish their typological profile and to form and investigate hypotheses about implications for non-linguistic cognition and language acquisition. It remains to be seen which of the features described in this thesis are idiosyncratic to Goemai, and which are characteristic for the type as a whole.



## TEXT COLLECTION

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This text collection serves to illustrate spoken Goemai – including the use of postural and existential elements – over longer stretches of discourse. The selected texts were spoken by different speakers, and they represent different genres. They are reproduced as they appear in the original recordings (e.g., including intonation breaks), and the same notation conventions apply as throughout the rest of the thesis. However, at the request of the speakers, all false starts and filled pauses were removed from this version. In each case a free translation was added that corresponds as closely as possible to the original Goemai utterance, i.e., it does not always constitute idiomatic English.

### 1.1 Jos

This text is an extract from a longer conversation between speakers A. and N. about the town of Jos and about how it has changed over the past 50 years (recorded on 13/10/2000).

A: *Hen man Jos tun nineteen-fifty-one.*  
1Sg know Jos since 1951

‘I have known Jos since 1951.’

*Lokashi goe-pe / hen t'ong p'et / hen mûaan de-goe*  
time NOMZ-COMP 1Sg IRR exit(sg) 1Sg go(sg) PUR

*ya n-Kafanchan.*  
arrive LOC-Kafanchan

‘The time that I would leave, I went in order to arrive at Kafanchan.’

*Hen yir yi b'ak n-Jos. (...)*  
1Sg turn SUB here LOC-Jos

‘So I (would) stop over here in Jos.’ (...)

*Ndoe wakaam shi n-yil / dok t'o pûanang*  
 some road vehicle LOC-ground PAST.REM lie(sg) there/yonder  
*goe-p'et goe loet'uk / de goe yir yi har*  
 NOMZ-exit(sg) PLACE market COMP OBL turn SUB until  
*n-Laranto / de-goe wa wakaam Zaria.*  
 LOC-Laranto PUR return\_home(sg) road Zaria

'A railway line lay there in the past that came out at the market, so that (it) would turn until (it would arrive) at Laranto, to go back to Zaria road.'

N: *S'em shi hok dok a nd'ang?*  
 name vehicle DEF PAST.REM FOC how

'What was the name of the train in the past?'

A: *S'em shi hok dok a D'an Bauchi.*  
 name vehicle DEF PAST.REM FOC D'an Bauchi

'The name of the train was D'an Bauchi (i.e., Little Bauchi) in the past.'

N: *D'an- / D'an Bauchi a ko D'an- / D'an Bauchi a? (...)*  
 D'an D'an Bauchi INTERR maybe D'an D'an Bauchi INTERR

'D'an-, (was it) D'an Bauchi or D'an-, (was it) D'an Bauchi?' (...) (It follows a longer discussion about the name of the train.) (...)

*Shi goe-tyoklok goe-pe la mûaan t'ong goe*  
 vehicle NOMZ(sg)-small NOMZ-COMP COND go(sg) IRR 2Sgm  
*d'yem dad'e.*  
 stand(sg) last\_long

'A small train which, when (it) moved, you would stand/wait (in it) (for a) long (while).'

*Wa ru n-Zaria d'at ba.*  
 return\_home(sg) enter(sg) LOC-Zaria quickly NEG

'(It) didn't return (and) arrive quickly in Zaria.'

A: *Mh / a ni. (...)*  
 yes FOC 3Sg.I

'Yes, (that is) the one.' (...)

*To / nd'asoeno / shi hok d'e d'i zak-yit ba.*  
 okay now vehicle DEF exist LOC.ANAPH again NEG

'Okay, nowadays, the train doesn't exist there anymore.'

*Pe goe-dok d'e shi hok t'ong mûaan yi /*  
 place NOMZ-PAST.REM exist vehicle DEF PROGR go(sg) PROGR  
*wato / a lu buk leng d'em toe*  
 that\_means FOC settlement return(pl) hang/move(pl) this\_time EMPH  
*d'i dip.*  
 LOC.ANAPH all

'The place where the train was moving (through) in the past, that means, (it is) now all houses (that) have come back (i.e., developed) and hang there.'

*Har / n-yit men ma pe hen dok d'e t'ong*  
 even LOC-side 1Pl.Poss also COMP 1Sg PAST.REM exist PROGR  
*shin headmaster yi b'ak m-pe n-d'e-nnoe.*  
 do headmaster PROGR here LOC-place ADVZ-Cl:exist-DEM.PROX

'Even on our side when, in the past, I was working as a headmaster here in this (existing) place.'

*Dok a s'et d'yem toe pûanang wa n-Fatima /*  
 PAST.REM FOC bush stand(sg) EMPH there/yonder SIDE LOC-Fatima  
*goe-goe p'et n-Laranto.*  
 RED-SEQ exit(sg) LOC-Laranto

'In the past, (it was) bush standing there (from) the side at Fatima's until (it = the bush) came out at Laranto.'

*Sai a pe goe-wum gurum. (...)*  
 only FOC place NOMZ-bury people

'(It was) only a place of/for burying people.' (...)

*Ba ndoe bi / ndoe pe dok d'e d'i ba /*  
 NEG some thing some place PAST.REM exist LOC.ANAPH NEG  
*sai a s'et / lang toe moe-sek muk.*  
 only FOC bush hang/move(sg) EMPH NOMZ(pl)-body 3Sg.Poss

'Nothing, no place existed there in the past, (it was) only bush hanging by itself.'

*D'a goe yir goe ba b'ak wakaam Zaria nnoe*  
 COND 2Sgm turn 2Sgm return(sg) here road Zaria LOC.ANAPH  
*har n-Kabong / d'a goe d'yem n-lu gwen nda*  
 until LOC-Kabong COND 2Sgm stand(sg) LOC-settlement PL father  
*pûanang / n-Teresa / t'ong goe na Kabong / lang*  
 there/yonder LOC-Teresa IRR 2Sgm see Kabong hang/move(sg)  
*pûanang soe-seng.*  
 there/yonder RED-far

‘When you turned (and) returned here on this Zaria road until (you arrived) at Kabong, when you stood in the house of the fathers (i.e., the Catholic priests) there at (Saint) Teresa’s, you would see Kabong hanging there far away.’

*A mûaan boe-mûaan sosai / de-goe wa doe*  
 FOC go(sg) WHERE-go(sg) thoroughly PUR return\_home(sg) come  
*ru n-Kabong.*  
 enter(sg) LOC-Kabong

‘(It was) a very (far) journey to return (and) come (and) enter Kabong.’

*Amma nd'asoenoe d'em Kabong ba t'ong dakt'ûe*  
 but now this\_time Kabong return(sg) sit(sg) MIDDLE  
*lu.*  
 settlement

‘But nowadays Kabong has come back (and) sits in the middle of town.’

## 1.2 The watersnake *k'waktak*

Speaker D. talks about a dangerous watersnake named *k'waktak*, and he advises on how to interact with it (recorded on 12/01/1999).

*Ndoe aram na n-d'e / k'a wo / goe-t'o n-hangoed'e /*  
 some story PRES PRES-exist HEAD(sg) snake NOMZ-lie(sg) LOC-water  
*goe-pe mûep yong ni / k'waktak / goe yil Goemai.*  
 NOMZ-COMP 3Pl call 3Sg watersnake PLACE ground Goemai

‘Here is a story about a snake that lies in water, which they call (it) *k'waktak* in Goemailand.’

*Wo nnoe / yool b'yaal de gurum / b'ok ba.*  
 snake LOC.ANAPH rise(sg) anger DIR person disregard NEG

‘This snake rises in anger against people, (but) not (because) (it) despises (them) (i.e., not without a reason).’



*La goe ru goe lang n-hangoed'e / la a m-pe*  
 COND 2Sgm enter(sg) 2Sgm hang/move(sg) LOC-water COND FOC LOC-place  
*goe-pe / goe shin ndoe bi goe-pe weel ni / yool yi*  
 NOMZ-COMP 2Sgm do some thing NOMZ-COMP disturb 3Sg rise(sg) SUB  
*de-goe doe at goe.*  
 PUR come bite(sg) 2Sgm

'If you enter (and) hang/move in water, if (it is) at a place where you did something that disturbed it, so (it would) rise to bite you here.'

*La at goe n-hangoed'e / zem a de goe p'et yi.*  
 COND bite(sg) 2Sgm LOC-water like FOC COMP 2Sgm exit(sg) SUB  
 'If (it) bites you in the water, (it) wants that you (should) go out.'

*La goe p'et goesampe nkwa / nhat la su k'a muk /*  
 COND 2Sgm exit(sg) outside away wind COND run(sg) HEAD(sg) 3Sg.Poss  
*pe goe-pe at goe hok / t'ong goe muut.*  
 place NOMZ-COMP bite(sg) 2Sgm DEF IRR 2Sgm die(sg)

'If you go outside, if the wind runs over it, (over) the place where (it) bit you, you will die.'

*To / la goe man / sai goe d'ok goe d'yem n-hangoed'e /*  
 okay COND 2Sgm know then 2Sgm silent 2Sgm stand(sg) LOC-water  
*de goe tang gurum goe-pe man ni yi / k'a ûen*  
 COMP 2Sgm search person NOMZ-COMP know 3Sg SUB head(sg) medicine  
*hok yi / de goe doe poe yi n-goe.*  
 DEF SUB COMP OBL come give SUB BEN-2Sgm.I

'Okay, if you know (this), then you become silent (and) stand in the water, so that you look for a person who (would) know it, the medicine, so that (he) should give (it) to you here.'

*De goe haar yi nkyem / ko dau / kafin goe p'et / goesampe.*  
 COMP 2Sgm chew SUB FRONT maybe tuber before 2Sgm exit(sg) outside

'So that you (should) eat (it) before – maybe (it is) a tuber – before you go outside.'

*Amma wo hok / t'ong nyet goe ba.*  
 but snake DEF IRR leave 2Sgm NEG

'But the snake will not leave you.'

*T'ong lang d'i n-yir yi goede goe /*  
 IRR hang/move(sg) LOC.ANAPH PROGR-turn PROGR BOTTOM 2Sgm.Poss  
*goe-t'oor goe.*  
 PLACE-flank 2Sgm.Poss

'(It) will hang/move there turning around at your bottom, at your side.'

*T'ong b'em goe.*  
 IRR touch 2Sgm

'(It) will touch you.'

*P'en k'a muk goet'eng / ru n-yil.*  
 remove(sg) head(sg) 3Sg.Poss upward enter(sg) LOC-ground

'(It will) bring out its head upwards, (it will) move towards the ground.'

*K'waar sh'e goe / de goe luut yi / de goe p'et*  
 cut\_surface foot 2Sgm.Poss COMP 2Sgm fear(sg) SUB COMP 2Sgm exit(sg)  
*yi nkwa.*  
 SUB away

'(It will) cut your foot, so that you (should) become afraid, so that you (should) go outside.'

*La goe su goe p'et kuma / t'ong goe muut.*  
 COND 2Sgm run(sg) 2Sgm exit(sg) also IRR 2Sgm die(sg)

'And if you run (and) go out, you will die.'

*Nye-goe-hok / k'waktak la at goe n-hangoed'e / kede goe*  
 kind-NOMZ-DEF watersnake COND bite(sg) 2Sgm LOC-water PROH 2Sgm  
*su goe p'et goesampe ba.*  
 run(sg) 2Sgm exit(sg) outside NEG

'Because of this, if the watersnake bites you in water, do not run (and) go outside.'

*Moor goe d'yem d'i.*  
 patient 2Sgm stand(sg) LOC.ANAPH

'Be patient (and) stand there.'

*Ko la mel lang sak nd'ang / kede goe*  
 maybe COND haunt hang/move(sg) body.2Sgm.Poss how PROH 2Sgm  
*p'et ba.*  
 exit(sg) NEG

'In whatever way (it) may haunt (you and) hang/move at your body, do not go out.'

*Moor goe d'yem d'i.*  
 patient 2Sgm stand(sg) LOC.ANAPH

‘Be patient (and) stand there.’

*Sai gurum goe-kat ûen hok la doe kat / poe goe /*  
 only person NOMZ-find medicine DEF COND come find give 2Sgm

*kafin goe p'et.*  
 before 2Sgm exit(sg)

‘Only if the person who found the medicine finds (you) here, (and) gives you, then you go out.’

### 1.3 The dog, the mirror and the shadow

This tale about a dog, a mirror and a shadow was narrated by speaker C. (recorded on 14/12/2000).

*Tamtis noe f'er / a k'a aas / ndoe rûûnsek muk /*  
 folktale 1Sg.Poss four FOC HEAD(sg) dog CONJ shadow 3Sg.Poss

*ndoe nayit.*  
 CONJ mirror

‘My folktale (number) four about a dog and its shadow and a mirror.’

*Aas n-d'e-nnoe-hoe / a goe-b'et / a goe-t'il /*  
 dog ADVZ-Cl:exist-DEM.PROX-exactly FOC NOMZ(sg)-belly FOC NOMZ(sg)-greedy

*a goe-kwalak.*  
 FOC NOMZ(sg)-quarrelsome

‘This (existing) dog is a greedy one, (it is) a greedy one, (it is) a quarrelsome one.’

*Ni la t'o pûe s'oe / ndoe gurum ter k'us n-ni mou.*  
 3Sg COND lie(sg) MOUTH food some person move\_aside NEAR COM-3Sg.I NEG

‘Whenever it lies at the food (i.e., eats), nobody moves near it.’

*T'at ndoe b'it / goe-pep lu muk / mûep shin b'oon*  
 day some day NOMZ(sg)-master settlement 3Sg.Poss 3Pl do remedy

*muk.*  
 3Sg.Poss

‘One day, its master, they found its remedy/solution.’

*Mang ûes doe b'ûet.*  
 take bone come cause\_lying(sg)

‘(He) took a bone (and) lay (it) here.’

*Aas nnoe t'o t'ong/ haar ûes nnoe-hoe yi.*  
 dog LOC.ANAPH lie(sg) PROGR chew bone LOC.ANAPH-exactly PROGR

'This dog lay chewing this bone.'

*Goe-ter muk doe de muk/ aas gwaan ni/*  
 NOMZ-move\_aside 3Sg.Poss come DIR 3Sg.Poss dog howl 3Sg

*aas gwaan ni/ yool b'yaal de muk.*  
 dog howl 3Sg rise(sg) anger DIR 3Sg.Poss

'When he moved (and) came towards it (= the dog), the dog howled (at) him, the dog howled (at) him, (it) rose (in) anger towards him.'

*Goe-pep lu hok mang b'aal/ het ni n-ni.*  
 NOMZ(sg)-master settlement DEF take stick hit 3Sg COM-3Sg.I

'The master of the house took a stick, (and he) hit it with it.'

*Gwaan de-goe mang ûes.*  
 howl PUR take bone

'(It) howled to take the bone.'

*Aas yool de-goe n-at s'a muk.*  
 dog rise(sg) PUR ADVZ-bite(sg) hand 3Sg.Poss

'The dog rose to (unsuccessfully) bite his hand.'

*Yir ba/ t'a t'o.*  
 turn return(sg) fall(sg) lie(sg)

'(It) turned (and) returned, (and it) lay down.'

*B'it d'a lin/ mang ndoe ûes hok doe b'ûet.*  
 day COND dawn take some bone DEF come cause\_lying(sg)

'When morning dawned, (he) took one of the bones (and) lay (it) here.'

*Yong aas hok: "wa doe!"*  
 call dog DEF return\_home(sg) come

'(He) called the dog: "return (and) come!"'

*Shyal s'a muk de-goe mang ûes nnoe-hoe.*  
 extend hand 3Sg.Poss PUR take bone LOC.ANAPH-exactly

'(He) extended his hand to take this bone.'

*Aas yool de-goe n-rem s'a muk.*  
 dog rise(sg) PUR ADVZ-crush hand 3Sg.Poss

'The dog rose to (unsuccessfully) crush his hand.'

*La gurum ba goe ûes nyet.*  
 little(sg) person return(sg) COM bone leave

‘The poor man returned the bone (and) left (it).’

*Aas mang ûes haar.*  
 dog take bone chew

‘The dog took the bone (and) chewed (it).’

*La gurum yi aas nnoe t'ong ji shin nd'ang*  
 little(sg) person SAY dog LOC.ANAPH IRR Sgm.LogS do how  
*ndoe ni-hoe a?*  
 CONJ 3Sg.I-exactly INTERR

‘The poor man<sub>1</sub> (said) that: this dog, what should he<sub>1</sub> do with it?’

*Ndoe aas t'ong ter k'us n-ni ba.*  
 some dog IRR move\_aside NEAR COM-3Sg.I NEG

‘No dog would move near it.’

*Ndoe gurum t'ong ter k'us n-ni kat ni na d'e*  
 some person IRR move\_aside NEAR COM-3Sg.I when 3Sg see exist  
*t'ong s'oe s'oe yi mou.*  
 PROGR eat food PROGR NEG

‘Nobody would move near it when he sees (that the dog) is eating food.’

*See n-t'at ndoe b'it/ goe-pep lu muk nnoe-hoe/*  
 then LOC-day some day NOMZ(sg)-master settlement 3Sg.Poss LOC.ANAPH-exactly  
*nye-rang wul kûût n-ni.*  
 kind-think arrive just LOC-3Sg.I

‘Then on one day, this its master, a thought just came to him.’

*Yin ji man bi goe-pe t'ong ji shin ndoe aas*  
 SAY Sgm.LogS know thing NOMZ-COMP IRR Sgm.LogS do CONJ dog  
*ji n-d'e-nnoe-hoe.*  
 Sgm.LogS.Poss ADVZ-Cl:exist-DEM.PROX-exactly

‘(He<sub>1</sub> said) that: he<sub>1</sub> knows what he<sub>1</sub> should do with this his<sub>1</sub> (existing) dog.’

*Mang ûes b'ûet.*  
 take bone cause\_lying(sg)

‘(He) took a bone (and) lay (it).’

*Mang nayit twaam.*  
take mirror cause\_standing(sg)

‘(He) took a mirror (and) stood (it).’

*Yong aas nnoe-hoe.*  
call dog LOC.ANAPH-exactly

‘(He) called this dog.’

*Nayit na n-d’yem.*  
mirror PRES PRES-stand(sg)

‘Behold, the mirror is standing.’

*Ûes na n-t’o.*  
bone PRES PRES-lie(sg)

‘Behold, the bone is lying.’

*Aas na n-t’o.*  
dog PRES PRES-lie(sg)

‘Behold, the dog is lying.’

*Aas nnoe t’o t’ong k’ool goe s’oe t’ong k’ool goe s’oe*  
dog LOC.ANAPH lie(sg) PROGR hoard COM food PROGR hoard COM food  
*goe ya k’a muk yir.*  
SEQ catch(sg) head(sg) 3Sg.Poss turn

‘This dog lay hoarding up the food, hoarding up the food, and then took its head (and) turned (it) around.’

*Na rûûnsek muk nd’ûûn nayit.*  
see shadow 3Sg.Poss INSIDE mirror

‘(It) saw its shadow in the mirror.’

“*Grr grr / wu wu / grr grr / wu wu / wu.*”  
[sound of dog barking]

“‘Grr grr, woof woof, grr grr, woof woof, woof.’”

*La gurun / kuk pe / la aas nnoe kuk pe zak.*  
little(sg) person bark place little(sg) dog LOC.ANAPH bark place also

‘The poor man barked (at) the place, this poor dog also barked (at) the place.’

*La mûaan de-goe mang ûes / na rûûnsek muk / goe-t'ong mang*  
 COND go(sg) PUR take bone see shadow 3Sg.Poss NOMZ-IRR take

*ûes.*  
 bone

'Whenever (it) went to take the bone, (it) saw its shadow that would (also) take the bone.'

*Bi hok weel ni.*  
 thing DEF disturb 3Sg

'The thing troubled it.'

*Yool doe de nayit / goe shin "wu."*  
 rise(sg) come DIR mirror SEQ do "woof"

'(It) rose (and) came towards the mirror and went "woof."'

*Het nayit.*  
 hit mirror

'(It) hit the mirror.'

*Na a pûe muk.*  
 see FOC mouth 3Sg.Poss

'(It) saw its mouth.'

*Yin a aas goenang toe nnoe a?*  
 SAY FOC dog which(sg) EMPH LOC.ANAPH INTERR

'(It said) that: which dog is this?'

*Ba goe ûes nyet.*  
 return(sg) COM bone leave

'(It) returned the bone (and) left (it).'

*Ya yir nk'ong nayit / ni n-t'ong aas hok d'e d'i.*  
 arrive turn BACK mirror 3Sg PRES-sit(sg) dog DEF exist LOC.ANAPH

'(It) arrived (and) turned behind the mirror, behold, (here) it sits, the dog is there.'

*Yir goe kat aas nnoe mou.*  
 turn SEQ find dog LOC.ANAPH NEG

'(It) turned but didn't find this dog.'

*Yir ba.*  
turn return(sg)

‘(It) turned (and) returned.’

*Goe-pep lu muk mang ûes goe s’ok.*  
NOMZ(sg)-master settlement 3Sg.Poss take bone SEQ hide(sg)

‘Its master took the bone and hid (it).’

*Ba doe lang / yir yi yir yi yir yi yir yi.*  
return(sg) come hang/move(sg) turn SUB turn SUB turn SUB turn SUB

‘(It) returned (and) hung/moved around here, turning turning turning turning.’

*Na ûes mou.*  
see bone NEG

‘(It) didn’t see the bone.’

*Yir d’i nk’ong n-d’e-nang na a ndoe aas mou.*  
turn LOC.ANAPH BACK ADVZ-Cl:exist-DEM.DIST see FOC some dog NEG

‘(It) turned there to that (existing) back (but) saw no dog.’

*Ba doe d’yem.*  
return(sg) come stand(sg)

‘(It) returned (and) stood here.’

*Na rûûnsek muk / n-d’yem.*  
see shadow 3Sg.Poss ADVZ-stand(sg)

‘See its shadow standing.’

*Na aas hok zak n-d’yem.*  
see dog DEF also ADVZ-stand(sg)

‘See also the dog standing.’

*D’yem d’i shin bi nnoe-hoe gugwo gugwo*  
stand(sg) LOC.ANAPH do thing LOC.ANAPH-exactly on\_and\_on on\_and\_on

*gugwo har goe-goe ne.*  
on\_and\_on until RED-SEQ tire

‘(It) stood there (and) did this thing on and on and on until (it) became tired.’

*Ba goe-goe t’a t’o.*  
return(sg) RED-SEQ fall(sg) lie(sg)

‘(It) returned until finally (it) lay down.’



*Goe-t'o muk t'ong b'ûen nayit yi / na aas hok t'o*  
 NOMZ-lie(sg) 3Sg.Poss PROGR watch mirror PROGR see dog DEF lie(sg)

*zak t'ong b'ûen ni yi.*  
 also PROGR watch 3Sg PROGR

'While it lay looking at the mirror, (it) saw the dog also lying looking at him.'

*Ni man goe-pe a rûinsek muk t'o toe mou.*  
 3Sg know NOMZ-COMP FOC shadow 3Sg.Poss lie(sg) EMPH NEG

'It did not know that (this) is its shadow lying.'

*Yool zak-yit / doe het pûe muk sek nayit.*  
 rise(sg) again come hit mouth 3Sg.Poss BODY mirror

'(It) rose again, (it) hit its mouth here against the mirror.'

*Kat aas nnoe-hoe / het pûe muk zak.*  
 find dog LOC.ANAPH-exactly hit mouth 3Sg.Poss also

'(It) found this dog also hitting his mouth.'

*To / d'e d'i na pûe mûep b'em zak-yit / pûe mûep*  
 okay exist LOC.ANAPH see mouth 3Pl.Poss touch again mouth 3Pl.Poss

*b'em shak mou.*  
 touch each\_other NEG

'Okay, (it) was there, see their mouths touching again, (but) their mouths don't (really) touch each other.'

*B'ep ya yir nk'ong nayit.*  
 repeat arrive turn BACK mirror

'(It) arrived again (and) turned behind the mirror.'

*Goe-goe b'ûen pe / b'ûen pe.*  
 RED-SEQ watch place watch place

'(It made an effort) to look at the place, look at the place.'

*Na aas ba.*  
 see dog NEG

'(It) did not see the dog.'

*Dum ba doe t'o.*  
 bend\_forward return(sg) come lie(sg)

'(It) bent forward (and) returned (and) lay here.'

*Goe-pep lu muk t'ong t'ong b'ûen ni yi.*  
 NOMZ(sg)-master settlement 3Sg.Poss sit(sg) PROGR watch 3Sg PROGR

'Its master sat looking at it.'

*Sai goe-pep lu muk yong ni.*  
 then NOMZ(sg)-master settlement 3Sg.Poss call 3Sg

'Then its master called it.'

*Goe-yong muk de-goe n-mûaan yir / sai na / aas nnoe*  
 NOMZ-call 3Sg.Poss PUR ADVZ-go(sg) turn then see dog LOC.ANAPH  
*lang t'ong mûaan yi.*  
 hang/move(sg) PROGR go(sg) PROGR

'When he called to go, (it = the dog) turned, then (it) saw this dog hanging/moving around walking.'

*Yir ba goe su zak-yit.*  
 turn return(sg) SEQ run(sg) again

'(It) turned (and) returned and ran again.'

*Doe d'yem t'ong kuk pe yi n-yit nayit.*  
 come stand(sg) PROGR bark place PROGR LOC-face mirror

'(It) stood here barking at the place, against the mirror.'

*La kuk / aas goe-n-d'e-nang wato rûûnsek muk /*  
 COND bark dog NOMZ(sg)-ADVZ-Cl:exist-DEM.DIST that\_means shadow 3Sg.Poss

*la kuk / la shin "wu" / aas n-d'yem n-nayit zak*  
 COND bark COND do "woof" dog ADVZ-stand(sg) LOC-mirror also

*shin "wu."*  
 do "woof"

'When (it) barked, that (existing) other dog, that is, its shadow, when (it) barked, when (it) did "woof", the dog standing in the mirror also did "woof."'

*P'aar d'ûût sek nayit.*  
 jump lean BODY mirror

'(It) jumped (and) leaned against the mirror.'

*Goe-pep lu muk swar.*  
 NOMZ(sg)-master settlement 3Sg.Poss laugh

'Its master laughed.'

*Nk'ong goe-lang goelong / sai goe-pep lu muk*  
 BACK NOMZ-hang/move(sg) useless then NOMZ(sg)-master settlement 3Sg.Poss

*yong ni / mang ûes hok / poe ni.*  
 call 3Sg take bone DEF give 3Sg

'After this useless hanging/moving around, then its master called it, took the bone, (and he) gave (it to) him.'

*Goe na mu?*  
 2Sgm see INTERR

'You see, right?'

*De-goe n-lap ûes nnoe-hoe / na aas nnoe dum*  
 PUR ADVZ-receive bone LOC.ANAPH-exactly see dog LOC.ANAPH bend\_forward

*pûe muk wa goe-goe n-lap ûes hok /*  
 mouth 3Sg.Poss return\_home(sg) RED-SEQ ADVZ-receive bone DEF

*ba goe ûes hok lyak.*  
 return(sg) COM bone DEF throw\_away

'To take this bone, (you) see this dog (has to) bend its mouth (and) come back trying to pick up the bone; (he) returned the bone (and) threw (it).'

*Yool zak-yit / mûaan de nayit.*  
 rise(sg) again go(sg) DIR mirror

'(It) rose again, (it) went towards the mirror.'

*Goe-pep lu muk / bi hok shyang ni.*  
 NOMZ(sg)-master settlement 3Sg.Poss thing DEF please 3Sg

'Its master, the thing pleased him.'

*T'ong t'ong swar yi / t'ong t'ong swar yi.*  
 sit(sg) PROGR laugh PROGR sit(sg) PROGR laugh SUB

'(He) sat laughing, (he) sat laughing.'

*Yi a hai / ji man b'oon aas n-d'e-nnoe-hoe.*  
 SAY FOC INTERJ Sgm.LogS know remedy dog ADVZ-Cl:exist-DEM.PROX-exactly

'(He<sub>1</sub> said) that: hey, he<sub>1</sub> knows the remedy of/for this (existing) dog.'

*Sai n-t'at ndoe b'it mûaan goe mang la ndoe aas /*  
 then LOC-day some day go(sg) SEQ take little(sg) some dog

*m-muk nye goe-d'emen ba n-ni.*  
 NOMZ-3Sg.Poss kind NOMZ(sg)-good return(sg) COM-3Sg.1

'Then on one day, (he) went and took a little dog of good character (and he) returned with it.'

*Doe b'ûet ûes.*  
 come cause\_lying(sg) bone

‘(He) lay a bone here.’

*Goe-yo aas nnoe de lang t'ong yir yi nk'ong*  
 NOMZ-rise(sg) dog LOC.ANAPH COMP hang/move(sg) PROGR turn PROGR BACK

*nayit zak-yit / sai ba goe ûes nnoe kûût /*  
 mirror again then return(sg) COM bone LOC.ANAPH just

*poe ndoe aas goe-n-d'e-nang-hoe.*  
 give some dog NOMZ(sg)-ADVZ-Cl:exist-DEM.DIST-exactly

‘When this dog rose so that (he could) hang/move turning behind the mirror again, then (he) just returned this bone (and he) gave (it) to that (existing) dog.’

*Aas goe-sek pe mang ûes / lang goede goe n-haar /*  
 dog NOMZ-body COMP take bone hang/move(sg) BOTTOM SEQ ADVZ-chew

*p'yaram ûes / k'au-k'au-k'au.*  
 break(pl) bone k'au-k'au-k'au

‘This dog that took the bone started to chew (it), (it) broke the bones, k'au-k'au.’

*Goepe ni k'oeleng d'ûe ûes goe-d'e t'ong p'yaram yi /*  
 NOMZ-COMP 3Sg hear voice bone NOMZ-exist PROGR break(pl) PROGR

*goe-ya muk yir kat a ndoe aas.*  
 NOMZ-arrive 3Sg.Poss turn find FOC some dog

‘When it heard the sound of the bones that were breaking (one after the other), when it arrived, (it) turned (and) found a dog.’

*Nyet rûûnsek muk hok / nyet nayit / t'an aas*  
 leave shadow 3Sg.Poss DEF leave mirror pursue dog

*goe-n-d'e-nnoe-hoe.*  
 NOMZ(sg)-ADVZ-Cl:exist-DEM.PROX-exactly

‘(It) left its mirror, (it) left the mirror, (it) pursued this (existing) dog.’

*Aas mang ûes wa n-ni.*  
 dog take bone return\_home(sg) COM-3Sg.I

‘The dog took the bone (and) came back with it.’

*Yir ba doe d'yem / t'ong b'ûen nda muk yi /*  
 turn return(sg) come stand(sg) PROGR watch father 3Sg.Poss PROGR

*goe-pep lu muk / t'ong b'ûen nayit yi.*  
 NOMZ(sg)-master settlement 3Sg.Poss PROGR watch mirror PROGR

‘(It) turned (and) returned (and) stood here looking at its father, its master, looking at the mirror.’

*Doe d'yem n-d'yem / foot / foot / foot.*  
 come stand(sg) ADVZ-stand(sg) listen\_attentively listen\_attentively listen\_attentively

‘(It) stood standing here, listening attentively, attentively, attentively.’

*Na aas d'yem n-d'yem zak t'ong nyak a foot-foot.*  
 see dog stand(sg) ADVZ-stand(sg) also PROGR rest FOC RED-listen\_attentively

‘(It) saw the dog (that) also stood standing resting attentively.’

*Sai goe-pep lu muk yi to / ji man b'oon.*  
 then NOMZ(sg)-master settlement 3Sg.Poss SAY okay Sgm.LogS know remedy

‘Then its master<sub>1</sub> (said) that: okay, he<sub>1</sub> knows the remedy.’

*Nye-goe-sek / ndoe aas / ndoe nayit / mûep zem t'ong na yit*  
 kind-NOMZ-body CONJ dog / CONJ mirror 3Pl like IRR see face

*shak mou.*  
 each\_other NEG

‘Because of this, the dog and the mirror, they do not like to see each other.’

*Tamtis noe lat / dok ba mûaan yi wa.*  
 folktale 1Sg.Poss finish PAST.REM return(sg) go(sg) SUB return\_home(sg)

‘My folktale has finished, (it) has returned to go (and) come home.’

#### 1.4 Riddles

These riddles were taken from a longer conversation in which speakers F., G., H. and J. told each other stories, folktales and riddles (recorded on 17/01/2000).

G: *To / kurgoede noe a yam kurki.*  
 Okay riddle 1Sg.Poss FOC son Kurki

‘Okay, my riddle is a son of Kurki.’ (= traditional opening of a riddle)

*Nda men dok lang bi ji.*  
 father 1Pl.Poss PAST.REM hang/move(sg) thing Sgm.LogS.Poss

‘In the past, our father<sub>1</sub> hung around on his<sub>1</sub> own.’

*T'ong mûaan shyang ji.*  
 IRR go(sg) hunting Sgm.LogS.Poss

‘(He<sub>1</sub>) would go (for) his<sub>1</sub> hunting.’

*Kuma shyang muk a shyang n-t'eng.*  
 also hunting 3Sg.Poss FOC hunting LOC-tree

‘And his hunting was a hunting in the trees.’

*Amma la haan t'eng muk n-haan / t'ong goe dalang.*  
 but COND climb(sg) tree 3Sg.Poss ADVZ-climb(sg) sit(sg) COM pot

‘But when (he) climbed climbing his tree, (he) sat with a pot.’

H: *Goe-n-d'e-nnoe hen man / a t'is. (...)*  
 NOMZ(sg)-ADVZ-Cl:exist-DEM.PROX 1Sg know FOC snail

‘This (existing) one I know, (it is) a snail.’ (...)

G: *Kurgoede noe a yam kurki.*  
 riddle 1Sg.Poss FOC son Kurki

‘My riddle is a son of Kurki.’

H: *Kurki.*  
 Kurki

‘Kurki.’ (= I will answer it)

G: *Hm-hm / ni ndoe goe.*  
 hm-hm 3Sg.I CONJ 2Sgm.I

‘Hm-hm, he and you.’

H: *A rûûnsek.*  
 FOC shadow

‘(It is) a shadow.’

G: *Kurgoede noe a yam kurki.*  
 riddle 1Sg.Poss FOC son Kurki

‘My riddle is a son of Kurki.’

H: *Kurki.*  
 Kurki

‘Kurki.’

G: *Sam goeme p'yan lu dip.*  
 beam one break(sg) settlement all  
 'One beam breaks the whole village.'

H: *A mpat.*  
 FOC broom  
 '(It is) a broom.'

G: *A'a. (...) Gurum la k'wal ndoe gwen yi / sam goeme /*  
 no person COND talk CONJ 2PL.I SAY beam one  
*p'yan lu / a t'aar.*  
 break(sg) settlement FOC moon  
 'No. (...) If a person talks to you (saying) that one beam breaks the village, (it is) the moon.'





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## SAMENVATTING

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Deze dissertatie behandelt de codering van houding of positie in de grammatica van het Goemai, een West-chadische taal gesproken in centraal Nigeria. Er wordt een analyse gepresenteerd van de grammatica, semantiek en pragmatiek van een set van vijf contrasterende elementen van positie en bestaan, te weten *lang* 'hangen/zich bewegen', *t'ong* 'zitten', *d'yem* 'staan', *t'o* 'liggen', en *d'e* 'bestaan'. De descriptieve bevindingen worden in verband gebracht met actuele discussies in het veld van ruimtelijke semantiek, nominale classificatie, veldmethodologie en grammaticalisatie. Daarnaast bevat deze dissertatie ook een grammaticale schets van het Goemai.

De elementen van positie en bestaan spelen een belangrijke rol in de grammatica van het Goemai: in een aantal morfo-syntactische contexten moeten Goemai-sprekers één van deze elementen kiezen en daarbij een locatieve relatie coderen, dat wil zeggen, de positie van een object (de 'figuur') in relatie tot een locatie (de 'grond'). Het element *t'ong* 'zitten' wordt bijvoorbeeld voor figuren gebruikt die – zonder hulp van de grond – op een stabiele manier opgericht staan (bijv. flessen). In een discours worden deze elementen op één van twee manieren gebruikt: of op een classificerende manier of op een assertionele manier. In hun classificerend gebruik classificeren zij het volledige domein van nominale concepten. Dat betekent dat elk nominaal concept in één – en niet meer dan één – van de vijf categorieën geplaatst wordt. Deze classificatie wordt gebaseerd op canonieke posities. Een fles bijvoorbeeld 'zit' normaal recht op zijn bodem. In principe kunnen dus alle flessen omschreven worden als 'zittend', ook flessen die op de zijkant liggen. Anders ligt het in het geval van assertioneel gebruik: hier gaan sprekers over naar een onverwacht positie-/bestaanselement om de nadruk te leggen op de non-canonieke positie die de figuur op dit moment inneemt. Een fles die op de zijkant ligt kan zo als 'liggend' beschreven worden.

De eigenschappen van dit positie-/bestaanssysteem worden in deze dissertatie onderzocht: de morfosyntactische contexten van positie-/bestaanselementen

worden beschreven en de bijdragen van de lexicale semantiek, constructionele semantiek en pragmatische implicaties voor de algemene interpretatie van de uiting worden geanalyseert.

Hoofdstuk 1 introduceert de taal en de sprekers, de veldonderzoekssetting, de theoretische veronderstellingen die ten grondslag liggen aan de beschrijving, en de theoretische relevantie van de descriptieve bevindingen.

Hoofdstuk 2 biedt een overzicht van de grammaticale structuur van het Goemai waarbij overeenkomsten en verschillen met de andere Chadische talen worden besproken. Dit hoofdstuk bevat de achtergrondinformatie die noodzakelijk is voor het begrijpen van de argumentatie in de daaropvolgende hoofdstukken.

Hoofdstuk 3 bespreekt de formele eigenschappen van locatieve (positie- en bestaans-) werkwoorden. Hier wordt duidelijk gemaakt dat deze werkwoorden één formele categorie vormen die gekenmerkt wordt door een uniek plaatsingspatroon, statisch lexicaal aspect en een lexicaal-gespecificeerd locatie argument in de argument structuur.

Hoofdstuk 4 analyseert de semantiek van elk locatief werkwoord. Het laat zien dat deze werkwoorden een locatieve relatie tussen een figuur en een grond coderen.

Hoofdstuk 5 onderzoekt het gebruik van locatieve werkwoorden voor de classificatie van nominale concepten. Het illustreert het classificerende gebruik tegenover het assertionele gebruik van deze werkwoorden, en het laat de verschillende interpretaties van de kant van de hoorder zien.

Hoofdstuk 6 beschrijft de locatieve en presentatieve constructies en het bespreekt hoe ruimtelijke informatie over verschillende zinselementen (de constructie, het locatieve werkwoord en de elementen van de grond frase) verdeeld wordt.

Hoofdstuk 7 analyseert het systeem van demonstratieven in het Goemai, waarbij de focus ligt op het vóórkomen van positie-/bestaanselementen als deiktische classificatoren binnen het demonstratief.

Hoofdstuk 8 documenteert het gebruik van locatieve werkwoorden als tweede werkwoord in verschillende seriële werkwoordconstructies. Het laat zien hoe de locatieve werkwoorden in deze omgeving geïnterpreteerd worden als uitdrukking van resultatief aspect.

Hoofdstuk 9 onderzoekt de progressieve constructie en bespreekt de rol van locatieve werkwoorden hierin.

Hoofdstuk 10 beschrijft het gebruik van locatieve werkwoorden in ascriptieve constructies die een eigenschap toeschrijven aan een referent.

Hoofdstuk 11 sluit de dissertatie af met een samenvatting van de descriptieve bevindingen, en de bijdrage hiervan aan linguïstische theorievorming, alsmede een schets van mogelijke richtingen voor verder onderzoek.

## **CURRICULUM VITAE**

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Birgit Hellwig studied African Linguistics and Anthropology at the University of Bayreuth (Germany), University College London (England) and the University of Hamburg (Germany). In 1998, she received her M.A. in African Linguistics from the University of Hamburg. She was then offered a Ph.D. scholarship at the Max Planck Institute for Psycholinguistics in Nijmegen, The Netherlands. Currently, she is working in a project on the digital documentation and archiving of language data (funded by the European Union), and she is preparing a postdoctoral research project on the documentation of Goemai (funded by the Endangered Languages Documentation Programme of the Lisbet Rausing Charitable Fund).

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