

Ronald P. Schaefer, Francis O. Egbokhare
A Grammar of Emai

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Ronald P. Schaefer, Francis O. Egbokhare

A Grammar of Emai

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To the memory of Melissa Bowerman (1942–2011), whose sense of curiosity about all things language established a supportive foundation for initiation of this project, and to the memory of Philip Egbokhare (1927–2005), whose basic humanity and trust fostered its completion.

Preface

Completion of this reference grammar would not have been possible without the unwavering assistance of the Emai people of southern Nigeria. The manuscript is based on cooperative investigations undertaken by the two authors at various times since 1983. During 1981-85, the first author undertook initial fieldwork among the Emai. It was supported by the University of Benin, Benin City, Nigeria through its Department of Linguistics and African Languages chaired by Professor R.N. Agheyisi. The second author was a student in that program and a native speaker of Emai. Over the ensuing years of inquiry, his linguistic intuitions have served to filter information obtained from other members of the Emai clan. He completed doctoral studies in linguistics at the University of Ibadan, Nigeria and since 2002 has served as professor of linguistics.

Data collection leading to this grammar was sanctioned by the late Chief J.A. Ogedegbe II, Traditional Ruler of the Emai clan. It was undertaken with assistance from the Ministry of Education in Owan Local Government Area. Mr. G.U. Otoikhian enlisted the cooperation of clan members, particularly storytellers and those interested in preserving the vernacular character of Emai oral tradition. Mr. Philip. O. Egbokhare, now deceased, assisted in arranging fieldwork sites and eagerly shared his knowledge of Emai. At various times, transportation to fieldwork sites and other material support was provided by Ann Haring-Pedrocchi, formerly of the University of Benin, and Renato Pedrocchi. Others too numerous to mention assisted in arranging fieldwork or assembling data.

Formulation of this grammar benefited from collaboration made possible by the generous assistance of several institutions. Summer research fellowships from Southern Illinois University Edwardsville, U.S.A. assisted the first author, while sabbatical leaves from the Department of Linguistics and African Languages at the University of Ibadan, Nigeria, and an Alexander von Humboldt Fellowship for study leave at the Institut für Afrikanistik und Äthiopistik at Universität Hamburg, Germany, assisted the second author. Finally, linguistic material incorporated in this grammar derives from support provided by Southern Illinois University Edwardsville through its Research Scholar Award, Hoppe Award and Going Professorship, the National Science Foundation (BNS-#9011338 and SBR-#9409552) and the United States Department of State through a College and University Affiliations Program grant (ASJY 1333) to Southern Illinois University Edwardsville and the University of Ibadan. We thank each of these institutions for their sustained support, without ascribing to them any responsibility for our conclusions.

We also wish to thank Bernard Comrie for his constructive editorial practices and steadfastness in the preparation of this manuscript. His insightful comments

and concern for descriptive accuracy improved the document immeasurably, although of course we take full responsibility for the ensuing pages.

Cultural and Linguistic Background

Emai is mother tongue for approximately 25,000–35,000 members of the Emai clan in south central Nigeria. It is spoken in ten villages across roughly 250 square kilometers on the plateau between the Edion and Owan rivers of present-day Edo State. Located at longitude 6° east of Greenwich Meridian and latitude 7° north of the equator, this area consists primarily of tree savanna, allowing for bush agriculture involving the harvesting of yam, maize, cassava, and beans among other crops (Bradbury 1957). Serving as the principal political village of the Emai is Afuze. Other villages in the clan are Eteye, Evbiame-New-Site, Evbiame-Old-Site, Ogute, Ojavun-New-Site, Ojavun-Old-Site, Okpokhunmi, Ovbionwu, and Uanhumi.

The Emai-speaking region is approximately 120 kilometers north of Benin City by road. It is connected in the south to Sabongida, the principal village of the related Ora clan, in the east to Uzebba, the primary village of the related Iuleha clan, and in the north to Auchi, the headquarters of the Edoid language Yekhee.

As for the Emai people, oral tradition makes clear the absence of hereditary chieftancy, a cultural feature frequent among Edoid peoples of its region. According to oral tradition (Ogbomo 1994), the ancestor of the Emai people is Ima. He is said to have fled from the ancient kingdom of Benin in about the 16th Century for committing murder. Ima and his wife, who also came from Benin, had a son Uzuani (Oyai-bi). Uzuani, in turn, had two wives, Odidi and Oron, whose sons founded the Emai speaking villages. Oral tradition varies at this point. According to one version, the four sons of Uzuani and his wives were Uwuno, Urule, Ivbiame, and Uanhumi, each of whom founded a village. Their sons, Uzuani's grandsons, founded the ten quarters into which the four villages became divided. According to another version, the village of Uanhumi is named after the son of one wife and the remaining villages are related to three sons of a second wife. The sons were Uule, Evbiame and Ovbionwu, whose names are retained, respectively, by the village sites of Ugbuule, Evbiame-Old-Site, and Ovbionwu, all of which are located off the main Ora-Auchi road and tend to be northernmost in their respective village groups. Each of these villages serves to link the remaining Emai-speaking area. Villages in the Uule group, from south to north, are: Ojavun-Old-Site, Okpokhumi, Eteye, Uanhumi, Afuze, Ojavun-New-Site. Ugbuule no longer exists as an occupied village. The Evbiame group from south to north consists of Evbiame-New-Site, Ogute, and Evbiame-Old-Site. The Ovbionwu group consists solely of Ovbionwu.

As a linguistic entity, Emai is completely surrounded by Edoid speech varieties. Its genetic classification as a distinct linguistic unit within Edoid is of recent origin. Elugbe (1973) classified it as part of a dialect cluster incorporating adjacent Ora

(30,000 speakers) and Iuleha (45,000 speakers); Elugbe (1989) locates this cluster more specifically within the North Central Branch of Edoid. While a word list supporting a cluster relationship among these dialects was not published, broader classificatory schemes have accepted the cluster interpretation, e.g. Hansford, Bendor-Samuel and Stanford (1976), Bendor-Samuel (1989) and Crozier and Blench (1992). Even Christian missionary activity in the area has never generated word lists, since neither the Bible nor a church hymnal is available in Emai.

Linguistic investigation of individual languages within the Edoid group is extremely limited. Other than Emai, no descriptive grammatical treatment, encompassing reference grammar, lexicon, and texts, has appeared for a single member of the 25 or more Edoid languages. Perhaps the most widely recognized comparative and historical analysis of the Edoid group is Elugbe's (1973) unpublished dissertation "A Comparative Edo Phonology" and its successor, *Comparative Edoid: Phonology and Lexicon* (Elugbe 1989). Also showing an exclusive interest in phonological matters is Elimelech's (1979) *A Tonal Grammar of Etsako*, which examines the role of pitch differences in words and short phrases among dialects of Yekhee spoken northeast of Emai country.

Among other Edoid studies, Thomas (1910) presents a highly schematic grammatical and lexical analysis of Bini, the numerically and culturally dominant language of the group since establishment of the influential Edo Kingdom in the 13th Century (Ryder 1969). Later studies of Bini amplify portions of this initial analysis. Melzian (1937) is a descriptive dictionary from which one can infer grammatical information at the level of parts of speech, while Amayo (1976) and Wescott (1962) offer accounts of Bini phonology and morphology. Several linguistic studies of Bini in pedagogical or descriptive formats have followed. Dunn's (1968) *An Introduction to Bini* is a training manual prepared for the American Peace Corps and as such couches most of its language material in a limited variety of dialogue formats for the prospective volunteer. An additional pedagogically oriented study is *An Edo-English Dictionary* by Agheyisi (1986), which is intended for use in primary and secondary schools. Stewart (1998) provides a theoretical interpretation of selected serial verb constructions in Bini.

Additional linguistic studies of Edoid speech varieties tend to be descriptive. Ejele (1986) provides an overview of selected syntactic issues in Esan. Kari (1997) provides a brief grammatical sketch of the Delta Edoid language Degema, which is followed by a more detailed and illustrated descriptive grammar (2004).

As for Emai, an initial lexicon and orthographic statement is offered by Schaefer (1987), while Egbokhare (1990) presents an initial phonological analysis. An extensive collection of Emai oral tradition texts is found in *Oral Tradition Narratives of the Emai People, Parts I and II* (Schaefer and Egbokhare 1999b). This is complemented more recently by *A Dictionary of Emai: An Edoid Language of Nigeria* (Schaefer and Egbokhare 2007). Additional information on Emai is available in a number of papers

by Schaefer and Egbokhare published in a variety of books and journal articles. Of particular relevance to the future of Emai as a spoken medium is Schaefer and Egbokhare (1999a), which found an intergenerational shift to English as home language in the mid-1990s without a commensurate negative evaluation of vernacular mother tongue.

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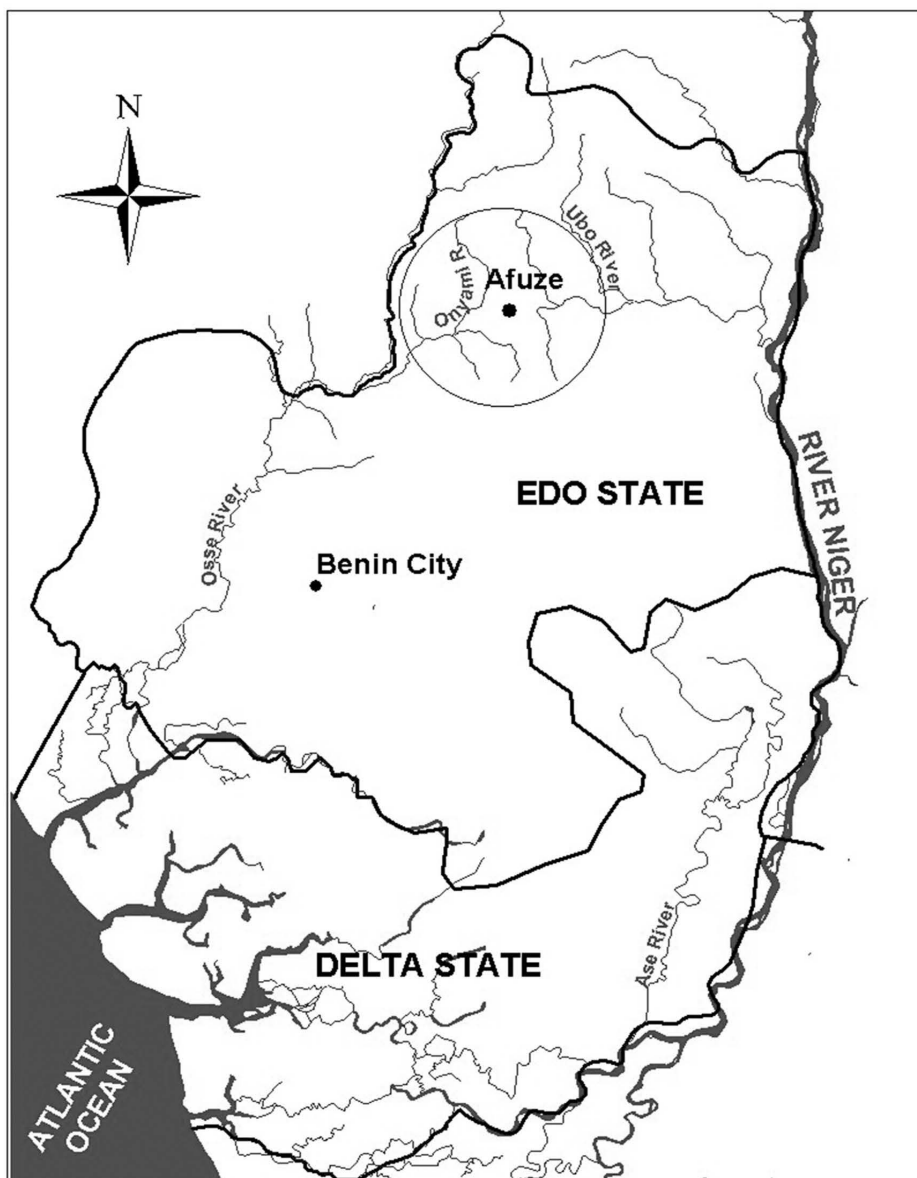


Fig. 1: Emai-speaking area around Afuze in Edo State, Nigeria.

List of Abbreviations

ABSI	Absolute Intensification
ADD	Additive
ANT	Anterior
ANTI	Anticipative
APP	Applicative
ASS	Associative
AUG	Augmentative
C	Continuous
CER	Certainitive
COL	Collective
COM	Comitative
CON	Conative
CONC	Concessive
COND	Conditional Comp
CORC	Correlative Conjunction
CS	Change of State
DED	Deductive
DIM	Diminutive
DIS	Disjunctive
DMA	Distal Manner
DS	Distributive
DUB	Dubitative
DUR	Durative
EG	Egressive
EVAL	Evaluative
F	Factative
H	Habitual
HOR	Hortative
HYP	Hypothetical
IG	Ingressive
IND	Indicative Complement
LOC	Locative
LOG	Logophoric
LS	Locative Source
MAN	Manner
NABI	Non-absolute
NEG	Perfect Negation
N	Negative Focus
PA	Past Absolute

PAD	Projected Adherence
PAP	Past Perfect
PANEG	Past Absolute Negation
PCT	Punctual
PERS	Perseverative
PF	Positive Focus
PMA	Proximal Manner
POEV	Post-evaluative
PR	Prohibitive
PRP	Present Perfect
PRED	Predictive
PREV	Pre-evaluative
PRONEG	Prospective Negation
R	Relator
RC	Recurrent
RD	Right-Dislocation
REC	Reciprocal
REFL	Reflexive
REP	Repetitive
RES	Resultative
SA	Sentence Affirmation
SC	Subject Concord
SN	Sentence Negation
SUB	Subsequent
SUBJ	Subjunctive
TP	Temporal Predeterminer
TERM	Terminative

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1 Orthography and grammatical overview

Emai has no written tradition except as introduced in an initial orthographic statement by Schaefer (1987) and utilized in the text collection of Schaefer and Egbokhare (1999) and a dictionary by Schaefer and Egbokhare (2007). To maintain some consistency in discussion of linguistic issues in Emai, we follow the practice established by these earlier works, although some changes regarding tone marking are noted below. In general, segment representations follow conventions for Nigerian languages set out in Williamson (1984) and adapted for Emai.

1.1 Vowel sounds and symbols

Emai vowels reflect contrasts along the dimensions of front, back, central, open, close, half-open and half-close positions as well as nasalization. These dimensions characterize 12 phonemic vowels: seven oral and five nasal. Emai vowel phonemes assume the orthographic shapes in Table 1. Nasal vowels are designated by the letter ‘n’ following the corresponding oral vowel. No contrast between nasal and oral vowels exists at the half-close positions ‘e’ and ‘o.’

Tab. 1: Place and manner of articulation for Emai vowels.

	front	central	back
close	i		u
nasal	in		un
half-close	e		o
half-open	<u>e</u>		<u>o</u>
nasal	<u>en</u>		<u>on</u>
open		a	
nasal		an	

The seven oral vowels are verb final in the following lexemes.

si ‘to pull’

ye ‘to move toward’

se ‘to be sufficient’

sa ‘to shoot’

khu ‘to chase’

to ‘to ache’

ho ‘to slaughter’

The five nasal vowels occur verb finally in the following.

<i>sin</i> ‘to deny’	<i>khun</i> ‘to bundle’
<u>sen</u> ‘to pierce’	<u>hon</u> ‘to hear’
<i>san</i> ‘to leap’	

The letter ‘n’ is not used to signal nasality when a vowel follows nasal consonants represented by ‘m,’ ‘n,’ ‘nw,’ or ‘ny.’ Double marking of nasality is thus avoided.

<i>ma</i> ‘to mold’	<u>ne</u> ‘to defecate’
<i>nwu</i> ‘to take hold of’	<i>nye</i> ‘to cook’

Sequences of identical and non-identical vowels occur within lexical items. Identical oral vowels are juxtaposed orthographically as double letters.

ii <i>ósìì</i> ‘stew’	uu <i>yúú</i> ‘thick’
ee <i>yee</i> ‘to speed, rush’	oo <i>too</i> ‘to burn’
<u>ee</u> <i>hee</i> ‘to praise’	<u>oo</u> <i>hoo</i> ‘to wash clothes’
aa <i>maa</i> ‘to fold cloth’	

Identical nasal vowel sequences exist but not at half-close positions (**een*, **oon*).

iin <i>iin</i> ‘to tickle’	uun <i>vuun</i> ‘to uproot’
<u>een</u> <i>heen</i> ‘to climb’	<u>oon</u> <i>oon</i> ‘to pour’
aan <i>taan</i> ‘to open’	

Although identical vowel sequences might appear to be a single long vowel, rather than a two vowel sequence, morphophonemic patterns reveal identical vowel sequences alternating with non-identical sequences. Thus Emai has no long vowels.

<u>óókhò</u> ‘fowl’	<u>éékhò</u> ‘fowls’
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Non-identical vowel sequences within lexical items exhibit both oral and nasal character. Sequences of oral vowels frequently show an open member in second position.

ia <u>òp</u> ìà ‘cutlass’	ua <i>hua</i> ‘to carry’
ea <i>éè</i> à ‘person’	oa <i>óà</i> ‘house’
<u>ea</u> <i>kea</i> ‘near’	<u>oa</u> <u>óà</u> ìn ‘that one’

Sequences of nasal vowels employ ‘n’ after the final vowel.

ein <i>êin</i> ‘tortoise’	uin <i>úìn</i> ‘cold’
ein <i>ìgèin</i> ‘person's name’	oin <i>óin</i> ‘dika nut’
ain <i>àin</i> ‘him/her’	oin <i>òinègbè</i> ‘grief’

1.2 Consonant sounds and symbols

Emai consonant phonemes reflect eight places and five manners of articulation. The alignment of place and manner with voicing leads to 28 consonant phonemes. Orthographically represented by single- and double-letter symbols, consonant phonemes are illustrated in Table 2.

Tab. 2: Place and manner of articulation for Emai consonants. Within each vertical cell, voiceless consonants precede voiced consonants.

	bi-labial	labio-dental	alveolar	alveo-palatal	palatal	velar	labio-velar	glottal
stop	p, b		t, d			k, g	kp, gb	
fricative		f, v	s, z		sh, y	kh, gh		
affricate				ch, j				
approximant	vb		r		y		w	h
nasal	m		n		ny		nw	
lateral			l					

Stop sounds occur at four places of articulation: bilabial, alveolar, velar, and labiovelar. Fricatives articulate at four places: labiodental, alveolar, palatal and velar. There are affricate sounds at only alveopalatal. Approximants appear at five places of articulation: bilabial, alveolar, palatal, labiovelar and glottal. They show allophonic relationships with nasal consonants at four places: bilabial, alveolar, palatal and labiovelar. Alternation in three instances is conditioned by a nasal vowel (‘vb’~‘m,’ ‘w’~‘nw,’ and ‘y’~‘ny’) and in one instance by syntactic positioning and/or syntactic category (‘l’~‘n’, Chapter 9, 9.1). The two approximants ‘h’ and ‘r’ fail to alternate with nasal consonants.

In the following lexemes, stop sounds occur word initially.

<i>pee</i> ‘to fill to the brim’	<i>ka</i> ‘to dry’
<i>bee</i> ‘to start’	<i>ga</i> ‘to worship’
<i>to</i> ‘to burn’	<i>kpa</i> ‘to vomit’
<i>do</i> ‘to engage’	<i>gba</i> ‘to be big’

Word initial fricatives appear in these forms.

<i>fan</i> ‘to pluck’	<i>shasha</i> ‘to scrape’
<i>van</i> ‘to growl, bark’	<i>yaya</i> ‘to scavenge’
<i>se</i> ‘to be enough’	<i>khaa</i> ‘to carve’
<i>ze</i> ‘to germinate’	<i>ghaa</i> ‘to dry at a fire’

Affricate sounds appear word initially in the following.

<i>che</i> ‘again’	<i>je</i> ‘to laugh’
--------------------	----------------------

Word initial approximants contrast in these verbs.

<i>vbee</i> ‘to lower’	<i>laa</i> ‘to be bitter’
<i>mee</i> ‘to swagger’	<i>raa</i> ‘to rob’
<i>wee</i> ‘to spread’	<i>naa</i> ‘to force’
<i>nwe</i> ‘to ripen’	<i>nyaa</i> ‘to pamper’
<i>haa</i> ‘to be quiet’	<i>yaa</i> ‘to keep’

1.3 Tone and orthography

Emai is a terraced-level tone language showing high, low, and down-stepped high. For some word classes, inherent tone values distinguish words that in all other aspects of sound shape are identical. Nouns, adjectives and postverbal adverbs in citation form express lexical meanings through tonal contrasts. Citation forms of verbs, auxiliaries, and adverbial preverbs generally exhibit no tonal contrast, as with other Edoid languages (Elugbe 1989). Emai verbs, auxiliaries, and preverbs are assigned tone values reflecting grammatical properties of their constructions. In large part these values correlate with the categories indicative and subjunctive mood. More specifically, major patterns of tonal contrast derive from aspect (perfect, imperfect and prospective), modality (deontic and epistemic) and sentence complement type.

For Emai words composed of identical segments, predominantly nouns and adverbs, tone values play a distinguishing role. Emai's high (H), down-stepped high (!H) and low (L) tones combine in various ways within otherwise identical lexical nouns, adjectives and postverbal adverbs. In orthographic practice, high tone is

represented by an acute accent, low tone by a grave accent, and down-stepped high by an acute accent immediately followed by a single quote. The last of these tones is one pitch step lower than an immediately preceding high tone.

<i>òdòn</i>	<i>òdón</i>	<i>òkpá</i>	<i>òkpà</i>
'husband'	'loan interest'	'one'	'rooster'
<i>ékpà</i>	<i>èkpà</i>	<i>óvbèè</i>	<i>òvbéé'</i>
'vomit'	'fist'	'monkey'	'trickery'

Various combinations of tone occur within lexical items. An initial high tone vowel immediately followed by a consonant can be followed by a low tone, a high tone, or a down-stepped high.

<i>áwà</i> [H L]	<i>ónòì</i> [H H L]	<i>éghó'</i> [H !H]
'dog'	'another'	'money'

A word initial low tone vowel followed by a consonant is followed by either a low or high tone vowel.

<i>ìwè</i> [L L]	<i>ùgín</i> [L H]
'house'	'basket'

Downdrift (↓) affects non-initial high tone, lowering the latter's pitch when preceded by a low tone.

<i>ódùdú</i> [H L ↓H]	<i>íkèkè</i> [H L ↓H]
'shadow'	'bicycle'

1.4 Syllable structure, pronunciation and orthography

Major word classes tend to reflect contrasting syllable structures, although no absolute relation exists between category type and syllable character. All parts of speech are vowel final. Nouns are uniformly vowel-initial. Verbs tend to be consonant initial, with a few being vowel initial. Adjectives are usually consonant initial, whereas adverbs are either vowel- or consonant initial. Of the minor categories, some are predominantly consonant initial with a few vowel initial forms (preverbs, postverbal particles, complements). Other minor categories are vowel initial (determiners) with a few consonant initial forms (intensifiers). The preposition class is consonant initial. Concord expression is vowel only with fixed tone patterns.

In pronunciation, the syllabic character of word classes in phrasal or clausal constructions is normally adjusted by one or another phonological process: vowel

elision or glide formation. These processes lead to a divergence between the orthographic practice of employing citation forms and normal-rate pronunciation rendered phonetically. Regardless of phonetic transformation through glide formation or vowel elision, orthographic practice retains vowel segments in all word classes.

Glide formation affects the close vowels [i] and [u] when they precede non-close vowels within a lexical or syntactic constituent. These vowels alternate with the glides [y] and [w], respectively, as illustrated by the verbs *fī* and *ku* when followed by a noun phrase.

<i>fī</i>	<i>ópìà</i>	[f ^y ópìà]	<i>kú</i>	<i>àmè</i>	[kwàmè]
throw	cutlass		throw	water	

Under specific grammatical conditions, the vowel elision process omits a morpheme-final vowel. Elision differentially affects word classes, revealing complex interactions between phonological and syntactic parameters. Vowel elision application is restricted across major syntactic constituents like subject/predicate and predicate/adverb. In normal pronunciation of the sentence below, neither the final vowel of the subject noun *ókpósó* ‘woman’ nor the initial vowel of the verb *éhén* ‘prepare’ elide. Similarly, neither the final vowel of the direct object *ákhé* ‘pot’ nor the initial vowel of the adverb *òdè* ‘yesterday’ elide. However, the final vowel of the predeterminer *ólì* ‘the’ elides, as does the final vowel of the verb *éhén*.

<i>ólì</i>	<i>ókpósó</i>	<i>éhén'</i>	<i>ákhé</i>	<i>òdè.</i>	[ólìkpósó éhán'khé òdè]
the	woman	PAP.prepare	pot	yesterday	
‘The woman prepared a pot yesterday.’					

Vowels juxtaposed due to discourse repositioning of constituents are not elided. The final vowel of noun *áwà* ‘dog,’ when in clause-initial topic position, is not omitted relative to the initial vowel of following *éì* ‘the.’

<i>ólì</i>	<i>áwà,</i>	<i>éì</i>	<i>ímòhè</i>	<i>khú</i>	<i>éì.</i>	[óláwà élimòhèkhú éì]
the	dog	the	men	PRP.chase	it	
‘As for the dog, the men chased it.’						

Vowel elision in pronunciation reflects three phonetic patterns that become transparent most easily with transitive verb phrases. When a lexical direct object immediately follows a consonant initial verb with a single vowel, the final vowel of the verb is omitted, while the initial vowel of the direct object is retained. Orthographic representation shows both vowels nonetheless, as shown by comparing orthographic representations to square bracketed broad phonetic representations.

gbé áwà [gbáwà]
kill dog

dé óràn [dóràn]
buy wood

Verbs defined by a single nasal vowel reflect a second pattern. In pronunciation, the vowel itself is omitted but its nasal quality is retained and assumed by the initial vowel of the ensuing noun phrase. Again, phonetic and orthographic representations diverge.

sén áwà [sánwà]
stab dog

tón ímòhè [tínmòhè]
bury men

Still a third phonetic pattern is exhibited by verbs with a sequence of identical vowels (*koo* ‘read’). In pronunciation, the sequence shortens when a lexical direct object follows; it does not elide entirely. Comparison to a single vowel verb (*ko* ‘plait’) illustrates the contrast. Orthographic presentation of each verb is consistent with its citation form.

kóó ébè [kóébé]
read book

kó émà [kémà]
plant yam

Lastly, verb final vowels do not elide when followed by a pronominal direct object.

sá ôì [sáôì]
fetch it

gbé ôì [gbéôì]
kill it

Orthographic and broad phonetic representations exhibit varying degrees of congruency in the case of word formation. Since both vowel elision and glide formation are evident in the pronunciation of compounds and nominalizations, identification of morpheme elements is often obscured by vowel omission. To maintain some level of morpheme transparency in orthographic practice, elided vowels in compounds and nominalizations are accounted for in two ways.

Nominalized word forms in pronunciation exhibit no major incongruency relative to orthographic practice. Nouns derived from a verb by prefix addition, show no vowel elision.

àdó ‘thought’
èkpà ‘vomit’

oo ‘to think’
kpa ‘to vomit’

Compound forms, however, pose potential problems for orthographic practice. Vowels at word boundaries within compounds are subject to elision. When the verb in a verb-noun compound is transitive (e.g. *zè* ‘scrape,’ *da* ‘drink’), its single vowel

is elided. Comparison of forms for ‘barber’ and ‘drunkard’ reveal how only the sound shapes of prefix and noun, but not verb, are consistent across broad phonetic form and orthographic practice.

<u>òzètò</u>	[ò- <u>zè</u> -étò]	<u>òdènyò</u>	[ò- <u>da</u> -ényò]
‘barber’	prefix-scrape-hair	‘drunkard’	prefix-drink-wine

Elision also affects nasal vowels in verb-noun compounds but not in the manner evident in syntactic constructions. Whereas only the vowel of a verb is elided in syntactic phrases, both the vowel and its nasal quality (e.g. kɛn ‘divide’ and kɛn ‘be next to’) tend to be effaced in compounds.

<u>ákèvâ</u>	[á- <u>kɛn</u> -èvâ]	<u>ókpòkhùnmi</u>	[ó- <u>kɛn</u> -òkhùnmi]
‘twin kernels’	prefix-divide-two	‘upward’	prefix-be.next.to-top

In compounds, non-nasal vowels elide and are not rendered orthographically. In noun-noun compounds, orthographic practice and broad phonetic rendering align, except for the final vowel of the compound’s left constituent.

<u>ákòísí’</u>	[àkò òísí’]	<u>ákùhài</u>	[àkò ùhài]
‘holster’	sheath gun	‘quiver’	sheath arrow

Elision is also evident in word formation involving reduplication. Forms referring to relationships of time and space involve reduplication of an entire root (e.g. ésè ‘center of’ and édè ‘day’), with accompanying elision of the initial constituent’s morpheme-final vowel. Orthographic practice shows the vowel as elided.

<u>ésèsé</u>	[ésè-ésè]	<u>èdèdé</u>	[édè-édè]
‘direct center of’		‘moments ago’	
<u>ésè</u>		<u>édè</u>	
‘center of’		‘day’	

Pronunciation of phrasal compounds also reflects glide formation. The final close vowels of augmentative údu and diminutive úvbì, when preceding a vowel, assume a glide shape. Orthographic practice retains the corresponding vowel.

<u>údu</u>	<u>émà</u>	[údwémà]	<u>úvbì</u>	<u>àfàn</u>	[úvbyàfàn]
AUG	yam		DIM	harp	
‘big yam’			‘small harp’		

1.5 Basic sentence types and pitch register

Basic grammatical relations in Emai show the order Subject-Verb-Object (SVO). Declarative statements with transitive verbs reveal a subject noun phrase (*ólí ómòhè* ‘the man’) followed by a verb (*é* ‘eat’) and its direct object (*ólí émàè* ‘the food’).

- (1) *ólí ómòhè é ólí émàè.*
 the man PRP.eat the food
 ‘The man has eaten the food.’

Sentence types contrast with respect to voice-register and tonal pattern. Imperative constructions utilize a normal voice register.

- (2) *è ólí émàè.*
 eat the food
 ‘Eat the food.’

Declaratives rely on a normal voice register as well.

- (3) *ólí ómòhè é ólí émàè.*
 the man PRP.eat the food
 ‘The man has eaten the food.’

However, polar interrogatives (*yes/no* questions), while manifesting the same word order as declaratives and essentially the same tonal patterns, employ a higher pitch register.

- (4) *ólí ómòhè é ólí émàè?*
 the man PRP.eat the food
 ‘Has the man eaten the food?’

Rhetorical questions are also expressed through this higher register, adding a final extra-high tone (e.g. *é*) to a lexical low tone (*émàè*).

- (5) *ólí ómòhè ò ó è ólí émàèé?*
 the man SC C eat the food
 ‘The man is eating the food, is he?’

1.6 Basic syntactic constraints on tone distribution

Tonal configurations in Emai reveal the interaction of lexical tone with syntactic tone values derived from grammatical categories and their placement. Traditional phrase heads such as nouns and verbs exhibit tonal variability controlled by presence or absence of modifying constituents or of adjacent phrases. For purposes of illustration, we rely on noun phrases and monotransitive or ditransitive verb phrases to convey an overview of the nature of this variability, although a full account of principles underlying sentence, clause and phrase tone remains to be undertaken.

1.6.1 Noun tone and modifiers

Emai exhibits two primary tonal processes dependent on syntactic information: High Tone Spread (HTS) and High Tone Lowering (HTL). High Tone spread shifts a low tone or a sequence of low tones within a phrasal constituent (XP) to high. The raised high tone spreads from right to left within a phrase up to a phrase boundary or a high tone.

$$L^n]_{XP} ==> H^n]_{XP}$$

High Tone Lowering, acting on a sequence of high tones at the left edge of a phrase, lowers the leftmost high. A high tone sequence is required, since a high followed by low fails to trigger HTL. Conditioning HTL is an immediately preceding phrase culminating in a final low tone whose vowel segment has elided.

$$L]_{XP} [H H^n]_{XP} ==> L]_{XP} [L H^n]_{XP}$$

Each of these tonal processes is realized in patterns characterizing noun phrases and basic clauses. Concerning noun phrases, tone of the lexical head, position of the modifier (predeterminer ~ postdeterminer), and type of modifier (cardinal numeral ~ non-numeral) interact to govern tonal distribution. Within a noun phrase, modifier position differentially affects head tone. Predeterminers induce no tonal change in the head noun, irrespective of the latter's tonal character. Definite predeterminer *ólì* 'the,' for instance, imposes no change in the tone values of its head noun: H L *émà* 'yam' remains H L (*ólì émà*); L L L *ùbèlè* 'gourd' or *òkpòsò* 'woman' remains L L L (*ólì ùbèlè*, *ólì òkpòsò*); H L L *ómòhè* 'man' remains H L L (*ólì ómòhè*); L L H *àkàsán* 'custard' remains L L H (*ólì àkàsán*); L H L *ìtébù* 'table' remains L H L (*ólì ìtébù*) and H !H *éghó* 'money' remains H !H (*ólì éghó*).

Postdeterminer type differentially constrains head noun tone. Cardinal numeral modifiers such as *èvá* ‘two’ induce no change in tone of a preceding head noun.

<i>émà èvá</i>	<i>ímòhè èvá</i>
yam two	men two
‘two yams’	‘two men’
<i>ùbèlè èvá</i>	<i>ìtébù èvá</i>
gourd two	table two
‘two gourds’	‘two tables’

Noncardinal numeral postdeterminers induce HTS on a noun phrase head. So long as a lexical low tone exists at its right edge (*ùbèlè*, *òkpòsò*, *émà*, *ómòhè*), a noun will exhibit HTS when followed by postdeterminers such as kindred *èlìyó*, demonstrative *àìn*, quantifier *ósò* or adjectivals marked by Relator *lí*.

<i>émá èlìyó</i>	<i>úbélé èlìyó</i>
yam that.kind	gourd that.kind
‘that kind of yam’	‘that kind of gourd’
<i>ómóhé lí óbín’</i>	<i>ókpósó lí óbín’</i>
man R dark	woman R dark
‘a dark man’	‘a dark woman’
<i>émá ósò</i>	<i>úbélé ósò</i>
yam some	gourd some
‘some yam’	‘some gourd’
<i>ólí ómóhé àìn</i>	<i>ólí ókpósó àìn</i>
the man that	the woman that
‘that man’	‘that woman’

Head nouns with a high tone in non-initial position restrict HTS. Position of the lexical high limits tone spread absolutely (as in the final high of *àkàsán*) or partially (as in the penultimate high of *ìtébù*).

<i>àkàsán èlìyó</i>	<i>ìtébù èlìyó</i>
custard that.kind	table that.kind
‘custard of that kind’	‘table of that kind’
<i>ólì àkàsán àìn</i>	<i>ólì ìtébù àìn</i>
the custard that	the table that
‘that custard’	‘that table’

Noun phrases serving as complements of grammatical governors reveal the determining character of governor tone. Noun phrase complements characterized by a

high tone sequence at their left edge are subject to HTL when preceded by a governor with an inherent final low tone whose vowel elides. The Associative adjunct *ísì* or the Correlative Conjunct *khì* induce HTL in a following noun phrase complement with the required tonal condition. Lexical *òkpòsò* and *ómòhè* thus manifest variable tone. When unmodified and serving as complement of Associative *ísì* or Correlative Conjunct *khì*, these nouns show a tonal pattern consistent with their lexical shape.

<i>ísì òkpòsò</i>	<i>ísì ómòhè</i>
ASS woman	ASS man
'woman's'	'man's'
<i>khì ómòhè khì òkpòsò</i>	
CORC man CORC woman	
'both a man and a woman'	

When modified by a postdeterminer (Relator *lí* marking attributive phrases), *òkpòsò* and *ómòhè* will show HTL at their left edge. In Associative *ísì* or Correlative Conjunct *khì* phrases, the initial high of postdetermined *ómòhè* and *òkpòsò* will absorb the stranded low tone arising when the final vowel of *ísì* and *khì* elides (*òmòhè*, *òkpòsò*). HTL thus requires a left edge sequence of high tones.

<i>ísì òkpòsò lí óbín'</i>	<i>ísì ómòhè lí óbín'</i>
ASS woman R dark	ASS man R dark
'the dark woman's'	'the dark man's'
<i>khì ómòhè lí óbín' khì òkpòsò lí óbín'</i>	
CORC man R dark CORC woman R dark	
'both the dark man and the dark woman'	

Grammatical governors not manifesting an inherent final low, e.g. locative preposition *vbì*, induce neither HTL nor HTS in their complement phrase.

<i>vbì ìwè</i>	<i>vbì íwé éìyó</i>
LOC house	LOC house that.kind
'at the house'	'at the house of that kind'

Noun phrases that function as complements of transitive verbs exhibit tonal variability consistent with the governing verb's tonal character. When immediately preceded by a verb with low tone whose vowel elides, noun phrase complements exhibiting the required high sequence at left edge (*émá èìyó* and *ùbélé èìyó*) will absorb the stranded low tone and display HTL (*émá èìyó* and *ùbélé èìyó*).

- (6) a. *ólí óvbékhán ọ̀ ọ̀ nwù é má éliyọ́.*
 the youth SC H take yam that.kind
 ‘The youth carries yam of that kind.’
- b. *ólí óvbékhán ọ̀ ọ̀ nwù ùbèlé éliyọ́.*
 the youth SC H take gourd that.kind
 ‘The youth carries a gourd of that kind.’

Absent either a lexical or grammatically induced high sequence, noun phrase complements (*émà*, *ùbèlè*) following a transitive verb with low tone will show no HTL.

- (7) a. *ólí óvbékhán ọ̀ ọ̀ nwù é má.*
 the youth SC H take yam
 ‘The youth carries yam.’
- b. *ólí óvbékhán ọ̀ ọ̀ nwù ùbèlè.*
 the youth SC H take gourd
 ‘The youth carries a gourd.’

Noun phrase complements in complex predicates reveal similar tonal variability. Postverbal Applicative (APP) *li/ni* marks indirect objects. Absent a high sequence at its left edge (*àkàsán* or *ómòhè*), a noun phrase preceded by low tone verb (*nwù*) or low tone Applicative *lì* will fail to exhibit HTL.

- (8) *ólí óvbèkhàn í ì nwù àkàsán lÌ ómòhè.*
 the youth SC NEG take custard APP man
 ‘The youth did not give custard to a man.’

Noun phrase complements displaying a high sequence at their left edge (*émá éliyọ́* and *ómóhé lí óbín'*) and preceded by a low tone verb (*nwù*) or a low tone Applicative *lì* absorb the low tone and evince HTL (*émá éliyọ́* and *ómóhé lí óbín'*).

- (9) a. *òjè í ì nwù é má éliyọ́ lÌ ómóhé lí óbín'.*
 Oje SC NEG take yam that.kind APP man R dark
 ‘Oje did not give yam of that kind to the dark man.’
- b. *ójé ọ̀ ọ̀ nwù é má éliyọ́ lÌ ómóhé lí óbín'.*
 Oje SC H take yam that.kind APP man R dark
 ‘Oje gives yam of that kind to the dark man.’
- c. *òjè ọ̀ ọ̀ nwù é má éliyọ́ lÌ ómóhé lí óbín'.*
 Oje SC C take yam that.kind APP man R dark
 ‘Oje is giving yam of that kind to the dark man.’

Regardless of their lexical tone or grammatically induced tone, noun phrase complements preceded by a high tone verb (*nwú*) never reveal HTL.

- (10) a. *ólí óvbèkhàn nwú émà / é má éliyó.*
 the youth PRP.take yam yam that.kind
 'The youth carried yam / yam of that kind.'
- b. *ólí óvbèkhàn nwú ùbèlè / úbélé éliyó.*
 the youth PRP.take gourd gourd that.kind
 'The youth carried a gourd / gourd of that kind.'
- c. *ólí óvbèkhàn nwú é má éliyó lí ómóhé lí óbín'.*
 the youth PRP.take yam that.kind APP man R dark
 'The youth gave yam of that kind to the dark man.'

Lexical nouns exhibit tonal variability due not only to modifying elements and preceding governors but also to following constituent type. Noun phrases with a right edge low tone (*émà*, *ùbèlè*, *ìtébù* and *òkpòsò*) and followed by an adverbial adjunct (e.g. *òdè* 'yesterday') evince HTS. Assuming no tonal obstruction, high tone spreads to noun phrase left edge.

- (11) a. *ólí óvbékhán nwú' émà.*
 the youth PAP.take yam
 'The youth carried yam.'
- b. *ólí óvbékhán nwú' é má òdè.*
 the youth PAP.take yam yesterday
 'The youth carried yam yesterday.'
- c. *ólí óvbékhán nwú' ùbèlè.*
 the youth PAP.take gourd
 'The youth carried a gourd.'
- d. *ólí óvbékhán nwú' úbélé òdè.*
 the youth PAP.take gourd yesterday
 'The youth carried a gourd yesterday.'
- e. *ólí óvbékhán nwú' é má lí òkpòsò.*
 the youth PAP.take yam APP woman
 'The youth gave yam to the woman.'
- f. *ólí óvbékhán nwú' é má lí ókpósó òdè.*
 the youth PAP.take yam APP woman yesterday
 'The youth gave yam to the woman.'

As with other cases of HTS, high tone position within a head noun (*àkàsán* and *ìtébù*) constrains spread. A low tone sequence at the right edge manifests HTS until a high tone is reached.

- (12) a. *ólí óvbèkhàn í ì nwù itébù.*
 the youth SC NEG take table
 ‘The youth did not carry a table.’
- b. *ólí óvbèkhàn í ì nwù itébú òdè.*
 the youth SC NEG take table yesterday
 ‘The youth did not carry a table yesterday.’
- c. *ólí óvbèkhàn í ì nwù àkàsán.*
 the youth SC NEG take custard
 ‘The youth did not carry custard.’
- d. *ólí óvbèkhàn í ì nwù àkàsán òdè.*
 the youth SC NEG take custard yesterday
 ‘The youth did not carry custard yesterday.’

Noun phrases serving as complements of transitive verbs also reveal the interaction of HTL and HTS. Although these processes function independently, acting solely on lexical tone values, they interact in a unidirectional fashion. HTS provides the high sequence required for HTL. Compare in this regard the tonal contrast of clause final direct object complements (*émà* and *ùbèlè*) compared to direct objects preceding an adverbial and following a low tone verb (*émá sàá*, *ùbélé òdè*). HTS thus feeds application of HTL. The converse never occurs; HTL never feeds HTS.

- (13) a. *ólí óvbékhán ó ò nwù émà.*
 the youth SC H take yam
 ‘The youth carries yam.’
- b. *ólí óvbékhán ó ò nwù émá sàá.*
 the youth SC H take yam always
 ‘The youth always carries yam.’
- c. *ólí óvbèkhàn í ì nwù ùbèlè.*
 the youth SC NEG take gourd
 ‘The youth did not carry a gourd.’
- d. *ólí óvbèkhàn í ì nwù ùbélé òdè.*
 the youth SC NEG take gourd yesterday
 ‘The youth did not carry a gourd yesterday.’

1.6.2 Verb tone and aspect

Tonal contrasts realized on head elements within verb phrases of a monotransitive clause correlate in large measure with contrasts defined by morphosyntactic categories. For purposes of presentation, we subsume auxiliary (modality and relative tense) and adverbial preverb constituents under verb phrase.

Tone patterns affecting verbs and their phrases reflect the interaction of aspect with other categories. We provide a brief overview of monotransitive clauses incorporating monosyllabic auxiliary, preverb and verb forms. Exceptions to these tonal patterns occur due to factors such as multi-syllabic character, inherent low or high tone, and verb transitivity.

Monosyllabic transitive verbs show two broad tone patterns that correlate with grammatical marking of aspect and polarity. In perfect and imperfect aspect as well as negation, fixed tone affects the verb. Nonfixed tone characterizes the verb in prospective aspect.

In imperfect aspect with a lexical noun subject, transitive verb phrases show an obligatory subject concord (SC) morpheme followed by an aspect morpheme (Continuous <C> or Habitual <H>). Under these conditions, verb tone is low.

- (14) a. *ólí ómòhè ò ó dà ényó élìyó.*
 the man SC C drink wine that.kind
 ‘The man is drinking wine of that kind.’
 b. *ólí ómòhé ó ò dà ényó élìyó.*
 the man SC H drink wine that.kind
 ‘The man drinks wine of that kind.’

For simple negation, a transitive verb is preceded by subject concord and negation (NEG) morphemes. Under this condition, verb tone is low as well.

- (15) *ólí ómòhè í ì dà ényó élìyó.*
 the man SC NEG drink wine that.kind
 ‘The man did not drink wine of that kind.’

Verb tone in the imperfect remains unaffected by auxiliary and preverb constituents interposed between aspect and the verb. When a preverb such as *ché*, for instance, follows subject concord and aspect or negation constituents and precedes the verb, tone is high on the preverb. However, verb tone remains fixed on low.

- (16) a. *ólí ómòhè ò ó ché dà ényó élìyó.*
 the man SC C REP drink wine that.kind
 ‘The man is drinking wine of that kind again.’
 b. *ólí ómòhè í ì ché dà ényó élìyó.*
 the man SC NEG REP drink wine that.kind
 ‘The man did not drink wine of that kind again.’

Verbs in imperfect aspect or perfect negation with multiple auxiliaries or preverbs behave similarly. Verb tone remains low, while multiple auxiliary or preverb (*che*, *gbo*) constituents show an alternating high down-stepped high tone pattern.

- (17) *ólí ómòhè í ì ché gbó' dà ényó éliyó.*
 the man SC NEG REP ADD drink wine that.kind
 'The man did not again drink wine of that kind too.'

Transitive verbs show a contrasting tonal pattern with perfect aspect. With a lexical noun subject in the perfect, no subject concord or aspect morpheme is segmentally realized. Verbs exhibit high tone, downstepped high (*dá'*), when preceded by the right edge high tone subject phrase of Past perfect (PAP), or basic high (*dá*), when preceded by the right edge low tone subject phrase of Present perfect (PRP).

- (18) a. *ólí ómóhé dá' ényó éliyó.*
 the man PAP.drink wine that.kind
 'The man drank wine of that kind.'
 b. *ólí ómòhè dá ényó éliyó.*
 the man PRP.drink wine that.kind
 'The man drank wine of that kind.'

When perfect aspect combines with auxiliary or preverb constituents, verb tone distinct from the imperfect occurs. Tone realization on auxiliary or preverb varies according to perfect aspect type. In the Past perfect, an initial monosyllabic auxiliary or preverb shows downstepped high tone (*ré'*, *gbó'*) following a right edge high tone subject phrase. Verb tone is high.

- (19) a. *ólí ómóhé ré' dá ényó éliyó.*
 the man PAP.CONC drink wine that.kind
 'The man supposedly drank wine of that kind.'
 b. *ólí ómóhé gbó' dá ényó éliyó.*
 the man PAP.ADD drink wine that.kind
 'The man drank wine of that kind too.'

In the Present perfect, an initial monosyllabic auxiliary or preverb shows a high low tone (i.e. H L, *gbòò*, *máà*) following a right edge low tone subject phrase. Verb tone remains high.

- (20) a. *ólí ómòhè gbòò dá ényó éliyó.*
 the man PRP.ADD drink wine that.kind
 'The man has drunk wine of that kind too.'

- b. *ólí ómòhè máà dá ényó éliyó.*
 the man PRP.CER drink wine that.kind
 ‘The man must have drunk wine of that kind.’

Verb phrases with multiple monosyllabic auxiliaries or preverbs show high low alternation between adjacent constituents. The initial constituent retains its high downstep or high low character according to subject phrase tone as Past or Present perfect. Verb tone remains high.

- (21) a. *ólí ómóhé ré' gbò dá ényó éliyó.*
 the man PAP.CONC ADD drink wine that.kind
 ‘The man supposedly drank wine of that kind too.’
 b. *éli ímòhè gbòò gbà dá ényó éliyó.*
 the men PRP.ADD COL drink wine that.kind
 ‘The men have drunk wine of that kind together too.’

Under prospective aspect, where there is no subject concord or high downstep, monotransitive verbs show a nonfixed tone pattern. Prospective aspect is conditioned by the inherently high tone morpheme *ló* at left edge of a verb phrase. *ló* is preceded by either a right edge high tone subject phrase in prospective Predictive or a right edge low tone subject phrase in prospective Anticipative. Prospective *ló* conditions low tone in the immediately following constituent, be it verb, auxiliary or preverb constituent. Verbs, regardless of whether preceded by prospective Predictive (PRED) *ló* with its right edge high tone subject phrase or Anticipative *ló* with its right edge low tone subject phrase, evince low tone.

- (22) a. *ólí ómóhé ló dà ólí ényò.*
 the man PRED drink the wine
 ‘The man will drink the wine.’
 b. *ólí ómòhè ló dà ólí ényò.*
 the man ANTI drink the wine
 ‘The man is about to drink the wine.’

However, verbs nonadjacent to prospective aspect *ló* do not show low tone. When *ló* precedes a monosyllabic auxiliary or preverb, tonal alternation occurs across the verb phrase. Preverb *ch* immediately following Predictive *ló*, for instance, shows low tone while the following verb shows high tone.

- (23) *ólí ómóhé ló ché dá vbí ólí ényò.*
 the man PRED REP drink LOC the wine
 ‘The man will again drink from the wine.’

Multiple auxiliaries or preverbs (*che gbo*) following Predictive *lô* lead to high low alternation in the verb phrase and a high tone verb. Thus verb tone in prospective aspect is nonfixed relative to perfect and imperfect aspect.

- (24) *ólí ómóhé lô ché gbó dá vbí ólí ényò.*
 the man PRED REP ADD drink LOC the wine
 ‘The man will again drink the wine too.’

Variable tone is evident in other constructions that also fail to assert the occurrence of an event. In imperative constructions, transitive verbs that occur clause initially (following a covert subject pronoun with high tone, singular *ú* or plural *vbá*) show low tone, as do verbs that follow Conative (CON) preverb *òó*.

- (25) a. *dà ólí ényò.*
 drink the wine
 ‘Drink the wine.’
 b. *ólí ómòhè ó ó’ dà ólí ényò.*
 the man SC CON drink the wine
 ‘The man went to drink the wine.’

However, transitive verbs that fail to occur initially in imperative constructions do not show low tone. When a monosyllabic preverb precedes the verb in an imperative construction, as with initial *che*, *che* receives low tone and the following verb exhibits high tone.

- (26) *ché dá vbí ólí ényò.*
 REP drink LOC the wine
 ‘Drink from the wine again.’

Multiple auxiliaries or preverbs (*che gbo*) in imperative constructions lead to low high alternation in the verb phrase and high tone on the verb.

- (27) *ché gbó dá ólí ényò.*
 REP ADD drink the wine
 ‘Drink the wine again too.’

Tonal alternation in the verb phrase also characterizes prohibitive constructions marked by a second person subject pronoun (singular *é* or plural *vbá*) and prohibitive morpheme *è*. Verbs that follow Prohibitive *è* (PR) exhibit high tone.

- (28) *é è dá ólí ényò.*
you PR drink the wine
'Don't drink the wine.'

When an auxiliary (*ke*) or preverb (*che*) intervenes between Prohibitive *è* and the verb, the nonverb auxiliary or preverb shows low tone. Verb tone remains high.

- (29) a. *é è kè dá ólí ényò.*
you PR ANT drink the wine
'Don't drink the wine anymore.'
- b. *é è ché dá vbí ólí ényò.*
you PR REP drink LOC the wine
'Don't drink from the wine again.'

2 Morphology

Word forms in Emai arise through morphological processes of inflection and derivation. Inflection expresses number. More than other parts of speech, nominal roots inflect for number, with prefixes attaching to noun roots, nominal pronouns and nominal modifier roots. Verb inflection and adverb inflection each involve a single affixal form.

Derivation impacts verbs, nouns and adverbs. Verb derivation is limited to affixation. Nominal derivation manifests three major structural types: nominalization, compounding and reduplication. Derivation lexicalizes nouns from nouns, nouns from verbs, nouns from verb-noun collocations, adverbs from verbs, and nouns from entire phrases. Within each of these types there are structural subtypes based on formal or functional criteria.

2.1 Inflectional morphology

Inflectional morphology affects nouns, pronouns, nominal modifiers, verbs and a subclass of adverbs. The phonological shape of inflection with nouns, pronouns and nominal modifiers overlaps to some extent, while verbs and adverbs exhibit distinct patterns.

2.1.1 Noun inflection

Emai evinces a remnant gender system of number bearing prefixes attached to nominal roots. Aspects of this system are also evident in prefixes attached to postnominal modifiers as well as pronouns expressing varying syntactic functions.

Number inflection determines the shape of some nominal and modifier stems. For a limited set of nominal roots belonging to human, animate and inanimate classes as well as body-part locus and abstractions, a number contrast is marked by vowel prefixes. There is a tendency for singular to be realized by back, mid vowels (*o-* and *ɔ-*) and plural by front, non-low vowels (*i-*, *e-*, *ɛ-*). It is only the mid low vowel (*a-*) that is used for singular and plural marking. Tone of the prefixal pair does not correlate with number; nor does it correlate with gender.

Overt number marking leading to noun class pairs and thus genders is not comprehensive in Emai. The number of nouns in each remnant gender is variable, some exhibiting only a single root. And in contrast to gender systems of the Bantu type found in other parts of Africa, no root participates in more than one noun class pair.

Tab. 3: Alignment of semantic classes human, animate, inanimate, body-part (b-p) locus and abstract relative to Emai vowel alternations expressing grammatical genders.

	human	animate	inanimate	b-p locus	abstract
a- ~ e-	-	+	+	-	-
a- ~ i-	+	+	+	-	-
<u>ɛ</u> - ~ i-	-	+	-	-	-
<u>ɛ</u> - ~ e-	-	+	-	-	-
o- ~ a-	-	-	-	+	-
o- ~ e-	+	+	+	+	-
o- ~ i-	+	+	-	-	-
<u>ɔ</u> - ~ e-	+	+	-	-	+
<u>ɔ</u> - ~ <u>ɛ</u> -	-	-	-	-	+
<u>ɔ</u> - ~ i-	+	-	-	-	-
u- ~ i-	-	+	+	+	+

Each Emai prefix pair (i.e. gender) correlates to some extent with semantic entities that fall within the classes human, animate, inanimate, abstract and/or locus. Based on their semantic profiles, few remnant genders reflect a single identifiable semantic class. Of Emai's 11 genders, all with mid back vowels designating singular (i.e. *o- ~ i-*, *ɔ- ~ e-*, *ɔ- ~ ɛ-*, *ɔ- ~ i-*) exhibit human nouns except *o- ~ a-*; it shows body-part items. The gender *u- ~ i-* is the most clearly non-human, since it reveals all classes except human. For the most part, common nouns for flora and fauna in these gender classes reflect a generic or basic level of abstraction. Several classes identifying fauna, moreover, identify entities reflective of a pastoral lifestyle (e.g. sheep, cow and goat), despite the fact that such a lifestyle is incompatible with the current ecological environment of the Emai. In addition, Emai gender classes tend not to include root forms that reflect an agricultural lifestyle (e.g. yam, maize and beans). An overall impression of Emai gender is available in Table 3, which pairs the 11 genders with each of five semantic classes.

Based on Table 3 and the list of noun forms in each gender, we identify the semantic character of Emai gender classes. The *a- ~ e-* gender incorporates animate and inanimate entities: *ákhè*, *ékhè* 'ceramic pot,' *áwà*, *éwà* 'dog.' The *a- ~ i-* gender subsumes human, animate and inanimate roots with recognizable social values. This gender applies to humans denoting lifecycle stages, birds at both the unique beginner and mid taxonomic levels and an inanimate stem involving a complex word form whose derivational history is no longer transparent: *ágèlè*, *ígèlè* 'pubescent boy', *àlèkè*, *ìlèkè* 'pubescent female,' *áfánmì*, *ífánmì* 'bird,' *ávbé'ì*, *ívbé'ì* 'village weaver bird,' *ágádágòdò*, *ìgádágòdò* 'padlock.'

Two genders are each limited to a single root denoting a domesticated animal type. In the *ɛ- ~ i-* gender there is *émɛ́lá, ímɛ́lá* ‘cow’. And the *ɛ- ~ e-* gender has one root: *éwè, éwè* ‘goat.’

Body part extremities are identified by the *o- ~ a-* gender: *óbò, ábò* ‘hand, fore-leg,’ *òè, àwè* ‘foot, hind leg.’ The *o- ~ e-* gender includes human, animate, inanimate and locus noun roots. It has roots for mid level rodent, unique beginner and socially recognized humans as well as roots for inanimates, tree and calabash bowl, as well as an animal body-part extremity: *ófè, éfè* ‘rodent, rat,’ *ótù, étù* ‘person, people,’ *òìbó, èìbó* ‘whiteman,’ *óràn, éràn* ‘tree, wood, stick,’ *òkpàn, èkpàn* ‘calabash bowl,’ *òhà, éhà* ‘hoof, claw.’ Limited to roots denoting animate nouns and socially recognized humans is the *o- ~ i-* gender. It includes root forms for animals that are wild (bush) or domesticated, for the human female, offspring and blood relative, and for social roles antagonistic to societal welfare or reflective of traditional Emai occupations: *òvbèè, ívbèè* ‘monkey,’ *òghòóghò, íghòóghò* ‘female sheep,’ *òkpòsò, ìkpòsò* ‘woman, female,’ *ómìòò, ìmìòò* ‘blood relative,’ *òrúán, ìrúán* ‘in-law,’ *òghìàn, íghìàn* ‘enemy,’ *òhùà, ìhùà* ‘hunter.’

The *o- ~ e-* gender prefixes attach primarily to human root forms, marriage roles, socially defined positions at the fringe of human society, animate roots for domestic fowl as well as insects and an abstract root with negative value: *òdòñ, édòñ* ‘husband,’ *òhà, éhà* ‘wife,’ *òìà, éèà* ‘person, human being,’ *ómèmè, émèmè* ‘lunatic, madman,’ *òdíòñ, édíòñ* ‘elder,’ *òbò, ébò* ‘oraclist, diviner,’ *òkhòì, èkhòì* ‘worm,’ *òókhò, éókhò* ‘fowl, hen,’ *òbè, èbè* ‘bad, evil.’ A single abstract root with positive value denotation defines *o- ~ e-*: *òsèn, èsèn* ‘goodness, good.’ In the *o- ~ i-* gender one finds roots identifying human social roles in addition to affixal forms reflecting nominalization (prefix added to a verb root) and synthetic compounds (prefix added to verb plus noun). This gender also has root forms denoting male and female humans in various life cycle stages as well as social roles and occupations: *òmòhè, ìmòhè* ‘man,’ *òvbèkhàn, ívbèkhàn* ‘unmarried youth,’ *òvìén, ìvìén* ‘slave, bonded one,’ *òíé'n, ìíé'n* ‘co-wife, female rival,’ *ómòò, ìmòò* ‘friend, companion,’ *ògbàmá, ìgbàmá* ‘post pubescent male,’ *òèjè, ìèjè* ‘chief, titled man,’ *òzèwàìn, ìzèwàìn* ‘wiseman, advisor, sage,’ *ònwìmè, ìnwìmè* ‘farmer,’ *òlìmè, ìlìmè* ‘farmer,’ *òzètò, ìzètò* ‘barber,’ *òhànèvbòò, ìhànèvbòò* ‘judge, mediator,’ *òdùèkìn, ìdùèkìn* ‘merchant, trader,’ *òvìnèbè, ìvìnèbè* ‘scribe, writer,’ *òdènyò, ìdènyò* ‘drunkard,’ *òyèhón, ìyèhón* ‘deaf person,’ *òrùèno, ìrùèno* ‘blind person,’ *òré, ìré* ‘stranger, visitor.’

The *u- ~ i-* gender hosts the largest number of noun roots. This gender incorporates primarily inanimate and animate roots with some from body-part locus. It has forms denoting animal body parts, insects, artifacts and an abstract noun recognizing a basic temporal distinction: *ùbèlè, ìbèlè* ‘calabash, gourd,’ *ùgbàn, ìgbàn* ‘blade of grass,’ *ùgùà, ìgùà* ‘bone joint,’ *ùkpàsánmì, ìkpàsánmì* ‘cane,’ *ùkpà, ìkpà* ‘seed,’ *ùgù'é, ìgù'é* ‘palm frond,’ *ùkpé'nmì, ìkpé'nmì* ‘sugarcane node,’ *ùkpòòbà, ìkpòòbà* ‘mushroom type,’ *ùkpèsùsù, ìkpèsùsù* ‘type of insect,’ *ùgó, ìgó* ‘bug,’ *ùzà, ìzà* ‘tsetse

fly,' *úhí'ànmì, ihí'ànmì* 'shell, rind, bark,' *úgbàn, igbàn* 'thorn, fish bone, rib,' *úkpàkpà, ikpàkpà* 'fish scale, layers,' *úré', íré'* 'type of snail,' *údò, idò* 'stone, rock,' *ùghú, ighú* 'vulture,' *úvbùú, ívbùú* 'owl,' *úzó', ízó'* 'antelope,' *ùrìàì, ìrìàì* 'tail,' *ùgín,* *ìgín* 'tray of palm frond veins,' *ùkèlè, ikèlè* 'morsel,' *ùkùkù, ikùkù* 'debris, refuse,' *ùì, ìì* 'rope, vine,' *ùkpè, ikpè* 'year,' *úfì, ìfì,* 'rope of palm wine tapper,' *ùkpémì, ikpémì* 'bead,' *ùkéké', ikéké'* 'clothes peg, drum stick,' *ùhàì, ìhàì* 'arrow,' *ùkpólò, ikpólò* 'string of palm kernels,' *ùwàwà, ìwàwà* 'earthen pot,' *ùkpùn, ikpùn* 'cloth, wrapper.'

Within Emai's grammatical system, agreement or concord linked to gender is no longer functional. Perfect aspect and prospective aspect evince no morphological agreement marking. However, a remnant agreement system is evident in imperfect aspect, where continuous and habitual morphemes are distinguished by tone.

Continuous aspect in the third person is expressed by high tone *ó*, preceded immediately by a low tone subject concord (SC) marker (*ò*) and a lexically headed subject constituent with low tone at its right edge (*ólí ómòhè, élí ìmòhè*).

- (1) *ólí ómòhè / élí ìmòhè ò ó è ólí émàè.*
 the man the men SC C eat the food
 'The man is / The men are eating food.'

Habitual is similarly framed except for tone, which in third person is conveyed by low tone *ò* preceded by a subject concord marker with high tone (*ó*) and a lexically headed constituent with right edge high tone (*ólí ókpósó ná, élí ìkpósó ná*).

- (2) *ólí ókpósó ná / élí ìkpósó ná ó ò shèn úkpùn.*
 the woman this the women these SC H sell cloth
 'This woman sells / These women sell cloth.'

As clausal expressions in the imperfect illustrate, neither number nor gender impacts shape of the agreement marker. There is no effect on subject concord phonological shape by indexing of grammatical number in the subject constituent (pre-determiner *ólí ~ élí* with *ò- ~ e-*) or by gender contrast of lexical head nouns (*ókpósó/ìkpósó* with *ò- ~ i-* or *ómòhè/ìmòhè* with *ò- ~ i-*). Number and gender distinctions in agreement marking are thus neutralized.

Remnant agreement is evident within noun phrases, where a select group of adjectives must agree in number with their head noun. Emai attributive phrases marked by the particle *li* index grammatical number on adjective forms (*òkhúá/èkhúá, óbín'/ébín'*) that modify gender bearing nouns. Hence, the grammatical number conveyed by the initial vowel of an attributive adjective (*ò-* for singular and *e-* for plural) varies in agreement with grammatical number of the initial vowel of the head noun (*ò-* for singular and *i-* or *e-* for plural).

<i>émèlá</i> lì òkhúá	<i>ímèlá</i> lì èkhúá	<i>éwé</i> lí óbín'	<i>éwé</i> lí ébín'
cow R heavy	cows R heavy	goat R dark	goats R dark
'heavy cow'	'heavy cows'	'dark goat'	'dark goats'

2.1.2 Modifier and pronoun inflection

Number inflection is evident with some Emai modifier roots and pronouns. The *ɔ-* ~ *e-* gender characterizes some predeterminers and postdeterminers, modifiers that precede or follow a head noun, respectively. Included are postdeterminer stems that serve as kindred modifiers and existential quantifiers in addition to a predeterminer serving as definite article. Numerals (e.g. *òkpá* 'one,' *èèlè* 'four') and universal quantifiers (e.g. *èrèmé* 'all,' *òdóòdé* 'each') show no number prefixation, as with demonstratives (e.g. *nà* 'this/these,' *àin* 'that/those,' *nòì* 'next').

<i>òlìná</i> [<i>òlìná</i>] 'this kind'	<i>éliná</i> [<i>éliná</i>] 'these kind'
<i>òlìyó</i> 'that kind'	<i>éliyó</i> 'those kind'
<i>òdàn</i> 'different kind'	<i>édàn</i> 'different kind'
<i>ósò</i> 'certain, some sg'	<i>ésò</i> 'certain, some pl'
<i>òvbèé</i> 'another'	<i>évbèé</i> 'other'
<i>òlì</i> 'the sg'	<i>éì</i> 'the pl'

Pronoun roots inflect for number. Only the *ɔ-* ~ *e-* gender prefix pair is evident. Forms affected are demonstrative, kindred and existential pronouns as well as the relative clause pronoun and the interrogative person pronoun.

<i>òàin</i> 'that one'	<i>éàin</i> 'those ones'
<i>ònà</i> 'this one'	<i>ènà</i> 'these ones'
<i>ònòì</i> 'next one'	<i>énòì</i> 'next ones'
<i>òdàn</i> 'different kind of one'	<i>édàn</i> 'different kind of ones'
<i>òlìyó</i> 'that kind of one'	<i>éliyó</i> 'those ones of that kind'
<i>òlìná</i> 'this kind of one'	<i>éliná</i> 'these ones of this kind' ¹
<i>ósò</i> 'certain one'	<i>ésò</i> 'certain ones'
<i>òvbèé</i> 'another'	<i>évbèé</i> 'others'
<i>òlì</i> 'the one'	<i>éì</i> 'the ones'
<i>òé', òí'</i> 'who (sg), whom'	<i>éé', éí'</i> 'who (pl), whom'

Alternating *é-* and *í-* prefixes, which do not feature in Emai's gender system, characterize Emai's associative (genitive) morpheme *-sí*. These prefixes involve an extremely limited grammatical classification of locus or place, contrastively evident today only with a few place nouns, e.g. *ìwè* 'dwelling,' as possessum and a posses-

sor such as *òjè* in *íwé é̀sì òjè* ‘Oje’s temporary dwelling’ and *íwé í̀sì òjè* ‘Oje’s permanent dwelling’. The *é-* stem, i.e. *é̀sì*, requires that one construe *ìwè* as a temporary dwelling such as one might find near a farmplot, whereas the *í-* stem construes the dwelling as more permanent, occurring as a house in a township. For expression of all other possession relations, regardless of possessum noun, the form that appears in associative expressions is *í̀sì* (Chapter 4, 4.3.3.1)

2.1.3 Adverb inflection

Ideophonic adverbs (e.g. *khùó*) show an alternation between zero (\emptyset) and an *i-* prefix that correlates, respectively, with the adverb in clause final position or clause initial topic position.

- (3) a. *óje híán' ùkèlè khùó / *ìkhùó.*
 Oje PAP.cut morsel whoosh whoosh
 ‘Oje cut a morsel with a whooshing sound.’
 b. *ìkhùó / *khùó, óje híán' ùkèlè.*
 whoosh whoosh, Oje PAP.cut morsel
 ‘With a whoosh, Oje cut a morsel.’

The $\emptyset \sim i-$ alternation is limited to ideophonic adverbs that refer to rate of movement, spatial position, posture or sound. In English, these meanings often lexicalize in verbs. Representative samples of each semantic subclass are shown below.²

Rate:

ìbián, ìbiánbián / bián ‘flash resulting from sharp contact’

ìdédédé / dédéde ‘scurried, extremely quick pace’

Spatial Distance:

ìháún, ìháúnháún / háún ‘physical distance exceeding accepted norm’

ìpién, ìpiénpién / pién ‘with small bits positioned here and there’

Movement and Posture:

ìgùàghó / gùàghó ‘jerky fashion’

ìgúáhí / gúáhí ‘crumpled state’

Sound:

ìbèú / bèú ‘banging sound of a hitting activity’

ìbèú / bèú ‘sound of loud bursting into tears’

Ideophonic adverbs that refer to manner rather than sound, rate, distance or motion fail to accept the prefix *i-* in focus position.

váí ‘snatchingly’
píí ‘flingingly’
yòò ‘whooshing’

yáá ‘simmeringly’
húú ‘pungently’

The prefix *ì-* is disallowed with ideophonic adverbs in topic position that exhibit reduplication of bisyllabic high tone stems or triplication of monosyllabic high tone stems. These adverbs tend to express manner.

gbírígbírí ‘jerkily’
ghóíghóí ‘glisteningly’
púpúpú ‘flappingly’
kpíkíkpí ‘flutteringly’

dúdúdú ‘very dark’
kpákpákpá ‘tremblingly’
kpékpékpé ‘shiveringly’
gbágbágbá ‘slappingly’

2.1.4 Verb inflection

Bare verbs in a monotransitive or intransitive clause attract Factative (F) suffix *-i*. It attaches to simple predicates only in perfect aspect: Present and Past. It never occurs with imperfect or prospective aspect, each of which overtly marks the verb phrase with an aspect marker such as imperfect Continuous (C) *ó* or prospective predictive (PRED) *ló*.

- (4) a. *ólí ómóhé lá'-ì.* *ólí ómòhè lá-ì.*
 the man PAP.run-F the man PRP.run-F
 ‘The man ran.’ ‘The man has run.’
- b. *ólí ómòhè ò ó lá / *ò ó là-ì.*
 the man SC C run SC C run-F
 ‘The man is running.’
- c. *ólí ómóhé ló là vbì ìwè / *ló là-ì vbì ìwè.*
 the man PRED run LOC house PRED run-F LOC house
 ‘The man will run in the house.’

Factative *-i* never co-occurs with any auxiliary (e.g. relative tense *ke* in **ólí ómóhé ké lá-ì* [the man ANT run-F] ‘The man ran afterward’) or preverb (e.g. aspectualizer *gbo* in **ólí ómóhé gbó' lá-ì* [the man ADD run-F] ‘The man ran too’). Factative *-i* only occurs when auxiliary and preverb positions for a single verb predicate are vacant.

Factative *-i* manifests polarity and mood restrictions as well. Although incompatible with prohibitive and negative statements, which require preverbal forms, it is also incompatible with verbs in the imperative, where no overt marker need precede the verb. Provided a bare predicate, the Factative appears in polar questions.

- (5) *ólí úkpùn káká-ì?*
 the cloth PRP.become.dry-F
 ‘Has the cloth dried?’

In addition to aspect, auxiliary and preverb limitations, Factative *-i* imposes a bare condition on the verb constituent and a displacement condition on arguments of transitive verbs. To start, Factative is constrained by subcategorization properties of the verb. With bare intransitive verbs, the Factative occurs.

- (6) a. *ólí úkpùn káká-ì.*
 the cloth PRP.become.dry-F
 ‘The cloth has dried.’
 b. *ólí óvbèkhàn dá-ì.*
 the youth PRP.be.tall-F
 ‘The youth is tall.’
 c. *ólí ómòhè lá-ì.*
 the man PRP.run-F
 ‘The man has run.’

When a bare intransitive verb takes a following adjunct or argument, Factative *-i* shows asymmetric distribution. Bare intransitive verbs with locative adjuncts marked by preposition *vbi* retain Factative *-i* regardless of adjunct occurrence in canonical or noncanonical (focus marked *li/ni*) constructions.

- (7) a. *ólí ómóhé múzán-í' vbi úkpódè.*
 the man PAP.stand-F LOC road
 ‘The man stood on the road.’
 b. *úkpódè òkpá lí ólí ómóhé múzán'-ì.*
 road alone PF the man PAP.stand-F
 ‘It was on the road alone that the man stood.’

With a following argument marked by preposition *vbi*, bare intransitive verbs show Factative *-i* only when the argument (e.g. *èkìn*) corresponds to a noncanonical position, e.g. focus marked by *li/ni* or interrogative pronoun in information questions.

- (8) a. *ólí ómóhé ó' vbì èkìn.*
 the man PAP.enter LOC market
 ‘The man entered the market.’
 b. *èkìn lí ólí ómóhé ó'-ì.*
 market PF the man PAP.enter-F
 ‘It was a market that the man entered.’

- c. *ébé' ólí ómóhé ó'-ì?*
 where the man PAP.enter-F
 'Where did the man enter?'

With some limitations, Factative *-i* attaches to a bare transitive verb whose direct object is displaced to focus or question position in discourse. When a direct object occupies focus *li/ni* or question word position, a transitive verb requires Factative *-i*.

- (9) a. *ólí émà lí ólí ómóhé shén'-ì / *shén'.*
 the yam PF the man PAP.sell-F PAP.sell
 'It was yam that the man sold.'
 b. *émé' ólí ómóhé shén'-ì / *shén'?*
 what the man PAP.sell-F PAP.sell
 'What did the man sell?'

Limiting this generalization are complex predicates where a transitive verb either shows a postverbal particle or a double object complement, occurs in series with another verb, or incorporates grammaticalized elements. Factative *-i* is prohibited when a verb stands in construction with a postverbal particle, either Change of State *a*, Change of Location *o*, Applicative *li/ni* or Temporal Perspective *lee*.

- (10) a. *ólí ákhè lí ólí ómóhé gbé' / *gbé'-ì á.*
 the pot PF the man PAP.break PAP.break-F CS
 'It was the pot that the man broke.'
 b. *émé' ójé nwú' / *nwú'-ì ó vbì itébù?*
 what Oje PAP.take PAP.take-F CL LOC table
 'What did Oje put on the table?'
 c. *émé' ólí ómóhé shén' / *shén'-ì lí àlèkè?*
 what the man PAP.sell PAP.sell-F APP Aleke
 'What did the man sell to Aleke?'
 d. *èbà òkpá lí ólí óvbékhán é' / *é'-ì léé.*
 eba alone PF the youth PAP.eat PAP.eat-F TEMP
 'It was eba (prepared cassava) alone that the youth finished eating.'

Factative *-i* is disallowed by verbs in series. When a direct object corresponds to a focus *li/ni* constituent or interrogative pronoun, no verb in series (e.g. *nwu*, *re*, *re*, *hian*) attracts the Factative.

- (11) a. *ólí émà lí ólí ómóhé nwú' / *nwú'-ì ré.*
 the yam PF the man PAP.take PAP.take arrive
 'It was the yam that the man brought.'

- b. *émé' ólí ómóhé ré' / *ré'-ì híán óràn?*
 what the man PAP.use PAP.use-F cut wood
 'What did the man use to cut wood?'

Factative *-i* fails to occur where an extant transitive verb shows a complex multi-morphemic diachronic character. For instance, *zawo* 'see' has derived historically from Deductive auxiliary *za* 'must have' and the verb *ghoo* (reduced to *wo*) 'perceive.' *zawo* does not take Factative *-i*.

- (12) *ólì òkpòsò lí ólí ómóhé záwó' / *záwó'-ì.*
 the woman PF the man PAP.see PAP.see-F
 'It was the woman that the man saw.'

Despite these limiting conditions, adverbial adjuncts, particularly those of time and place, do not constrain Factative. When a direct object occupies focus position or corresponds to an interrogative pronoun and a temporal adjunct (*òdè*) follows a bare transitive verb, Factative *-i* remains obligatory.

- (13) *ólì émà lí ólí ómóhé shén-í' / *shén' òdè.*
 the yam PF the man PAP.sell-F PAP.sell yesterday
 'It was the yam that the man sold yesterday.'

2.2 Affixal morphology

Affixal morphology in Emai subsumes processes of verbal affixation, nominalization, compounding and reduplication. Each results in lexemes with distinct morphological make up.

2.2.1 Verbal affixes

Emai shows two derivational affixes that attach to verbs. They convey meanings pertaining to speaker characterization of participant involvement in an event and to the quantitative distribution of an event relative to intransitive subject, transitive direct object or both.

Speaker attitude is expressed by the Perseverative (PERS) prefix. It is realized by a copy of the verb initial consonant (C) and the high tone vowel *í*. Quantitative distribution is marked by Distributive (DS) suffix *lo/ló/nó*, which is conditioned by verb vowel and nasality. These affixes, which are mutually exclusive, vary in their co-occurrence with auxiliaries and preverbs as well as in their expressive potential under polarity and mood conditions.

- (14) a. *ólí òvbékhán dí-dá'*
 the youth PAP.PERS-be.tall
 'The youth is still tall.'
- b. *è lá-ló' ó vbì iwè.*
 they PRP.run-DS enter LOC house
 'They each ran into the house one after the other / all at once.'

2.2.1.1 Perseverative prefix

The Perseverative prefix *Cí* specifies participant involvement in an event contrary to speaker expectation. It translates English 'still.' *Cí* is limited to verbs and constructions that convey state or change of state. It appears with intransitive stative verbs such as *da* 'be tall' and *día* 'sit.'

- (15) a. *ólí òvbékhán dí-dá'*
 the youth PAP.PERS-be.tall
 'The youth is still tall.'
- b. *ólí ókpósó dí-díá' vbì òlì èkpètè.*
 the woman PAP.PERS-sit LOC the stool
 'The woman still sat in the stool.'

Phonological conditions constrain the Perseverative. Stative or change of state verbs that are not consonant initial, e.g. *u* 'die' (**ólí òmóhé í-ù* [the man PAP.PERS-die] 'The man still died') reject the Perseverative.

The Perseverative fails with activity verbs. When alone or in series, intransitive activity verbs do not take the Perseverative, as shown by *gbe* 'dance' (**ólí òvbékhán gbí-gbé'* [the youth PAP.PERS-dance] 'The youth still danced') and *dan* 'wrestle' (**élí ívbékhán dí-dán'* [the youths PAP.PERS-wrestle] 'The youths still wrestled'), **ólí òvbékhán kpí-kpáyé' òhí dán* [the youth PAP.PERS-accompany Ohi wrestle] 'The youth still wrestled with Ohi'). The Perseverative is also incompatible with transitive activity verbs such as *da* 'drink' (**ólí òmóhé dí-dá' ólí ényò* [the man PAP.PERS-drink the wine] 'The man still drank the wine'), and *hian* 'cut' (**ólí òmóhé hí-hián' ólí óràn* [the man PAP.PERS-cut the wood] 'The man still cut the wood'), even though the latter implies but does not assert a change of state.

Perseverative *i-* attaches to verbs taking the Change of State particle *a*, but not verbs accepting Change of Location *o* (**ólí òmóhé rí-ré' ólí èànmì ó vbì itébù* [the man PAP.PERS-take the meat CL LOC table] 'The man still put the meat on the table'), Applicative change of possession *li/ni* (**ólí òmóhé rí-ré' ólí èànmì lí ólí òkpòsò* [the man PAP.PERS-take the meat APP the woman] 'The man still gave the meat to the woman') or Temporal Perspective *lee* (**ólí òmóhé sí-sa' ólí òvbékhàn léé* [the man PAP.PERS-shoot the youth TEMP] 'The man still shot the youth already').

- (16) *ólí ómóhé gbí-gbé' ólí ákhè á.*
 the man PAP.PERS-break the pot CS
 'The man still broke the pot.'

In serial change of state constructions, Perseverative applies only to the first verb.

- (17) a. *ólí ómóhé rí-ré' ópìà híán óràn.*
 the man PAP.PERS-use cutlass cut wood
 'The man still used a cutlass to cut wood.'
 b. **ólí ómóhé ré' ólí ópìà hí-híán óràn.*
 the man PAP.use the cutlass PERS-cut wood
 'The man still cut wood with the cutlass.'

Distributional facts reveal additional properties of the Perseverative. It severely limits inflection, auxiliaries and preverbs. *Ci* is confined to the Past perfect (right edge high tone subject phrase). It fails with Present perfect, imperfect and prospective aspect.

- (18) *ólí ómóhé rí-ré' ópìà híán óràn.*
 the man PAP.PERS-use cutlass cut wood
 'The man still used a cutlass to cut wood.'

Perseverative fails to co-occur with auxiliary forms, as suggested by the unacceptability of constructions with relative tense Anterior *ke* (**ólí óvbékhán ké' rí-ré' ólí ópìà híán óràn* [the youth PAP.ANT PERS-use the cutlass cut wood] 'The youth still cut wood with a cutlass afterward') and epistemic Hypothetical *kha* (**ólí óvbékhán kha rí-ré' ólí ópìà híán óràn* [the youth PAP.HYP PERS-use the cutlass cut wood] 'The youth still would have used the cutlass to cut wood').

The Perseverative rejects preverbs of any kind, attaching to neither verb *ré* when preverb *gbo* is present (**ólí óvbékhán gbó' rí-ré' ólí ópìà híán óràn* [the youth PAP.ADD PERS-use the cutlass cut wood] 'The youth still used the cutlass to cut wood too') nor to the preverb itself (**ólí óvbékhán gbí-gbó' ré' ólí ópìà híán óràn* [the youth PAP.PERS-ADD use the cutlass cut wood] 'The youth still used the cutlass to cut wood too').

Perseverative *Ci-* also limits polarity and mood expression. Although it fails in imperatives, prohibitives, and negative statements, *Ci-* is found in polar questions.

- (19) *ólí óvbékhán dí-dá'?*
 the youth PAP.PERS-be.tall
 'Is the youth still tall?'

2.2.1.2 Distributive suffix

The Distributive (DS) suffix is expressed by morphophonemic alternants *lo*, *lɔ* and *nɔ*. It attaches only to monosyllabic verb forms and differentially interacts with verb transitivity. The Distributive specifies that a verb property is allocated to intransitive subject referents or transitive direct object referents. It reveals few limitations relative to auxiliary, preverb, polarity or mood. When with Factative *-i*, the Distributive occurs nearer the verb (*é gbá-lɔ'-i* [they PAP.be.big-DS-F] ‘They are each big’).

Morphophonemic shape of the Distributive is controlled by verb vowel height. When the host verb exhibits a non-nasalized high vowel, either front (*fi*) or back (*ku*), Distributive shape is *-lo*.

- (20) a. *ò ó fi-lò ìyáín údò.*
 he C hit-DS them stone
 ‘He is hitting each of them, one after the other, with a stone.’
 b. *è khú-ló élí ívbèkhàn kú à.*
 they PRP.chase-DS the youths disperse CS
 ‘They chased the youths away / They each chased away a youth.’

When the verb shows a final nasal vowel (*vun*, *tin*), the Distributive is *-nɔ*.

- (21) a. *ó ló vùn-nò òtòì á.*
 he PRED break-DS ground CS
 ‘He will break up the ground repeatedly.’
 b. *é ló tìn-nó kú à.*
 they PRED fly-DS disperse CS
 ‘They will each one after the other fly away.’

In all other vowel environments, Distributive shape is *-lɔ*.

- (22) *ùkpîhì ò ó sà-lò ólí ómòhè.*
 ant SC C sting-DS the man
 ‘An ant is stinging the man repeatedly.’

The Distributive does not suffix uniformly across serial constructions. It attaches to the initial verb in a directional motion series involving intransitive manner (*la*) and direction (*o* ‘enter’), provided the subject is plural (*e*). A distributive or collective interpretation of a plural subject is allowed. However, the Distributive disallows construal of a directional motion event with singular subject as repeated over time (**ò lá-ló ó vbì ìwè* [he run-DS enter LOC house] ‘He ran into the house repeatedly’).

- (23) *è lá-ló' ó vbì iwè.*
 they PRP.run-DS enter LOC house
 'Each ran one after the other into the house.'
 'They all at once ran into the house.'

The Distributive reveals a more limited interpretation with directional motion serials consisting of a transitive verb (*si* 'drag') and a directional verb (*o* 'enter'). For these, only the distributive interpretation is available (**éìì ìkpòsò sí-ló éìí éwáà ó vbì iwè* [the women drag-DS the mats enter LOC house] 'The women dragged the mats all at once into the house').

- (24) *ólì òkpòsò sí-ló éìí éwáà ó vbì iwè.*
 the woman PRP.drag-DS the mats enter LOC house
 'The woman dragged the mats one after the other into the house.'

With a verb in series that adds an instrumental or comitative participant, the Distributive suffix fails. It does not attach to instrumental *rè* 'take/use' or comitative *kpáyè* 'accompany, replace.'

- (25) a. **è ré-ló éìí ópìà bèn-nó éìí éràn.*
 they PRP.use-DS the cutlasses cut-DS the trees
 'They used each of the cutlasses to cut each of the trees.'
 b. **ólí óvbèkhàn kpáyè-ló éìí ìmòhè dán.*
 the youth PRP.accompany-DS the men wrestle
 'The youth wrestled with each of the men.'
 c. **éìí ìvbèkhàn kpáyè-ló éìí ìmòhè bèn éràn.*
 the youths PRP.replace-DS the men cut trees
 'The youths cut trees in place of the men.'

Additional restrictions affecting the Distributive suffix derive from predication type and the marking of grammatical number on subject and direct object. When suffixed to intransitive verbs, the Distributive requires a plural subject (e.g. *é* 'they' not *ó* 'he').

- (26) *é / *ó gbá-ló'-ì.*
 they he PAP.be.big-DS-F
 'They were each big.'

When the Distributive attaches to monotransitive verbs, whether in series or not, number marking of subject and direct object appears controlled by predication type. One predication type with the Distributive requires a plural subject (*e*) and

plural direct object (*ìvbèkhàn*). A plural direct object and a singular subject (**ò khú-ló ìvbèkhàn kú à* [he PRP.chase-DS youths disperse CS] ‘He chased youths away’) is unacceptable, as is a singular direct object with either a plural subject (**è khú-ló ólí òvbèkhàn fí à* [they PRP.chase-DS the youth project CS] ‘They chased the youth away’) or a singular subject (**ò khú-ló ólí òvbèkhàn fí à* [he PRP.chase-DS the youth project CS] ‘He chased the youth away repeatedly’).

- (27) *è khú-ló ìvbèkhàn kú à.*
 they PRP.chase-DS youths disperse CS
 ‘They chased youths away.’

Distributive with a second predication type (e.g. *ban* ‘remove’) requires a plural direct object (*ìkpùn*) and allows a singular or plural subject. Singular direct objects are unacceptable, whether subject is singular (**ò bán-nó úkpùn* [she PRP.remove-DS cloth] ‘She removed her cloth’) or plural (**è bán-nó úkpùn* [they PRP.remove-DS cloth] ‘They each removed their cloth’).

- (28) a. *è bán-nó ìkpùn / *bán ìkpùn.*
 they PRP.remove-DS cloths PRP.remove cloths
 ‘They removed their clothes.’
 b. *ò bán-nó ìkpùn.*
 she PRP.remove-DS cloths
 ‘She removed her clothes (one piece after the other).’

The Distributive with a third predication type exhibits even more flexibility as to argument expression of grammatical number. Verbs such as *bén* ‘cut’ allow a plural direct object with either a singular or plural subject. They also allow a singular direct object with a singular subject, although not a singular direct object with a plural subject (**éí ímòhè bèn-nó ólí órán* [the men cut-DS the tree] ‘The men of whom there are many cut the tree’). When verb arguments are exclusively singular, the action is construed as distributive, i.e. as being repeatedly performed.

- (29) a. *éí ímòhè bèn-nó éí érán.*
 the men PRP.cut-DS the trees
 ‘The men cut the trees one after other / *Each man cut the trees.’
 b. *ólí ómòhè bèn-nó éí érán.*
 the man PRP.cut-DS the trees
 ‘The man cut the trees one after the other.’
 c. *ólí ómòhè bèn-nó ólí órán.*
 the man PRP.cut-DS the wood
 ‘The man chopped the wood (repeated action on single piece).’

The Distributive with a fourth verb type (e.g. *sa* ‘sting’) manifests a broader range of singular argument acceptability and interpretation. Verbs like *sa* take a plural direct object and singular or plural subject. Event interpretation with plural subject is collective; it is distributive with singular subject.

- (30) a. *élí íhí sá-ló' màì / *sá' màì.*
 the ants PAP.sting-DS us PAP.sting us
 ‘The ants stung each of us.’
 b. *ólí íhí sá-ló' màì / *mè.*
 the ant PAP.sting-DS us me
 ‘The ant stung us (each of us one after the other).’

Verbs like *sa* also take a singular direct object (*mè*) with either a plural (*élí*) or singular subject. Event interpretation correlates with argument number, distributive with plural subject and collective with singular subject.

- (31) a. *élí íhí sá-ló' mè.*
 the ants PAP.sting-DS me
 ‘The ants, one after the other, stung me.’
 b. *úkpîhì ò ó sà-ló' mè.*
 ant SC C sting-DS me
 ‘A single ant is stinging me repeatedly.’
 c. *îhì sá-ló' mè.*
 ant PRP.sting-DS me
 ‘Ants stung me repeatedly.’
 d. *élí îhì ò ó sà-ló' mè.*
 the ants SC C sting-DS me
 ‘The ants are stinging me all at once.’

The Distributive occurs with a fifth verb type (e.g. *vo* ‘fetch’) that takes a mass noun direct object (*àmè*). As subject, *vo* and DS *-lo* take a plural form (*e*) but not one in the singular (**ò vó-ló àmè kú ó vbi ògbèdí* [he PRP.fetch-DS water pour CL LOC barrel] ‘He fetched/poured water into the barrel repeatedly’). With no Distributive suffix, verbs of the *vo* type and their mass noun direct object take a singular or plural subject, the plural construction exhibiting a collective interpretation (*è vó àmè kú ó vbi ògbèdí* [they PRP.fetch water pour CL LOC barrel] ‘They poured water into a barrel’).

- (32) *è vó-ló àmè kú ó vbi ògbèdí.*
 they PRP.fetch-DS water pour CL LOC barrel
 ‘They each, one after the other, poured water into the barrel.’

Distributional facts reveal additional properties of Distributive *lo/lo/nò*. It exhibits few polarity and mood restrictions. The Distributive appears in negative statements, polar questions, and imperatives, assuming number is appropriately marked on subject and direct object. It fails in prohibitives.

- (33) a. *ólí òmòhè í ì shèn-nò élí érán àìn.*
 the man SC NEG sell-DS the trees those
 ‘The man did not sell each of those trees.’
 b. *ólí òmòhè shèn-nò élí érán àìn?*
 the man PRP.sell-DS the trees those
 ‘Did the man sell each of those trees?’
 c. *vbá shèn-nò élí érán àìn.*
 you sell-DS the trees those
 ‘(You all) Sell those trees / Each of you sell a tree.’

The Distributive suffix minimally restricts auxiliaries and preverbs. With simple predicates, it is found with perfect, imperfect and prospective aspect.

- (34) a. *ólí òmòhè shèn-nò élí érán àìn.*
 the man PRP.sell-DS the trees those
 ‘The man has sold those trees.’
 b. *ólí òmòhè ò ó shèn-nò élí érán nà.*
 the man SC C sell-DS the trees these
 ‘The man is selling these trees.’
 c. *ó ló vùn-nò òtòì á.*
 he PRED break-DS ground CS
 ‘He will break up the ground.’

The Distributive is compatible with preverbs and postverbal forms bearing on aspect and number. It appears with the Absolute Intensifier preverb *zemi*.

- (35) *élí émá zé'mì gbá-ló.*
 the yam PAP.ABSI be.big-DS
 ‘Each of the yams is really big.’

The Distributive co-occurs with phasal and boundary aspectualizer preverbs, except Recurrent *a* and its ‘whichever’ interpretation.

- (36) a. *ólí òmòhè ó ó' shèn-nò élí érán.*
 the man SC CON sell-DS the trees
 ‘The man went to sell each of the trees.’

- b. *ólí ómòhè yà shén-nó élí éràn.*
 the man PRP.IG sell-DS the trees
 ‘The man almost sold / started selling each of the trees.’
- c. *ólí ómóhé ghé' shén-nó élí éràn.*
 the man PAP.PCT sell-DS the trees
 ‘The man just sold each of the trees.’
- d. *ólí ómóhé sé' shén-nó élí éràn.*
 the man PAP.DUR sell-DS the trees
 ‘The man continued to sell each of the trees.’
- e. *ólí ómóhé ché' shén-nó élí éràn.*
 the man PAP.REP sell-DS the trees
 ‘The man sold each of the trees again.’
- f. *ólí ómóhé gbó' shén-nó élí éràn.*
 the man PAP.ADD sell-DS the trees
 ‘The man sold each of the trees too.’
- g. *ólí ómóhé yà shén-nó élí éràn.*
 the man PAP.PA sell-DS the trees
 ‘The man used to sell each of the trees.’
- h. *ólí ómóhé mó' shén-nó élí éràn.*
 the man PAP.PA sell-DS the trees
 ‘The man at one time sold each of the trees.’
- i. *ólí ómòhè mó shén-nó élí éràn.*
 the man PRP.EG sell-DS the trees
 ‘The man almost completely sold off each of the trees.’

And the Distributive is found with postverbal Temporal Perspective *lee*. It fails with Temporal Degree *gbe* (**ólí ómòhè shén-nó élí éràn gbé* [the man PRP.sell-DS the trees much] ‘The man sold too many of each of the trees’).

- (37) *ólí ómòhè shén-nó élí éràn léé.*
 the man PRP.sell-DS the trees TEMP
 ‘The man finished selling each of the trees.’

2.3 Nominalization

Nominalization as a lexicalization process derives nouns from verbs and from sentences. Lexemes where a verb root gets converted to a nominal stem require a vowel prefix. Both single and multiple verb roots participate, leading to simple and complex nominalization lexemes. Simple nominalization affects single intransitive or transitive verb forms. Complex nominalization affects multiple intransitive and transitive verbs as well as syntactic phrases.

2.3.1 Simple nominalization

Nominalization lexemes of one type consist of a single intransitive verb root and a prefix. They reflect a number of semantic classes, although no consistent correlation exists between prefix vowel shape and semantic class. Prefixes consist of *e-*, *ɛ-*, *i-*, *u-*, *o-* and *ɔ-*. Only *a-* never occurs as a prefix with intransitive verb roots.

2.3.1.1 Intransitive root nominalization

Prefix *e-* converts intransitive activity verbs to agentive nominals. Lexemes in this class have the interpretation ‘force characterized by VERB.’

éfìdò ‘wind, breeze, gale, storm’: *fìoo* ‘to blow’

Prefix *e-* converts intransitive stative verbs to abstract patient nominals denoting human mental conditions. These lexemes have the interpretation ‘mental state/condition characterized by VERB.’

émèmè ‘madness’: *mémè* ‘to be mad’

èghònghòn ‘happiness, gladness’: *ghònghon* ‘to be happy’

évbòhìè ‘dream’: *vbohìè* ‘to dream’

Prefix *ɛ-* converts intransitive activity verbs to location nominals. The resulting lexeme has the interpretation ‘place characterized by VERB.’

èbò ‘shrine’: *bò* ‘to divine’

Prefix *ɛ-* converts intransitive stative verbs to abstract patient nominals denoting mental conditions. These lexemes mean ‘mental state characterized by VERB.’

èhìdò ‘arrogance, pride’: *hìo* ‘to be arrogant’

évbìè ‘loneliness, solitude’: *vbiè* ‘to be lonely’

Prefix *i-* converts intransitive activity verbs to patient nominals denoting sound. The resulting lexemes reveal the interpretation ‘sound characterized by VERB.’

ísò ‘rumbling, roar of sea or sky’: *so* ‘to rumble’

ìrà̀n ‘grunt, groan’: *ruan* ‘to happen’

Prefix *i-* converts intransitive activity verbs to patient nominals denoting a temporal span. These lexemes are interpreted as ‘temporal period characterized by VERB.’

ìkò ‘traditional honeymoon’: *koo* ‘to honeymoon’

Prefix *i-* converts intransitive stative verbs to patient nominals denoting physical entities. Resulting lexemes have the sense ‘mass substance characterized by VERB.’

ìbìn ‘soot, carbon from lantern’: *bin* ‘to be dark in color’

Prefix *i-* converts intransitive activity verbs to agent nominals denoting human social roles. These lexemes are interpreted as ‘social role characterized by VERB.’

ìdàdà ‘dread locks person’: *dada* ‘to wander (lose one’s way)’

Prefix *o-* converts intransitive stative verbs to patient nominals denoting perceptible physical objects or conditions. The resulting lexemes have the interpretation ‘condition/object characterized by VERB.’

òlàà ‘bitter leaf vegetable’: *laa* ‘to be bitter’

òkhúá ‘heaviness’: *khua* ‘to be heavy’

Prefix *o-* converts intransitive change of state verbs to patient nominals denoting perceptible physical conditions. Lexemes of this class have the idiomatic interpretation ‘condition that results from VERB.’

ónwèé ‘cough’: *nwé* ‘to ripen’

Prefix *o-* converts intransitive change of state verbs to patient nominals denoting locations. These lexemes have the interpretation ‘place characterized by VERB.’

òvá ‘outlet, hole, escape’: *va* ‘to escape’

Prefix *o-* converts intransitive stative verbs to abstract nominals denoting conditions of human existence. These lexemes mean ‘human condition characterized by VERB.’

òghèè ‘flirtatious, promiscuous’: *ghèè* ‘to be promiscuous’

òbin ‘dark one’: *bin* ‘to be dark’

òrùrù ‘foolishness, stupidity’: *ruru* ‘to be foolish’

òkhòò ‘badness, wickedness’: *khòò* ‘be wicked’

òèè ‘agitation, thought, anxiety’: *ee* ‘to be agitated’

òkpòkpò ‘worried, agitated’: *kpòkpò* ‘to worry’

Prefix *o-* converts intransitive activity verbs of communication to patient nominals denoting a vocal action. Lexemes in this class have the interpretation ‘human activity characterized by VERB.’

òvàn ‘scream, shriek, shout’: *vaan* ‘to shout’
 òrùè ‘greeting’: *ruè* ‘to greet’
 òwwè ‘preaching, sermon’: *wewe* ‘to preach’
 ójè ‘laughter’: *jè* ‘to laugh’
 òvbàè ‘chatting’: *vbye* ‘to converse in relaxed way’

Prefix *o-* converts intransitive human activity verbs to patient nominals denoting human activities. The resulting lexemes have the interpretation ‘human activity characterized by VERB.’

ómèhèn ‘sleep’: *mehen* ‘to sleep’
 òbìà ‘work, job, deed’: *bia* ‘to work’
 òkhòìn ‘war, fight, battle’: *khoen* ‘to fight’
 òlèlè ‘copulation’: *lele* ‘to copulate’
 óshàn ‘walking, journey’: *shan* ‘to walk, move about’
 òddò ‘fantasy, fantasy state’: *doo* ‘to fantasize’
 ódàn ‘wrestling event’: *dan* ‘to wrestle’

Prefix *o-* converts intransitive change of state verbs to patient nominals denoting temporal conditions of the physical universe. Lexemes in this class mean ‘temporal condition characterized by VERB.’

òhùú ‘cloudy, overcast’: *hu* ‘to grow’
 òròòn ‘rainy season’: *roon* ‘to fall, of rain’
 òvòn ‘sunshine, energy from sun’: *voon* ‘to fill’

Prefix *o-* converts intransitive change of state verbs and manner verbs to patient nominals denoting negative states or conditions of social existence. Resulting lexemes have the sense ‘social condition characterized by VERB.’

òsì ‘wretchedness, penury, poverty’: *si* ‘to dissipate, recede’
 òrìà ‘state of foraging for food’: *riaa* ‘to become damaged, spoil’
 òsùghù ‘state of social confusion’: *sughu* ‘to slosh’
 òtùà ‘haste’: *tua* ‘to move in a hurry’
 óyèè ‘negative force in universe’: *yee* ‘to charge’

Prefix *ɔ-* converts intransitive stative verbs or change of state verbs to abstract patient nominals denoting human conditions, often reflecting evaluative judgments. Lexemes in this class convey the sense ‘human condition characterized by VERB.’

òhùnṁé ‘goodness, appeasement’: *hunṁé* ‘to be good, appease’
òkhòṓ ‘evil deed, transgression’: *khòṓ* ‘to be wicked’
òmiàmé ‘dilemma, ordeal’: *miàmé* ‘to be difficult’
òfùán ‘whiteness, purity’: *fuan* ‘to be white / clean’
òvéṅ ‘desperation, panic’: *veṅ* ‘to disperse’

Prefix *ɔ-* converts intransitive stative verbs or change of state verbs to patient nominals denoting a property of a referent. Lexemes of this nature have the meaning ‘object property characterized by VERB.’

òghàìn ‘costly, expensive’: *ghaṅ* ‘to be costly’
òtòhíá ‘hot, heat wave’: *tòhia* ‘to be hot’
òhàn ‘wrong, incorrect, irregular’: *haan* ‘to be harmonious’
òsàn ‘natural, ordinary happening’: *san* ‘to become transparent’
òwàà ‘direct, straight course’: *waa* ‘to break through’

Prefix *ɔ-* converts intransitive stative verbs to instrument nominals denoting physical objects. These lexemes have the sense ‘thing used to cause VERB.’

òfòṓ ‘loop trap attached to limb’: *fòṓ* ‘limp’ (*si fòṓ* ‘move with limp’)

Prefix *ɔ-* converts intransitive stative verbs or change of state verbs to agent nominals denoting human social roles. Lexemes in this class have the interpretation (idiomatic in some instances) ‘social role characterized by VERB.’

òkhònmì ‘patient, sick person’: *khònmé* ‘to be ill’
òròṓn ‘widow’: *ròṓn* ‘to fall, leak of rain’

Prefixal pair *ɔ-* and *e-* convert intransitive stative verbs to agent nominals denoting human social roles. These lexemes mean ‘social role characterized by VERB.’

òdíṓn, *édíṓn* ‘senior, older in rank’: *díṓn* ‘to be senior to’

Prefix *u-* converts intransitive activity verbs to patient nominals denoting animate actions. These lexemes convey the meaning ‘activity characterized by VERB.’

úwò ‘bark of a dog’: *wò* ‘to bark’

úwò ‘nagging’: wo ‘to nag’
 úlà ‘running’ (‘race’): la ‘to run’
 ùdîá ‘sitting’: dia ‘to sit’
 ùdòò ‘fantasizing’: doo ‘to fantasize’

Prefix *u-* converts intransitive change of state verbs to patient nominals denoting stative human conditions. This lexeme has the interpretation ‘human condition that results from VERB.’

úù ‘death’: u ‘to die’

Prefix *u-* converts intransitive activity verbs to patient nominals denoting physical entities. The resulting lexemes have the meaning ‘thing characterized by VERB.’

úyèyè ‘variegated leaf tree’: yeyè ‘to move constantly, loiter’

2.3.1.2 Transitive root nominalization

Nominalization lexemes of a second type consist of a single transitive verb and a prefix. These lexemes reflect a number of semantic classes, although no consistent correlation exists between prefix vowel shape and semantic class.

Prefix *a-* converts transitive change of state verbs to nominals denoting place or time. Resulting lexemes have the sense ‘spatial or temporal situation characterized by VERB.’

áyè ‘place’: ye ‘to move toward’
 áyè ‘temporal era’: ye ‘to move toward’

Prefix *a-* converts transitive change of state verbs to nominals denoting human conditions or states of existence. Lexemes in this class show the interpretation ‘condition characterized by VERB.’

àsé ‘authority, authorization’: sè ‘to reach one’s turn’
 àzè ‘debt for divination’: zè ‘to pay’

Prefix *a-* converts transitive activity verbs of cognition to abstract patient nominals denoting mental entities. These lexemes have the interpretation ‘mental condition characterized by VERB.’

àmámá ‘plan, general strategy’: mama ‘to plan’
 àdó ‘idea, thought’: oo ‘to think’

àtâ ‘truth’: ta ‘to speak’

àwàà ‘taboo, forbidden practice’: waa ‘to forbid, refrain from’

Prefix *a-* converts transitive change of state verbs to patient nominals denoting physical entities. The resulting lexemes have the meaning ‘thing that results from VERB.’

àdḡ ‘retail item in market’: dḡ ‘to buy’

àèèḡ ‘sign, symbol, mark, omen’: èèḡ ‘to interact, exhibit’

Prefix *e-* converts transitive activity verbs to patient nominals denoting physical entities. Resulting forms have the interpretation ‘thing that results from VERB.’

éḡḡà ‘earthen heap for tubers’: ḡḡa ‘to heap’

ékpà ‘vomit’: kpa ‘to vomit’

Prefix *e-* converts transitive change of state verbs to patient nominals denoting physical conditions. Lexemes in this class convey the sense ‘condition that results from VERB.’

èvbòò ‘fungus, skin affliction’: vbòò ‘to uproot, pull’

Prefix *e-* converts transitive activity verbs to instrument nominals denoting physical entities. Resulting lexemes mean ‘thing used to undertake VERB.’

éhòn ‘ear, entire ear’: hòn ‘to hear’

ékùèè ‘meeting, conference’: kùèè ‘to meet’

Prefix *e-* converts transitive activity verbs of cognition to patient nominals denoting verbal entities. These lexemes have the interpretation ‘cognitive thing characterized by VERB.’

étà ‘word, question, utterance’: ta ‘to speak’

èkhúḡnmì ‘thanks, gratitude’: khúḡnmè ‘to thank’

èànyè ‘response, reply’: anyè ‘to respond’

Prefix *e-* converts transitive change of state verbs to patient nominals denoting physical entities. Lexemes in this class mean ‘thing that results from VERB.’

ékòó ‘bird nest’: koko ‘to bring together’

èvò ‘guinea grass, roof thatch’: vo ‘to fetch a quantity’

Prefix *e-* converts transitive activity verbs to patient nominals denoting human actions. They have the interpretation ‘human activity characterized by VERB.’

èhìò ‘clearing grass, weeding’: *hìo* ‘to weed a farm’

Prefix *i-* converts transitive change of state verbs to nominals denoting place. These lexemes have the sense ‘place that results from VERB.’

ìlàgáá ‘surroundings, vicinity’: *làgaa* ‘to encircle’

ìràà ‘area’: *raa* ‘to move past’

Prefix *i-* converts transitive change of state verbs to nominals denoting a temporal phenomenon. Lexemes in this class have the interpretation ‘temporal condition that results from VERB.’

ìkú ‘ambush’: *ku* ‘to spread’

ìhián ‘lightning flash’: *hian* ‘to strike’

Prefix *i-* converts transitive change of state verbs to patient nominals denoting physical entities. Resulting lexemes are interpreted as ‘thing that results from VERB.’

ìhùà ‘load carried on head’: *hua* ‘to carry objects on the head’

Prefix *i-* converts transitive activity verbs of cognition to patient nominals denoting mental entities. These lexemes have the meaning ‘mental or sense condition that results from VERB.’

ìdò ‘reflection’: *oo* ‘to think about, reflect, ponder’

ìkhùèè ‘sensation, beat, sound’: *khuee* ‘to sound, produce sound’

ìèè ‘awareness, alertness’: *ee* ‘to exhibit agitation, alertness’

ìhòn ‘fart’: *hòn* ‘hear’

Prefix *i-* converts transitive activity verbs of communication to patient nominals denoting human forms of communication. These lexemes have the interpretation ‘human condition characterized by VERB.’

ìvé ‘bargaining, haggling’: *ve* ‘to bargain’

ìyì ‘edict, declaration, resolution’: *yì* ‘to declare’

ìré ‘praise, praising, adoration’: *ree* ‘to praise’

Prefix *o-* converts transitive stative verbs and transitive change of state verbs to patient nominals denoting a spatial location. The resulting lexemes have the interpretation ‘spatial location that results from VERB.’

ókhhèè ‘watch area’: *khee* ‘to watch, guard, wait’
òsè ‘way, track, bush path’: *sè* ‘to split’

Prefix *o-* converts transitive stative verbs or change of state verbs to patient nominals denoting cognitive conditions. The resulting lexemes show the interpretation ‘cognitive condition characterized by VERB.’

òyà ‘plight, suffering’: *yaya* ‘to scavenge’
òzìèè ‘patience, mental calmness’: *zìèè* ‘to endure’
òvbééé ‘trickery, trick’: *vbee* ‘to twist, entangle’
òhòò ‘faint, dizzy, giddy’: *hoo* ‘to make dizzy’

Prefix *o-* converts transitive change of state verbs to patient nominals denoting physical entities. These lexemes mean ‘thing that results from VERB.’

ògbá ‘woven roof mat’: *gba* ‘to tie’
òhìàn ‘skin, leather blanket’: *hian* ‘to cut’
ómàá ‘mark, scar, dent, crack’: *ma* ‘to make, construct’
ònyà ‘rope of oil-palm tree vines’: *nya* ‘to rip, tear’
ótòòn ‘iron, metal’: *tòn* ‘to dig’
òsì ‘charm, hunter’s charm’: *si* ‘to pull, draw in’
òshíé ‘green bean’: *shie* ‘to coil’
òfì ‘warts on a chickens leg’: *fì* ‘to project, sprout’

Prefix *o-* converts transitive change of cognitive or physical state verbs to patient nominals denoting bodily conditions. The resulting lexemes have the interpretation ‘bodily condition that results from VERB.’

òfì ‘yaws, tropical skin disease’: *fì* ‘to project, propel, throw’
òrùèè ‘circumcision’: *ruee* ‘to circumcise’
òkàn ‘physical abnormality’: *kaan* ‘to deride’
òkhèè ‘menstrual period’: *khee* ‘to wait, watch’
òtòò ‘diarrhea, loose stool’: *too* ‘to burn’

Prefix *o-* converts transitive activity verbs to agentive nominals denoting human collectives. These lexemes have the sense ‘ones that undertake VERB.’

òsíé 'entertainers': *sie* 'to entertain'
 órèè 'contemporaries, peers': *ree* 'to visit'

Prefix *o-* converts transitive activity verbs to instrument nominals. Resulting lexemes have the meaning 'thing or condition used to undertake VERB.'

ówèé 'broom': *welò* 'to sweep'
 óòò 'antidote': *oo* 'to move through throat' (*nwu oo* 'to swallow')

Prefix *o-* converts transitive change of state verbs to agentive nominals denoting forces in the social universe. Lexemes in this class have the interpretation 'social condition that results from VERB.'

òhì 'providence, destiny': *hi* 'to arrange, preordain'

Prefix *o* converts transitive change of state verbs to patient nominals. Resulting lexemes have the interpretation 'thing characterized by VERB.'

òbèn 'spear grass': *ben* 'to cut'
 ókhààn 'porcupine': *khaan* 'to pound into'

Prefix *o* converts transitive change of state verbs to patient nominals denoting social conditions. They are interpreted as 'social condition that results from VERB.'

òkàn 'disposition of hostility': *kaan* 'to complain about'
 ògùè 'skill, cleverness, diplomacy': *gue* 'to know how to'
 ògbà 'plot, conspiracy, collusion': *gba* 'to tie'

Prefix *o* converts transitive change of state verbs to patient nominals denoting conditions of the physical or spiritual universe. These lexemes have the sense 'physical or spiritual condition that results from VERB.'

òkpòòn 'extremely cold wind': *kpoon* 'to descend'
 ósùà 'magical or spiritual force': *sua* 'to push, force'

Prefix *u-* converts transitive change of state verbs to nominals denoting a temporal frame. These lexemes mean 'temporal condition that results from VERB.'

ùsí 'previous life, preincarnate life': *si* 'to shift, pull, drag'

Prefix *u-* (and *i-*) converts transitive change of state verbs to patient nominals denoting collections of physical objects with the sense ‘bunch that results from VERB.’

úgbà ‘roof mats of thatch’: *gba* ‘to tie’
úkhùn, íkhùn ‘bundle’: *khuun* ‘to bundle’

Prefix *u-* converts transitive change of state verbs to physical instrument nominals that convey the sense, at times idiomatic, ‘physical thing used to undertake VERB.’

úvòò ‘cover, pot cover’: *voo* ‘to cover’
ùkòkò ‘container, shell’: *koko* ‘to gather’
ùkòkò ‘vagina’: *koko* ‘to gather’

Prefix *u-* converts transitive activity verbs to abstract instrument nominals. Resulting lexemes have the sense ‘abstract thing used to undertake VERB.’

ùròò ‘language, dialect’: *roo* ‘to quarrel’

Prefix *u-* converts transitive change of state verbs to patient nominals denoting social conditions. Lexemes of this nature have the interpretation ‘social condition that results from VERB’ or a related idiomatic sense.

úkhùèè ‘insult, abuse’: *khuee* ‘to insult’
ùròò ‘quarrel, argument’: *roo* ‘to quarrel’
ùhì ‘penalty, fine’: *hi* ‘to arrange’
ùhì ‘law, boundary, property line’: *hi* ‘to arrange’
ùdà ‘defiance’: *da* ‘to detain, halt’

2.3.2 Gerundive nominalization

Gerundive nominalization employs circumfix *ú-VERB-mi* with alternating H L tone across the word. Both transitive and intransitive verbs occur as *ú-mi* gerundives.

The *ú-mi* circumfix attaches to activity, change of state and stative verbs with differential semantic effect. It converts intransitive and transitive activity verbs to nominals denoting actions with the sense ‘human activity characterized by VERB.’

úlámí ‘running’: *la* ‘to run’
úònmí ‘drinking’: *on* ‘to drink’
úèmí ‘eating’: *e* ‘to eat’
úfímí ‘throwing’: *fi* ‘to throw’

ú-mi converts transitive activity verbs to nominals denoting physical conditions. Lexemes of this nature have the sense ‘physical condition characterized by VERB.’

úgbèmi ‘pulse, sensation’: *gbe* ‘to beat’

únyààmi ‘fussiness of children’: *nyaa* ‘to pamper, fuss over’

úyàámi ‘odor’: *yaa* ‘to smell’

úvbìàmi ‘pregnancy’: *vbìá* ‘to give birth to’

Gerundive *ú-mi* converts intransitive and transitive change of state verbs to nominals denoting physical entities with the sense ‘physical thing resulting from VERB.’

úòmi ‘pus’: *oo* ‘to discharge pus’

úviènmì ‘line, row’: *vièn* ‘to form a line’

The *ú-mi* circumfix converts intransitive stative verbs to nominals denoting physical and mental conditions. They convey the sense ‘condition characterized by VERB.’

údàmi ‘height’: *da* ‘to be high’

úfùnmi ‘kindness, gentleness’: *fun* ‘to be kind’

útòtómì ‘strength’: *toto* ‘to be strong’

úvbàémi ‘redness’: *vbae* ‘to be red’

úgbàlómì ‘bigness’: *gba-lò* ‘to be big-DS’

Some intransitive stative verbs occurring only in their reduplicative shape show *ú-mi* gerundives. These lexemes have the sense ‘condition characterized by VERB.’

úkhèkhènmì ‘sourness’: *khèkhèn* ‘to be sour’

Gerundive *ú-mi* forms denoting conditions occur in phrase types where they can be modified by property nouns in unmarked attributive phrases or by possessor nominals in marked Associative *isì* phrases.

úyàámi *òbè* ‘bad odor’
odor bad

údàmi *isì* *òjè* ‘Oje’s height’
height ASS Oje’

Noun phrase arguments of verbs that appear as gerundives are constrained as to linear order, modifier compatibility and grammatical relation type. Transitive verbs that assume a gerundive shape follow their direct object arguments. The direct object never follows the gerund (**úèmi éhéén* ‘eating fish’).

- (38) *éhéén úèmí zé' mé èmiànmi.*
 fish eating PAP.cause me illness
 'Eating fish has made me ill.'

Gerundives never occur as head of an Associative *ísì* phrase whose complement (e.g. *èhèèn*) bears a direct object relation (**úèmí ísì èhèèn zé' mé èmiànmi* [eating ASS fish cause me illness] 'The eating of fish made me ill'). When gerundive forms follow Associative *ísì*, the phrase shows a purposive 'for' interpretation.

- (39) *ò gbá-ló émí ísì úgbèmi.*
 he PRP.tie-DS thing ASS dancing
 'He put on his costume for the purpose of dancing.'

Noun phrase arguments of transitive gerundives do not accept nominal modifiers. For instance, gerundive constructions take neither definite predeterminer *ólí* (**ólí émá úèmí zé' mé èmiànmi* [the yam eating PAP.cause me illness] 'The yam eating made me ill') nor kindred postdeterminer *éliyó* (**émá éliyó úèmí zé' mé èmiànmi* [yam that.kind eating PAP.cause me illness] 'Eating yam of that kind made me ill').

Complement position preceding a gerundive form is limited to direct object arguments. Even when framed by Locative *vbi* or Associative *ísì*, gerundive complement position rejects a locative adjunct: *íwé* or *vbi iwè* in (**íwé úgbèmi / úgbèmi vbi iwè zé' ókpósó ghònghòn* [house dancing / dancing LOC house PRP.allow woman be.happy] 'Dancing in the house made the woman happy') or subjects, *òjè* or *ísì òjè* in (**òjè údámí / údámí ísì òjè zé' évbóó ghònghòn* [chief drinking drinking ASS chief PRP.allow village be.happy] 'The chief's drinking made the village happy').

Gerundive phrases are not restricted to core grammatical relations subject and direct object. They appear as objects of locative preposition *vbi*.

- (40) *ólí ómòhè béé vbi émáé úèmí.*
 the man PRP.start LOC food eating
 'The man started eating food.'

Gerundives also appear in *lí/ní* marked focus position and in topic position.

- (41) a. *éhéén úèmí lí ó zé' mé èmiànmi.*
 fish eating PF it PAP.cause me illness
 'Eating fish makes me ill.'
 b. *éhéén úèmí, ó zé' mé èmiànmi.*
 fish eating it PAP.cause me illness
 'As for eating fish, it makes me ill.'

Gerundive phrase components consisting of a transitive verb and its argument exhibit an optional split structure for a limited number of verbs. Intransitive verb *mianmē* ‘be difficult’ accepts an argument gerundive noun phrase as grammatical subject. It also shows a split gerundive in which the argument precedes *mianmē* and the gerundive follows in direct object position. The argument requires obligatory modification (definite predeterminer *ólí*). Reversing constituent order is unacceptable; the gerundive never precedes *mianmē* and its argument never follows (**úhìànmí ó ò mìaànmé órán* [cutting SC H be.difficult wood] ‘Cutting wood is difficult’).

- (42) a. *óráń úhìànmí ó ò mìaànmé.*
 wood cutting SC H be.difficult
 ‘Cutting wood is difficult.’
 b. *ólí órán/*óráń mìaànmé úhìànmí.*
 the wood wood PRP.be.difficult.for cutting
 ‘The wood is difficult for cutting.’

Other constructions with *mianmē* employing a nongerundive nominalized verb and its logical subject show an obligatory split of nominalized verb and subject.

- (43) *ólí óbía mìaànmé' òjè. / *óbía ísì òjè ó ò mìaànmé.*
 the work PAP.be.difficult Oje work ASS Oje SC H be.difficult
 ‘The work is difficult for Oje.’ ‘It is difficult for Oje to do the work.’

2.3.3 Complex nominalization

Nominalization forms morphologically complex lexemes. It adjoins a single prefix to multiple verb roots that otherwise occur as serial verb sequences or to verb stems that incorporate a suffix. These lexemes reflect four semantic classes: conditions, entities, instruments and places.

2.3.3.1 Complex predicate nominalization

Prefix *a-* converts a serial verb sequence to a patient nominal denoting a positional condition for physical entities. Lexemes in this class have the interpretation ‘physical condition characterized by VERB VERB.’

àréhòó ‘alternating genders in birth order of a family’

rè ‘to take,’ *hoo* ‘to take up a position between’: ‘to intersperse’

Prefix *a-* converts serial verb sequences to abstract patient nominals denoting cognitive entities. These lexemes have the sense ‘cognitive condition characterized by VERB VERB.’

àmòmòtá ‘non-original, borrowed expression or saying’

mómò ‘to borrow,’ *ta* ‘to speak’: ‘to speak with a borrowed expression’

àèré ‘remembrance, memoriam, memory of a deceased person’

ee ‘to cogitate,’ *re* ‘to arrive’: ‘to remember’

àòkùgbé ‘addition, mathematical process of adding or summing up’

oo ‘to add,’ *ku gbe* ‘to reposition together’: ‘to join together’

Prefix *i-* converts serial verbs to patient nominals denoting temporal conditions of existence with the sense ‘temporal condition characterized by VERB VERB.’

ìgbàshán ‘mock marriage’

gba ‘to tie,’ *shan* ‘to walk’: ‘to walk together’

ìrèsó ‘end of time, existence, life, the world’

rẹ ‘to take,’ *so* ‘to touch’: ‘to reach the end of life’

Prefix *i-* converts serial verbs to patient nominals denoting cognitive conditions. These lexemes have the sense ‘cognitive condition characterized by VERB VERB.’

ìhìànbá ‘blessedness, blessing’

hian ‘to cut, strike,’ *baa* ‘to add’: ‘to add to by cutting out’

ìrẹ̀húnmẹ̀ ‘forgiveness’

rẹ ‘to take,’ *hunmẹ* ‘to appease’: ‘to forgive, cause to become appeased’

Prefix *i-* converts serial verbs to patient nominals denoting physical objects. Lexemes in this class have the meaning ‘thing characterized by VERB VERB.’

ìdòzẹ̀ ‘plant, food crop growing where it should not’

do ‘to engage in stealth,’ *zẹ* ‘to grow’: ‘to grow in stealth’

ìgbàkhùàn ‘being that begins to die immediately after birth’

gba ‘to tie,’ *khuan* ‘to suspend’: ‘to hang together’

Prefix *o-* converts serial verbs to patient nominals denoting cognitive entities. Lexemes in this class have the interpretation ‘cognitive condition characterized by VERB VERB.’

ókùgbé ‘unity’

ku ‘to spread, stretch, move out,’ *gbe* ‘to reposition’: ‘to join together’

Prefix *o-* converts serial verbs to instrument/means nominals denoting physical entities. Resulting lexemes are interpreted as ‘thing used to undertake VERB VERB.’

ósìré ‘charm attracting customers’
sì ‘to pull,’ *re* ‘to arrive’: ‘to bring’

Prefix *o-* converts serial verbs to patient nominals denoting human conditions. These forms mean ‘human condition characterized by VERB VERB.’

òsàràí ‘overindulgence, excessive indulgence’³
sa ‘to shoot out,’ *raa* ‘to pass’: ‘to shoot past’
òfùré ‘peace or calm in the world’
fun ‘to be at peace,’ *re* ‘to arrive’: ‘to reach a peaceful state’

Prefix *o-* converts serial verbs to patient nominals denoting physical conditions. Lexemes in this class mean ‘physical condition characterized by VERB VERB.’

òfòré ‘dampness, cold, wet weather after a rain’
fò ‘to be cool,’ *re* ‘to arrive’: ‘to reach a cool state’

Prefix *u-* converts serial verbs to nominals denoting place. The resulting lexemes have the interpretation ‘place characterized by VERB VERB.’

ùláchíén ‘shortcut, footpath behind a house, backyard path’
la ‘to ambulate,’⁴ *chién* ‘to inspect’: ‘to move around inspecting’

2.3.3.2 Verb stem nominalization

Nominalization processes create complex nominal lexemes from a prefix and a verb, the latter consisting of a verb root and a suffix. Suffixes involved are Distributive (DS) *-lo/-lò/-no* and Factative (F) *-i*.

Prefix *a-* converts intransitive activity verbs and the Distributive suffix to agentive nominals denoting animate objects. Lexemes in this class have the sense ‘animate thing characterized by repeated VERB.’

álàlò ‘ringworm’: *la* ‘flow,’ *-lò* DS

Prefix *a-* converts intransitive cognitive activity verbs and the Distributive suffix to agentive nominals denoting human social roles. These lexemes have the meaning ‘social role characterized by repeated VERB.’

átàlò ‘talkative one’: *ta* ‘to talk,’ -lò DS

Prefix *ə-* converts intransitive change of state verbs and the Factative suffix to instrument nominals denoting physical objects. The resulting lexemes have the interpretation ‘thing used to undertake VERB.’

èkái ‘wire-mesh dryer’: *ka* ‘to dry,’ -i F

Prefix *i-* converts intransitive change of state verbs and the Factative suffix to agentive nominals denoting humans in a particular social role. Lexemes of this nature are interpreted as ‘social role characterized by VERB.’

ìlávbaái ‘refugees’: *lavbaa* ‘to seek refuge,’ -i F

Prefix *o-* converts intransitive and transitive change of state verbs and Factative suffix to patient nominals denoting temporal conditions. Resulting lexemes have the sense ‘temporal condition characterized by VERB.’

ókái ‘dry season’: *ka* ‘to dry,’ -i F

òghàè ‘festival of the new born’: *ghaa* ‘to adjudicate, decide,’ -e F

Prefix *ɔ-* converts intransitive stative verbs and the Factative suffix to patient nominals denoting abstract conditions. These lexemes have the interpretation ‘condition characterized by VERB.’

òkpòì ‘cheapness, inexpensive’: *kpo* ‘to be cheap,’ -i F

Prefix *ɔ-* converts intransitive change of state verbs and the Factative suffix to agentive nominals denoting humans in a particular social role. Lexemes in this class have the meaning ‘social role characterized by VERB.’

òsèì ‘witness in legal proceeding’: *sɛ* ‘to reach one’s turn,’ -i F

2.4 Lexical compounds

Compound lexemes in Emai reflect three compositional patterns. Analytic compounds consist of two noun stems (N-N), sometimes three (N-[N-N]). Synthetic compounds consist of a prefix followed by a verb root and a noun stem (prefix-V-N). Phrasal compounds utilize grammatical markers in their compositional make up (N-marker-N).

2.4.1 Analytic compounds

Analytic compounds of one structural type consist of two noun stems. Head of the compound is the left noun stem. Relative to taxonomic structural levels, analytic compounds tend to express specific or subordinate level designation relative to a noncompound articulated basic or prototypic concept. The right stem tends to denote a more specific referent relative to the more general class referent of the left noun stem. Constituent relations between noun stems reflect an obligatory inalienable relation, contrasting with an alienable relation in corresponding syntactic phrases with a grammatical marker. For some compound lexemes where meaning is not derived compositionally, a metaphoric interpretation is required.

Analytic compounds encode objects that fall into subcategories of flora and fauna as well as fish, insects, birds, containers, location, time units, food items, traditional belief, kin relations and social roles. Example compounds and their constituents follow.

Flora, Tree:

órán àmágò ‘mango tree’: *óràn* ‘tree,’ *ámágò* ‘mango’
órán éđìn ‘palm fruit tree’: *óràn* ‘tree,’ *éđìn* ‘palm fruit’
órán ihíángúéìbó ‘bread fruit tree’: *óràn* ‘tree,’ *ihíángúéìbó* ‘bread fruit’
órán ikàjú ‘cashew tree’: *óràn* ‘tree,’ *ikàjú* ‘cashew’
órán óí’n ‘dika nut tree’: *óràn* ‘tree,’ *óí’n* ‘dika nut’
órán ókhòhíá ‘walnut tree’: *óràn* ‘tree,’ *ókhòhíá* ‘walnut’
órán údúkú ‘coconut palm tree’: *óràn* ‘tree,’ *údúkú* ‘coconut palm’
órán ùgbévbèè ‘locust bean tree’: *óràn* ‘tree,’ *ùgbévbèè* ‘locust bean’
údìn òwò ‘slender Borassus palm tree’: *údìn* ‘palm tree,’ *òwò* ‘raffia palm’
ùkpòùmókhà ‘silk cotton tree’: *ùkpòù* ‘cotton strand,’ *ókhà* ‘cotton-tree’

Flora, Stem:

órán àsísà ‘stalk of broom plant’: *óràn* ‘stalk,’ *àsísà* ‘broom plant’
órán àsùmúgò ‘eupatorium stalk’: *óràn* ‘stem,’ *àsùmúgò* ‘eupatorium weed’
úgbán èvò ‘blade of thatch’: *úgbán* ‘blade,’ *èvò* ‘guinea grass’

Flora, Weed / Vine / Cane:

íúmékàhàyé ‘weed for headache relief’: *ìùmì* ‘weed,’ *ékhàyé* ‘kindling’
íúmémèlá ‘cow weed’: *ìùmì* ‘weed,’ *émèlá* ‘cow’
íúmókòmòtòì ‘wood dove weed’: *ìùmì* ‘weed,’ *ókòmòtòì* ‘wooddove’
ìvbìémà ‘yam vines, creeper’: *ìvbìì* ‘vines,’ *émà* ‘yam’
óènmáwà ‘dog weed’: *óènmì* ‘tongue,’ *áwà* ‘dog’
ísíènnòtòì ‘red flower vine’: *ísíèìn* ‘pepper,’ *òtòì* ‘ground’
ùkpàsánmùghòìn ‘yellow reed cane’: *ùkpàsánmì* ‘cane,’ *ùghòìn* ‘yellow shrub’

Flora, Useable/Edible Plant:

ìkpèshèìmì ‘Cassia poducarpa shrub’: *ìkpèshè* ‘beans,’ *èìmì* ‘spirit world’

òúmúgbó 'bush pear': òùmù 'native pear,' úgbó 'forest'
 ìyèkóvbiògúé 'edible sugar cane': ìyèké 's-cane' óvbiògúé 'orphan'
 ìyèkúùzón 'swamp sugar cane': ìyèké 'sugarcane,' ùzón 'Ijaw'
 ìhíángùéíbó 'bread-fruit tree': ìhíángùè 'groundnut,' éibó 'whites'
 ùgbévbèè 'locust bean': ùgbén 'oil bean,' évbèè 'kola nut'
 ìkpísédìòn 'game seeds from a vine': ìkpísè 'seeds,' édíòn 'elders'
 àtábéimì 'Indian hemp, marijuana': àtábà 'tobacco,' éimì 'spirit world'

Flora, Leaf:

ébámágo 'mango leaf': ébè 'leaf,' àmágo 'mango'
 ébàsòfè 'leaf of cough-leaf tree': ébè 'leaf,' àsòfè 'tree for cough'
 ébésìrá 'Piper gumensee leaf': ébè 'leaf,' ésìrá 'Piper gumensee'
 ébìhìèò 'leaves for soup': ébè 'leaf,' ìhìèò 'vegetable type'

Flora, Undomesticated Plant:

òvìémà 'wild yam not eaten': òvìén 'slave,' émà 'yam'
 òvìààbà 'wild rubber tree': òvìén 'slave,' ààbà 'rubber tree'
 òvìòòbàdán 'wild shade plant': òvìén 'slave,' òbàdán 'shade tree'
 òvìtùù 'wild mushroom': òvìén 'slave,' itùù 'mushroom'

Fauna, Bush Animal:

éánmògò 'undomesticated animal': éànmi 'animal,' ògò 'bush'
 éánmòkhùnmi 'monkey': éànmi 'animal,' òkhùnmi 'sky'
 émèlúgbó 'bush cow': émèlá 'cow,' úgbó 'rainforest'
 òlògbògò 'bush cat, ferret': òlògbò 'cat,' ògò 'bush'
 ìsìògò 'bush pig, giant forest hog': ìsì 'pig,' ògò 'bush'
 ìká'lábèrán 'deer with antlers': ìká'lábò 'branch,' érán 'trees'

Fauna, Domestic Animal:

ìsìóà 'domestic pig, dwarf pig': ìsì 'pig,' óà 'home'

Fauna, Animal Gender:

òkîsì 'mature wild boar': òké 'mature male,' ìsì 'pig'
 òkófè 'bull rat': òké 'mature male,' ófè 'rat'
 òkóvbèè 'mature male patas monkey': òké 'mature male,' óvbèè 'patas monkey'
 òkémèlá 'mature bull': òké 'mature male,' émèlá 'cow'

Fauna, Rodent:

ófùèngghén 'striped bush rat': ófè 'rat,' ùèngghén 'striped yam'
 ófóà 'house rat': ófè 'rat,' óà 'house'
 ófògò 'bush rat': ófè 'rat,' ògò 'bush'
 ófóibó 'guinea pig': ófè 'rat,' óibó 'white man'

Fauna, Snake:

ényébé 'thin, emerald snake': ényè 'snake,' ébè 'leaf'

Fish / Water Creature:

áwàédà 'dogfish, Polypterus senegalus': áwà 'dog,' édà 'river'
 ávbìévbìédà 'flying fish': àvbìévbìè 'butterfly,' édà 'river'

òvbèkhàlèkè, ìvbèkhilèkè ‘female’: *òvbèkhàn* ‘youth,’ *àlèkè* ‘pubescent’
òkpòsòhàmà ‘pregnant woman’: *òkpòsò* ‘woman’ *òhàmà* ‘pregnant’
òmòtòtì ‘native, free born individual’: *òmò* ‘child,’ *òtòtì* ‘soil’
òhòbá ‘wife of the Oba’: *òhà* ‘wife,’ *òbá* ‘Oba’
òdàfèn ‘head of household; landlord’: *òdòn* ‘husband,’ *àfèn* ‘household’
òdíjè ‘senior titled man’: *òdíòn* ‘senior,’ *ìjè* ‘titled chief’
ìnyòbá ‘queen mother of Oba’: *ìnyò* ‘mother,’ *òbá* ‘Oba’
óimémà ‘glutton’: *óimì* ‘corpse,’ *émà* ‘pounded yam’
óbòtú ‘crowd of people’: *óbò* ‘hand,’ *òtú* ‘age group’
èvbòòvbòkhàn ‘Pygmy-like people’: *èvbòò* ‘village,’ *òvbèkhàn* ‘youth’
èkhènòbià ‘laborers, employees’: *èkhèèn* ‘group,’ *òbià* ‘work’
òvbíèimì ‘orphan’: *òvbì* ‘offspring,’ *èimì* ‘spirit world’
òvbíóimì ‘orphan’: *òvbì* ‘offspring,’ *óimì* ‘dead body’

Kin Relations Once Removed:

èrnyò ‘maternal grandfather’: *èrà* ‘father,’ *ìnyò* ‘mother’
ìnyèrà ‘paternal grandmother’: *ìnyò* ‘mother,’ *èrà* ‘father’
ìvbìvbíá ‘grandchildren’: *ìvbìà* ‘children,’ *ìvbìà* ‘children’

Greetings:

òbéèghònghòn ‘greetings’: *òbè* ‘cry,’ *èghònghòn* ‘happiness’
 (at a time of rejoicing or great happiness)⁵
òbìhùnmmèhàè ‘greetings’: *òbè* ‘cry,’ *ìhùnmmèhài* ‘fortune’
 (congratulating good fortune)
òbìfètìán ‘greetings’: *òbè* ‘cry,’ *ìfètìná* ‘rest’
 (addressed to one resting on holiday)
òbòòbìà ‘greetings’: *òbè* ‘cry,’ *òbìà* ‘work’
 (addressed to one who has performed work well)
òbòòkpòkpò ‘greetings’: *òbè* ‘cry,’ *òkpòkpò* ‘agitated state’
 (addressed to one experiencing difficulties)
òbòshàn ‘greetings’: *òbè* ‘cry,’ *òshàn* ‘journey’
 (addressed to one welcomed after a journey)

Body Parts:

ákìvìn ‘molar tooth’: *àkòn* ‘tooth,’ *ìvìn* ‘palm kernel’
ákìní ‘tusk of an elephant’: *àkòn* ‘tooth,’ *ìní* ‘elephant’
ígú’ábò ‘wings’: *ígú’é* ‘palm frond,’ *ábò* ‘hands’
ákhàrómmò ‘placenta’: *àkhàrà* ‘umbrella,’ *ómò* ‘child’
èkpómò ‘womb’: *èkpà* ‘bag,’ *ómò* ‘child’
ídámégbè ‘trunk, stem area’: *ídámà* ‘chest,’ *égbè* ‘body’
étòègèìn ‘pubic hair’: *étò* ‘hair,’ *ègèìn* ‘crotch’

Body Secretions:

áméviè ‘tears’: *àmè* ‘water,’ *éviè* ‘crying’
ísèhòn ‘ear wax’: *ìsòn* ‘body waste,’ *èhòn* ‘ear’

ísèṅò ‘eye mucus’: isòṅ ‘body waste,’ èḍ ‘eye’
 ùhényè ‘slough of a snake’: ùhù ‘membrane,’ ényè ‘snake’

Physical Conditions of Human Body:

òháànmè ‘thirst’: òhànmì ‘hunger,’ àmè ‘water’

Disease / Health Condition:

émáùtùhí ‘boil swollen to a tip’: èmàì ‘wound,’ ùtùhí ‘mushroom’
 émiámévbù ‘jaundice’: èmiàmì ‘sickness,’ évbù ‘palm oil’
 étóre ‘chronic ulcer, sore, boil’: ètè ‘ulcer,’ órèè ‘generation’
 írúrókhò ‘chicken lice’: ìrùrù ‘louse,’ óókhò ‘chicken’
 éráinémi ‘chicken pox’: èràìn ‘fire,’ èimi ‘spirit world’

Hair / Adornment Artifact:

étóbò ‘hair plaiting by strand twisting’: étòú ‘threading style,’ óbò ‘hand’
 ígbìòó ‘tattoo lines or marks’: ígbàn ‘thorn,’ iòó ‘tattoo mark’

Clothing Artifact:

ágbádàèùn ‘robe worn by males’: ágbàdà ‘agbada,’ èùn ‘shirt’

Ritual Artifact / Beliefs:

úkókúshé’n ‘small gourd for powder’: ùkòkò ‘container,’ úshé’n ‘powder’
 òrìrègbè ‘awe inspiring phenomenon’: òrìrì ‘eerie sensation’ égbè ‘body’
 ójémì ‘wondrous, awesome thing’: òjè ‘ruler,’ èmi ‘thing’
 ìkhúnmekiàn ‘charm for disappearing’: ìkhùnmi ‘charm,’ èkiàn ‘disappear’
 émiémi ‘abomination, taboo’: èmi ‘thing,’ èimi ‘spirit world’
 óvbíekhèimi, í- ‘youth of spirit world’: óvbèkhan ‘youth,’ èimi ‘spirit-world’
 émáénwáà ‘Holy Communion’: émàè ‘food,’ énwáà ‘evening’
 úkpórìkùtè ‘staff for personal deity’: úkpóràn ‘staff,’ ìkùtè ‘deity’
 ámókò ‘potion for identifying witch’: àmè ‘water,’ ókò ‘mortar’
 úkpódàgbòn ‘destiny, life path’: úkpódè ‘road,’ àgbòn ‘life’
 úrúnákhè ‘neck of a ceramic pot’: ùrùn ‘throat,’ ákhè ‘pot’
 úkpémiékùn, í- ‘ritual waist beads’: úkpémi ‘thing,’ èkùn ‘waist’
 ívbìòisà ‘angel’: ívbìà ‘children,’ òisà ‘deity’
 éhéènvbàbò ‘mudfish, sacrifice fish’: èhèèn ‘fish,’ ìvbàbò ‘sacrifice’

Artifact of Social Transaction:

éghémàè ‘food money, pocket money’: éghó’ ‘money,’ émàè ‘food’
 éghùhùnmi ‘tax’: éghó’ ‘money,’ ùhùnmi ‘head’

Music / Festival Artifact:

émìòsíé’ ‘musical instrument’: èmi ‘thing,’ òsíé’ ‘performance’
 ùsánúkpe ‘firecracker, fireworks’: ùsánó’ ‘match,’ úkpè ‘year’
 ìkhùèèmi ‘drumming, music’: ìkhùèè ‘sensation,’ èmi ‘thing’
 émiúkpe ‘items for festival celebration’: èmi ‘thing,’ úkpè ‘festival’

Information:

ìnyémójè ‘joke’: ìnyèmi ‘discourse,’ ójè ‘laughter’
 únùèmòì ‘gist, crux of the matter’: únù ‘opening,’ èmòì ‘matter’

Staple Food Item:

émòròṅ ‘new yam’: *émà* ‘yam,’ *óròṅ* ‘rainy season’

émùèngghén ‘striped yam’: *émà* ‘yam,’ *ùèngghén* ‘striped yam’

ìkpòkièèsì ‘boiled maize kernel, grits’: *ìkpòkà* ‘maize kernels,’ *ìèèsì* ‘rice’

ìrùròkà ‘fluff on maize ear’: *ìrùrù* ‘louse,’ *òkà* ‘maize’

évbèòhén ‘multi-lobed kola nut’: *évbèè* ‘kola nut,’ *òhén* ‘divine gift’

émèdó ‘sweet potato’: *émà* ‘yam,’ *èdó* ‘Bini people’

òjòmúdin ‘shoot of the oil-palm tree’: *òjómé* ‘palm shoot,’ *údin* ‘oil-palm’

ìkpèkpàn ‘melon balls for soup’: *ìkpà* ‘seed,’ *èkpàn* ‘gourds’

éánmèwè ‘goat meat’: *éànmì* ‘meat,’ *éwè* ‘goat’

éánmìsì ‘pork’: *éànmì* ‘meat,’ *ìsì* ‘pig’

Egg:

ékéin óókòhò ‘chicken egg’: *ékèin* ‘egg,’ *óókòhò* ‘chicken’

ékéin óròṅ ‘guinea fowl egg’: *ékèin* ‘egg,’ *óròṅ* ‘guinea fowl’

Soup:

ómòikhàán ‘soup from òikhàán shoot’: *òmì* ‘soup,’ *òikhàán* ‘type of tree’

ómòkhà ‘cotton shoot soup’: *òmì* ‘soup,’ *òkhà* ‘cotton tree’

ómèfò ‘vegetable soup’: *òmì* ‘soup,’ *èfò* ‘leafy vegetables’

ómìkpémì ‘melon soup’: *òmì* ‘soup,’ *ìkpémì* ‘melon’

ómíókhài ‘silk-cotton shoot soup’: *òmì* ‘soup,’ *ókhài* ‘silk-cotton tree’

ómòlòghò ‘dika nut soup’: *òmì* ‘soup,’ *òlòghò* ‘dika nut’

Food Wrap:

ékòkà ‘solidified maize meal wrap’: *èkò* ‘leaf wrap,’ *òkà* ‘maize’

ékévbù ‘solidified maize meal with oil’: *èkò* ‘leaf wrap,’ *évbù* ‘palm oil’

ékìkpèshè ‘solidified bean meal wrap’: *èkò* ‘leaf wrap,’ *ìkpèshè* ‘beans’

ékòdèlò ‘maize/bean meal with sauce’: *èkò* ‘leaf wrap,’ *òdèlò* ‘sauce’

ékòìbó ‘Western style cake’: *èkò* ‘leaf wrap,’ *òìbó* ‘whiteman’

Condiment:

úmèéìbó ‘sugar’: *úmèè* ‘salt,’ *èìbó* ‘whitemen’

ìsìéìbó ‘green or red pepper’: *ìsìèin* ‘pepper,’ *èìbó* ‘whitemen’

émìòmì ‘ingredient, condiment’: *émì* ‘thing,’ *òmì* ‘soup’

ùdénàgbán ‘oil from coconuts’: *ùdén* ‘palm oil,’ *àgbàn* ‘coconut’

Fruit:

ògèdàgbà ‘abnormally large plantain’: *ògèdè* ‘plantain,’ *àgbà* ‘basket’

ìnyóbá ‘paw paw, papaya fruit’: *ìnyò* ‘mother,’ *óbá* ‘Oba’

édiéìbó ‘pineapple’: *édìn* ‘palm fruit,’ *èìbó* ‘whitemen’

Nuts / Seeds:

úkpédìn, í- ‘palm nuts’: *úkpà* ‘nut,’ *édìn* ‘oil palm nut’

úkpìhiángùè, í- ‘peanut’: *úkpà* ‘nut,’ *ìhiángùè* ‘groundnut’

úkpìkòkò, í- ‘seed of cocoa bean’: *úkpà* ‘nut,’ *ìkòkò* ‘cocoa’

úkpìsèghègùé, í- ‘brown melon seed’: *úkpà* ‘nut,’ *ìsèghègùé* ‘brown melon’

úkpítóghò, í- ‘white melon seed’: *úkpà* ‘nut,’ *ítóghò* ‘white melon’
úkpìvìn, í- ‘palm kernel nut’: *úkpà* ‘nut,’ *ìvìn* ‘palm kernel’
úkpòbó, í- ‘seed of pinkish, sour fruit’: *úkpà* ‘nut,’ *òbó* ‘sour, pinkish fruit’
úkpótién ‘seed of yellow cherry’: *úkpà* ‘nut,’ *ótién* ‘African cherry’
úkpòú, í- ‘cotton seed’: *úkpà* ‘nut,’ *òú* ‘cotton shoot’
úkpòkhòhíá, í- ‘walnut’: *úkpà* ‘nut,’ *òkhòhíá* ‘walnut pod’
úkpùgbévbèè, í- ‘locust bean seed’: *úkpà* ‘nut,’ *ùgbévbèè* ‘locust bean’
úkpúìèn, í- ‘alligator pepper seed’: *úkpà* ‘nut,’ *úìèn* ‘alligator pepper’

Berries / Seeds:

ìkpísè ‘seeds’: *ìkpà* ‘seeds,’ *ìsè* ‘seeds’
ìkpékòmì ‘berries, seeds’: *ìkpà* ‘seeds,’ *ékòmì* ‘seeds, grains’
ìkpòkhùènkhuèn ‘thorned vine seeds’: *ìkpà* ‘seeds,’ *òkhùènkhuèn* ‘thorned vine’
ìkpìhìèhíé ‘hard bean seeds’: *ìkpà* ‘seeds,’ *ìhìèhíé* ‘hard bean’
ìkpòèlè ‘pigeon pea seed’: *ìkpà* ‘seeds,’ *òèlè* ‘pigeon pea’
ìkpéràn ‘fruit or seed of a tree’: *ìkpà* ‘seeds,’ *éràn* ‘trees’
ìkpòì ‘black berry seeds’: *ìkpà* ‘seeds,’ *òì* ‘blackberry tree’
ìkpòghéghè ‘yellow-berry tree fruit’: *ìkpà* ‘seeds,’ *òghéghè* ‘yellow berry tree’

Pit:

úgúámágo, í- ‘mango pit’: *úgùà* ‘pit,’ *ámágo* ‘mango’
úgúòúmù, í- ‘avocado pit’: *úgùà* ‘pit,’ *òúmù* ‘avocado’

Wine:

ényìkpikó ‘raffia palm-wine’: *ényò* ‘wine,’ *ìkpikó* ‘raffia palm’
ényògèdè ‘plantain wine’: *ényò* ‘wine,’ *ògèdè* ‘plantain’
ényòì ‘sweet blackberry syrup’: *ényò* ‘wine,’ *òì* ‘*Vitex doniana*’
ényòkà ‘maize wine’: *ényò* ‘wine,’ *òkà* ‘maize’
ényúdin ‘palm wine’: *ényò* ‘wine,’ *údin* ‘oil palm’

Container / Utensil Artifact:

úbèlàsí, í- ‘snuff-gourd’: *ùbèlè*, ì- ‘gourd,’ *àsí* ‘snuff’
úbèléákákàzá ‘akakaza calabash’: *ùbèlè* ‘gourd,’ *ákákàzá* ‘tree type’
úbèlé évbìì ‘palm oil gourd’: *ùbèlè* ‘gourd,’ *évbìì* ‘palm oil’
úbèlényò ‘wine gourd’: *ùbèlè* ‘gourd,’ *ényò* ‘wine’
úbètòèlè ‘bag of pigeon peas’: *ùbètè* ‘bag,’ *òèlè* ‘pigeon pea’
ùwàwòmì ‘soup pot’: *ùwàwà* ‘earthen pot,’ *òmì* ‘soup’
úkókúúkpù ‘coconut shell’: *ùkòkò* ‘container’ *úúkpù* ‘coconut’
úkókàsí ‘tin container of snuff’: *ùkòkò* ‘container,’ *àsí* ‘snuff’
èkpéghó ‘bag of money’: *èkpà* ‘bag,’ *éghó* ‘money’
úkòójè ‘ceramic cup or dish’: *úkó* ‘cup,’ *ójè* ‘traditional ruler’
ákhàmè ‘water pot’: *ákhè* ‘pot,’ *àmè* ‘water’
ògbèdàmè ‘water barrel’: *ògbèdí* ‘barrel,’ *àmè* ‘water’
ògúúdén ‘bottle of palm-kernel oil’: *ògú* ‘bottle,’ *údén* ‘palm oil’

Household Artifact:

émìdòbìà ‘tool’: *émì* ‘thing,’ *dòbìà* ‘work’
àgàdàmì ‘fork-shaped object’: *àgàdà* ‘junction,’ *émì* ‘thing’
àgádórèè ‘heirloom of a family’: *àgàdà* ‘junction,’ *órèè* ‘generation’
úgbówèè ‘broom stick’: *úgbàn* ‘thorn,’ *ówèè* ‘broom’
ósùdén ‘traditional black soap’: *ósà* ‘soap,’ *ùdén* ‘palm kernel oil’
òìòyó ‘shea butter oil’: *òí* ‘pomade,’ *òyó* ‘shea butter’
ínyókò ‘mortar’: *ínyò* ‘mother,’ *ókò* ‘canoe, boat’
ínyúdò ‘flat stone for grinding pepper’: *ínyò* ‘mother,’ *údò* ‘stone’
òvbíókò ‘pestle’: *òvbì* ‘offspring of,’ *ókò* ‘mortar’
òvbíúdò ‘round stone pestle’: *òvbì* ‘offspring of,’ *údò* ‘stone’
àgádágòdò ‘key, door lock and key’: *àgàdà* ‘junction,’ *ìkókókò* ‘keylock’
úhùnmòà ‘roof of a house’: *úhùnmì* ‘top/head,’ *òà* ‘house’
ésónkpùn ‘rag’: *ésèmì* ‘piece of,’ *úkùn* ‘cloth’

Blacksmith Artifact:

ákhàgbèdè ‘bellow’: *ákhè* ‘pot,’ *àgbèdè* ‘blacksmith’
àsàgbèdè ‘blacksmith workshop’: *àsè* ‘hut,’ *àgbèdè* ‘blacksmith’
èkpíjé’n ‘bag of charcoal’: *èkpà* ‘bag,’ *íjé’n* ‘charcoal’
ákèràìn ‘spark, cinders from a fire’: *àkòn* ‘tooth,’ *èràìn* ‘fire’

Farming Artifact:

ègúìgbàn ‘hoe type of Igbira people’: *ègúé* ‘hoe,’ *ìgbàn* ‘thorn’
úkpòsémà ‘rack for harvested yam’: *úkpòsé* ‘bush path,’ *émà* ‘yam’

Hunting Artifact:

ákópìà ‘sheath for a cutlass’: *àkò* ‘sheath,’ *ópìà* ‘cutlass’
ákùhài ‘quiver, sheath for arrows’: *àkò* ‘sheath,’ *ùhài* ‘arrow’
èkpòhàìn ‘leather bag’: *èkpà* ‘bag,’ *òhàìn* ‘leather’
èkpìdòhò ‘large jute sack’: *èkpà* ‘bag,’ *ìdòhò* ‘jute’
émàéđìhèn ‘food for the day’: *émàè* ‘food,’ *éđìhèn* ‘same day’
úrùkpìkábàdì ‘lantern for hunting’: *ùrùkpà* ‘lantern,’ *ìkábàdì* ‘carbide’
úrùkpòhùà ‘lantern of the hunter’: *ùrùkpà* ‘lantern,’ *òhùà* ‘hunter’
úkpórìfì ‘bent sapling of spring trap’: *úkpòrà̀n* ‘sapling,’ *ìfì* ‘trap’

War Artifact:

ákópìà ‘sheath for a cutlass’: *àkò* ‘sheath,’ *ópìà* ‘cutlass’
émíókhòìn ‘weapon, ammunition’: *émì* ‘thing,’ *ókhòìn* ‘war’
ákòísì ‘holster’: *àkò* ‘sheath,’ *òísì* ‘gun’
úkpòkpòrà̀n ‘wooden club’: *úkpòkpò* ‘baton, club,’ *òrà̀n* ‘wood’

Natural World:

ámégàá ‘rain water from a channel’: *àmè* ‘water,’ *égàá* ‘water channel’
àmùhài ‘well water’: *àmè* ‘water,’ *ùhài* ‘well’
ámìkpídò ‘hail’: *àmè* ‘water,’ *ìkpídò* ‘piece of stone’
òísòkhùnmi ‘thunder’: *òísì* ‘gun,’ *òkhùnmi* ‘sky’

Temporal Span:

édèhì ‘day of one’s death, day of fate’: *édè* ‘day,’ *èhì* ‘fate’

édèkìn ‘market day’: *édè* ‘day,’ *èkìn* ‘market’

éghéóbá ‘era, rulership, kingdom’: *éghè* ‘time,’ *óbá* ‘Oba, King’

úkpèèná ‘current season’: *úkpè* ‘year,’ *èèná* ‘today’

ùjèkìn ‘inclusive interval between markets’: *ùjè* ‘four days,’ *èkìn* ‘market’

Domestic Location:

ótôáfén ‘courtyard’: *òtòì* ‘ground,’ *áfèn* ‘family’

ótóídò ‘guarry’: *òtòì* ‘ground,’ *ídò* ‘stones’

ótóúghó’ì ‘house area before swept’: *òtòì* ‘ground,’ *úghó’ì* ‘staleness’

áyùhì ‘boundary, property line’: *áyè* ‘place,’ *ùhì* ‘border’

égbókhèè ‘back wall of a house’: *égbè* ‘side,’ *ókhèè* ‘watch area’

éghènbìà ‘place of work’: *éghè* ‘belly,’ *òbìà* ‘work’

óvbìúémághè ‘section of Ihievbe’: *óvbì* ‘offspring,’ *úémághè* ‘Ihievbe’

Location of Size:

úgbé’bè ‘grassland savanna’: *úgbó* ‘forest,’ *ébè* ‘leaf’

úgbé’dàbù ‘sandy, dusty area’: *úgbó* ‘forest,’ *èdàbù* ‘dust’

úgbí’dò ‘location of abundant stones’: *úgbó* ‘forest,’ *ídò* ‘stone’

úgbí’ìdì ‘graveyard, cemetery’: *úgbó* ‘forest,’ *ìdì* ‘grave’

úgbí’ihíángùè ‘groundnut plot’: *úgbó* ‘forest,’ *ihíángùè* ‘groundnut’

úgbí’ìbòbòdí ‘cassava plot’: *úgbó* ‘forest,’ *ìbòbòdí* ‘cassava’

úgbó’ògòdò ‘swamp, marshy plot’: *úgbó* ‘forest,’ *ògòdò* ‘mud’

úgbó’òhàà ‘field of elephant grass’: *úgbó* ‘forest,’ *òhàà* ‘elephant grass’

úgbó’òwò ‘raffia palm forest’: *úgbó* ‘forest,’ *òwò* ‘raffia palm’

úgbó’rè ‘old virgin forestland’: *úgbó* ‘forest,’ *órèè* ‘generation’

Some analytic compounds consist of three noun stems. The leftmost stem serves as head of the compound and exhibits a mid level taxonomic or idiomatic interpretation. The two stems to its right form a constituent with a more specific referent. Three-stem analytic compounds encode objects denoting flora, body parts and cultural items. All derive their sense in a compositional or a metaphoric manner.

ébisómò ‘soft, velvety leaves’

ébè ‘leaf,’ *isòn* ‘feces,’ *ómò* ‘child’

óókhúróòbè ‘fine for cultural taboo’

óókhò ‘chicken,’ *ùròò* ‘language,’ *òbè* ‘bad’

óbúlàlòmí ‘index finger’

óbò ‘hand,’ *úlàlò* ‘licking,’ *òmí* ‘soup’

Analytic compounds contrast with syntactic phrases where Associative *ísì* is overtly expressed. *ísì* induces high tone spread in its preceding noun, as also hap-

pens to the head of analytic compounds. But contrary to the final vowel elision on the left noun of analytic compounds, the left noun in *ísì* phrases does not show vowel elision. Instead, the initial vowel of *ísì* is effaced. *ísì* phrases also require an obligatory alienable relation between referents in contrast to the inalienable relation found in compounds.

édá ísì òkè ‘Oke river’: *édà* ‘river,’ *òkè* ‘Oke’

ékén ísì édà ‘sand from a river’: *èkèn* ‘sand,’ *édà* ‘river’

égúáí ísì ìèjè ‘council for chiefs’: *ègùàì* ‘village council,’ *ìèjè* ‘titled’

ékéìn ísì ìkpéèkpéyè ‘egg of duck’: *ékèìn* ‘egg,’ *ìkpéèkpéyè* ‘duck’

éànmí ísì éwè ‘meat for a goat’: *éànmí* ‘meat,’ *éwè* ‘goat’

úbélé ísì ákákàzá ‘akakaza gourd’: *ùbèlè* ‘gourd,’ *ákákàzá* ‘tree type’

úbélé ísì évbìì ‘gourd for palm oil’: *ùbèlè* ‘gourd,’ *évbìì* ‘palm oil’

úgbán ísì èvò ‘blade for guinea grass’: *úgbàn* ‘blade,’ *èvò* ‘guinea grass’

úgbán ísì èhèèè ‘bone from a fish’: *úgbàn* ‘bone,’ *èhèèè* ‘fish’

úgúá ísì àmáǵò ‘pit from mango’: *úgúá* ‘pit,’ *àmáǵò* ‘mango’

úgúá ísì òúmù ‘pit from avocado’: *úgúá* ‘pit,’ *òúmù* ‘avocado’

2.4.2 Phrasal compounds

Phrasal compound lexemes constitute a second compound type. They are composed of two noun stems between which occurs a grammatical morpheme (Relator *lì*, Locative Source *laa*, Comitative *bī*) or a reflex of a morpheme. Across noun stems, aberrant tonal patterning appears relative to syntactic phrases. The left stem serves as compound head, although neither noun is semantic head in compounds that have a metaphoric interpretation. Phrasal compounds denote referents that fall into semantic classes place, time, human social structure and animal.

Phrasal compounds with Relator *lì* incorporate a property noun in right stem position. Since the right noun expresses a property, and property nouns are generally preceded by *lì*, one would expect *lì* interposed consistently between noun stems and one would expect high tone spread on the left noun, as in syntactic Relator *lì* phrases. However, tonal properties differ between Relator *lì* compounds and Relator *lì* syntactic phrases.

In *lì* phrases, the left noun phrasal head exhibits high tone spread (*àmáǵò* > *àmáǵó*, *éwè* > *éwé*). The right noun denotes a property ascribed to the head.

àmáǵò lì òbàn

mango R raw.fruit

‘unripe mango’

éwé lì óbín’

goat R dark

‘dark goat’

In phrasal compounds linked to Relator *li*, high tone spread on the head noun is suspended. Phrasal compounds contrast in their tonal pattern, constituent marking or both. There are three lexical types. One type shows Relator *li* with its vowel elided. Left noun constituents show low tone in contrast to the high tone induced by *li* in syntactic phrases. Lexemes of this type encode place and time, the latter revealing an emphatic character.

Place:

àdàlèlè ‘intersection of four-paths where wizards and witches meet’

àdà ‘witches cove,’ *li R*, *èlè* ‘four’

àgàdàlèvá ‘road or path junction’

àgàdà ‘junction,’ *li R*, *èvá* ‘two’

Time:

èdèlákhò ‘the very day of tomorrow [emphatic of *ákhò*]

édè ‘day,’ *li R*, *ákhò* ‘tomorrow’

èdèléènà ‘the very day of today [emphatic of *éènà*]

édè ‘day,’ *li R*, *éènà* ‘today’

èdèlòtíàkhò ‘the very day after tomorrow [emphatic of *òtíàkhò*]

édè ‘day,’ *li R*, *òtíàkhò* ‘day after tomorrow’

èdèlùsùmù ‘nine days from today [emphatic of *ùsùmù*]

édè ‘day,’ *li R*, *ùsùmù* ‘nine day interval’

Phrasal compounds of a second type evince two distinct properties. Elision of the left noun stem’s final vowel fails to occur, contrary to the expected condition in compounds. And insertion of *li* between nouns is rejected. The left noun shows high tone spread. Except for those lexemes with metaphoric significance, the left noun also serves as compound head relative to the property sense of the right noun. Class two phrasal compounds have in common the expression of a value judgment.

úyàámí òbè ‘bad odor’: *úyàámí* ‘odor,’ *òbè* ‘bad, evil’

ékéín òbè ‘wickedness’: *ékéín* ‘belly,’ *òbè* ‘bad’

úròó òbè ‘taboo sayings by women’: *úròò* ‘language,’ *òbè* ‘bad’

étà òbè ‘bad talk, evil words’: *étà* ‘talk,’ *òbè* ‘bad’

ómóó ùzà ‘unusual friendship’: *ómòò* ‘friend,’ *ùzà* ‘unusual’

ésè òghòdàn ‘unrequited kindness’: *ésè* ‘social favor,’ *òghòdàn* ‘misfit’

ésè òhén ‘grace, free favor’: *ésè* ‘social favor,’ *òhén* ‘divine gift’

úshán òtùà ‘hasty journey’: *úshán* ‘journey,’ *òtùà* ‘hasty’

úéén òkpá ‘same character’: *úéén* ‘character’ *òkpá* ‘one, same’

Phrasal compounds of a third type related to *li* exhibit a slightly different set of properties. While these compounds do not manifest *li*, their left noun fails to show high tone spread. They encode nonnormative properties associated with humans.

ùrùn héé ‘tiny voice’: *ùrùn* ‘throat,’ *héé* ‘tiny’
òkpòsò ògbòn ‘recent wife’: *òkpòsò* ‘woman,’ *ògbòn* ‘fresh’
òkhèkhè égbè ‘source of sorrow’: *òkhèkhè* ‘grief,’ *égbè* ‘body’

Phrasal compounds also form with Locative Source *laa*. In syntactic phrases, *laa* occurs between noun stems and induces high tone spread on the left noun stem, the head. The right noun stem expresses time or place.

óíá láá èìmì ‘person from the spirit world’
òìà ‘person,’ *laa* LS, *èìmì* ‘spirit world’
óíá láá àgbòn ‘person from the physical world’
òìà ‘person,’ *laa* LS, *àgbòn* ‘physical world’

Compared to syntactic phrases, phrasal compounds exhibit two distinct properties. The marker of Locative Source (LS) *laa* is retained, in reduced form *lá*, and it is interposed between constituent noun stems. The left noun constituent fails to show high tone spread, as corresponding phrases do.

Human:

èdòláàkùré ‘Edo speaking people from Akure’
èdó ‘Edo,’ *laa* LS, *àkùré* ‘Akure’
òbòlèìmì ‘oraclist from the spirit world’
òbò ‘oraclist, diviner,’ *laa* LS, *èìmì* ‘spirit world’
òrèléédé ‘preceding generation, ancestors’
òrèè ‘generation,’ *laa* LS, *édé* ‘day’
òmòlòdéé ‘child persistently out of doors’
òmò ‘infant, child,’ *laa* LS, *òdéé* ‘township’

Animal:

àwàlùùhòbò ‘hyena’
àwà ‘dog,’ *laa* LS, *ùhòbò* ‘Urhobo people’

A third phrasal compound type consists of constituent noun stems linked by the Comitative (COM) conjunct *bî*. In syntactic phrases, noun phrases of equivalent syntactic character occur on either side of high low tone *bî*. There is no high tone spread on the left noun phrase and the left edge of the right noun phrase, provided a high high sequence exists, shows high tone lowering via the Comitative’s low tone (*óókhò* > *òókhò*).

éwè bî òókò
 goat COM chicken
 ‘a goat and a chicken’

In contrast to the pattern in *bî* phrases, the left stem in phrasal compound lexemes does not show high tone spread and the initial vowel of the right stem raises to high. Phrasal compound lexemes of this type denote an object of traditional religious belief or an abstract condition of elevated status. Only phonologically identical nouns occur in *bî* lexemes.

òbèbíòbè ‘medicinal herb for evil charms’
òbè ‘evil,’ *bî* COM, *òbè* ‘evil’
òyébíóyè ‘state of being precious, dear, costly, expensive’
òyé ‘(unknown),’ *bî* COM, *òyé* ‘(unknown)’

2.4.3 Simple synthetic compounds

Synthetic compounds in Emai consist of a prefix, a transitive verb root and either a noun or adverb stem. Prefixes in synthetic compounds are *a-*, *i-*, *e-*, *o-*, *u-*, and only *e-* does not appear.

Synthetic compound lexemes with a verb and noun stem refer to household artifacts, natural world entities, social roles, locations and time conditions. Their interpretation reflects the relations ‘characterized by,’ ‘results from,’ or ‘used to undertake.’ In corresponding syntactic phrases, the noun stem corresponds to a direct object argument of the transitive verb

Prefix *a-* converts transitive stative verbs or change of state verbs and their direct objects to location nominals denoting place. Resulting lexemes have the interpretation ‘spatial location characterized by VERB NOUN’ or an idiomatic variant of this.

ákpèfèn ‘side of body’: *kpen* ‘to be next to,’ *èfèn* ‘side of’
àkpòbò ‘bypass behind a house’: *kpen* ‘to be next to,’ *òbò* ‘hand’
ákáéhòn ‘eardrum’: *ka* ‘to dry,’ *éhòn* ‘ear’

Prefix *a-* converts transitive change of state verbs and their direct objects to patient nominals denoting a time segment. These lexemes have the sense ‘temporal condition characterized by VERB NOUN.’

ákòèghè ‘simultaneousness’: *ken* ‘to divide,’ *òèghè* ‘equal’

Prefix *a-* converts transitive activity verbs and their direct objects to patient nominals denoting cognitive conditions. Lexemes of this type have the meaning ‘cognitive condition characterized by VERB NOUN’ or an idiomatic variant.

àlòmèhèn ‘sex mania’: *là* ‘to flow,’ *ómèhèn* ‘sex’
àmìèhèn ‘belief, faith’: *miè* ‘to experience with,’ *èhèn* ‘ear’

Prefix *a-* converts transitive change of state verbs and their direct objects to patient nominals denoting physical objects. Resulting lexemes have the idiomatic interpretation ‘thing characterized by VERB NOUN.’

àkhùèràn ‘larvae encased in sticks’: *khuun* ‘to bundle,’ *éràn* ‘sticks, twigs’

Prefix *a-* converts transitive change of state verbs and their direct objects to instrument nominals denoting physical objects. These lexemes have the meaning ‘thing used to undertake VERB NOUN.’

àdàîghèn ‘calico cloth’: *daa* ‘to raise,’ *îghèn* ‘smoke’
àlòfò ‘fan of raffia palm leaves’: *la* ‘to flow with,’ *òòfò* ‘sweat’

Prefix *è-* converts transitive change of state verbs and their direct objects to patient nominals denoting place. Resulting lexemes have the sense ‘spatial location characterized by VERB NOUN.’

ékàà ‘room, sleeping quarters’: *kèn* ‘to divide,’ *òà* ‘house’

Prefix *i-* converts transitive activity verbs and their direct objects to patient nominals denoting natural objects. These lexemes have the interpretation ‘thing characterized by VERB NOUN.’

ìédó ‘winged termite species’: *òò* ‘to mimic,’ *édó* ‘termite’

Prefix *i-* converts transitive stative verbs and their direct objects to patient nominals denoting time. Lexemes of this type have the meaning ‘temporal position characterized by VERB NOUN.’

ìkpàò ‘first time’: *kpen* ‘to be next to,’ *àò* ‘position one’

Prefix *i-* converts transitive change of state verbs and their direct objects to location nominals denoting place. Resulting lexemes are interpreted as ‘spatial location characterized by VERB NOUN.’

ísàdò ‘front of’: *sɛ* ‘to reach,’ *àó* ‘position one’

Prefix *i-* converts transitive change of state verbs and their direct objects to agent nominals denoting social roles. Lexemes in this class have the sense ‘social role characterized by VERB NOUN.’

ísìghàn ‘prisoner’: *sò* ‘to collide with,’ *ìghàn* ‘chain’

Prefix *i-* converts transitive change of state verbs of cognition and their direct objects to patient nominals denoting cognitive conditions. These lexemes have the meaning ‘cognitive condition characterized by VERB NOUN.’

ìhùnmèhài ‘good fortune’: *hunmɛ* ‘to appease,’ *èhài* ‘forehead’

Prefix *o-* converts transitive change of state verbs and their direct objects to patient nominals denoting cognitive conditions. Lexemes in this class mean ‘cognitive condition characterized by VERB NOUN.’

òséká ‘monetary loss, misfortune’: *sɛn* ‘to stab,’ *ékà* ‘amount’

Prefix *o-* converts transitive activity verbs and their direct objects to agent nominals denoting human social roles. Lexemes of this nature have the idiomatic interpretation ‘social role characterized by VERB NOUN.’

òlèhèìn ‘liar’: *la* ‘to flow with,’ *èhèìn* ‘lie’

Prefix *o-* converts transitive activity verbs or change of state verbs and their direct objects to agent nominals denoting human social roles. Lexemes in this class have the idiomatic interpretation ‘social role characterized by VERB NOUN.’

òlòfɛ̀n ‘person full of fear’: *la* ‘to flow,’ *òfɛ̀n* ‘fear’

òlòghèè ‘sexually promiscuous one’: *la* ‘to flow,’ *òghèè* ‘promiscuity’

òmìèdò ‘prophet, fortune teller’: *mìè* ‘to discover with,’ *èdò* ‘eye’

òmìèùròdò ‘interpreter’: *mìè* ‘to seize,’ *ùròdò* ‘language’

òmòèdò ‘contentious person’: *mòè* ‘to possess,’ *èdò* ‘face’

òzèvà ‘partner, second’: *zè* ‘to select, choose,’ *èvà* ‘two’

Prefix *o-* converts transitive change of state verbs and their direct objects to patient nominals denoting entities of the natural environment. These lexemes have the idiomatic sense ‘thing characterized by VERB NOUN.’

òrùṅṅó ‘Alesses baremose fish’
run ‘to light’ *ḗò* ‘eye’: ‘be blind’

Prefix *u-* (as well as *i-*) converts transitive activity verbs and their direct objects to instrument nominals denoting physical objects. Resulting lexemes have the interpretation ‘thing used to undertake VERB NOUN.’

úkpàkòṅ, íkpàkòṅ ‘chew stick’: *kpe* ‘wash,’ *àkòṅ* ‘tooth’

Prefix *u-* converts transitive activity and change of state verbs and their direct objects to patient nominals denoting physical objects. Lexemes of this nature have the interpretation, often idiomatic, ‘thing characterized by VERB NOUN.’

úkhùḗbò ‘shrine charm’: *khuun* ‘to bundle,’ *ḗbò* ‘shrine’
úkhùḗdè ‘door, entrance’: *khuun* ‘to bundle,’ *ḗdè* ‘day’
úkhùòtòì ‘house grounds’: *khuun* ‘to bundle,’ *òtòì* ‘ground’

2.4.4 Complex synthetic compounds

Complex synthetic compounds consist of a prefix, two verb roots and a single noun stem. They exhibit structural subclasses based on noun position. Verb and noun elements forming complex synthetic compounds correspond to verb phrase syntactic constituents. Prefixes in complex synthetic compounds include *i-*, *ò-* and *a-*.

Complex synthetic compound lexemes of one structural type consist of two verb roots with an intervening noun stem. The two verbs encode a complex predicate of event end state or result, with the noun serving as predication direct object. These lexemes encode relatively few entities, covering selected food items, games, social roles, and abstract conditions.

Prefix *i-* converts end state verbs in series and their direct objects to patient nominals denoting human social conditions. These lexemes have the interpretation ‘social condition characterized by VERB NOUN VERB.’

ígbóbòrù ‘embezzlement’: *gbe ru* ‘to embezzle,’ *òbò* ‘hand’
ìdèhùnmìré ‘humility, deference’: *dee re* ‘to lower’ *ùhùnmì* ‘head’
ìkhùàègbèré ‘pride’: *khuae re* ‘to raise up,’ *égbè* ‘self’

Prefix *i-* converts end state verbs in series and their direct object to patient nominals denoting temporal conditions. Lexemes in this class have the sense ‘temporal span characterized by VERB NOUN VERB.’

ìnwòbòmóé ‘menstruation’: *nwu mọe* ‘to hold,’ *óbò* ‘hand’
ìràbònwú ‘procession game of girls’: *rẹ nwu* ‘to grab,’ *ábò* ‘hands’

Prefix *i-* converts end state verbs in series and their direct object to patient nominals denoting natural physical entities. Resulting lexemes have the interpretation ‘thing characterized by VERB NOUN VERB.’

ìkpéònmò ‘type of very sweet fruit’: *kpan mọe* ‘to hold,’ *éò* ‘honey’

Prefix *o-* converts end state verbs in series and their direct object to agent nominals denoting human social roles. Lexemes of this nature have the sense ‘one characterized by VERB NOUN VERB.’

òèèmìré ‘one who remembers’: *ee re* ‘to remember,’ *émì* ‘thing’
òèmàshán ‘one who eats wastefully’: *e shan* ‘eat wastefully,’ *émà* ‘yam’

Complex synthetic compounds of a second structural type consist of two verb roots followed by a noun stem. Only the prefix *a-* appears in this complex synthetic compound. Compounds of this type correspond to end state events. The only lexeme in this subclass denotes a bodily posture.

Prefix *a-* converts end state verbs in series and a direct object to a patient nominal denoting posture. It has the sense ‘posture characterized by VERB VERB NOUN.’

àkùyúókhó ‘back flip’: *ku ye* ‘to toss toward,’ *ùòkhò* ‘back’

Complex synthetic compounds of a third structural type consist of two verb roots, each followed by a noun stem. They form with prefixes *a-* and *o-*. Each noun serves as direct object for its preceding verb in corresponding syntactic phrases.

Prefix *a-* converts transitive verbs in series with their direct objects to patient nominals denoting temporal spans. Lexemes in this class are interpreted as ‘temporal condition characterized by VERB NOUN VERB NOUN.’

àrègbèmiéfió ‘recess’
rẹ ‘to use,’ *égbè* ‘body,’ *míe* ‘to receive,’ *éfiò* ‘wind’

Prefix *o-* converts transitive verbs in series and their direct objects to agent nominals denoting imaginary creatures. Resulting lexemes have the meaning ‘one characterized by VERB NOUN VERB NOUN.’

òzùkòkòzékùè ‘hermaphrodite’
ze ‘to select,’ *ùkòkò* ‘vagina,’ *ze* ‘to select,’ *ékùè* ‘penis’

2.4.5 Synthetic compounds with adverbs

Complex synthetic compounds of a different structural character consist of a prefix, verb root and an adverb or adverb derived from a verb. Predominantly intransitive verbs are involved.

Lexemes of one structural type show a prefix, an intransitive verb and an adverb. They form with one prefix, *i-*, which converts intransitive stative verbs and their adverbs to agent nominals denoting human social roles. Members have the idiomatic sense ‘one characterized by VERB ADVERB.’

ifòfòséén ‘dullard’

fòfò ‘be cold,’ *séén* ‘lifeless’: ‘be a dullard’

Prefix *i-* converts intransitive change of state verbs and their adverbs to patient nominals denoting time entities. Resulting lexemes have the interpretation ‘temporal span characterized by VERB ADVERB.’

ikùnèdèdédé ‘day time before dawn’

kun ‘to clear,’ *èdèdédé* ‘moment ago’: ‘to clear moments ago’⁶

Lexicalizations involving adverbs also form with a verb verb collocation where the second verb functions in syntactic phrases as an adverbial or particle. Lexemes in this subclass encode social roles and abstract conditions. They show the prefixes *a-*, *o-*, and *ɔ-*.

Prefix *a-* converts intransitive activity verbs and their verbal adverbials to patient nominals denoting human social roles. Resulting lexemes have the interpretation ‘one characterized by VERB ADVERB.’

àúkhòò ‘disfavored wife’

u ‘to act,’ *khòò* ‘to be wicked’: ‘to ill treat, abuse’

àrààkhùà ‘professional robber’

raa ‘to rob,’ *khua* ‘to be heavy’: ‘to rob extensively’

Prefix *a-* converts transitive activity verbs, their direct objects and an adverb grammaticalized from a verb to a patient nominal denoting an abstract condition. These lexemes have the sense ‘physical condition characterized by VERB NOUN ADVERB.’

àùèmiráá ‘excessiveness’

u ‘do,’ *émì* ‘thing,’ *raa* ‘exceed’: ‘do something excessively’

Prefix *o-* converts a transitive activity verb and particle *gbe* (from verb *gbe* ‘be dull’) to a nominal denoting a condition of human existence. Resulting lexemes have the sense ‘condition characterized by VERB PARTICLE.’

òègbé ‘overeating, gluttony’

e ‘to eat’ *gbè* ‘much’: ‘to eat excessively’

Prefix *o-* converts intransitive activity verbs and grammaticalized *gbe* to patient nominals denoting natural entities. Lexemes in this class have the meaning ‘thing characterized by VERB PARTICLE.’

òságbè ‘fish with sting fins’

sa ‘to sting,’ *gbè* ‘much’: ‘to sting often’

Lexemes of another structural type consist of a prefix, an auxiliary form, an adverbial preverb and a verb root. Only one prefix participates in such compounds.

Prefix *a-* converts an intransitive activity verb, negative particle *ì* and ability preverb *miti* to a patient nominal denoting an abstract condition. These lexemes have the interpretation ‘condition characterized by NEG PREVERB VERB.’

àìmitíkòò ‘uncountable condition’

ì NEG, *miti* ‘able,’ *koo* ‘to count’

Prefix *a-* converts a transitive change of state verb, its direct object and the preverb *sè* to an agent nominal denoting an animate object. Resulting lexemes have the sense ‘one characterized by PREVERB VERB NOUN.’

àsésèòkpà ‘cockerel, immature cock’

sè DUR, *sè* ‘to reach,’ *òkpà* ‘cock’: ‘one yet to reach cock state’

2.4.6 Synthetic compounds with particles

Synthetic compounds of a distinct structural character form with prefix, verb root and postverbal particle. Particles included are Change of State (CS) *a*, Change of Location (CL) *o*, and Applicative (APP) Change of Possession *li/ni*. Resulting lexemes encode conditions or entities that assume change of some sort. Not participating in synthetic compounds are the postverbal particles for Temporal Perspective (*lee*) and Projected Adherence (*e*). Particle compound prefixes are *i-*, *o-*, *e-* and *a-*.

Prefix *i-* converts transitive change of state verbs, their direct objects and CS *a* to patient nominals denoting cognitive conditions. These lexemes have the idiomatic meaning ‘cognitive condition characterized by VERB NOUN PARTICLE.’

ìègbèá ‘forgetfulness’

ee a ‘to forget,’ *égbè* ‘body’: ‘to forget oneself’

ìtànèòá ‘state of enlightenment’

taan a ‘to open,’ *èò* ‘eye’: ‘to be enlightened’

Prefix *i-* converts transitive change of state verbs, their direct objects and CS *a* to patient nominals denoting temporal conditions. Lexemes in this class have the idiomatic interpretation ‘temporal condition characterized by VERB NOUN PARTICLE.’

ìfètìná ‘rest, holiday’

foo a ‘to cool down,’ *ètìn* ‘breath’: ‘to rest’

Prefix *ò-* converts transitive change of state verbs, their direct objects and CS *a* to patient nominals denoting cognitive conditions. Resulting lexemes have the idiomatic meaning ‘cognitive condition characterized by VERB NOUN PARTICLE.’

ònyùnùá ‘surprise’

nya a ‘to rip open,’ *únù* ‘mouth’: ‘to surprise’

Prefix *a-* converts an intransitive verb and CL phrase to an abstract nominal with idiomatic sense ‘cognitive condition characterized by VERB PARTICLE NOUN.’

àsòòvbégbè ‘boastfulness’

so ‘touch,’ *ò* CL, *vbi* LOC, *égbè* ‘body’: ‘remain focused on one’s self’

Prefix *a-* converts transitive change of state verbs, their direct objects and a CL phrase to patient nominals denoting a cognitive state. These lexemes have the idiomatic sense ‘cognitive condition characterized by VERB NOUN PARTICLE NOUN.’

àgbhàìàòvbólèsèn ‘ingratitude’

gbe ‘beat,’ *òìà* ‘person,’ *ò* CL, *vbi* LOC, *ólèsèn* ‘goodness’: ‘ungrateful’

àrèòòvbémí ‘covetousness’

rè ‘take,’ *èò* ‘eye,’ *ò* CL, *vbi* LOC, *émì* ‘thing’: ‘to be avaricious’

Prefix *ò-* converts transitive change of state verbs, their direct objects, and a CL phrase to patient nominals. Lexemes of this nature have the idiomatic meaning ‘thing characterized by VERB NOUN PARTICLE NOUN.’

òfèṅàhìèṅóvbòà ‘egg case of praying mantis’

fena ‘pass,’ *áàhìèṅ* ‘urine,’ *ò* CL, *vbi* LOC, *òà* ‘house’: ‘urinate at home’

Prefix *e-* converts intransitive change of state verbs and CL *ò* to a patient nominal denoting a physical entity. Lexemes in this class have the sense ‘thing characterized by VERB PARTICLE.’

èáà ‘castrated male goat’

aa ‘to castrate,’ *ò* CL: ‘to become castrated’

Prefix *a-* converts an intransitive activity verb and an Applicative phrase to a nominal denoting an activity. Resulting lexemes have the interpretation ‘activity characterized by VERB PARTICLE NOUN.’

àgbélòjé ‘acrobatic dance heralding arrival of a chief’

gbè ‘dance,’ *li* APP, *òjè* ‘chief’: ‘to dance for the chief’

2.4.7 Locative synthetic compounds

Synthetic compounds of a distinct structural type are formed by a prefix, verb root, locative preposition *vbi* and its complement. Prefixes marking these compounds are *a-* and *ò-*. In resulting lexemes, transitive or intransitive verbs occur with a locative *vbi* phrase, as they do in corresponding syntactic phrases. Corresponding syntactic phrases show non-literal or metaphorical interpretations.

Prefix *a-* converts transitive change of state verbs and locative *vbi* phrases to patient nominals denoting human conditions. These lexemes have the idiomatic interpretation ‘human condition characterized by VERB LOCATIVE.’

ànwùvbèó ‘attraction, appeal’

nwu ‘to catch,’ *vbi* LOC, *èò* ‘eye’: ‘to be attractive’

àzèvbùdì ‘fatality, fatal error’

zè ‘to select,’ *vbi* LOC, *ìdì* ‘grave’: ‘to be fatal’

Prefix *a-* converts a transitive activity verb, locative *vbi* phrase and a verb in series to a patient nominal denoting a cognitive condition. Lexemes in this class have the interpretation ‘cognitive condition characterized by VERB LOCATIVE VERB.’

àyìvbòré ‘mathematical subtraction’

yì ‘to pull,’ *vbi* LOC, *ò* ‘it,’ *re* ‘arrive’: ‘to subtract’

Prefix *o-* converts intransitive stative verbs and their locative *vbi* phrases to patient nominals denoting human conditions. These lexemes have the sense, at times idiomatic, ‘human condition characterized by VERB LOCATIVE.’

òvbàvbgbé ‘irritating sensation’

vbaa ‘to be peppery,’ *vbi* LOC, *égbè* ‘body’: ‘to be irritated’

òfùnvbgbé ‘relaxed state of mind’

fun ‘to be comfortable,’ *vbi* LOC, *égbè* ‘body’: ‘to be at peace’

òkhòvbgó ‘unpleasant sight’

khoo ‘to be terrible,’ *vbi* LOC, *èdò* ‘eye’: ‘to be unsightly’

Prefix *o-* converts an intransitive activity verb and a locative *vbi* phrase to an agent nominal denoting a human social role. Resulting lexemes have the interpretation ‘one characterized by VERB LOCATIVE.’

òlàvbèhòn ‘stubborn person’

la ‘to flow, discharge,’ *vbi* LOC, *èhòn* ‘ear’: ‘to be stubborn’

2.4.8 Clausal synthetic compounds

Synthetic compounds of a distinct structural type form by lexicalizing an entire clause. Lexemes of this nature are formed from verb or copular clauses or pronominally headed relative clauses. There are three classes.

One lexeme class involves a copula (COP) predicate and accompanying pre- and post-copula nominals of identical phonological shape. Equational Identity copula *khi* ‘be equivalent,’ pre- and post-copula position nominals, and Identity subject *í* frame lexemes denoting indefinite, generic reference. They have the meaning ‘condition characterized by NOUN COP NOUN.’

émìikhè mí ‘anything, whatever’

émì ‘thing,’ *í* ID, *khi* COP, *émì* ‘thing’

éghèìkhèghé ‘any time, whenever’

éghè ‘time,’ *í* ID, *khi* COP, *éghè* ‘time’

édèìkhédé ‘whichever day, any day’

édè ‘day,’ *í* ID, *khi* COP, *édè* ‘day’

Lexemes of a second class denote a bodily condition. They employ the verb *vbi* ‘happen to’ preceded by the nonhuman noun *émì* and followed by the human noun *ómò*. Resulting lexemes have the idiomatic interpretation ‘bodily condition characterized by NOUN VERB NOUN.’