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RELIC NOUN-CLASS STRUCTURE IN LEGGBO

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1. Introduction[*]

In many West African Niger-Congo languages, historical noun class prefixes undergo significant levelling and/or fusion with the noun stem. Starting from a full set of singular-plural markers both on nouns and on agreeing elements, the logical endpoint of such changes can be the total loss of noun classes, as has happened some of the best-known Benue-Congo and Kwa languages, e.g., Akan, Ewe, Yoruba, Igbo. Resistance to this tendency can be found in certain subgroups in Nigeria, e.g., Upper Cross, where languages such as Mbembe (Barnwell 1969a,b), and Lokaa (Iwara 1982) have been reported to have full-fledged noun class marking and concord systems. It is thus striking that closely related Leggbo has lost all noun class agreement. Still, it is possible to identify a prefix-stem structure on the basis of a number of arguments.

The purpose of this paper is to document relic noun-class structures in Leggbo, an Upper Cross minority language. Leggbo is spoken by an estimated 60,000 Agbo people in two local government areas, recently named Abi and Yakurr, in Cross River State. In §2 and §3 we demonstrate that although Leggbo has lost the inherited noun class system, nouns must still be analyzed as consisting of a prefix-stem structure. Sections §4 and §5 provide further evidence from reduplication and compounding, respectively, and §6 illustrates relics of

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earlier noun class agreement found on possessive pronouns. The conclusion is that Leggbo represents an intermediate stage on the way to becoming like Yoruba and Igbo.

2. Basic Noun Structure

Most nouns in Leggbo consist of a prefix and a stem, the latter consisting of one or two (rarely more) syllables. Some 6% (35 out of 569) of the nouns collected are prefixless including the following, the last three of which are borrowings:

sìn	'hair'	nɔ̀nɔ́ŋ	'finger'
ddèn	'eye'	cɔcɔ	'small frog (sp.)'
dzè	'crocodile'	ttɛttɛɛ	'grandfather'
dzɔ̀	'snake'	kkàkki	'pants'
kkwàl	'boat'	fùfú	'fufu'
vvɔ́m	'thing'	bìleèdi	'bread'

Many of the bisyllabic and longer prefixless nouns are reduplications; cf. also *kkpakkpa* 'groundnuts', *kkwàkkwá* 'locust tree', *gbòŋgbòŋ* 'can, tin', *koolíkoòli* 'flower'. Others may be historical compounds whose parts can no longer be identified, or they may be borrowings, e.g., *jǎkpu* 'cassava', *tálatòlo* 'mumps'.

A noun prefix may have the shape CV- or V-, or it may consist of a homorganic (syllabic) nasal N-. Leggbo distinguishes the following prefixes.

li-	i-	N-	[m-, n-, ŋ-]
lɛ- (~ le-)	ɛ- (~ e-)		
gi-	a-		
gɛ- (~ ge-)			

The vowels in the prefixes are limited to /i/, /ɛ/ and /a/, round vowels being prohibited. Prefixal /ɛ/ harmonizes to [e] when followed by /i/, /e/, /u/ or /o/ in the root, e.g., *lèsàl* 'tooth', *lèbèl* 'beard'. While the /l/ of *li-* and *le-* is stable, prefixal /g/ may optionally be lenited to a continuant [ɣ] or be dropped entirely, e.g., *gìvála ~ ìvála* 'guilt', *gèbɔ ~ èbɔ* 'arm, hand'. Finally, note that of the 566 prefixed nouns entered into the lexicon, 371 carry L tone, while 187 carry M tone. This leaves only the following 8 nouns with H tone prefixes:

líddaddil	'rejoicing'	ákkpaŋ	'plate'
lídzil	'food'	líkpaal	'community'
íkílíbí	'cowry'	áŋàlà	'garden egg'
ékko	'vegetable (sp.)'	ɛ́wàwàɛ́	'child-like'

The first two are nominalizations (cf. *ddaddi* 'rejoice', *dzi* 'eat'), while others may be borrowings. Each of the Leggbo prefix shapes is illustrated below.

li-   litɔ́l 'ear', lìvɔl 'belly', lidèèl 'name', linyumìl 'thorn'
lɛ-   lèbàl 'axe', lèzàŋàl 'river', lèttol 'head', lèbèl 'beard'
gi-   gìtáá 'witchcraft', gìvála 'guilt', gittù 'life', gìbáà 'marriage'
gɛ-   gèbɔ 'arm, hand', gèvè 'foot', gètti 'tree', gèkù 'hoe'
i-   iwà 'spirit', ìzù 'gourd', ìtóbo 'monkey', izɔ̀ɔ̀m 'knife'
ɛ-   ɛ̀nɔ̀n 'person', ɛ̀tɛɛm 'meat, animal', ɛ̀bbi 'goat', ɛ̀nùŋ 'salt'
a-   àzì 'blood', àsi 'water', ànààn 'oil', aggbà 'chin', àjí 'feast'
N-   m̀bom 'cheek', ǹzúŋ 'nose', ǹnyɔ́ŋ 'maggot', ŋ̀kɔ 'nut'

As seen in the following examples, indigenous Leggbo personal names also begin with these prefixes:

li-   líddaddìl (*m./f.*) ('happiness')
lɛ-   lètɔ̀ɔ̀ŋɔ̀l (*m./f.*) ('praise')
gi-   gittù (*m./f.*) ('life')
gɛ-   ?
i-   icéji (*f.*), ikkɔ̀ (*m.*), ìccá (*m.*)
ɛ-   elémi (*m.*), ɛ̀kàma (*f.*) (< ɛ̀kà amán 'our mother'), ɛkpaa (*m.*), ɛ̀bìa (*f.*), ɛ̀nnì (*m./f.*)
a-   ámɔ̀n (*m.*), àdìàaha (*f.*), àggbɔ́mi (*m.*)
N-   ntɔ̀mɔ (*f.*), ŋ̀káánu (*m./f.*)

Any other initial vowel indicates that a name has been borrowed from another language, e.g., from Efik: *okôn* (*m.*), *ùdɔ* (*m.*), *ódùdù* (*m.*).

The above prefixes are frozen relics of a former noun class system which conditioned full agreement—and which can be observed in nearby Upper Cross languages such as Lokaa (Iwara 1982) and Mbembe (Barnwell 1969a,b). In some cases these prefixes suggest a former grouping of nouns by semantic features:

First, we have found approximately 20 nouns denoting human beings with prefix *ɛ-* in the singular and *a-* in the plural (almost all of them with L tone):

èbɔ́bɔ́nɔ	'native doctor'	pl.	àbɔ́bɔ́nɔ
ècècèna	'guest, stranger'	pl.	àcècèna (cf. cce 'expect')
èdum	'husband'	pl.	àdum
egbó	'Leggbo person'	pl.	agbó
ègɔ̀gɔ̀mɔ	'fool'	pl.	àgɔ̀gɔ̀mɔ
èkaala	'European'	pl.	àkaala
èkkà	'mother'	pl.	àkkà
èkkàkkàya	'carpenter'	pl.	àkkàkkàya (cf. kka 'carve')
èllà	'servant, maid'	pl.	àllà
ènnɛ̀	'in-law'	pl.	ànnɛ̀
ɛtatàanɔ	'sorcerer, wizard'	pl.	atatàanɔ
ɛtatama	's.o. of Adadama'	pl.	atatama
ètɛ̀tɛ̀ɛa	'blacksmith'	pl.	àtɛ̀tɛ̀ɛa (cf. tɛ̀ɛɛ 'burn')
ètètèla	'madman'	pl.	àtètèla
èttɛ	'father'	pl.	àttɛ
ètùlùkpa	'senior'	pl.	àtùlùkpa
èvaal	'chief'	pl.	àvaal
èvèvè	'thief'	pl.	àvèvè
èvóli	'servant, Igbo'	pl.	àvóli
èvvúà	'poor person'	pl.	àvvúà
èyòò	'friend'	pl.	àyòò

As seen, some of these nouns are agentives derived from verbs. However, most agentives in Leggbo are phrasal in natural:

ɛ̀nɔn (áke) neɛ̀ ttui àtɛɛ̀mì 'farmer' = person (who) cultivates farm
    pl. ànɔn (áke) banà ttui àtɛɛ̀mì
ɛ̀nɔ̀n (áke) nɛɛ̀ waal gèdi   'tapper' = person (who) taps palm tree
    pl. ànɔn (áke) banà waal gèdi
ɛ̀nɔn (áke) ɛ̀ nnɛni vvɔ́m   'owner' = person (who) has/owns something
    pl. ànɔn (áke) bà nnɛni vvɔ́m

Others are formed by compounding or use of the associative construction, e.g., ɛ̀nɔ̀n *likwɛ́-kɔl* 'hunter' (person of hunting), or by nominalizing the verb with è- followed by an object. They do not take a plural in *a*-.

èttùi àtɛɛ̀mì	'farmer'	(cultivator + farm)
ètú gèzù	'dancer'	(dancer + dance)
èkkpɔ́ èttɔ	'house-builder'	(builder + house)

In addition to 'husband', 'mother', 'father', and 'in-law', a small set of other human terms involve a change of initial consonant in singular vs. plural forms:

gwànɔ	'woman'	pl.	bànɔ
wàdum	'man'	pl.	bàdum
wàɛ́	'child'	pl.	bèɛ́
wákkà	'sibling'	pl.	bákkà

To these we can add *àggwèɛ́yɛ́* 'wife' (pl. *àbbèɛ́yɛ*) which both has a prefix and has undergone initial consonant change to form its plural. Several other kinship terms are derived by means of the above four nouns, e.g., *wàɛ́ a ggwànɔ* 'daughter', *wàɛ́ a wàdum* 'son', *wákkà a ggwànɔ* 'sister', *wákkà a wàdum* 'brother', *wàawáá* 'grandchild' (pl. *bèɛ́ a wàà*). Very few human nouns occur with other prefixes, e.g., *ikku* 'family, relatives', *m̀kpàláwa* 'boy, young man' (< Efik), *gituùtù(wɛ́)* 'baby', *iyaà* 'grandmother, old woman'. The prefixless nickname *ttɛttɛ* 'grandfather' is derived from *èttɛ* 'father' via reduplication.

Except for *è-bbi* 'goat' (pl. *à-bbi*), non-human nouns taking either ɛ- or a-prefixes do not show a difference in sg/pl forms, e.g., *è-kɔ́mi* 'cotton tree(s)', *è-yím* 'onion(s)', *è-ttɔ* 'house(s)'. This includes the rather sizeable number of (mostly L tone) nouns denoting animals:

ècíɲ	'porcupine'	ɛ̀vààm	'cow'
ekìlíkìlí	'weaver bird'	èvòm	'tsetse fly'
èkkwɔ̀	'snail'	èvù	'monkey (sp.)'
ènyì	'elephant'	ɛ̀vva	'dog'
ɛppà	'hawk'	ɛwɔ̀wɔ̀ɲ	'hippopotamus'
èsɛ̀	'tiger'	ɛyá	'shrimp'
èttàmà	'guineafowl'	èyù	'antelope (sp.)'
ètɛɛn	'animal, meat'	ɛ̀zɛ́ɛ́m	'python'
ètùwán	'bushcow'	ɛ̀zì	'bushpig'

Several animal names consist of compounds, genitive constructions, or full sentences: *ɛ̀vàà likɔ́ɔ́l* 'rabbit' (cf. *ɛ̀vààm* 'cow', *lìkɔɔl* 'bush'), *ɛ̀vva-kkɔ* 'hyena' (cf. *ɛ̀vva* 'dog', *kkɔ* 'lack'), *ɛ̀vàà esú ɛmmà* 'puff adder' ('he who is able to peck

with mouth'). Nouns designating animals, however, occur with all prefixes, or can be prefixless:

Ø- : dzè 'crocodile', dzɔ̀ 'snake'

li- : lìzol 'bird'

lɛ- : lɛkkpànál 'frog', lesǐl 'electric fish', lɛtɔ̀hɔl 'leech', lèvíìl 'owl', lɛ̀wɔ̀bùl 'toad'

gi- : gittù 'life', gitù 'lizard', gizù 'game', gibilèzèzèl 'bat'

gɛ-: gèbòò 'squirrel (sp.)', gèdèdèyí 'sheep', gèvé 'squirrel (sp.)', gèkká 'crab', gèzèzéni 'worm'

i- : iban 'fish (sp.)', ìdèlè 'vulture', ìmène 'firewood', ìtì 'antelope', ìtóbo 'monkey', ìvvaghan 'chameleon', ìwàtà 'chimpanzee, gorilla', iyàyàŋ 'crayfish', ifïn 'cricket', ipìnápi 'mouse'

a- : àdáa-àdáa 'baboon', adzáŋì(lì) 'ant (sp.)', àkkoòmba 'pig', àŋwáàŋ 'cat'

N- : mbèkum 'tortoise', m̀bɔ́ŋ 'mosquito', ǹddén 'louse', ǹdòdòwé 'insect', ndummi 'sand-fly' (from dum 'bite'), nnyànyàŋ 'horse', ntɔtɔ̀ŋ 'rat', ŋ̀kààm 'caterpillar (edible sp.)', ŋ̀kìkìŋ 'shrimp (small sp.)', ŋ̀kɔ̀kɔ́ni 'bee', m̀nyɔ́ŋ 'maggot, jigger', ǹzùzùŋ 'housefly'

Although human ɛ-/a- nouns show sg/pl distinctions on their prefixes, other animate (and inanimate) nouns have non-alternating prefixes. Plurality can therefore only be marked on modifying elements which allow a sg/pl distinction, e.g., *èvva amma* 'this dog', *èvva àbɛmma* 'these dogs'. This includes subject-verb agreement, e.g., *èvva ɛ-ttɔ́* 'a dog fell', *èvva ba-ttɔ́* 'dogs fell', as well as pluractional marking on the verb, e.g., *ɛ baai èvva* 'he tied a dog', *ɛ baazi èvva* 'he tied dogs'.

In addition to the semantic correlation of *è-* with animates, several liquids begin with *a-*, e.g., *ànààn* 'oil', *àsi* 'water', *àzì* 'blood', as well as other soft substances, e.g., *àkkpɔ́* 'rubber', *àkkwàŋ* 'native bed', *àsɔ* 'soap', *àvíghà* 'brain', *àzɔ* 'mushroom'.

A number of body parts and associated concepts take either a *li-* or *lɛ-* prefix:

likukuúl	'eyebrow'	lèbáal	'breast'
lìmáál	'faeces'	lèbèl	'beard'
limìttál	'saliva'	lèggwàl	'breath'
liŋwàl	'nail'	lèkòòl	'neck'
lisáŋìlì	'urine'	lèkul	'navel'
lisúàl	'feather'	lèmmɔ̀l	'flesh, muscle'

lìtìtal	'rib'	lènɔ̀l	'penis'
lìtɔ́l	'ear'	lèsàl	'tooth'
livɛ̀il	'wing'	lèsol	'face'
livil	'left side'	lèttol	'head'
lìvɔl	'belly, stomach'	lèvùl	'horn'

Body parts are, however, to be found with other prefixes, including the word *èkkpa* 'body' itself. A striking number of primary body parts occur with *gɛ-*:

Ø   :   sìn 'hair', nɔ̀nɔ́ŋ 'finger'
gi- :   gìttù 'life'
gɛ- :   gèdɔ 'throat', gɛdɔ̀ 'goiter', gèkpòólo 'fat', gèmmà 'mouth', gepilipa
          'shoulder', gèsé 'tail', gètàppa 'scar', gèkɔ ~ gètèkɔ 'bone', gèvà
          'sore, wound', gèvè 'foot, leg', gewiya 'hips', gèzài 'rib'
i-   :   imaaɲi 'heartburn', imìmíɲ 'marrow'
ɛ-   :   èfi 'boil', ènò 'vagina', ètɛɛm 'chest, heart', ebuì 'waist (area)'
a-   :   àvíghà 'brain', àzì 'blood'
N-   :   ndodoŋ 'smallpox', ǹtètèbé 'grasshoppers (pl.)', m̀bom 'cheek', ǹzàm
          'back', ǹzúŋ 'nose'

A particularly striking fact about nouns marked by a *li-* or *lɛ-* prefix is that they also take an *-l* suffix:

lèbàl	'axe'	lɛkkpànál	'frog'
lìbɔ́ɔl	'poison'	lilàmàl	'garbage'
lidèèl	'name'	linyumìl	'thorn'
lèsol	'face'	lɛvvánil	'earthworm'
lɛtál	'kite'	lèzàŋàl	'river'

We see this particularly clearly in the following cases where there is a related noun taking another prefix:

lèbɔl	'handle'	cf.	gèbɔ	'hand'
lèdil	'palm seed'		èdi	'palm (tree)'
lèdzìl	'day'		èdzì	'sunshine'
lèkáalal	'English'		èkaala	'European'
lèmmàl	'door'		gèmmà	'mouth'
livɛ̀il	'wing'		gèvè	'foot, leg'

In addition, many nominalizations from verbs show that *-l* is a suffix:

libál	'question'	cf.	ba	'ask'
lídzil	'food'		dzi	'eat'
lìvèèl	'song'		vèe	'sing'
lèbbol	'death'		bbo	'die'
lìbbol	'crying, weeping'		bbo	'die'
lèkaal	'headpad'		kaa	'carry'
lɛkkaàl	'message'		kkagha	'delivery a message'
lèddèèl	'greeting'		ddè	'greet'
litɔɔl	'harvest'		tɔɔ	'harvest, uproot'
lɛmmànàl	'birth'		mmàna	'be born'
lèmɔɔŋɔl	'reply'		mɔɔŋɔ	'return'
lènnènèl	'answer'		nnènè	'answer'
lèdààèl	'love, passion'		dàa	'like, love'

Unpredictable segmental and tonal changes occasionally occur in both noun-noun and noun-verb pairs, e.g., *livɛil* 'wing' (cf. *gèvè* 'foot, leg'), *lìkkɔìl* 'vomit' (cf. vɔɔ 'vomit'). The nominalization *lèdààèl* 'love, passion' involves both an *-è* suffix, as in the gerund *gèdààè* 'liking', as well as an *-l* suffix.

Although there are 16 verb stems of the form CV(V)l, we have found only three nouns which end in coda *-l* and do not have a *li-* or *lɛ-* prefix: *kkwàl* 'boat', *ŋkul* 'flogging', *ɛvaal* 'chief'. The last of these is presumably derived from *lèvaal* 'chieftancy'. By contrast, there are 78 *li-* or *lɛ-* nouns whose stem is -CV(V)l and 29 whose stem is CV(V)CVl. Significantly, none of the other coda consonants, /m/, /n/ or /ŋ/, is found on noun stems with these prefixes. This suggests that suffixal *-l* may in some cases replace the historical final coda consonant, e.g., *lèdúl* 'bite' (cf. *dum* 'bite'), *lènɔl* 'penis' (cf. *nɔm* 'copulate'). The following six nouns with a *li-* or *lɛ-* prefix were originally elicited as ending in a vowel, but later they were discovered optionally to take an *-l* suffix.

lèdzèlè(l)	'answer'	litɛha(l)	'gibberish'
lebilà(l)	'bundle'	liyòghò(l)	'cluster' (fruit)
lídaddi(l)	'happiness'	lisáŋìlì(l)	'urine'

In addition, final *-l* optionally fails to appear on language names, presumably by analogy with the corresponding person nouns, which lack *-l*:

leggbó(l)	'Leggbo language'	cf.	eggbó/àggbó	'Leggbo person(s)'
levóli(l)	'Igbo language'	cf.	evóli/àvóli	'Igbo person(s)'
lèvì(l)	'Efik language'	cf.	èvì/àvì	'Efik person(s)'
lɛnɛmɛ(l)	'Ugep language'	cf.	ɛnɛmɛ/anɛmɛ	'Ugep person(s)'

However, note that final *-l* has a tendency to drop in general when occurring in close juncture with a following word, e.g., *lèttol só ~ lètto só* 'your head'. Thus, *li-* and *lɛ-* nouns are marked not only by a prefix, but also by an *-l* suffix. (See also §5 for the realization of *-l* in noun compounding.)

We conclude from the preceding that noun prefixes in Leggbo are synchronic reflexes of earlier noun classes. Since round vowels do not occur in prefixes, we suspect that *lɛ-* comes from earlier **lu* and *gɛ-* from earlier **gu-* (or **ku-*). The latter would correspond nicely to the observation that certain body parts that have a *gɛ-* prefix often have **ku-* in Bantu languages, e.g., *gèbɔ* 'hand, arm', *gèvè* 'foot, leg'. In addition, one pair of nouns used in the numeral system also shows an older *lɛ-/a-* singular/plural distinction: *lè-zɔl* 'twenty', pl. *à-zɔ*, as in *àzɔ àfɔŋ* 'forty' (twenties + two).

3. Arguments for Prefix-Stem Structure

Although, in most cases, these prefixes are frozen onto the nouns with which they occur, for reference, we list below the arguments that demonstrate that they are still morphological prefixes, not part of the noun stem itself.

3.1. Frequency. This group of arguments has to do with the fact that almost all nouns begin with one of a small set of phonetic forms. Below we talley 590 nouns (ignoring compounds) and observe that 555 begin with one of the following V-, CV- or ŋ-, only 35 lacking a prefix.

CV- prefixes:

li-	44
lɛ-	71
gɛ-	112
gi-	7

V-prefixes

i-	71
ɛ-	147
a-	29

N-prefixes

N-	74

Ø	35

3.2. Shapes. The following distributional observations can be made about the above prefixes as a class: (i) They are restricted to one of the indicated syllable shapes: V-, CV-, N- (where N- represents a homorganic nasal). (ii) The only vowels found in this position are /i, ɛ, a/, where /ɛ/ harmonizes to [e] when followed by an initial CV stem syllable containing any of the vowels /i, u, e, o/. (iii) The only consonants found in prefixes are /l/ and /g/. In addition, the /g/ can optionally be deleted when in a prefix, e.g., *(g)è-mmà* 'mouth', *(g)i-ttù* 'life', but not in stem-initial position, e.g., *ègídì* 'beans' (**èídì*). (iv) With 8 exceptions (see above), the only tones that are found on prefixes are L and M. Of the 555 nouns with prefixes, 367 have L tone, while 186 have M tone.

3.3. Human singular/plural pairs. As seen above, Leggbo marks number on a set of human nouns, e.g., *ènɔ̀n* 'person', *ànɔ̀n* 'people'. All but one of these, *emínaakòòl* 'young girl', have L tone on their è-/à- prefixes.

3.4. Related nouns. As also seen above there are several pairs of nouns that are clearly related, but differ in prefix. With respect to one of the above cited pairs, *lèbɔl* 'handle', *gèbɔ* 'hand, arm', we note that the noun *è-bbɔ́* 'branch', with a third prefix, may also be related. Although it has a geminate /bb/, a compound also exists for 'branch', *nti-bbɔ́*, presumably derived from *è-tti* 'tree' + *èbɔ* 'arm'. *nti-bbɔ́* would have an irregular transfer of gemination to the second consonant, when reduplicated to form a diminutive, the fortition appears in its etymological place: *ntti-bɔ-bɔ-wɛ́* 'small branch'.

3.5. Nominalizations. In addition, there are nouns in Leggbo which are clearly derived from verbs. As seen in the following examples, these nouns are derived by adding a noun prefix (and suffixal -*l*, where appropriate):

ggù	'blow'	→	li-gùgúl	'whistle'
bbo	'die'	→	lè-bbol	'death'
kaa	'carry'	→	lè-kaal	'headpad'
vè	'sing'	→	lè-vèl	'music, song'
mɔ̀ɔŋɔ	'return'	→	lè-mɔ̀ɔŋɔ̀l	'a reply'
kwɔɔl	'groan'	→	le-kwɔɔl	'groaning'
mmàna	'be born'	→	lè-mmànàl	'birth'
yèɛl	'call'	→	le-yèɛlél	'calling'
dza	'be good'	→	gì-dza	'beauty'
baa	'marry'	→	gi-báà	'marriage'

mana	'catch'	→	gè-mana	'an arrest'
bbi	'be black	→	gè-bbi-ὲ	'darkness'
tὲe	'rain'	→	ge-teewa	'rain'
dì	'speak'	→	gè-dì	'story, speech'
yàal	'paddle'	→	gè-yàlí	'paddle'
kɔm	'be hot'	→	ge-kɔmɔ	'heat, fever'
nii	'give'	→	ì-nini	'gift'
kkpɔŋɔ	'be tall'	→	ì-kkpɔ́ŋɔ	'height'
dza	'be good'	→	gì-dza	'beauty'
kùmma	'worship'	→	ŋ̀-kùmmà	'honor'
ddoŋi	'beg'	→	n-ddoŋi	'begging'
kàam	'help'	→	ŋ-kààmi	'assistance'
vaan	'wrestle'	→	m-vaan	'wrestling'

In addition to the above lexicalized nominalizations, Leggbo uses the prefixes *gɛ*, *i-,* and *ɛ-* in a number of deverbal derivations. Thus, from the verbs *nùm* 'take' and *dum* 'bite', Leggbo can derive:

gè-nùm-ὲ	'taking'	gè-dum-ὲ	'biting'	= gerund
ì-nù-núm	'taking'	ì-du-dum	'biting'	= gerund
è-núm	'by taking'	è-dum	'by biting'	= focused verb
ge-nù-núm	'takability'	ge-dú-dum	'bitability'	= ability noun
e-nù-núm	'takable'	e-dú-dum	'bitable'	= ability adjective

In Leggbo, *gɛ-* is a frequent nominalizing prefix, whereas *e-* is the general prefix found on adjectives, many of which derive from or are related to corresponding verbs, e.g., *dzubbi* 'be cold', *èdzúbbì* 'cold', *bbi* 'be black', *èbbyo* 'black'.

3.6. Allomorphy. The sixth argument will be referred to as "allmorphy". In two cases, a particular (longer) allomorph is required in a construction when followed by a prefixless noun, but optional when the noun has a prefix. The first of these is the genitive or "associative" marker *awa* (often shortened to *aa* or *a*). As seen in the following examples, an overt associative marker *a* or *awa* is required when the N2 is prefixless:

lídzil a(wa) dzè	'food of crocodile'	*lídzil dzè
lídzil a(wa) wàɛ́	'food of child'	*lídzil wàɛ́

On the other hand, *awa* is optional if a prefix is present, e.g., lídzil a(wa) lɛ-vvánìl ~ lídzil lɛ-vvánìl 'food of earthworm'.

By this criterion, *wáέ* 'child' is prefixless, even though it has an initial consonant change in its plural, *bὲέ*. Similarly, *wàdum/bàdum* 'man/men' and *gwànɔ/bànɔ* 'woman/women' require the associative marker. It would seem that the associate marker moves into the prefix slot, if the latter is vacant. A similar phenomenon exists with respect to the locative sequence *ŋ́kɛ ìì* 'in, on, at': *ìì* is optional if the noun has a prefix, but obligatory if it doesn't:

ɛ ttɔ́ ŋ́kɛ (ìì) lèbbòl	'it fell into a hole'
ɛ ttɔ́ ŋ́kɛ ìì kkwàl	'it fell into a boat'

3.7. Tone. It has already been noted that almost all noun prefixes carry M or L tone. In addition, in the associative construction, N1 of N2, there is a tone change which is observable only when N2 has a L tone prefix: the L of an N2 noun becomes M and, if the stem is M, this M is also raised to H (Paster 2003):

sìn + lὲ-sàl	→	sìn lɛ-sàl	'hair of tooth'	L-L	→	M-L
sìn + lὲ-ttol	→	sìn le-ttól	'hair of head'	L-M	→	M-H
sìn + lì-tɔ́l	→	sìn li-tɔ́l	'hair of ear'	L-H	→	M-H

This same changes take place even if the associative marker is present: *sìn a(wa) lɛ-sàl, sìn a(wa) le-tól*. However, if N2 is prefixless, there is no tone change:

sìn + a(wa) + wàdum → sìn a wàdum 'hair of man' (*sìn a(wa) wadúm)
sìn + a(wa) + nɔ̀nɔ́ŋ → sìn a nɔ̀nɔ́ŋ 'hair of finger' (*sìn a(wa) nɔnɔ́ŋ)

Note that by this criterion, the initial [w] of *wàdum* (pl. *bàdum*) does not count as a prefix, rather it is incorporated into the stem.

3.8. Compounding. While not completely productive, there are numerous noun compounds in which a single prefix is followed by two (compounded) noun stems: pref-N1-N2. The original pattern seems to be that the prefix is deleted from the N2, but "re-appears" as a replacement of the prefix of the N1:

lè-sol + e-vvɛ́m → e-so - vvɛ́m 'forehead' (lit. face center)
è-ttɔ + ǹ-zàm → ǹ-ttɔ - zàm 'back yard' (lit. house back)

Other combinations do not show a literal replacement, but rather maintain the prefix of N1, or a replacement of the N1 prefix, sometimes unpredictably.

3.9. Diminutivization. The diminutivized form of a noun is derived by reduplicating the first CV of the stem, including its tone, and by postposing *-wɛ́* 'child' in the singular and *-bɛ́* 'children' in the plural: *gèkumì* 'fever' → *gè-ku-kumì-wɛ́* 'small fever', *gè-ku-kumì-bɛ́* 'small fevers'. Crucially, the prefix is skipped over, thus *gizù* 'game' → *gi-zù-zù-wɛ́* 'small game', not **gi-gi-zù-wɛ́*.

4. Reduplicated Noun Stems

Although the consonantal inventory is much larger, only a certain number of consonants may appear intervocalically in native Leggbo stems. These include /bb, dd, kk, l, m, mm, n, nn, ŋ, ŋŋ/, where double consonants are realized fortis and longer. When other consonants appear in apparent stem-intervocalic position in nouns, this may be due to three factors:

i. *Compounding.* The noun may be a frozen compound involving two historical stems, e.g., *ŋkátti* 'fence' (probably from *ŋ-ká* 'I carry, use' + *-tti* 'tree, stick, log'), *gedubɔ* 'right side' (probably from *du* 'pound' + *-bɔ* 'hand, arm', i.e., the right arm is used for such tasks).

ii. *Borrowings.* The noun may be borrowing, e.g., *ìlaàsì* 'rice', *èlòpìleèŋ* 'airplane', *bilèèdì* 'bread', *m̀maŋgòlo* 'mango', *kkàkkí* 'pants', *fùfú* 'fufu', *ikɔbàsì* 'church' (< Efik).

iii. *Reduplication.* The noun may involve reduplication. Nouns consisting of identical first and second stem syllables are extremely frequent, e.g.,

gèbèbè	'dust'	kkpakkpa	'groundnut'
ècècèna	'guest, stranger'	kkwàkkwá	'locust tree'
ndodoŋ	'smallpox'	eloloŋ	'snail (small sp.)'
ǹddúddu	'advice'	ìmìmíŋ	'marrow'
gedzídzi	'edible'	nɔnɔ́ŋ	'finger'
ègɔ̀gɔ̀mɔ	'fool'	ǹtùtúli	'egusi melon'
èggóggo	'potato'	ttɛttɛ	'grandfather'
ŋ̀gwɔ̀gwɔ́	'promise'	èvèvè	'thief'
ŋ̀kɔ̀kóni	'bee'	ɛwɔ̀wɔ̀ŋ	'hippopotamus'
kkaikkai	'locally brewed alcohol'	eyéyèe	'hiccup'
èkpíkpìná	'star'	èzɔ̀zɔ̀ŋ	'smoke'

As seen, some of the above have bisyllabic stems with two identical syllables, while others are longer (having either a non-shared final consonant or an additional syllable). One pattern that has been discerned concerns deverbal nouns ending in a suffix /-(C)a/ which, exceptionally, does not assimilate to a preceding mid vowel:

ècècèna	'guest, stranger'	cce	'expect'
èkkàkkàya	'carpenter'	kka	'carve'
ekpíkpìná	'star'	kpi	'?'
akɔkɔna	'anger'	kkɔ	'hate'
ètètèla	'madman'	tèe	'rain'?
ètètèɛa	'blacksmith'	tèèɛ	'burn'
ntítìŋá	'broom'	tìŋ	'toss down' (cf. taaŋ 'sweep')

The final -*a* does assimilate in one reduplicated noun, *èbɔ́bɔ́ŋɔ* 'native doctor' (cf. *bɔɔ* 'heal').

In addition, there are a few nouns involving reduplicated CVC and CVCV stems: *ttĕmttĕm* 'pigeon (domestic)', *wɔ́lɔ̀wɔ́lɔ̀* 'riot', *ekìlíkìlì* 'weaver bird'. There also are a few where the noun prefix is also reduplicated: *egúm-egúm* 'hand piano, keyboard', *mkpɔ̀la-mkpɔ̀* 'elbow', *ŋ̀kònà-ŋ̀kò* 'tick'. These most likely derive from associative constructions.

It is noteworthy that of 28 prefixless nouns (other than those with alternating *(g)w-/b-*) in the lexicon, 14 involve reduplicated stems. This may have to do with the fact that adjectives and ideophones are often reduplicated, e.g., *kíki* 'small', *gbàgbàgbà* 'spacious', *miɲí-mìɲi* 'sweet' (cf. *mìŋ* 'suck'), *velevele* 'very quickly' (cf. *vèlè* 'fast'), *wúkàlà-wùkàlà* 'rough' (cf. *wukki* 'be rough').

The one productive process of noun reduplication concerns diminutivization, where the first CV of the noun stem is reduplicated, along with its tone:

lìtɔ́l	'ear'	→	lì-tɔ́-tɔ́-wɛ́	lì-tɔ́-tɔ́l-bɛ́
lèttol	'head'	→	lè-tto-tto-wɛ́	lè-tto-ttol-bɛ́
gizù	'game'	→	gi-zù-zù-wɛ́	gi-zu-zu-bɛ́
gèkumì	'fever'	→	gè-ku-kumì-wɛ́	gè-ku-kumì-bɛ́
ìtóbo	'monkey'	→	ì-tó-tóbo-wɛ́	ì-tó-tóbo-bɛ́
èmùma	'seed'	→	è-mù-mùma-wɛ́	è-mù-mùma-bɛ́
àwìlì	'gown'	→	à-wì-wìlì-wɛ́	à-wì-wìlì-bɛ́
ǹzúŋ	'nose'	→	ǹ-zú-zúŋ-wɛ́	ǹ-zú-zúm-bɛ́

In addition, *-wέ* 'child' is suffixed to mark singulars (pl. *-bέ*). The prefix is not copied, e.g., *lìtɔ́l* 'ear', *lìtɔ́tɔ́wέ* 'small ear', *lìtɔ́tɔ́-bέ* 'small ears'. In diminutivization, the reduplicant is strictly limited to a CV syllable with a short vowel, even when a CVV, CVVC, or CVVCV stem has a long vowel:

gè-bòò	'cloud'	→	gè-bò-bòò-wé	gè-bò-bòò-bέ
è-kàà	'argument'	→	è-kà-kàà-wé	è-kà-kàà-bέ
à-móò	'cup, jug'	→	à-mó-móò-wé	à-mó-móò-bέ
gè-zὲɛ	'journey'	→	gè-zὲ-zὲɛ-wé	gè-zὲ-zὲɛ-bέ
ètɛɛm	'heart'	→	è-tɛ-tɛɛ-wé	è-tɛ-tɛɛ-bέ
ibὲɛn	'room'	→	ì-bὲ-bὲɛ-wé	ì-bὲ-bὲɛ-bέ
àŋwáàŋ	'cat'	→	à-ŋwá-ŋwáà-wé	à-ŋwá-ŋwáà-bέ
èkaala	'European'	→	è-ka-kaala-wé	à-ka-kaala-bέ
imaaŋi	'heartburn'	→	i-ma-maaŋi-wé	i-ma-maaŋi-bέ
lɛmɔ̀ɔŋɔl	'reply'	→	lɛ-mɔ̀-mɔ̀ɔŋɔ̀-wé	lɛ-mɔ̀-mɔ̀ɔŋɔ̀-bέ

Although there is variation, the final consonant of the root may also be dropped before -wέ and -bέ. There are several phonological interactions between the stem and the suffixes *-wέ* and *-bέ*. First, *-wέ* optionally simplifies to *-έ* after round vowels: *ì-zu-zu-wέ ~ ì-zu-zu-έ* 'small calabash', *è-yò-yòò-wέ ~ è-yò-yòò-έ* 'small friend', *gè-bɔ-bɔ-wέ ~ gè-bɔ-bɔέ* 'small hand, arm'.

Second, stem-final consonants may become modified or deleted. Coda /l/, which is a suffix, is obligatory deleted when followed by either *-wέ* or *-bέ*: *lè-ttol* 'head' → *lè-tto-tto-wέ (~ έ)*, *lè-tto-tto-bέ* 'small head(s)'. In careful speech, nasal codas are optionally pronounced without change. They are, however, more normally realized as a weakened assimilated [ŋ] before *-wέ*, with possible deletion and/or nasalization of the preceding vowel. Except in careful speech, they assimilate to [m] before *-bέ*:

ŋ̀gɔm	'foolishness'	→	ŋ̀-gɔ̀-gɔ̀ŋ-wé	ŋ̀-gɔ̀-gɔm-bέ
ìnɔn	'fowl'	→	ì-nɔ̀-nɔ̀n-wé	ì-nɔ̀-nɔm-bέ
èwɔŋ	'storm'	→	è-wɔ̀-wɔ̀ŋ-wé	è-wɔ̀-wɔm-bέ

Since the [w] of *-wέ* may be absorbed into a preceding round vowel, the diminutive singular of *ìnɔn* 'fowl' may be *ì-nɔ̀-nɔ̀n-wέ, ì-nɔ̀-nɔ̀ŋ-wέ, ì-nɔ̀-nɔ̀-wέ*, or *ì-nɔ̀-nɔ̀-έ*, but not **ì-nɔ̀-nɔ̀n-έ*.

When the first syllable of the stem contains a sequence of non-identical vowels, only the first of these is reduplicated:

lisúàl	'feather'	→	li-sú-súà-wέ	li-sú-súàl-bέ
livɛil	'wing'	→	li-vɛ-vɛil-wέ	li-vɛ-vɛil-bέ
gèwai	'comb'	→	gè-wa-wai-wέ	gè-wa-wai-bέ
geyuan	'humor'	→	ge-yu-yuaŋ-wέ	e-yu-yuam-bέ

This allows us to distinguish nouns with CyV vs. CiV:

èppyɔ́ŋ	'parrot'	→	è-ppyɔ́-ppyɔ́ŋ-wέ	è-pppyɔ́-ppyɔ́m-bέ
gèbbyo	'blackness'	→	gè-bbyo-bbyo-wέ	gè-bbyo-bbyo-bέ
ɛkpiàn	'chair'	→	ɛ-kpì-kpiàŋ-wέ	ɛ-kpì-kpiàm-bέ
gèbbiè	'darkness'	→	gè-bbi-bbiè-wέ	gè-bbi-bbiè-bέ

As with vowel sequences, only the first tone of a contour is found on the CV reduplicant. A LH rising tone is realized as L-H on the first two syllables of the stem, while a HL falling tone is realized as H-HL:

ifín	'cricket'	→	i-fi-fíŋ-wέ	i-fi-fím-bέ
e-ggǔ	'catfish (sp.)'	→	e-ggù-ggú-wέ	e-ggù-ggú-bέ
geppyôn	'afternoon'	→	ge-ppyó-ppyôŋ-wέ	ge-ppyó-ppyôm-bέ

Nouns without a prefix undergo the same diminutivization process:

dzè	'crocodile'	→	dzè-dzè-wέ	dzè-dzè-bέ
dzɔ̀	'snake'	→	dzɔ̀-dzɔ̀-wέ	dzɔ̀-dzɔ̀-bέ
kkwàl	'boat'	→	kkwà-kkwà-wέ	kkwà-kkwàl-bέ
ŋwènè	'book'	→	ŋwè-ŋwènè-wέ	ŋwè-ŋwènè-bέ

When the noun *vvɔ́m* 'thing' is reduplicated, it loses its final /m/ and is (optionally) pronounced with L tone: *vvɔ́-vvɔ́-wέ ~ vvɔ̀-vvɔ̀-wέ* 'small thing', pl. *vvɔ́-vvɔ́-bέ ~ vvɔ̀-vvɔ̀-bέ*.

The following examples show that *w-*, *gw-*, and *b-* have fused with the stem:

| wàdum | 'man' | → | wà-wà-dum-wέ | bà-bà-dum-bέ |
| gwànɔ | 'woman' | → | gwà-gwà-nɔ-wέ | bà-bà-nɔ-bέ |

Bisyllabic noun stems which are already reduplicated form their diminutive by simply adding *-wέ* or *-bέ*:

còcò	'small frog'	→	còcò-wé	còcò-bé
kkpakkpa	'groundnut'	→	kkpakkpa-wé	kpakpa-bé
ìníní	'gift'	→	ìníní-wé	ìníní-bé
nnyànyàŋ	'horse'	→	nnyànyàŋ-wé	nnyànyàŋ-bé
ntɔtɔ̀ŋ	'rat'	→	ntɔtɔ̀ŋ-wé	ntɔtɔ̀ŋ-bé
ǹzùzùŋ	'housefly'	→	ǹzùzùŋ-wé	ǹzùzùŋ-bé
lèdudùl	'bundle'	→	èdudùl-wé	èdudùl-bé

Similarly, nouns with trisyllabic or longer stems, whether reduplications or not, generally form their diminutive by simply suffixing *-wé* or *-bé*:

ntítìŋá	'broom'	→	ntítìŋá-wé	ntítìŋá-bé
ŋ̀kɔ̀kɔ́ni	'bee'	→	ŋ̀kɔ̀kɔ́ni-wé	ŋ̀kɔ̀kɔ́ni-bé
gèzèzéni	'worm'	→	gèzèzéni-wé	gèzèzéni-bé
getokolo	'skull'	→	getokolo-wé	getokolo-bé
ipìnápi	'mouse'	→	ipìnápi-wé	ipìnápi-bé
ekkpokolo	'table'	→	ekkpokolo-wé	ekkpokolo-bé
ekìlikílì	'weaver bird'	→	ekìlikílì-wé	ekìlikílì-bé
gibilèzèzèl	'bat'	→	gibilèzèzè-wé	gibilèzèzè-bé

Non-compound bisyllabic stems reduplicate their first syllable:

ìtóbo	'monkey'	→	ì-tó-tóbo-wé	ì-tó-tóbo-bé
gekòlo	'hole'	→	ge-kò-kòlo-wé	ge-kò-kòlo-bé
gèyàlí	'paddle'	→	gè-yà-yàlí-wé	gè-yà-yàlí-bé
lebilà	'bundle'	→	le-bi-bilà-wé	le-bi-bilà-bé
gètènà	'bridge'	→	gè-tè-tènà-wé	gè-tè-tènà-bé
ekkpoma	'bottle	→	e-kkpo-kkpoma-wé	e-kkpo-kkpoma-bé
àwìlì	' gown'	→	à-wì-wìlì-wé	à-wì-wìlì-bé
àtɛ̀ɛ̀mì	'farm'	→	à-tɛ-tɛ̀ɛ̀mì-wé	à-tɛ-tɛ̀ɛ̀mì-bé
àkkoòmba	'pig'	→	à-kko-kkoòmba-wé	à-kko-kkoòmba-bé

On the other hand, bisyllabic stems which are recognized to be compounds reduplicate the second part. This includes cases where one of the two members of the compound cannot be identified, or even when neither part can be identified, or only with uncertainty:

ge-nyé-dze   'banana'   →   ge-nyé-dze-dze-wé   ge-nyédze-dze-bé
   (nnya 'young' + gèdzé 'yam')
i-te-vɔ   'street'   →   i-te-vɔ-vɔ-wé   i-tevɔ-vɔ-bé
   (lètel 'compound' + vɔ 'flow')
gè-kkpà-mìnà 'bed'   →   gè-kkpà-mì-mìnà-wé gè-kkpà-mì-mìnà-bé
   (gèkkpa 'cover' + mìna 'lie down'; cf. èkkpa 'body')
ǹ-ttɔ́-kkpaŋ   'roof'   →   ǹ-ttɔ́-kkpa-kkpa-wé   ǹ-ttɔ́-kkpa-kkpa-bé
   (èttɔ 'house' + gèkkpa 'cover')
ŋ-ká-tti   'fence'   →   ŋ-ká-tti-tti-wé   ŋ-ká-tti-tti-bé
   (ŋ-ká 'I use' + gètti 'tree')
ge-ku-ttɔ   'hut'   →   ge-ku-ttɔ-ttɔ-wé   ge-ku-ttɔ-ttɔ-bé
   (? + èttɔ 'house')
gè-búkpɔ̀   'board'   →   gè-bú-kpɔ̀-kpɔ̀-wé   gè-bú-kpɔ̀-kpɔ̀-bé
   (? + kkpɔ 'build'?)
n-disa   'picture'   →   n-di-sa-sa-wé   n-di-sa-sa-bé
   (? + ?) (< Efik)

In the last two cases it is the intervocalic consonant, e.g., /kp/ or /s/, which is prohibited stem-internally and therefore serves as a cue that more than one stem must be present, whether the result of an obscured old compound or a borrowing, e.g., *jăkpu* 'cassava' → *jăk-kpu-kpu-wé, jăk-kpu-kpu-bé*.

In some cases we can identify an initial CV- element which has been reduced from a fuller stem shape, e.g., tè- (from ètèèn 'animal') and tɛ- from ètɛɛm 'chest'. These still reduplicate as compounds:

gètè-kkpaŋ   'skin'   →   gè-tè-kkpa-kkpa-wé gè-tè-kkpa-kkpa-bé
gètè-kɔ   'bone'   →   gè-tè-kɔ-kɔ-wé   gè-tè-kɔ-kɔ-bé
  (cf. gèkkpa 'cover', gèkɔ 'bone')
lètɛ-bbɔ̀l   'heart'   →   lè-tɛ-bbɔ̀-bbɔ̀-wé   lè-tɛ-bbɔ̀-bbɔ̀-bé
  (cf. lèbbɔ̀l 'pit', hence 'pit of chest')

Note that when coda consonants occur as the second member of a reduplicated compound, they are obligatorily deleted before -*wé*/-*bɛ́*.

Finally, three nouns have been found that are inherently diminutive and thus must therefore be listed in the lexicon: *ǹdɔ̀dɔ̀wé* 'insect', *gituùtù(wɛ́)* 'baby', *ǹtètèbɛ́* 'grasshopper(s)'.

5. Compounding

Although apparently not a live or productive process, Leggbo exhibits a wide range of noun compounds, which can be defined as words containing two stems, the second of which has no prefix. This stands in contrast to the productive associative (N1 of N2) construction, which is sometimes an alternative:

Compound:	gètti-kkpal	'bark' (i.e. tree-covering)
Associative:	lìkkpal gettí	'bark' (i.e. covering of tree)
Compound:	gètti-nnɔ̀dɔ̀	'stump' (i.e. tree-stump)
Associative:	gènnɔ̀dɔ̀ gettí	'stump' (i.e. stump of tree)

The two equivalents for 'bark' and 'stump' both involve the nouns *gètti* 'tree, stick'. As N2 in the associative constructions, the L-M of *gètti* becomes M-H.

Both *gètti* 'tree, stick' and *lìkkpal* 'covering, peeling' (and the related noun *gèkkpa* 'cover (body)') are frequently found in compounds:

gèkɔ-tti	'forest'	(lìkɔɔl 'bush')
ntti-mùma	'tablet'	(èmùma 'seed'; also gètti-mùma)
ntti-wɔmá	'fruit'	(wɔm 'bear fruit')
lètti-dùl	'stick-bundle'	(ledùl = lèdudùl 'bundle')
gètti-buì	'tree-trunk'	(ebuì 'middle part of body, waist area)
gɛmmà-kkpa(ŋ)	'lip'	(gèmmà 'mouth')
lɛmmà-kpa(l)	'lip'	(lɛ̀mmàl 'door')
ǹttɔ́-kkpaŋ	'roof'	(èttɔ 'house')
gèzɔ́-kkpaŋ	'sky'	(gèzɔ 'top, up')
lìkpè-kkpál	'thatch roof'	(ɛkpèn 'raphia')

As the second element, *-kkpa* is the only stem that acquires a final *-ŋ*. (The final *-l*, on the other hand, is related to the *li-* or *lɛ-* prefix). In addition, the last three compounds are among the minority where a M tone of one or the other stem changes from M to H.

There are three arguments for considering the second stem (N2) to be the head of the compound. The first is semantic: A 'tree-stump' is a kind of stump, a 'raphia-covering' is a kind of covering, and so forth. The second is reduplication: As seen in §4, it is the second stem of a compound that undergoes prefixal CV reduplication, e.g., *gettɔ-kummà* 'ceiling' (*èttɔ* 'house' + *gèkúmmà* 'shelter, cover'), i.e., 'house-shelter', becomes *gettɔ-ku-kummà-wɛ́* 'small ceiling'. Third,

as discussed in the next paragraph, the second stem usually determines the prefix of the overall compound.

There are noticeable changes on the prefix of compounds, both in terms of its segmental identity and its tone. Judging from closely related languages (Mbembe, Lokaa), where the pattern is reported with greater regularity, the apparent inherited situation was that the prefix of the second stem replaced the prefix of the first. A number of Leggbo compounds show this pattern. This includes compounds where the first stem cannot be identified with certainty:

ǹttɔ-zàm	'backyard'	(èttɔ 'house' + ǹzàm 'back')
eso-vvém	'forehead, in front'	(lèsol 'face' + ɛvvém 'place, center')
getto-kolo	'skull'	(lèttol 'head' + gekòlo 'emptiness')
lèbɔ-dùl	'fist'	(gèbɔ 'hand' + lèdùl ~ lèdudùl 'bundle')
lìkkwɛ-kɔɔl	'hunting'	(èkwɛn 'fire, gun' + lìkɔɔl 'bush')
lèsè-mmàl	'proverb, saying'	(èsè 'tiger' + lèmmàl 'opening')
gèkkwá-mmàl	'fireplace'	(èkwɛn 'fire' + gèmmà 'mouth')
lèkkwá-mmàl	'fireplace'	(èkwɛn 'fire' + lèmmàl 'door')
le-nó-kkpɔl	'buttocks'	(? + lɛkkpɔl 'lump'; cf. ènò 'vagina')
i-kkí-zɔɔm	'tapping instrument'	(? + izɔɔm 'knife')
lèkkpè-mmàl	'communal house'	(? + lèmmàl 'door, opening')
èkkpí-ttɔ	'umbrella'	(? + èttɔ 'house'; cf. èkkpa 'body')

Compare also *lè-nnɔ́-m̀bbòl* 'well' (? + *lèbbòl* 'hole, pit'), which, however, appears to have an *m-* prefix on the second stem.

In a few cases, the prefix found on the N1 of the compound is not segmentally identical to either input prefix, and/or may carry a tone which is not found on either noun in isolation. This is particularly true with the N- prefix:

ntti-bbɔ́	'tree branch'	(gètti 'tree' + èbbɔ́ 'branch')
ntti-mùma	'tablet'	(gètti 'tree' + èmùma 'seed')
gɛmmà-kkpaŋ	'lip'	(gèmmà 'mouth' + gèkkpa 'cover')
lɛttɔ kummà	'ceiling'	(èttɔ 'house' + gèkúmmà 'shelter, cover')

It may be that certain patterns are associated with nouns that occupy N1 or N2 position in more than one compound, e.g., *-tti* 'tree', *-kkpaŋ/-kkpal* 'cover(ing)'. Among the nouns inputting N1 in more than one compound are *gètà* 'big, old' and *ètèèn* 'animal' (the latter being shortened to *tè-*):

gɛ-tà-kpón	'world'	(gètà 'big' + ekkpón 'land')
è-tà-nɔn	'old person'	(gètà 'old' + ènɔn 'person')
lè-tà-zàŋàl	'sea, ocean'	(gètà 'big' + lèzàl 'river')
lì-tà-kɔɔl	'thick forest'	(gètà 'big' + likɔɔl 'bush')
gè-tè-kɔ	'bone'	(ètèèn 'animal' + gèkɔ 'bone')
gè-tè-kkpaŋ	'skin'	(ètèèn 'animal' + gèkkpa 'cover')

Only one compound has been found whose input N2 is prefixless:

    àggba nɔnɔ́ŋ 'ring'   (gèggbà 'charm' + nɔnɔ́ŋ 'finger')

As seen, both the prefix and the stem tone of *gèggbà* change, perhaps from an earlier, but no longer existent plural *àggbà 'charms' in the associative construction, cf. *gèggbà a nɔnɔ́ŋ* 'charm of finger'.

    This last example shows that the N1 retains its own prefix. When N2 has a prefix, only a few compounds show stability of the N1 prefix:

ŋkɔ-kwɛ́n	'bullet'	(ŋkɔ 'seed' + èkwɛn 'fire')
ledùdu-ŋili	'knee'	(ledùdul 'mound' + nzíŋìlì 'egg')
lɛttá-kolo(l)	'cave'	(lèttál 'stone' + gekòlo 'emptiness')

Some nouns used adjectivally lose their prefix in attributive position, with or without conditioning a change in the prefix of the preceding noun:

| lizèl koola | 'potting clay' | (lìzèl 'sand' + gèkoola 'red(ness)') |
| gètti dɔ̀ | 'short stick' | (gètti 'stick' + gɛdɔ̀ 'shortness') |

Unless there is an unexpected segmental, tonal or semantic modification, it is not clear whether this is a sequence of noun + adjective or a compound:

èttɔ-gbala	'reception room'	(èttɔ 'house' + gbala 'long')
èggóggo mbàla	'sweet potato'	(èggóggo 'potato' + ?)
ɛggɔ̀ bbábbaa	'cloth (wrapper)'	(ɛggɔ̀ 'cloth' + ?)
ɛggɔ̀ gàlà	'rag'	(ɛggɔ̀ 'cloth' + gàlà 'torn')
kkàkki gbala	'trousers'	(kkàkki 'pants' + gbala 'long')
kkàkki dɔ	'short pants'	(kkàkki 'pants' + gɛdɔ̀ 'short(ness)')

Preservation of the N1 prefix is also observed when the second element of the compound is a verb:

lèdzìl sòò	'daybreak'	(lèdzìl 'day' + sòo 'dawn, break (of day)')
lìzèl ppì	'clay'	(lìzèl 'sand', ppì 'plaster (v.)'; cf. gèppì 'wall')
èvva-kkɔ	'hyena'	(èvva 'dog' + kkɔ 'hate, lack')
lèttó-ppɔ̀i	'head-ache'	(lèttol 'head' + ppɔ̀i 'knock')
gemmà-ggùmà	'yawn'	(gèmmà 'mouth' + ggùma 'blow')
ntti wɔmá	'fruit'	(gètti 'tree' + wɔm 'bear fruit')
gèkkpà-mìnà	'bed'	(gèkkpa 'cover' + mìna 'lie down')

In other compounds the first element appears to come from a verb:

gèbbò-ttɔ́	'grave (death-house)	(bbò 'die' + èttɔ 'house')
gedu-bɔ	'right'	(du 'beat' + gèbɔ 'arm')
bba-ddèn	'blind'	(bba 'block' ddèn 'eye')

The above deverbals are distinct from their gerund forms *gèbboè* 'dying', *gèduè* 'beating' and *gèbbeè* 'blocking'. Use of such gerund forms in object + verb nominalizations, is quite frequent. In this productive process, the *gè-* prefix may optionally delete:

tɔɔ likkɔ̀il	'snore'	→ likkɔ̀i (gè)tɔ̀ɔ̀è	'snoring'	(nausea-reaping)
seŋ livɔl	'travel'	→ lèvɔl (gè)seŋè	'traveling'	(country-going)
yei gèkkwé	'rest'	→ gèkkwé (gè)yei	'resting'	(strength-reducing)
dzi gita	'bewitch'	→ gita (gè)dziè	'bewitching'	(witchcraft-eating)
dzò ètɛɛm	'hope'	→ ètɛɛm (gè)dzòè	'hope'	(heart-keeping)

There are some noun stems which are treated as complex, as determined by their pattern of diminutive reduplication (§4), but whose parts cannot be identified:

ǹtò-fôm	'fish-net'	ǹtò-fò-fôŋ-wé	ǹtò-fò-fôm-bɛ́
ǹsikɔ̀ŋ	'pipe (smoking)'	ǹsi-kɔ̀-kɔ̀ŋ-wé	ǹsi-kɔ̀-kɔ̀m-bɛ́
n-disa	'picture'	n-disa-sa-wé	n-disa-sa-bɛ́
jăkpu	'cassava'	ja-kpù-kpú-wé	ja-kpù-kpú-bɛ́
emínaakòòl	'young girl'	e-mínaakò-kòò-wé	e-mínaakò-kòò-bɛ́

6. Possessive Pronouns

Leggbo nouns generally have the structure prefix+stem, where prefixes are relics of noun class markers, as is the *-l* suffix. These markers occur only on the nouns themselves. Other than singular/plural distinctions, it was said that nothing remains of the noun class agreement system. However, indications of earlier noun class concord are found on possessive pronouns. The following are the possessive pronouns as realized with a zero noun head:

ŋgwɔ́min	'mine'	aamán	'ours'
ŋgwɔ́	'yours sg.'	aabɔ	'yours pl.'
ŋgwɛ́	'his/hers'	aabɔ	'theirs'

These possessive pronouns have the following structure:

ŋ-gwɔ́-min	cf. àmin 'me'	a + àman	'of us'
ŋ-gwɔ́-ɔ́	cf. -(y)ɔ́ 'you object'	a + àbɔ	'of you pl.'
ŋ-gwɔ́-ɛ	cf. -(y)ɛ 'him/her object'	a + àbɛ	'of them'

The singulars have an *ŋ-* prefix, followed by a *gw-* or *gwɔ-* element, followed by a pronominal element: *-ɔ́* and *-ɛ* are object enclitics. By contrast, the plural possessors consist of one of the independent pronouns preceded by the associative marker *a*. The tonal change of *àman* 'us' to *aamán* is expected in this construction, whereas the non-change of *aabɔ* and *aabɛ* is not. These forms were presumably introduced and contributed to the levelling of noun class distinctions in Leggbo. Longer associative forms are also possible, using the fuller element *awɔ* (cf. below): *awɔ amán/awaamán* 'that of us', *awɔ awaabɔ* 'that of you pl.' and *awaabɛ* 'that of them'. When appearing in attributive position, possessors follow the possessed noun.

èttɔ ŋgwɔ́min	'my house'	èttɔ amán	'our house'
èttɔ ŋgwɔ́	'your sg. house'	èttɔ abɔ	'your pl. house'
èttɔ ŋgwɛ́	'his/her house'	èttɔ abɛ	'their house'

In addition to *ŋgwɔ́min*, *ŋgwɔ*, and *ŋgwɛ́*, with most nouns, the singular persons may appear in a second form:

èttɔ lɔ́min	'my house'	lɔ-min
èttɔ sɔ́	'your (sg.) house'	s-ɔ́
èttɔ ayɛ́	'his/her house'	a + àyɛ

These forms cannot be used in isolation: *lɔ́min 'mine', *sɔ́ 'yours sg.', *aayɛ́ 'his/hers'. As indicated, *lɔ́min* consists of a relic prefixal element *lɔ́* followed by the root syllable of the independent pronoun *àmin* 'me'. The form *sɔ́* 'yours sg.' most likely is a relic of another noun class, hence *s-ɔ́* (cf. *sɛ́* 'the', deriving from 'his/her'). The third singular possessive *aayɛ́* 'his/her' is built on the same associative construction (within tonal change) as the plural possessors.

The two different sets of singular possessive pronouns were found to be possible with a large group of nouns, including those beginning with all of the different historical noun class prefixes, including *lèttol* 'head', *gizù* 'game', *gètti* 'tree', *gèbɔ* 'arm, hand', *itóbo* 'monkey', *ènùŋ* 'salt', *èttɔ* 'house', *àzì* 'blood', *ǹzúŋ* 'nose'. The two forms were possible whether the noun was singular or plural, including most nouns with distinct singular and plural forms: *èllà ŋgwɔ́min ~ èllà lɔ́min* 'my servant', *àllà ŋgwɔ́min ~ àllà lɔ́min* 'my servants'. In some cases, one or the other form was preferred, and particularly human nouns showed some irregularities. Thus, *èkkà* 'mother' and *ètte* 'father' could not occur with *lɔ́min* or *sɔ́*. On the other hand, both these and several other kinship nouns occur with an encliticized third person singular possessor -ɛ:

èkkèɛ	'his/her mother'	pl. àkkèɛ	cf. èkkà / àkkà 'mother(s)'
èttɛɛ	'his/her father'	pl. àttɛɛ	cf. ètte / àtte 'father(s)'
ènnèɛ	'his/her in-law'	pl. ànnèɛ	cf. ènnè / ànnè 'in-law(s)'
èduumɛ	'her husband'	pl. àduumɛ	cf. èduum / àduum 'husband(s)'
àgwèɛ	'his wife'	pl. àbbèɛ	cf. àggwèɛ́yɛ / àbbèɛ́yɛ 'wife/wives'
èyòòɛ	'his/her friend'	pl. àyòòɛ	cf. èyòò / àyòò 'friend(s)'

In addition to -ɛ, the pronoun *sɛ́* 'his/her', which has developed into the definite article *sɛ́*, is also sometimes used, especially with certain of the above nouns which indicate relations between human beings, e.g., *èllà sɛ́* 'his/her servant', *wákkà sɛ́* 'his/her sibling', *gwànà sɛ́* 'his wife' (vs. *gwànɔ sɛ́* 'the woman'). It is uncertain how widespread it is in this function.

A dialectal study may show that there is even more variation. What is important for the present study is that variations such as the above point back to an earlier period when Leggbo had noun class agreement. With time it can be expected that these complexities will be levelled out, as has already occurred with

respect to noun class agreements in other contexts. The ultimate result will therefore be no agreement, the former noun-class vowel prefixes simply adhering to their stems, much as is found in modern-day Yoruba and Igbo.

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