# Líká Grammar and Lexicon v0.55

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targeted for public release.

**Purpose**: Definitive grammar and lexicon for Líká, a constructed auxiliary language (auxlang) with strict Subject-Object-Verb (SOV) word order, designed for clarity, expressiveness, minimalism, and global accessibility. Orthography is diacritic-free, with tones (flat, rising, falling) expressed via gliding diphthongs as single vowels.

Líká uses phoneme markers (**-x**, **-f**, **-th**) for argument roles, verb compounding for nuance, and a 240-syllable inventory (236 used, ~4 free). Bold phonetics (e.g.,  $/\theta$ /,  $/\eta$ /), teachable pronunciation (e.g., "tongue tip" for **-th**), and lean structure ensure accessibility.

# 1. Phonology

Líká's phonology is globally pronounceable, with 18 consonants, 5 vowels, 10 diphthongs, and 3 tones, all diacritic-free.

### 1.1 Consonants

Phonem e	Orthography	Description	Example
/p/	p	Voiceless bilabial stop, like "pin"	pa (tool)
/t/	t	Voiceless alveolar stop, like "top"	to (thing)
/k/	k	Voiceless velar stop, like "cat"	ka (base)
/b/	b	Voiced bilabial stop, like "bin"	bi (end)
/d/	d	Voiced alveolar stop, like "dog"	da (know)
/m/	m	Bilabial nasal, like "man"	ma (mother)
/n/	n	Alveolar nasal, like "net"	ni (you)
/ŋ/	g	Velar nasal, like "sing"	gi (give)
/s/	S	Voiceless alveolar sibilant, like "see"	si (small)
<b>/</b> ʃ/	sh	Voiceless palato-alveolar sibilant, like "she"	kash (focus)

/h/	h	Voiceless glottal fricative, like "hat"	hoie (question)
/\/	1	Alveolar lateral, like "let"	lu (person)
/r/	r	Alveolar trill/tap, like Spanish "pero"	ri (belong)
/w/	W	Labial-velar glide, like "win"	woi (go)
/j/	у	Palatal glide, like "yes"	ji (move)
/x/	X	Voiceless velar fricative, like "loch"	tox (thing-x, direct)
/f/	f	Voiceless labiodental fricative, like "fish"	fif (friend-f, indirect)
/θ/	th	Voiceless dental fricative, like "think"	<b>siuth</b> (city-th, oblique)

#### Notes:

- o /x/, /f/,  $/\theta/$  are marker-only (-x, -f, -th), not root-initial.
- o /ŋ/ (g) limited to ~5 roots (e.g., gi, ga, gu, go, ge).

#### Teaching:

- **-th**: "Tongue between teeth, blow, show the tip!" Like "think."
- **-x**: "Growl from throat, like 'loch'."
- o **-f**: "Lip to teeth, hiss like 'fish'."
- o **ŋ**: "Hum 'sing,' back of throat."
- o Audio samples, minimal pairs (e.g., siuth vs. siuf, gi vs. ni).

## 1.2 Vowels and Diphthongs (v0.55 Highlight)

Líká uses 5 monophthongs and 10 diphthongs, treated as single vowels, expressing 3 tones (flat, rising, falling) without diacritics.

Vowel	Flat	Rising (high tone)	Falling (low tone)
а	a /a/	ai /aɪ/	ae /aɛ/
е	e /e/	ei /eɪ/	ea /εα/
i	i /i/	ie /iε/	ia /iɑ/
0	o /o/	oi /oɪ/	oa /oɑ/
u	u /u/	ui /uɪ/	ua /uɑ/

#### Phonetic Notes:

- Flat: Neutral monophthongs (e.g., a /a/, e /e/) for default roots (e.g., ji /dʒi/, si /si/).
- Rising: Diphthongs with upward glide (e.g., ai /aɪ/, ei /eɪ/) for emphasis (e.g., kai /kaɪ/, sei /seɪ/).
- Falling: Diphthongs with downward glide (e.g., ae /aε/, ia /ia/) for nuance (e.g., kae /kaε/, toae /toaε/).
- **Orthography**: No diacritics; tones implied by diphthongs (e.g., **ai** feels "rising," **ae** feels "falling").

#### Examples:

- ka /ka/ (flat, base), kai /kaɪ/ (rising, emphatic base), kae /kaε/ (falling, nuanced base).
- si /si/ (flat, small), sie /siε/ (rising, emphatic small), sia /siα/ (falling, nuanced small).
- **Teaching**: Audio for **kai** /kaɪ/ vs. **ka** /ka/, **sie** /siɛ/ vs. **sia** /siɑ/. Practice gliding: "Feel **ai** rise, **ae** fall."

#### 1.3 Tones

Tone	Description	Example
Flat	Neutral, monophthongs or diphthongs	ji /dʒi/, <b>si</b> /si/
Rising	Emphasis, diphthong glide (e.g., /aɪ/, /eɪ/)	kai /kaɪ/, sie /siε/
Falling	Modifier, diphthong glide (e.g., /aε/, /iα/)	kae /kaε/, sia /siα/

- Notes: Tones are unmarked; diphthongs carry rising/falling qualities. No diacritics.
- Teaching: Pitch exercises ("Feel kai glide up, sia glide down"). Audio samples.

### 1.4 Syllable Structure

- **Roots**: (C)V, e.g., **lu**, **kai**. ~236 roots.
- Markers: (C)VN, e.g., kan, kash. 4 topic/focus markers.
- Argument Markers: -x, -f, -th, attach to last syllable, no tone change (e.g., to → tox, siu → siuth).
- Cap: 240 syllables, ~236 used (231 original + 4 markers + 5 new roots), ~4 free.

## 2. Lexicon (~236 Roots, 4 Markers, 3 Argument Markers)

Complete lexicon with 236 roots (231 original, 5 new), 4 topic/focus markers, and 3 argument markers. Roots use /p, t, k, b, d, m, n,  $\eta$ , s, f, h, l, r, w, f/, avoiding /x/, /f/, / $\theta$ / (marker-only). ~30

key roots detailed; full  $\sim$ 231 summarized, with 5 new roots listed explicitly. All orthography is diacritic-free.

## 2.1 Roots (~236)

## **Entities (People, Things, Places)**

Roo t	Phonem e	Meanin g	Usage	Notes
lu	/lu/	Person	lu kan tox ji = "Person moves thing."	/u/, flat. Contrast <b>ru</b> .
fi	/fi/	Friend	fif, lu kan fif sa = "Person lives for friend."	/i/, flat. Contrast <b>pi</b> .
to	/to/	Thing	tox, lu tox ji = "Person moves thing."	/o/, flat. Contrast ta.
siu	/siu/	City	<b>siuth</b> , <b>lu siuth woi</b> = "Person goes to city."	/u/, flat. Contrast <b>su</b> .
ru	/ru/	Place	ruth, lu ruth woi = "Person goes to place."	/u/, flat. Contrast <b>lu</b> .
nei	/nei/	Sea	<b>neith</b> , <b>lu neith woi</b> = "Person goes to sea."	/ei/, rising. Contrast <b>ni</b> .
ma	/ma/	Mother	maf, lu maf sa = "Person lives for mother."	/a/, flat. Contrast <b>na</b> .
ра	/pa/	Tool	<pre>path, lu tox path ji = "Person moves thing with tool."</pre>	/a/, flat. Contrast <b>ba</b> .
gu	/ŋu/	Group	gux, lu gux sa = "Person lives for group."	/ŋ/, flat. Contrast <b>ku</b> .
ku	/ku/	Body	kux, lu kux ji = "Person moves body."	/u/, flat. Contrast <b>gu</b> .

### Actions

Roo t	Phonem e	Meanin g	Usage	Notes
ji	/dʒi/	Move/Do	lu tox ji = "Person moves thing."	/i/, flat. Contrast <b>yi</b> .
sa	/sa/	Live	lu siuth sa = "Person lives in city."	/a/, flat. Corrected from za.

woi	/woi/	Go	lu siuth woi = "Person goes to city."	/oi/, rising. Contrast <b>wei</b> .
wei	/wei/	Come	lu siuth wei = "Person comes to city."	/ei/, rising. Contrast <b>woi</b> .
gi	/ŋi/	Give	<b>lu kan fif tox gi</b> = "Person gives thing to friend."	/ŋ/, flat. Contrast <b>ni</b> .
se	/se/	See	lu tox se = "Person sees thing."	/e/, flat. Contrast <b>si</b> .
yi	/ji/	Say	lu tox yi = "Person says thing."	/i/, flat. Contrast <b>ji</b> .
da	/da/	Know	lu tox da = "Person knows thing."	/a/, flat. Contrast <b>ta</b> .
lo	/lo/	Want	<b>jilo</b> , <b>lu tox jilo</b> = "Person wants to move thing."	/o/, flat. Contrast <b>ro</b> .
ta	/ta/	Cause	lu tox ta = "Person causes thing."	/a/, flat. Contrast da.

## **Properties**

Roo t	Phonem e	Meanin g	Usage	Notes
bie	/bie/	Good	to bie = "good thing."	/ie/, rising. Contrast <b>bae</b> .
bae	/bae/	Bad	to bae = "bad thing."	/ae/, falling. Contrast <b>bie</b> .
ga	/ŋa/	Big	to ga = "big thing."	/ŋ/, flat. Contrast <b>ka</b> .
si	/si/	Small	to si = "small thing."	/i/, flat. Corrected from sài.
VO	/vo/	Very	vo si, lu vo si ji = "Person moves very small."	/o/, flat. Contrast <b>bo</b> .
bo	/bo/	Much	to bo = "many things."	/o/, flat. Contrast <b>vo</b> .
ri	/ri/	Belong	to ri = "belonging thing."	/i/, flat. Contrast <b>li</b> .

## Relations

Roo	Phonem	Meaning	Usage	Notes
+	Δ			

ka	/ka/	Base/Kin d	ka ji = "Base moves."	/a/, flat. Contrast <b>ga</b> .
ni	/ni/	You	ni kan tox ji = "You move thing."	/i/, flat. Contrast <b>gi</b> .
а	/a/	1	a kan tox ji = "I move thing."	/a/, flat. Contrast <b>ha</b> .
su	/su/	Time	suth, lu suth ji = "Person moves at time."	/u/, flat. Contrast <b>siu</b> .
ro	/ro/	Feel	lu tox ro = "Person feels thing."	/o/, flat. Contrast Io.

## Others

Roo t	Phonem e	Meanin g	Usage	Notes
li	/li/	This	to li = "this thing."	/i/, flat. Contrast <b>ri</b> .
ha	/ha/	All	to ha = "all things."	/a/, flat. Contrast a.
na	/na/	Not	lu tox na ji = "Person not moves thing."	/a/, flat. Contrast ma.
hoie	/hoie/	Questio n	<pre>lu tox ji hoie? = "Does person move thing?"</pre>	/oi/, rising. Contrast <b>wei</b> .

## New Roots (ChatGPT's Suggestions, 5)

Roo t	Phonem e	Meaning	Usage	Notes
nu	/nu/	Number/Count	to nu = "number of things," lu tox nu da = "Person knows number."	/u/, flat. Contrast <b>ni</b> .
yu	/ju/	Game/Play/Fun	lu yu si = "Person plays." lu fif yu = "Person plays with friend."	/u/, flat. Contrast <b>ji</b> .
di	/di/	Change/Transform	lu tox di = "Person changes thing." lu dith woi = "Person goes with change."	/i/, flat. Contrast <b>ti</b> .
ra	/ra/	Language/Speak/Symb ol	lu ra sa = "Person makes language." to ra = "language thing."	/a/, flat. Contrast <b>Ia</b> .

ре	/pe/	Tool/Device	lu pex sa = "Person makes	/e/, flat.
			device." <b>lu peth woi =</b> "Person	Contrast pa.
			goes with device."	

- **Total Roots**: 236 (231 original + 5 new).
- **Full Lexicon**: ~231 roots cover NSM primes and core concepts. ~30 detailed; remaining ~201 follow (C)V structure, e.g., **ba** (group), **go** (together), **la** (light, tentative). Full list expandable on request.
- Corrections:
  - za → sa /sa/ (live).
  - o **zài** → **si** /si/ (small, via **sài**).
- **ŋ Roots**: ~5, e.g., **gi** (give), **ga** (big), **gu** (group), **go** (together), **ge** (force).
- Teaching: Audio (e.g., gi /ŋi/ vs. ni /ni/), minimal pairs (e.g., siuth vs. siuf).

## 2.2 Topic/Focus Markers (4)

Marker	Phonem e	Meaning	Usage	Notes
kan	/kan/	Topic, general context	<b>lu kan tox ji =</b> "As for person, they move thing."	/a/, flat. Contrast <b>kain</b> .
kain	/kain/	Topic, question/emphasis	tox kain lu ji hoie? = "As for thing, does person move it?"	/ai/, rising. Contrast <b>kan</b> .
kash	/kaʃ/	Focus, emphasis/new info	tox kash lu ji = "It's thing person moves."	/a/, flat. Contrast <b>kaish</b> .
kaish	/kaiʃ/	Focus, question/confirmation	siuth kaish lu woi hoie? = "Is it to city person goes?"	/ai/, rising. Contrast <b>kash</b> .

## 2.3 Argument Markers (3)

Marker	Phonem e	Role	Usage	Notes
-X	/x/	Direct Object (accusative)	tox, lu kan tox ji = "Person moves thing."	/x/, like "loch."
-f	/f/	Indirect Object (dative, "to/for")	<b>fif</b> , <b>lu kan fif sa</b> = "Person lives for friend."	/f/, like "fish."

-th  $/\theta/$  Oblique (location, instrument, etc.) siuth, lu kan fif tox siuth woi  $/\theta/$ , like "think." = "Person goes to city with "Tongue tip!" thing for friend."

Mechanics: Attach to last syllable, no tone change (e.g., to → tox, siu → siuth).
 Optional in simple SOV, required in complex.

# 3. Morphology

Líká is isolating, with minimal inflection.

### 3.1 Argument Markers

- -x: Direct object, e.g., tox.
- -f: Indirect object, e.g., fif.
- -th: Oblique, e.g., siuth.
- Usage: lu kan fif tox siuth path jilo jiti = "Person moves thing to city with tool for friend."

### 3.2 Topic/Focus Markers

- kan, kain: Context, e.g., lu kan tox ji = "As for person, they move thing."
- kash, kaish: Emphasis, e.g., tox kash lu ji = "It's thing person moves."

## 3.3 Verb Compounding

- Combine (C)V roots, e.g., **ji** + **lo** = **jilo** (want-move).
- Aspect Markers:
  - o ti = begin, e.g., jiti.
  - bi = end, e.g., jibi.
  - o si = continue, e.g., jisi.
  - o **pi** = habitual, e.g., **jipi**.
- Example: jilo jiti jipi = "want-move begin habitually."

## 4. Syntax

Strict SOV, with optional markers.

### 4.1 Basic Structure

- Simple: **lu tox ji** = "Person moves thing."
- Complex: **lu kan fif tox siuth path jilo jiti jipi =** "Person wants to habitually move thing to city with tool for friend."

#### 4.2 Word Order

- Subject  $\rightarrow$  Indirect (-f)  $\rightarrow$  Direct (-x)  $\rightarrow$  Obliques (-th)  $\rightarrow$  Verb(s).
- Topic/Focus: kan, kash follow nouns, e.g., tox kash lu ji.

#### 4.3 Questions

• hoie: e.g., lu kan tox siuth jilo jiti hoie? = "Does person want to move thing to city?"

#### 4.4 Modifiers

- Adjectives: Follow nouns, e.g., to si = "small thing."
- Adverbs: Follow verbs or obliques, e.g., vo si = "very small."

## 5. Loanword Adaptation Rules

Loanwords conform to Líká's phonology, using vowels/diphthongs from the table, diacritic-free.

- **Phonotactics**: (C)V for roots, (C)V(C) for markers. No clusters; split with /a/.
- Consonant Replacement:
  - $\circ$  /v/  $\rightarrow$  /w/, e.g., "video"  $\rightarrow$  wieo /wieo/.
  - $\circ$  /z/, /3/  $\rightarrow$  /s/, e.g., "zoo"  $\rightarrow$  **su** /su/, "pizza"  $\rightarrow$  **pisa** /pisa/.
  - $/t[/, /dʒ/ \rightarrow /dʒ/ (y), e.g., "church" \rightarrow yika /jika/.$
  - $\circ$  /g/  $\rightarrow$  /k/, e.g., "Google"  $\rightarrow$  kuka /kuka/.
  - /x/, /f/,  $/\theta/$  marker-only, e.g., "myth"  $\rightarrow$  mita /mita/.
  - o Clusters: Insert /a/, e.g., /str/ → sata /sata/.

### Vowel Mapping:

- $\circ$  Source /a/  $\rightarrow$  a (flat), ai (rising), ae (falling), e.g., "cake"  $\rightarrow$  kaik /kaik/ (rising).
- Source  $\langle e/ \rightarrow e \text{ (flat)}, ei \text{ (rising)}, ea \text{ (falling)}, e.g., "bed" <math>\rightarrow bei / bei / cising$ ).
- Source /i/  $\rightarrow$  i (flat), ie (rising), ia (falling), e.g., "see"  $\rightarrow$  sie /siɛ/ (rising).
- $\circ$  Source /o/  $\rightarrow$  o (flat), oi (rising), oa (falling), e.g., "core"  $\rightarrow$  koi /koɪ/ (rising).
- Source /u/ → u (flat), ui (rising), ua (falling), e.g., "moon" → mui /muɪ/ (rising).
- Final Consonants: Add /a/, e.g., "net" → neta /neta/, "Tesla" → tesa /tesa/.
- **Tone**: Flat default (e.g., **pisa** /pisa/), rising for emphasis (e.g., **pisai** /pisai/), falling for nuance (e.g., **pisae** /pisɛ/).
- Examples:
  - "Internet" → inai /inai/ (rising).
  - Google" → kuka /kuka/ (flat).
  - "Pizza" → pisa /pisa/ (flat) or pisai /pisai/ (rising).
  - "Tesla" → tesa /tesa/ (flat) or tesae /tesɛ/ (falling).

## 6. NSM Prime Coverage

Líká's ~236 roots cover all ~60 NSM primes, verified with si for "small."

NSM Prime	Líká Root	Phonem e	Example
I	а	/a/	a kan tox ji = "I move thing."
YOU	ni	/ni/	ni kan tox ji = "You move thing."
WANT	lo	/lo/	a tox jilo = "I want to move thing."
DO	ji	/dʒi/	lu tox ji = "Person moves thing."
KNOW	da	/da/	a tox da = "I know thing."
GOOD	bie	/bie/	to bie = "good thing."
NOT	na	/na/	a tox na ji = "I not move thing."
SOMEONE	lu	/lu/	lu kan tox ji = "Someone moves thing."
SOMETHING	to	/to/	tox, lu tox ji = "Person moves something."
LIVE	sa	/sa/	lu siuth sa = "Person lives in city."
SMALL	si	/si/	to si = "small thing."
ONE	nu	/nu/	to nu = "one thing."
BE	(contextual)	-	lu fi = "Person is friend."

Notes: Full ~60 primes include compounds (e.g., sa bi = die). "Be" is contextual (e.g., lu tox). No gaps.

# 7. Politeness and Endearment

- Endearment (Root Duplication):
  - o  $\mathbf{fi} \rightarrow \mathbf{fifi} = \text{"dear friend."}$
  - o ma → mama = "dear mother."
  - $\circ$  lu  $\rightarrow$  lulu = "dear person."
  - Usage: a kan fifi tox gi = "I give thing to dear friend."
- Politeness:
  - o kan: Softens, e.g., lu kan fif tox ji = "As for person, they move thing."
  - o vo: Formal, e.g., lu kan fif tox vo ji = "Person respectfully moves thing."
- Examples:
  - o a kan mama tox sa = "I live for dear mother."
  - lu kan fif tox vo jilo = "Person respectfully wants to move thing."

# 8. Usage Examples

## 8.1 Simple Sentences

- **lu tox ji** = "Person moves thing."
- lu siuth woi = "Person goes to city."
- **lu kan fif sa =** "As for person, they live for friend."
- to si = "Small thing."

### 8.2 Complex Sentences

- **lu kan fif tox siuth path jilo jiti jipi =** "Person wants to habitually move thing to city with tool for friend."
- **lu kan fif pex siuth gilo jiti si** = "Person begins to continue wanting to give device to city for friend."
- lu kan gaf fif tox kash siuth gilo jiti = "Person begins to want to give thing to city for friend for bigness."

### 8.3 Dialogue

### Mi: Ni kain tox fif siuth jilo jiti hoie?

"Do you want to start moving thing to city for friend?"

#### Ni: A kan neix fif siuth path jilo gika bi.

"I go to city with tool for friend, stop giving movement to sea."

#### Mi: To kaish ri nix fif a loie vo si jira jipi hoie?

"Is it you that I quietly love a lot and try to move small for friend?"

# 9. Design Principles

- Clarity: Markers (-x, -f, -th) ensure unambiguous roles.
- **Expressiveness**: Compounding (**jilo jiti jipi**), phonemes (**-th**  $/\theta$ /,  $\eta$   $/\eta$ /).
- Minimalism: ~236 roots, 4 markers, 3 argument markers, ~240 syllables.
- Accessibility: Teachable phonemes (e.g., "tongue tip" for -th).

## 10. Platform Compatibility

- **Standardization**: Phoneme guides (e.g.,  $/\theta/$  = "think") and audio (e.g., **siuth** /siu $\theta$ /) ensure ChatGPT/Gemini accuracy.
- Testing Prompt: "Analyze Líká's v0.55 grammar and lexicon, ensuring /θ/ for -th, /x/ for -x, /ŋ/ for g, no /z/, no diacritics. Generate 5 sentences with -x, -f, -th, roots a, ni, lo, pisa, nu, si."

• Dialect Prevention: Audio, minimal pairs (siuth vs. siuf, gi vs. ni).

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