

Somewhere I belong

Non-abugidic alphasyllabaries,
non-alphasyllabic abugidas
and their typological classification

ARVIND IYENGAR

[ʌr°vɪŋd̪ əjjəŋgɑːr]

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Definitions

Typological
classification
Iyengar

Weingarten (2011); Neef (2015); Meletis (2020)

Terminology

Proposal

Implementation

Future

SCRIPT

bare signary

Latn Arab Cans Brai

GRAPHEMATIC SYSTEM
≈ **WRITING SYSTEM**

language + script

iu-Latn
en-Brai

iu-Cans
ta-Brai

Meletis, D. (2020).
*The Nature of Writing: A
Theory of Grapholinguistics.*
Brest: Fluxus Editions.

GRAPHEMATIC TYPOLOGY

graph-phone correspondences, allograph distribution...

Neef, M. (2015).
Writing systems as modular
objects: proposals for theory
design in grapholinguistics.
Open Linguistics, 1(1), 708–721.

Graphetic typology

graph shape, size, placement...

Weingarten, R. (2011).
Comparative graphematics.
In S. R. Borgwaldt & T. Joyce
(eds.), *Typology of Writing
Systems* (pp. 13–39).
Amsterdam: John Benjamins.

Sociolinguistic typology

writing system used by who, when, for what...

Segmentary

Typological
classification
Iyengar

Gnanadesikan (2017)

SEGMENTARY

basic grain size = phonological segment

Terminology

Proposal

in principle

γ -vowel \equiv φ -vowel

Implementation

γ -consonant \equiv φ -consonant (Haralambous, 2019)

Future

Gnanadesikan, A. (2017).
Towards a typology of
phonemic scripts.
Writing Systems Research, 9(1),
14–35.

CONSONANTARY
ABJAD

γ -vowels

x

γ -consonants

✓

Haralambous, Y. (2019).
Phonocentrism in Greece:
Side Effects of Two Centuries
of Diglossia.
*12th International Workshop of
the Association for Written
Language and Literacy*.

VOWELLED SEGMENTARY
ALPHABET
ALPHASYLLABARY
ABUGIDA
...

✓

✓

Vowelled Segmentaries

Typological
classification
Iyengar

Terminology

Proposal

Implementation

Future

ABUGIDA

Daniels (1996)

functional

Bright (1999)

φ

Gnanadesikan (2017)

which vowels are represented
in postconsonantal position

ALPHASYLLABARY

formal

γ

how vowels are represented
in postconsonantal position

Bright, W. (1999).
A Matter of Typology:
Alphasyllabaries and Abugidas.
Written Language and Literacy,
2(1), 45–55.

Daniels, P. T. (1996).
The study of writing systems.
In P. T. Daniels & W. Bright
(eds.), *The World's Writing
Systems* (pp. 3–17). New York:
Oxford University Press.

Gnanadesikan, A. (2017).
Towards a typology of
phonemic scripts.
Writing Systems Research, 9(1),
14–35.

Vowelled segmentaries

Gnanadesikan (2017)

Postconsonantal vowels

How · γ
independent
semi-
dependent
dependent

ar-Arab

mn-Phag

el-Grek

hi-Deva

bo-Tibt

dv-Thaa

some

all-but-one

all (\approx most)

Which · φ

Alphabet

Postconsonantal vowels

WHICH
all

HOW
independent

el-Grek

yi-Hebr

en-Brai

na	ni	nu	na	ni	nʁ	<NA>	<NI>	<NU>
NA	NI	NΩ	נַא	נִי	נִי			
A	I	Ω	א	י	י			
a	i	u	a	i	ʁ	<A>	<I>	<U>

Proposal

Alphasyllabary

Typological
classification
lyengar

Postconsonantal vowels

WHICH

all

HOW

dependent

Terminology

Proposal

Bright (1999)

“fully pointed” Arabic and Hebrew alphasyllabic

Implementation

Sproat (2010)

f u cn rd ths u cn b trnd as a scrtry nd gt a gd jb

Future

dv-Thaa

ar-Arab

he-Hebr

na

ni

nu

na

ni

nu

na

ni

nu




















a

i

u

a

i

u

a

i

u

Bright, W. (1999).
A Matter of Typology:
Alphasyllabaries and Abugidas.
Written Language and Literacy,
2(1), 45–55.

Sproat, R. W. (2010).
*Language, Technology, and
Society*.
Oxford University Press.

Proposal

Alphasyllabary

Typological
classification
lyengar

Terminology

Postconsonantal vowels

WHICH

all

HOW

'dependent' 🤨

Proposal

Poser (2003)

C ≡ shape

V ≡ orientation

Implementation

Future

Cree · Syllabics

cr-Cans

Inuktitut · Syllabics

iu-Cans

Carrier · Syllabics

crx-Cans

na

ni

no



a

i

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na

ni

nu



a

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no



a

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o

Poser, W. J. (2003).
Dalk'wahke: The first carrier
writing system. Unpublished
ms.

Abugida + Alphasyllabary

WHICH
all-but-one

HOW
dependent

Postconsonantal vowels

hi-Deva

mr-Deva

bo-Tibt

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ni

nu

nə

ni

nu

na

ni

nu

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Proposal

Abugida + Alphasyllabary

Typological
classification
lyengar

WHICH
all-but-one

HOW
independent

Postconsonantal vowels

Terminology

Proposal

Implementation

Future

Sora · Sorang Sompeng

Ho · Warang Kshiti

Multiple · Bharati Braille

mn-Phag

srb-Sora

hoc-Wara

hi-Brai

na ni nu

nə ni nu

na ni nu

nə ni nu

𑌎 𑌏 𑌐

𑌎 𑌏 𑌐

𑌎 𑌏 𑌐

⠠ ⠠⠠ ⠠⠠⠠

𑌎 𑌏 𑌐

𑌎 𑌏 𑌐

𑌎 𑌏 𑌐

⠠ ⠠⠠ ⠠⠠

a i u

ə i u

a i u

ə i u

Vowelled segmentaries

Postconsonantal vowels

How · γ

ALPHASYLLABARY ALPHABET

independent

dependent

𑌵 𑌶 𑌷
⋮ ⋮⋮ ⋮⋮⋮

NA NI NŌ

𑌵𑌶 𑌵𑌷 𑌵𑌸

𑌵 𑌶𑌷 𑌸

𑌵𑌶𑌷 𑌵𑌶𑌸 𑌵𑌶𑌹

𑌵𑌶 𑌵𑌷𑌸 𑌸𑌹

𑌵𑌶𑌷𑌸 𑌵𑌶𑌷𑌹 𑌵𑌶𑌷𑌺

all-but-one

all (≈ most)

ABUGIDA

Which · φ

Vowelled segmentaries

Postconsonantal vowels

How · γ

ALPHASYLLABARY ALPHABET

independent

dependent

𑌵 𑌶 𑌷
⋮ ⋮⋮ ⋮⋮⋮

NA NI NŌ

𑌵𑌶 𑌵𑌷 𑌵𑌸

न नि नु

𑌵𑌶𑌷 𑌵𑌶𑌸 𑌵𑌶𑌹

व वै वु

𑌵𑌶𑌺 𑌵𑌶𑌻 𑌵𑌶𑌼

all-but-one

all (≈ most)

ABUGIDA

Which · φ

Vowelled segmentaries

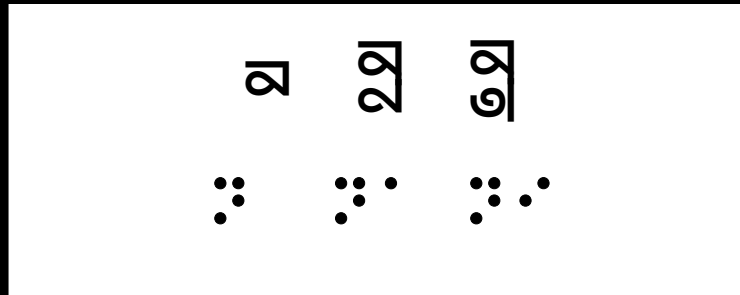
Postconsonantal vowels

How · γ

ALPHASYLLABARY ALPHABET

independent

dependent



NA NI NŌ

𑂎𑂏𑂐𑂑𑂒

न नि नु

𑂎𑂏𑂐𑂑𑂒

𑂎𑂏𑂐𑂑𑂒

𑂎𑂏𑂐𑂑𑂒

all-but-one

all (≈ most)

ABUGIDA

Which · φ

Vowelled segmentaries

Postconsonantal vowels

How · γ

ALPHASYLLABARY ALPHABET

independent

dependent

𑌵 𑌶 𑌷
⋮ ⋮⋮ ⋮⋮⋮

न नि नु

व वि वु

all-but-one

ABUGIDA

NA NI NΩ

𐌵 𐌶 𐌷

𐌵𐌶 𐌵𐌷 𐌶𐌷

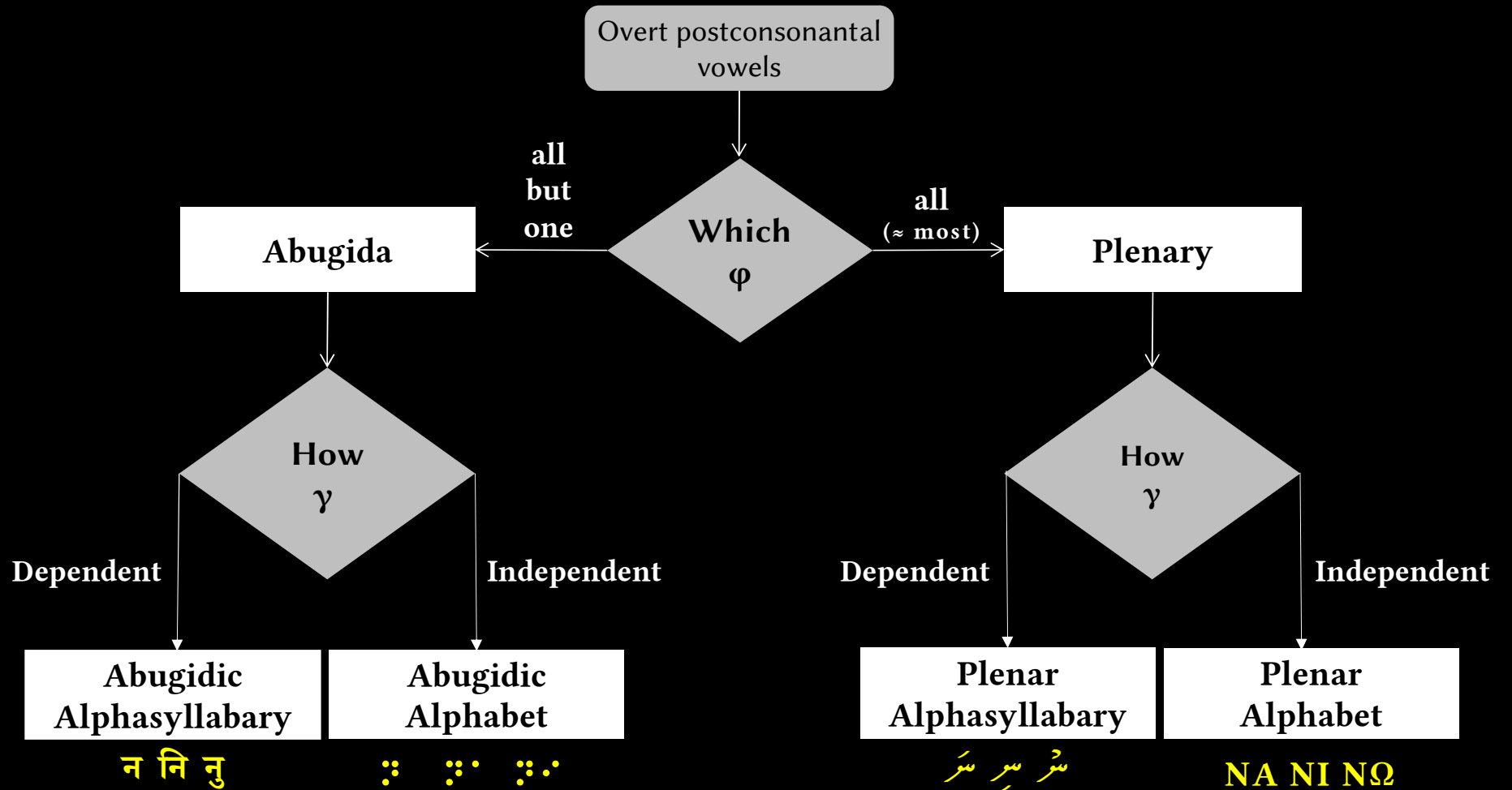
𐌵 𐌶 𐌷

all (≈ most)

PLENARY

Which · φ

Vowelled segmentaries



Aksharic segmentaries

Postconsonantal vowels

How · γ

ALPHASYLLABARY ALPHABET

independent

dependent

ॐ ॐ ॐ
∴ ∴ ∴

NA NI NΩ

נא ני נא

न नि नु

ن ن ن

व वी वु

و س ه

all-but-one

all (≈ most)

ABUGIDA

PLENARY

Which · φ

Aksharic segmentaries

Postconsonantal vowels

How · γ

ALPHASYLLABARY ALPHABET

independent

dependent

𑂔 𑂕 𑂖
⋮ ⋮⋮ ⋮⋮⋮

NA NI NŌ

𑂔𑂕 𑂔𑂖 𑂔𑂗

न नि नु
व वी वु

𑂔𑂕𑂖 𑂔𑂕𑂗 𑂔𑂕𑂘

𑂔𑂕𑂖 𑂔𑂕𑂗 𑂔𑂕𑂘

all-but-one

all (≈ most)

ABUGIDA

PLENARY

Which · φ

Aksharic segmentaries

Postconsonantal vowels

How · γ

ALPHASYLLABARY ALPHABET

independent

dependent

Independent implementation (grey background):

𑌵	𑌶	𑌷
⋮	⋮⋮	⋮⋮⋮

NA NI NŌ

𑌵𑌶 𑌵𑌷 𑌵𑌸

Dependent implementation (white background):

न	नि	नु
व	वि	वु

𑌵𑌶𑌷 𑌵𑌶𑌸 𑌵𑌶𑌹

𑌵𑌶𑌷𑌸 𑌵𑌶𑌷𑌹 𑌵𑌶𑌷𑌺

all-but-one

all (≈ most)

ABUGIDA

PLENARY

Which · φ

Open questions

Wider applicability

kr-Hang Korean-Hangeul?

Possible to quantify ‘degree’ of alphasyllabicity, abugidicity...? cf. Sproat (2021)

Graphetic dimensions

vowels central

SEGMENTAL

NA NIN Ω

∴ ∴ ∴ ∴ ∴

peripheral

SUBSEGMENTAL (Meletis, 2020)

سَ سِ سُو

न नि नु

abstract

‘SUPRAGRAPHICAL’

۵ ۶ ۷

⠆ ⠨ ⠨ ⠨ ⠨ ⠨ ⠨ ⠨

ལྷན་སྐྱེ་མེད།

ευχαριστώ

شُكْرًا كَثِيرًا

ᱥᱟᱠᱟᱨᱚᱜᱚ



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