The emergent typology of reduplication: Universals and variations in learning biases.



DEPARTMENT OF LINGUISTICS

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1. Summary

Big picture questions

- What are the analytic biases (e.g., Wilson, 2006; Moreton and Pater, 2012) that guide (morpho)phonological learning?
- How do these biases reflect natural language **typology** (e.g. Moreton, 2008)?

Artificial grammar learning experiments with reduplication

When reduplicative patterns are only observed in relatively short forms e.g., monosyllabic copying ['pif] \sim ['pifpif] or ['pif] \sim ['pipif]

- On what levels of **phonological abstraction** (e.g., syllables, feet, or prosodic words) are human learners biased to form reduplicative generalizations?
- What does the **hypothesis space** for a human learner look like given the input?

Findings and takeaway

- Human learners generalize in a manner that is sensitive to phonological abstractions characterizable by the vocabulary of prosody
- \hookrightarrow support for the Prosodic Morphology (McCarthy and Prince, 1986) Participants were guided by other theoretically grounded principles (see paper)
- Spontaneous responses appeared to reflect the reduplicative typology.
- the most frequent forms were consistent with the typological trends
- the variations in individually biased grammars reflected the attested variations.

2. The reduplicative typology

Cross-linguistic variation along many crucial dimensions (e.g., Inkelas and Downing, 2015)

Dimension I: the phonological shape (i.e., how much to copy)

1. Total (Indonesian; Austronesian; McCarthy and	Cohn, 1998)
bu.ku ~ <u>bu.ku</u> - <u>bu.ku</u> 'book' 'book-PL	ma.ša.ra.kat ~ <u>ma.š</u> 'society' 'society
2. Partial	
1. A bisyllabic foot (Diyari; Pama-Nyungan; Aust	tin, 1981)
pir.ta ~ pir.ta-pir.ta 'tree' 'DIM- tree'	wil.ha.pi.na <u>wil.ha</u> -y 'old woman' 'DIM-old wo
2. A heavy syllable (Ilokano; Austronesian; Haye	s and Abad, 1989)
kut.tóŋ ~ naka- <u>kut</u> - <u>kut</u> .tóŋ 'thin' 'ADJ-INTENS-thin'	bu.téŋ ~ naka- <u>but</u> -l 'afraid' 'ADJ-INTENS-af
3. A light syllable (Tonkawa; Coahuiltecan; Gousl to.po s ~ <u>to-to</u> .po s ' <i>l cut it</i> ' 'REP- <i>l cut it</i> '	kova, 2007) xej.tso s ~ <u>xe-xej.ts</u> <i>'I rub him'</i> 'REP- <i>I rub hin</i>
Dimension II: which part of the stem	is copied if partially reduplic
1. Left-edge oriented (see above)	
2. Right-edge oriented (Manam; Austronesia	n; Lichtenberk, 1983)
salaga \sim salaga-laga 'be long' 'long-SG'	sapara ~ sapara-para 'branch' 'having branche
3. Infixation (Samoan; Austronesian; Broselow ar	nd McCarthy, 1983)
alófa ~ a- <u>lo</u> - <u>ló</u> fa 'love' 'love-PL'	saváli ~ sa- <u>va</u> - <u>vá</u> li ' <i>walk' 'walk</i> -PL'
• Other possible variations	
1. Vowel reduction (Palauan; Austronesian; Zu	ıraw, 2002)
tórð ~ bəkə-tər-tórð 'frustration'' 'easily frustrated'	
2. Templatic back-copying (?) (Guarijio;	Uto-Aztecan; Austronesian; Caballero, 20
toní ~ to-tó 'to boil' íto start boiling'	muhíba ~ mu-mú 'to throw' 'to start throv

*See the draft of the paper for more details!

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3. E	xperiment		5. Results II: the individual variations
timulus paradigm (Wilson, 2	006 <i>et seq.</i>)		- Fynt 1: pyamnla individual grammars
gish speakers recruited from Prolific (N $_1=$ 144; N $_2=$ 105)			Mord-final heavy syllable conving (to a varying degree N = 15)
auditory input, no orthograph	ic help		- word-final fleavy synable copying (to a varying degree, ii – 15)
			'tɛf.kʊp 'tɛf.kʊp-kʊp
and the second s		The second second	'ga.və.dus 'ga.və.dus- <u>dus</u>
		KERN SEP	pi.sæ.'gou.bæ.kʊt pi.sæ.'gou.bæ.kʊt- <u>kʊt</u>
States and a second state			 Templatic Backcopying (to a varying degree, N = 3)
- Mar Star and a start of the	1420		'ga.və.dus 'gav- <u>gav</u> ni sən 'qou bən kut 'niş niş (3/4 for one particinant)
isten to the singular.		isten to the plural.	pi.sæ. gou.bæ.kot pis- <u>pis</u> (S/ + ioi one participant)
Expt. I + 2 : ['pit]	Expt. 1:['pitpit	Expt. 2:['pipit]	Expt 2. oxomplo individual grammars
e and reduplicated forms			- Ricyllabic trachaic fact conving: $(N = 10)$
nosvllabic $C_1V_2C_3$ forms (e.g.,	['pif]) with variegate	d segment choices	• Disynable trochate root copying: $(N = 10)$
blicant is $C_1V_2C_3$ (e.g., ['pifpif])	Exp	t. 2: reduplicant is C ₁ V ₂ (e.g., ['pipif	pi.sæ.gou.bæ.kʊt <u>pi.sæ</u> -pi.sæ.gou.bæ.kʊt
input free coentancous produ	uction responses		• Iotal + ivo word final coda ($N = 2$, all categorical)
π			zı.vid <u>zı.vi</u> -zı.vib 'tɛf.kup 'tɛf.kup
Iesting types Shapes FAMILIAR Iovid	['nova]	$\frac{\# Seg. \# \sigma}{3}$	'ga.və.dus 'ga.və.du-'ga.və.dus
DISYLLABIC $C_1 V_2 C_3$	['ti.kɛp]	5 2	pi.sæ.'gou.bæ.kʊt pi.sæ.'gou.bæ.kʊ-pi.sæ.'gou.bæ.kʊt
DISYLLABIC CVC $C_1V_2C_3.C_4V_5C_6$	[ˈdɛb.gɪv]	6 2	- Infixation (to a varying degree, $N = 14)$
TRISYLLABIC $C_1V_2.C_3V_4.C_5V_6C_7$	['ti.fæ.pəs]	7 3	pi.sæ.'gou.bæ.kʊt pi.sæ <u>gou.bæ</u> -'gou.bæ.kʊt
$PENTASYLLABIC C_1V_2.C_3V_4.C_5V_6.C_5V_$	$c_7 v_8 c_9 v_{10} c_{11} \mid p_{1.8} $	e.kʊt] II 5	• Vowel reduction (to a varying degree, $N = 20$)
ch of the five testing types (2	0 trials in total); te	sted together, order randomized	zi.vib <u>zə</u> -zi.vib
eses: Exnt 1			'tɛf.kʊp <u>tə</u> -'tɛf.kʊp
			ga.və.aus <u>gə</u> -ga.və.aus pi.sæ.'qou.bæ.kʊt pə- pi.sæ.'qou.bæ.kʊt
SYLLABIC CVDISYLLABIC CVC['ti.kep]['deb.giv]i.kep-'ti.kep'deb.giv-'deb.giv	TRISYLLABIC ['ti.fæ.pəs] 'ti.fæ.pəs-'ti.fæ.pəs	PENTASYLLABIC [,pi.sæ.'goʊ.bɛ.kʊt] . pi.sæ.'goʊ.bɛ.kʊt	*For more detailed investigations on the individual variations, see the draft of the paper.
x/'tikε-'ti.kεp 'dεb/'dεb.gı-'dεb.gı	v 'tif/'tifæ-'ti.fæ.pəs	pis/pisæ-pi.sæ.'gov.bɛ.kʊt	6. Discussions
ti.kep-kep 'deb.giv-giv	'ti.fæ.pəs- pəs	pi.sæ.'gov.bɛ.kʊt- kʊt	 Human learners generalize reduplicative patterns in a manner that is
tik-'ti.kep deb-'deb.giv	tif-'ti.fæ.pəs	pi.sægoʊb-ˈgoʊ.bɛ.kʊt	sensitive to phonological abstractions characterizable by the
eses: Expt. 2			vocabulary of the prosody .
•			• The systematicity in participants' responses \rightarrow the possibility of the noverty of stimulus design as a sampler of the learner's hypothesis
is DISYLLABIC CV DISYLLABIC	c CVC TRISYLLABIC	PENTASYLLABIC [pi.sæ.'gou.bɛ.kut]	space conditioned on the input, at least for reduplication learning.
$\frac{ \mathbf{t}_{i} ^{2}}{ \mathbf{t}_{i} ^{2}} = \frac{ \mathbf{t}_{i} ^{2}}{ \mathbf{t}_{i} ^{2}}$	b.giv 'ti.fæ.pə- 'ti.fæ.pəs	pi.sæ.'gov.bɛ.kʊ-ˌpi.sæ.'gov.bɛ.kʊt	 The diversity of possible linguistic structures may also have its root
ti-'ti.kep de-'deb.g	giv ti-'ti.fæ.pəs	pi-pi.sæ-'gov.bɛ.kʊt	in learning, reflected by the great variety of possible analyses
$ti-k\epsilon-k\epsilon p$ $d\epsilon b-gi-gi$ $ti-'ti.k\epsilon p$ $d\epsilon-'d\epsilon b.gi$	giv ti.iæ pə -pəs giv ti -'ti.fæ.pəs	pi.sæ.gov.be-kvt pi.sæ-gov-'gov.bekvt	Individual human learners are biased towards.
			7. Future directions
4. Results	I: the univers	als	 A large-scale corpus of AGL experiments as a benchmark for
duplication	Expt 2:	fixed light syllable copying wit	h quantitative predictions
•	more vari	ations	 Computational modeling to capture the general trends and variations (current work in progress)
eduplication is more frequent	Typology:	partial reduplication is characterize	ed
ication	based on a	fixed prosodic template	Acknowledgements
	Number of syllable (affix/reduplicant) 0 Familiar(1)		Affix shape (affix/reduplicant) Light syllable Perkins, Megha Sundara, Iza Sola-Llonch, Canaan Breiss, Lily, Xu, the audience of the LICLA Com-
	1 1 100g 2 2 3 Disyllabic CV(2)		heavy syllables two syllables
	5 second de la contraction de		others Lathrop, Shawdi Sani, Alexandria Zarko and Boyi Zheng, for making this possible.
			QR code to this poster (with
	Trisyllablic (3) ˈti.fæ.pəs		VK code to a dissertation chapter references).
	Pentasyllabic (5) pi.sæ. goʊ.bɛ.kʊ		
2 0.4 0.6 0.8 1.0 Response Proportion		0.0 0.2 0.4 0.6 0.8 1.0 Response Proportion	

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3. Experiment	5. Results II: the individual variations	
Poverty of the stimulus paradigm (Wilson, 2006 et seq.)		
Participants : Engish speakers recruited from Prolific ($N_1 = 144$; $N_2 = 105$)	Expt. 1: example individual grammars	
Familiarization : auditory input no orthographic help	• word-final heavy syllable copying (to a varying degree, N = 15)	
Image: A constraint of the second	 IVID IVID IVID-VID Itef.kop Itef.kop-kop Iga.və.dus Iga.və.dus-dus pi.sæ.'gou.bæ.kot pi.sæ.'gou.bæ.kot pi.sæ.'gou.bæ.kot pi.sæ.'gou.bæ.kot pi.sæ.'gou.bæ.kot pi.sæ.'gou.bæ.kot pi.sæ.'gou.bæ.kot 	
	'ga.və.dus 'gav- <u>gav</u> ni sæ 'gou bæ kyt 'nis-nis (3/4 for one participant)	
Listen to the singular. Expt. 1. 1. 2. [bit] Expt. 1. [bit]		
$\mathbf{Expt. } \mathbf{I} + \mathbf{Z}: [pir] \qquad \mathbf{Expt. } \mathbf{I}: [pirpir] \qquad \mathbf{Expt. } \mathbf{Z}: [pipir]$	Expt. 2: example individual grammars	
 Four pairs of base and reduplicated forms 	• Bisyllabic trochaic foot copying: $(N = 10)$	
- Bases are all monosyllabic $C_1V_2C_3$ forms (e.g.,['pif]) with variegated segment choices	pi.sæ.'gou.bæ.kut_pi.sæ-pi.sæ.'gou.bæ.kut	
• Expt. 1: reduplicant is $C_1V_2C_3$ (e.g.,['pifpif]) Expt. 2: reduplicant is C_1V_2 (e.g.,['pipif])) • Total + No word final coda (N = 2, all categorical)	
Testing : auditory input, free spontaneous production responses	zi.vib zi.vi-zi.vib	
Testing typesShapesExamples# Seg.# σ FAMILIAR'c_1v_2c_3['novg]31DISYLLABICCV'c_1v_2.c_3v_4c_5['ti.kɛp]52DISYLLABICCVC'c_1v_2c_3.c_4v_5c_6['dɛb.gɪv]62	 'tɛf.kʊp 'tɛf.kʊp 'ga.və.dus 'ga.və.dus 'ga.və.dus 'pi.sæ.'gou.bæ.kʊt 'pi.sæ.'gou.bæ.kʊt Infixation (to a varying degree, N = 14) 	
TRISYLLABIC'c_1v_2.c_3v_4.c_5v_6c_7['ti.fæ.pəs]73Development of the transformed set of th	pi.sæ.'gou.bæ.kʊt pi.sæ <u>gou.bæ</u> -'gou.bæ.kʊt	
PENTASYLLABIC $c_1v_2.c_3v_4.c_5v_6.c_7v_8.c_9v_{10}c_{11}$ $[p1.sæ.gov.be.kvt]$ II5	• Vowel reduction (to a varying degree, $N = 20$)	
• Four trials for each of the five testing types (20 trials in total); tested together, order randomized Possible hypotheses: Expt. 1	$z_1.v_{1b}$ $z_{\overline{2}}$ - $z_1.v_{1b}$ 'tɛf.kʊp $t_{\overline{2}}$ -'tɛf.kʊp'ga.və.dus $g_{\overline{2}}$ -'ga.və.duspi.sæ.'gou.bæ.kʊt $p_{\overline{2}}$ -'pi.sæ.'gou.bæ.kʊt	
Hypothesis DISYLLABIC CV DISYLLABIC CVC TRISYLLABIC PENTASYLLABIC ['ti.kep] ['deb.giv] ['ti.fæ.pəs] [,pi.sæ.'gov.be.kvt] total 'ti kep-'ti kep 'deb qıv-'deb qıv 'ti fæ pəs-'ti fæ pəs pi sæ 'qov be kvt- pi sæ 'qov be kvt-	*For more detailed investigations on the individual variations, see the draft of the pape	
$\frac{1}{wd} \left[FT + \frac{tik}{tike-ti.kep} + \frac{deb.giv-deb.giv}{deb} + \frac{deb.giv}{deb.gi} + \frac{tif}{tife-ti.fe.pos} + \frac{pi.se.gov.be.kov}{pis/pise-pi.se.gov.be.kov} + \frac{tif}{tile-tile} + \frac{tile}{tile} + \frac{tile}{$	6. Discussions	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	 Human learners generalize reduplicative patterns in a manner that is sensitive to phonological abstractions characterizable by the vocabulary of the prosody. The systematicity in participants' responses → the possibility of the possibility o	
HypothesisDISYLLABIC CVDISYLLABIC CVCTRISYLLABICPENTASYLLABIC $['ti.kep]$ $['deb.giv]$ $['ti.fæ.pəs]$ $[.pi.sæ.'gou.be.kut]$ WD + NOFINALCODA'ti.ke-'ti.kep'deb.gi-'deb.giv'ti.fæ.pə-'ti.fæ.pəs,pi.sæ.'gou.be.kut-,pi.sæ.'gou.be.kut wd [FT+NOCODA'ti.ke-'ti.kep'deb.gi-'deb.giv'ti.fæ-'ti.fæ.pəs,pi.sæ-'pi.sæ.'gou.be.kut wd [σ_{μ} ti-'ti.kepde-'deb.givti-'ti.fæ.pəspi-,pi.sæ.'gou.be.kut σ_{μ}]wd'ti-ke-kep'deb-gi-giv'ti.fæ-pə-pəs,pi.sæ.'gou.be.kut	 space conditioned on the input, at least for reduplication learning. The diversity of possible linguistic structures may also have its root in learning, reflected by the great variety of possible analyses <i>individual</i> human learners are biased towards. 	
σ_{μ} ti -ti.kep de -deb.giv ti -ti.fæ.pəs pi.sæ- gou -gou.bekut		
4. Results I: the universals	7. Future directions	
Expt 1: Total reduplication Expt 1: Total reduplication Expt 2: fixed light syllable copying with	 A large-scale corpus of AGL experiments as a benchmark for quantitative predictions Computational modeling to capture the general trends and variations (current work in progress) 	
Typology: total reduplication is more frequentTypology: partial reduplication is characterizedthan partial reduplicationbased on a fixed prosodic template	d Acknowledgements	
Familiar(1) 'noog Disyllabic CV(2) 'ti.kep Disyllabic CVC(2) Disyllabic CVC(2) Disyllabic CVC(2) Disyllabic CVC(2) Disyllabic CVC(2) Disyllabic CVC(2) Disyllabic CVC(2) Disyllabic CVC(2)	Affix shape (affix/reduplicant) light syllable heavy syllable two syllables total others	
Trisyllablic (3) it.fæ.pes Pentasyllabic (5) pi.sæ. 'gov.bɛ.kot 0.0 0.2 0.4 0.6 0.8 1.0 Response Proportion	QR code to a dissertation chapter QR code to this poster (with references).	

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erty of the stimulus paradigm (Wilson, 2006 <i>et seq.</i>)				
icipants: Engish speakers recruited from	Prolific ($N_1 = 144$; N	$I_2 = 105)$	Expt. 1: example individual grammars	
iliarization: auditory input. no orthograp	hic help	- ,	• word-final heavy syllable copying (to a varying degree, N = 15)	
			zı.vib zı.vib- <u>vib</u> 'tɛf.kʊp 'tɛf.kʊp-kʊp	
and the second s		LAND ANTO	'ga.və.dus 'ga.və.dus- <u>dus</u>	
		KEUD CON	pi.sæ.'gou.bæ.kʊt pi.sæ.'gou.bæ.kʊt- <u>kʊt</u>	
		URE	• Templatic Backcopying (to a varying degree, $N = 3$)	
and the second sec	14 h	(WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW	'ga.və.dus 'gav- <u>gav</u>	
Listen to the singular.	L	isten to the plural.	pi.sæ.'gou.bæ.kʊt 'pis- <u>pis</u> (3/4 for one participant)	
Expt. 1 + 2 : ['pif]	Expt. 1:['pifpit	Expt. 2: ['pipif]		
			Expt. 2: example individual grammars	
Ir pairs of base and reduplicated forms			 Bisyllabic trochaic foot copying: (N = 10) 	
ses are all monosyllabic $C_1V_2C_3$ forms (e.g	.,['pif]) with variegate	ed segment choices	pi.sæ.'gou.bæ.kʊt <u>pi.sæ</u> -pi.sæ.'gou.bæ.kʊt	
$xpt. 1$: reduplicant is $C_1 v_2 C_3$ (e.g., [pifpif]) ⊏xp	t. 2: reduplicant is $C_1 v_2$ (e.g., [pipif])	 Total + No word final coda (N = 2, all categorical) 	
ing: auditory input, free spontaneous proc	duction responses		zi.vib <u>zi.vi</u> -zi.vib	
Testing types Shapes	Examples	$\#$ Seg. $\# \sigma$	'tɛf.kʊp <u>'tɛf.kʊ</u> -'tɛf.kʊp	
FAMILIAR $C_1V_2C_3$	['noʊg]	3 1	ga.və.aus <u>ga.və.au</u> - ga.və.aus ni sæ 'qou bæ kut ni sæ 'qou bæ ku- ni sæ 'qou bæ kut	
DISYLLABIC CV $C_1V_2.C_3V_4C_5$	['ti.kep]	5 2 6 2	• Infixation (to a varying degree $N = 14$)	
$TRISYLLABIC \forall C_1 V_2 C_3 C_4 V_5 C_6$	[deb.giv]	0 2 7 3	ni sæ 'agu bækyt ni sæ - agu bækyt	
	$_{6}$, $C_7 V_8$, $C_9 V_{10} C_{11}$ [pi.sæ. gov.b	e.kvt] 11 5	- Vowel reduction (to a varying degree $N = 20$)	
			- vower reduction (to a varying degree, $N = 20$)	
ir trials for each of the five testing types (20 trials in total); te	sted together, order randomized	tef.kvp $tef.kvp$	
ible hypotheses: Expt. 1			'ga.və.dus <u>gə</u> -'ga.və.dus	
Urmethesia Drawn Apra (W Drawn Apra (W			pi.sæ.'gou.bæ.kʊt pə-pi.sæ.'gou.bæ.kʊt	
HypothesisDISYLLABIC CVDISYLLABIC CV $['ti.kep]$ $['deb.giv]$ total'ti.kep-'ti.kep'deb.giv-'deb.giv	/ ['ti.fæ.pəs]	pentasyllabic [,pi.sæ.'goʊ.bɛ.kʊt] [, pi.sæ.'goʊ.bɛ.kʊt -,pi.sæ.'goʊ.bɛ.kʊt	*For more detailed investigations on the individual variations, see the draft of the pape	
wd[FT 'tik/'tike-'ti.kep 'deb/'deb.gi-'deb.	gıv 'tif/'tifæ-'ti.fæ.pəs	pis/pisæ-pi.sæ.'gov.bɛ.kʊt	6. Discussions	
$\sigma_{\mu\mu}]_{wd}$ 'ti.kep- kep 'deb.giv- giv	'ti.fæ.pəs- pəs	pi.sæ.'gov.bɛ.kʊt- kʊt	 Human learners generalize reduplicative patterns in a manner that is 	
$\sigma_{\mu\mu}$ tik -'ti.kep deb -'deb.giv	tif-'ti.fæ.pəs	pi.sægoʊb-ˈgoʊ.bɛ.kʊt	sensitive to phonological abstractions characterizable by the	
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			• The systematicity in participants' responses \rightarrow the possibility of the	
Hypothesis DISYLLABIC CV DISYLLAB	IC CVC TRISYLLABIC	PENTASYLLABIC	poverty of stimulus design as a sampler of the learner's hypothesis	
$\frac{['ti.k\epsilon p]}{WD + NOFINALCODA} \frac{['ti.k\epsilon p]}{ti.k\epsilon - 'ti.k\epsilon p} \frac{'d\epsilon b.gi-'e}{d\epsilon b.gi-'e}$	gīv] ['tī.fæ.pəs] dɛb.gīv 'tī.fæ.pə -'tī.fæ.pəs	[,pi.sæ.'goʊ.bɛ.kʊt] pi.sæ.'goʊ.bɛ.k ʊt	 The diversity of possible linguistic structures may also have its root 	
$\frac{wd[FT+NOCODA}{wd[\sigma_{\mu}} \begin{array}{c} \mathbf{'ti.kep} & 'deb.gi-'deb$	dɛb.gɪv ' ti.fæ -'ti.fæ.pəs o.gɪv ti -'ti.fæ.pəs	pi.sæ-,pi.sæ.'gov.bɛ.kʊt pi-,pi.sæ.'gov.bɛ.kʊt	in learning, reflected by the great variety of possible analyses	
$\sigma_{\mu}]_{wd}$ 'ti-ke-kep 'deb-ge ' σ_{μ} ti-'ti.kep de-'de	r-giv 'ti.fæ pə -pəs p.giv ti -'ti.fæ.pəs	pi.sæ.'gov.bɛ- kʊ -kʊt pi.sæ- goʊ -'goʊ.bɛkʊt	<i>individual</i> human learners are biased towards.	
4 Result	s l· the univers	als	7. Future directions	
			 A large-scale corpus of AGL experiments as a benchmark for quantitative predictions 	
1: Total reduplication	Expt 2: 1 more vari	ations	 Computational modeling to capture the general trends and variations (current work in progress) 	
logy: total reduplication is more frequer	Typology:	partial reduplication is characterized		
partial reduplication	based on a	fixed prosodic template	Acknowledgements	
Familiar(1) _ ˈnoʊɡ	Number of syllable (affix/reduplicant) 0 Familiar(1)		Affix shape (affix/reduplicant) Many thanks to Bruce Hayes, Tim Hunter, Colin Wilson, Kie Zuraw, Claire Moore-Cantwell, Laurel	
vIIabic CV(2)	1 ^{'noʊ} ᢗ 2 2 Diavilatia CV((2)		 light syllable heavy syllable two syllables p/Psycholing Seminar, UCLA Colloquium, Utah Comp Ling working group, and the anonymous review- 	
abic CVC(2)			ers for their comments, feedback and insights. Thanks to my RAs, Mariana Cui, Jacob Hanna, Jenessa others Lathrop, Shawdi Sani, Alexandria Zarko and Boyi Zheng, for making this possible.	
ˈdɛb.ɡív	t) Disyllabic CVC(2) العناق العناق		OP code to this poster (with	
risyllablic (3) 'ti.fæ.pəs	⊢ Trisyllablic (3) ˈti.fæ.pəs		QR code to a dissertation chapter (with references).	
tasyllabic (5) æ.ˈɡoʊ.bɛ.kʊt	Pentasyllabic (5)			
0.0 0.2 0.4 0.6 0.8 1.0	ຸມາ.ວໍົດ. ຊິບບ.ນະ.ເປ			
Response Proportion		Response Proportion		

Exp



*Figures: the averaged proportion of affix shape conditioned on testing type *The most frequent shapes were verified by Bayesian mixed multinomial logistic regression with by-subject random effects.





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