Phonotactic Reduplication in Ende

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TYPES OF REDUPLICATION

CANONICAL REDUPLICATION

- Form: full, partial, or CV-
- Application: nominals (including adjectives) and verb stems
- Semantics: diminutive, augmentative, plural, adverbial, etc.

ADVERBIAL

ADV RED-$_A$√tomo-n (ADV-wait-NPL) → tomo-n~tomo-n (1) ‘while waiting’

ADV RED-$_B$√ɲəmae (ADV-turn.NPL) → ɲəmae~ɲəmae (2) ‘while turning’

INFINITIVAL REDUPLICATION

- Form: full, partial, or CV-
- Application: monosyllabic verb roots in non-inflected forms (e.g., infinitive, present tense, dependent clauses, etc.)
- Semantics: subject/patient number PL (Class A), NON-PL (Class B)
- Distribution: complementary with absolutive number suffixes

VERB CLASS	NONPLURAL	PLURAL
A	-ɲ, -n, -əŋən, -l, -ɾ	RED-/-nen
B	RED-	-nen
C	-ɐb/-ɛm	-ɐjb/-ɐjm
D	-ŋg	-meɲ

INFINITIVAL - MONOSYLLABIC ROOT

INF RED-$_B$√ug (NPL-make.oven) → ug~ug (3) ‘to make one or two ovens’

$_B$√ug-nen (make.oven-PL) → ug-nen (4) ‘to make three or more ovens’

$_A$√ga-ɲ (plant-NPL) → ga-ɲ (5) ‘to plant one or two’

INF RED-$_A$√ga (PL-plant) → ga~ge (6) ‘to plant three or more’

$_A$√ga-nen (plant-PL) → ga~nen (7) ‘to plant three or more’

MULTISYLLABIC VERB ROOTS DON’T REDUPLICATE

- Nonplural B roots are only realized non-reduplicated (8).
- Plural class A roots are only realized with suffix *–nen* (10).

INFINITIVAL - MULTISYLLABIC ROOT

INF RED-$_B$√imonz (NPL-touch) → *imonz~imonz ☞imonz (8) ‘to touch one or two’

$_B$√imonz-nen (touch-PL) → imonz-nen (9) ‘to touch three or more’

INF RED-$_A$√tomo (PL-wait) → *tomo~tomo ‘to wait for three or more’

$_A$√tomo-nen (wait-PL) → tomo~nen (10) ‘to wait for three or more’

PHONOTACTICS OF INFINITIVAL VERB ROOTS

- 98.6% are multisyllabic or multimorphemic.
- 25% are reduplicated.
- 97.9% of reduplicated forms have monosyllabic roots.

ANALYSIS

TRADITIONAL ANALYSIS IN OT RESULTS IN PARADOX

- Traditionally, identical input would be assumed for both reduplication types
  - infintival reduplication of multisyllabic roots is marked
  - while adverbial reduplication of multisyllabic roots is not.

INF RED-$_B$√ɲəmae (PL-turn) → *ɲəmae~ɲəmae ‘to turn (3+ subjects)’

ADV RED-$_B$√ɲəmae (ADV-turn.NPL) → ☞ɲəmae~ɲəmae (2) ‘while turning’

SOLUTION A: DIFFERENT GRAMMARS FOR SAME INPUT

- Frameworks: lexical ordering, cophonologies
- Problem: must posit a constraint that penalizes realization of a very specific part of the input (*RED). Such a constraint is unlikely to be useful outside of these few lexemes in this one language.

SOLUTION B: DIFFERENT INPUTS WITH SAME GRAMMAR

- Framework: gradient markedness
- Some elements in the input are “weaker” than other elements. (Smolensky & Goldrick 2016; Zimmermann 2018).
- Idiosyncratic, alternate with zero, often (dis)appear to repair markedness.
- Both realization and deletion incur smaller violations than realization or deletion of stronger elements.

Adverbial reduplication is strong in the input and is always realized.

ADV RED-ɲəmae		WORDMIN	DEP	MAX
	a. ɲəmae			*
☞	b. ɲəmae~ɲəmae			

Infinitival reduplication is weak in the input and deleted if base is unmarked. DEP >> MAX: Deletion is less costly than realization of a weak element.

INF RED$_{0.5}$-ɲəmae		WORDMIN	DEP	MAX
☞	a. ɲəmae			*.5
	b. ɲəmae~ɲəmae		*.5 W	L

Reduplication is half in the input and therefore less costly than epenthesis.

INF RED$_{0.5}$-ug		WORDMIN	DEP	MAX
	a. ug	* W	L	*.5 W
☞	b. ug~ug		*.5	
	c. uga		* W	

Level ordering is required to order reduplication before other processes such as epenthesis and vowel syncope.

	LEXICAL	POST-LEXICAL
INF RED-$_A$√dma (PL-sit)	dma~dme	dəmadəme (11) ‘to sit (three or more subjects)’
INF RED-$_B$√SI (NPL-close)	SI~SI	SIS (12) ‘to close three or more things’

DISCUSSION

GRADIENT MARKEDNESS EXPLAINS WEAK ELEMENTS

- in Ende: floating nasals (Lindsey 2017), verb final-/n/
- in French: liaison consonants (Smolensky & Goldrick 2016)
- in Ahousaht: suffix onsets (Zimmermann 2018)
- in Catalan: masculine plurals (Zimmermann 2018)

WHY NOT AUTOSEGMENTAL DIFFERENTIATION (Archangeli 1983, 1991; Hyman 1985; Szypra 1992; Zoll 1996, 2001)?

- An autosegmental approach assumes that weak elements differ from full elements in that they lack the structural nodes connecting the segment to the tier.
- How to apply to a reduplicative morpheme which is assumed to lack the segments but consist only of the structural nodes?

WHY NOT LISTED ALLOMORPHS (Bonet et al., 2007)?

- This would require listing allomorphs for all monosyllabic verbal roots and misses the generalization that infinitival reduplication repairs word minimality.
- Monosyllabic loan words undergo infinitival reduplication as well.

WHY NOT HARMONIC GRAMMAR?

- Traditional OT constraint ranking without weights is sufficient for modelling weak reduplication in Ende. (Perhaps not so for French, Ahousaht, and Catalan)

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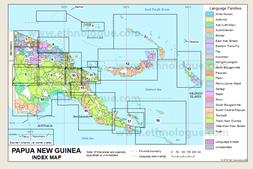

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