

Emergence of the Faithful by Consonant Copying in a Tagalog Language Game

Tagalog (Austronesian, Philippines) plays host to a number of language games (Garcia 1934; Conklin 1956), aka ‘ludlings’ (Laycock 1972). One such game, Tadbaliks (1),¹ transposes the last syllable to the beginning of the word (a), as schematised in (b):^{2,3}

- (1) (a) tagálog → logtága Tagalog, N
 (b) $\sigma_1 \dots \sigma_{n-1} \sigma_n \rightarrow \sigma_n \sigma_1 \dots \sigma_{n-1}$

Suffixed words exhibit ‘consonant copying’ (2). Descriptively, the final consonant of the root moves with the suffixed syllable to the beginning of the word, as expected; but a copy remains in root-final position (ii). Corresponding root words (i) do not exhibit consonant copying:

- (2) root (i) ✗ copying; suffixed (ii) ✓ copying
- | | | | | | |
|-----|------|------------------|---|------------------|------------------------------|
| (a) | (i) | pal <u>ít</u> | → | <u>lit</u> pá | exchange, V |
| | (ii) | palit- <u>án</u> | → | <u>tán</u> palít | exchange (object focus), V |
| (b) | (i) | há <u>wak</u> | → | <u>wák</u> ha | grasp/grip, N |
| | (ii) | hawá <u>k-an</u> | → | <u>kan</u> háwak | take hold of something, V |
| (c) | (i) | trén | → | trén | train, N |
| | (ii) | tren- <u>ín</u> | → | <u>nìn</u> trén | travel somewhere by train, V |

Consonant copying is not conditioned by number of syllables (two syllables 2ai vs. 2cii; three syllables 1a vs. 2aii); consonant or vowel finality (1a vs. doséna → nadóse ‘dozen’, N); or stress (final 2ai vs. 2aii; penult 1a vs. 2bii). Rather, the conditioning factor is suffixation.

I offer an analysis of Tadbaliks consonant copying consisting in five Optimality Theoretic constraints (Prince & Smolensky 1993), where emergent faithfulness to the root is the driving force. Consonant copying is correctly predicted for suffixed words (9) and not roots (8):

- (3) LAST- σ -1st: *not moving the last syllable to the beginning of the word.
 (4) *STRUC(σ): *per syllable in the output.
 (5) ID-ROOT: *no faithful representation of the root.
 (6) INTEGRITY: *multiple output correspondents of input segments.
 (7) LINEARITY: *metathesis. [(4) Zoll 1993; (6) and (7) McCarthy & Prince 1995]

(8) [pa.lit]	LAST- σ -1 st	*STRUC(σ)	ID-ROOT	INTEGRITY	LINEARITY
a. palit	*!	**			
b. itpal	*!	**	*		*
c. \curvearrowright litpa		**	*		*
d. litpal		**	*	*!	*
e. litpalit		***!		***	*

(9) [pa.li.t-an]	LAST- σ -1 st	*STRUC(σ)	ID-ROOT	INTEGRITY	LINEARITY
a. palitan	*!	***			
b. anpalit	*!	***			*
c. tanpali		***	*!		*
d. \curvearrowright tanpalit		***		*	*
e. tanpalitan		****!		***	*

¹ Derived from *baligtad* ‘reverse’ by (1b), plus optional game -s and voicing assimilation.

² Tagalog words → Tadbaliks words; transposed syllables underlined; copied consonants **bold**.

³ Data were collected from two native speakers of Tagalog, born and raised in the Philippines and childhood players of Tadbaliks, who emigrated as teenagers and are now in their mid-20s.

The game constraint LAST- σ -1st forces the game to be played, ruling out no (a) or partial (b) movement of the last syllable to the beginning of the word. Consonant copying is captured through the interaction of *STRUC(σ) >> ID-ROOT >> INTEGRITY. ID-ROOT enjoins surface faithfulness to the underlying root. Satisfying ID-ROOT uneconomically by repeating the whole syllable (e) loses on *STRUC(σ). With root words (8), ID-ROOT is hopelessly violated, and (c) is preferred over consonant copying (d) by INTEGRITY. With suffixed words (9), however, consonant copying (d) economically satisfies ID-ROOT, and is preferred over (c).

Pace Vaux (2011), language games often present cases of The Emergence of the Unmarked (TETU) (McCarthy & Prince 1995). For example, in the Dholuo (West Nilotic, western Kenya) syllable reversing ludling Dhochi (Borowsky & Avery 2009: 172), *čier* → *reči* ‘to rise from the dead’ repairs the onsetless first syllable of *čier* → **erči* by segment reversal, despite Dholuo elsewhere permitting onsetless first syllables; cf. TETU of optimal prosodic foot structure in the Japanese ludling Zuuja-go (Ito, Kitagawa & Mester 1996). By comparison, consonant copying in Tadbaliiks could be viewed as The Emergence of the Faithful (cf. Lee 1996): with suffixed words, the opportunity emerges to both play the game and faithfully realise the root by copying one consonant.

Further evidence comes from words where the final vowel of the root is deleted when a suffix is added (10). Since vowel deletion independently violates ID-ROOT, we do not observe consonant copying (final *-ks* would not be ill-formed – Tadbaliiks; see footnote 1):

- (10) (a) bukás → kasbú open, A
 (b) buks-án → sanbúk to open something, V

Previous analyses of Tadbaliiks do not speak to consonant copying. Sanders (2000) adopts anchoring and alignment constraints from Correspondence Theory (McCarthy & Prince 1995) to force last-to-first syllable transposition (for similar games see Ito, Kitagawa & Mester 1996; Barlow 1997; Friesner 2005; Borowsky & Avery 2009). However, such constraints do not generate consonant copying, and in referring to a ludligant λ are no less game-specific than (3). Bagemihl’s (1989: 513ff.) analysis of Tadbaliiks in terms of the Crossing Constraint (Goldsmith 1976) likewise does not leave room for consonant copying. A prefixed empty syllable template is filled by crossing association lines. The original syllable must then be deleted to restore non-contradictory precedence relations. Movement must therefore be total, ruling out consonant copying (Nevins & Vaux 2003). Raimy (2000) models precedence relations with directed graphs as serial, rule-based loops in underlying temporal precedence structures. Such a model offers a way to formally implement consonant copying; but unlike emergent root faithfulness, it does not address when and why consonants are copied.

The Norwegian language game Smoi (Jahr 2003: 294) (11) could present a case parallel to Tadbaliiks. When the transposed syllable is predominantly a suffix – e.g. the suffixal definite article – consonant copying offers the opportunity to faithfully realise the root:

- (11) bank-en → kenbank the bank, N

Selected references: **Bagemihl (1989)**, The crossing constraint and backwards languages, *NLLT* 7.4. **Borowsky & Avery (2009)**, Dhochi: A Dholuo Language Game, *Australian Journal of Linguistics* 29.2. **Ito, Kitagawa & Mester (1996)**, Prosodic faithfulness and correspondence: Evidence from a Japanese argot, *Journal of East Asian Linguistics* 5.3. **Jahr (2003)**, A Norwegian adult language game, anti-language or secret code. *Social Dialectology* 16. **Lee (1996)**, The emergence of the faithful, *ROA-166*. **Nevins & Vaux (2003)**, Underdetermination in language games: Pig Latin, *LSA*. **Raimy (2000)**, Remarks on backcopying, *LI* 31.3. **Sanders (2000)**, *Intra-representational correspondence and the realization of empty morphemes*, ms. UCSC. **Vaux (2011)**, Language games, *Handbook of Phonological Theory, 2nd Edition*. **Zoll (1993)**, Ghost segments and optimality, *WCCFL* 12.