

“ELSEWHERE REVERSAL” IN IRANIAN ARMENIAN VERBS

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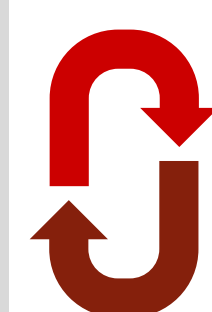
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ELSEWHERE REVERSAL

An ‘elsewhere’ rule and conditioned rule swap places. Apparent analogical extension of a minority pattern.

- Observed in Tehrani Iranian Armenian perfect stems relative to conservative Eastern Armenian

	Conservative (Eastern Ar.)	Innovative (Iranian Ar.)
ASP[PFV] T[PST] ↔	-∅-a- / LIST ____	-c'-i- / TH[=a] ____
	-c'-i- / ELSEWHERE	-∅-a- / ELSEWHERE



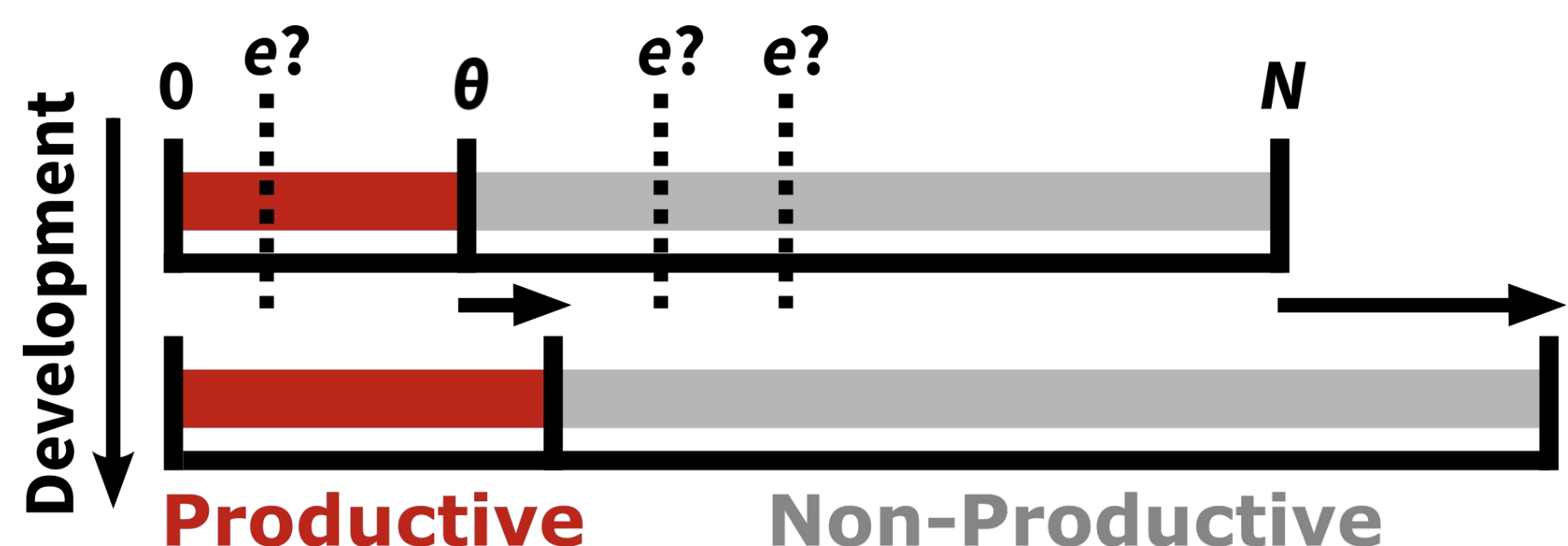
ACQUISITION AND CHANGE

ACQUISITION AS A DRIVER OF ACTUATION

Actuation = Innovation + Propagation
(Labov et al. 1972)

- Language acquisition is a major source of innovation
- Implicated in phonological, morphological, syntactic changes
- Paired with a sociolinguistic model of propagation, a concrete innovation by acquisition makes predictions about change

INNOVATION: THE TOLERANCE PRINCIPLE (TP)



The tolerance threshold $\theta = N / \ln N$ (Yang, 2016):

N = number of verbs learned so far exhibiting pattern R

e = number of verbs learned so far predicted to exhibit R but don't

Learn productive R if:

few enough verbs that do not obey the pattern R ($e < \theta$)

Memorize R if:

Too many known verbs do not obey the pattern R ($e > \theta$)

- Over-regularization may occur when a learner lexicon supports alternative productive pattern not supported in adult lexicons
- This is actuation if it gets a foothold in the population
- A concrete quantitative model of productivity makes testable predictions about innovation

INNOVATIONS IN THE IRANIAN ARMENIAN PAST TENSE

VERB CLASSES IN ARMENIAN

- A-Class and E-Class distinguished by theme vowel (TH)
- Pattern identically in Eastern Ar. except for TH
- A subset of E-Class is irregular. They have unique perfects in <-a->

Form	A-Class 'read'	E-Class 'sing'	Irregular 'eat'	Analysis
East Ar. INF	/kart ^h -a-l/ <kard-a-l>	/jerk ^h -e-l/ <erg-e-l>	/ut-e-l/ <ut-e-l>	√-TH-INF
PST.PFV.3PL	/kart ^h -a-t ^h -i-n/ <kard-a-c'-i-n>	/jerk ^h -e-t ^h -i-n/ <erg-e-c'-i-n>	/ker-∅-a-n/ <ker-∅-a-n>	√-TH-PFV-PST-3PL
PST.IPFV.3PL	/kart ^h -aj-i-n/ <kard-ay-i-n>	/jerk ^h -ej-i-n/ <erg-e-i-n>	/ut-ej-i-n/ <ut-e-i-n>	√-TH-PST-3PL
Iran Ar. INF	/kɔɟt ^h -ɔ-l/ <kard-a-l>	/jerk ^h -e-l/ <erg-e-l>	/ut-e-l/ <ut-e-l>	√-TH-INF
PST.PFV.3PL	/kɔɟt ^h -ɔ-t ^h -i-n/ <kard-a-c'-i-n>	/jeɟk^h-∅-ɔ-n/ <erg-∅-a-n>	/keɟ-∅-ɔ-n/ <ker-∅-a-n>	√-TH-PST.PFV-3PL
PST.IPFV.3PL	/kɔɟt ^h -ɔj-i-n/ <kard-ay-i-n>	/jeɟk^h-∅-i-n/ <erg-∅-i-n>	/ut-∅-i-n/ <ut-∅-i-n>	√-TH-PST.IPFV-3PL

- Conservative varieties exhibit <-a-> perfects in the 3SG of a few high-frequency verbs ('sit,' 'bring,' 'give,' 'say'...)

INNOVATIONS IN IRANIAN ARMENIAN

- Hiatus repair by deletion in E-Class imperfect:** /ei/ > [i]
replaced repair by glide insertion: /ei/ > [eji]
- Regular E-Class perfect ending in surface -a-** like irregulars replaced -TH-c'-i formerly shared with A-Class

- In Conservative varieties, <-a-> perfects are more likely in intransitives and disyllabic verbs (Martirosyan, 2019)

METHODOLOGY

ESTIMATING LEARNER VOCABULARIES

A frequency-sorted lexicon of Eastern Ar. (Ղազարյան, 1983) is treated as the starting point for the change

Methodology from corpus-based acquisition research

- Learner lexicons are estimated from the high-freq items
Good estimates when sampling from non-CDS (Kodner, 2020)
- In terms of lexicon size (2-300 verbs by 3;0, 500+ by age 5;0), distr. of morphological inflection, and semantic contents
 - Development estimated with successively larger samples V

APPLYING THE TOLERANCE PRINCIPLE

Tests feasibility of paths of learner-driven innovation

- Generalizations are applied recursively at each estimated N
- Broader generalizations are evaluated based on the outcome of narrower generalizations

SELECTED REFERENCES

Kodner, J. (2020). *Language Acquisition in the Past*.
Labov, W., Yaeger, M., & Steiner, R. (1972). A quantitative study of sound change in progress
Martirosyan, Hrach. 2019. The Armenian dialects.
Yang, C. (2016). The Price of Linguistic Productivity.
Ղազարյան, Բ. (1982). Ժամանակակից հայոց լեզվի հաճախականության բառարան: Մոտավորապես 36200 բառ [Frequency dictionary of modern Armenian: Approximately 36200 words].

MODELING THE ELSEWHERE REVERSAL

1. PHONOLOGICAL CHANGE IN THE IMPERFECTIVE

Set up a novel possible generalization only available in Iranian Armenian

TH-PST surfaces as <-i-> for PST/___IPFV, <-a-> for PST/___PFV, Perfectivity is not spelled out.

Irregulars support, but TH in PFV.IPFV and <-c'-i>PST.PFV are counterevidence

2. OVER-GENERALIZATION AND THE NOVEL GRAMMAR

The initial state is generated by the conservative grammar with (1)

N = All known PST.PFV and PFV.IPFV stems

e = Known A-Class PST and regular E-Class PST.PFV forms

Tenable for intransitive verbs up to $V=100$, for 2-syll intransitives to $V=300$

→ for all E-Class verbs up to $V=300$ is already productive for 2-syll

→ permanently for all intransitive E-Class if already productive for 2-syll

→ permanently for all E-Class if already productive for 2-syll and intransitives

Some possible paths to the Elsewhere Reversal

