

PLACE OF
ARTICULATION SHIFTS
A GRADUAL ROAD TO THE
UNMARKED

EIRINI APOSTOLOPOULOU
UNIVERSITY OF VERONA
UNIVERSITY OF TROMSØ
eirini.apostolopoulou@uit.no



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WHAT THIS TALK IS ABOUT

- **Oral place of articulation shifts** cross-linguistically,
 - Specifically, I focus on shifts that consonants undergo before a heterosyllabic, coronal consonant → **pre-coronal codas**
- The **typology of PoA shift** and the **key conditions** that build the typological system of PoA
- Not to be addressed:
 - Debuccalization
 - Regressive assimilation
 - Word-final codas

ROADMAP

1. THEORETICAL BACKGROUND

- Place of Articulation and markedness
- Typological observations
- Shifts and positional effects

2. CASE STUDY: ITALIOT GREEK

- The microtypology of PoA shifts in Italiot Greek dialects

3. TYPOLOGICAL ANALYSIS

- OT analysis of the shifts
- Property analysis of the typological system

4. CONCLUSIONS

1. THEORETICAL BACKGROUND

PLACE OF ARTICULATION AND MARKEDNESS

- Different degrees of markedness of each oral place of articulation (PoA) (de Lacy 2002, 2006; Lombardi 1995, 1998, 2002; McCarthy 1988; among others)

- Two established representations:

(1) **Universally fixed ranking** (“>> >>”: “more marked than”, de Lacy 2006)

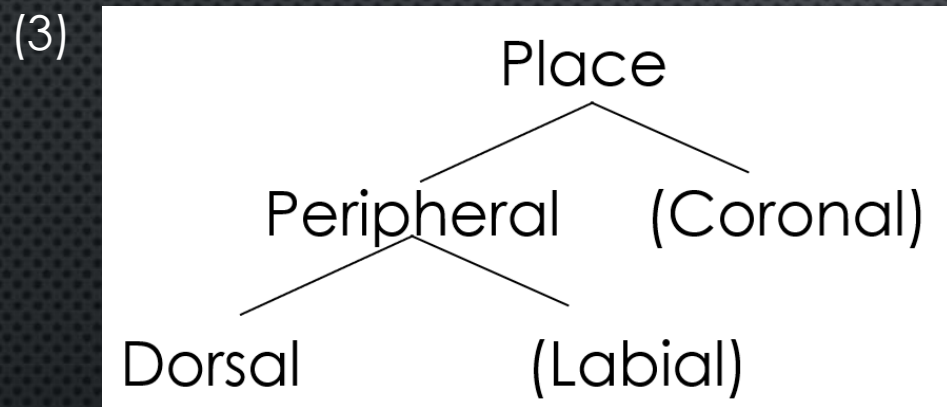
*DORSAL >> >> *LABIAL >> >> *CORONAL

(2) **Stringent constraints** (de Lacy 2002, 2006; see Prince 1997, 1999)

*{DOR}, *{DOR, LAB}, *{DOR, LAB, COR}

THE PLACE NODE

- **Hierarchical organization** of the Place node (Rice 1994, building on ideas proposed by Avery & Rice 1989, based on previous work by Jakobson et al. 1952 and Hyman 1973; cf. Clements 1985; Sagey 1986; McCarthy 1988)



- Dorsals and labials group together to form the Peripheral node
- Parentheses indicate the unmarked value under each node

POA SHIFTS IN THE HIERARCHICAL MODEL

- Shift = **delinking of a feature** under the Place node:

(7) *Dor* > *Lab*



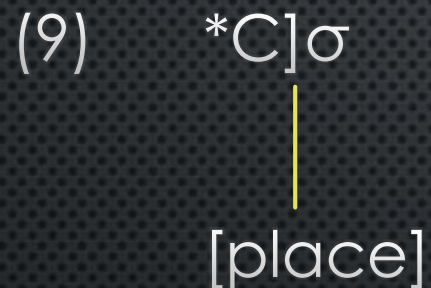
(8) *Lab* > *Cor*



PLACE FEATURES IN CODA POSITIONS

Coda Condition (Ito 1989; Yip 1991; see also Ito 1986; Steriade 1982)

- *(non-word-final) codas may not have place features*

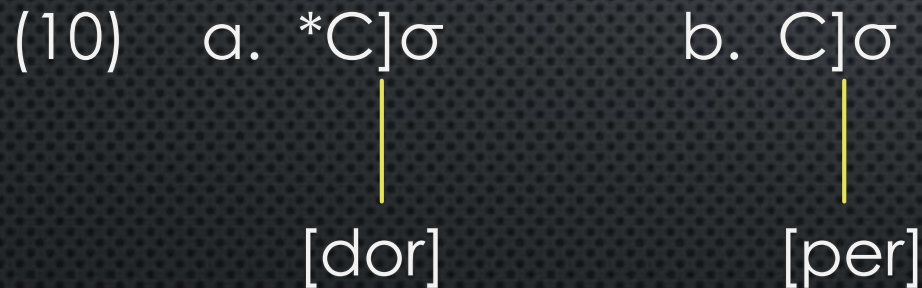


- Only homorganic clusters and geminates are allowed
- Assumption: before an onset occupied by a coronal, only coronals can occupy the coda

PLACE FEATURES IN CODA POSITIONS

Proposed modification following the hierarchical structure:

- *codas may not have place features*
- Place features under the place node: [dorsal], [peripheral]



- Dorsals are specified as both [dor] and [per], labials as [per], and coronals bear no particular specification
- Depending on which coda condition dominates, a coda may not be dorsal or may not be peripheral → gradual shifts are allowed

2. CASE STUDY: ITALIOT GREEK

ITALIOT GREEK

Two Modern Greek dialects spoken in S. Italy

- *Salentinian Greek (SG)*
- *Calabrian Greek (CG)*
- They originate from Medieval Greek (MG)



SALENTINIAN GREEK: K > P, P > T

- At a first stage of **SG (SG1)**, **MG** dorsals shifted to labials (Rohlf 1950; Karanastassis 1997; Tzitzilis 2004)

(11) a. o[x]tó > o[f]tó 'eight'
b. pi[k]nó > pi[v]nó 'thick'
c. (e)[ɣ]ðérno > a[v]dér:o 'I skin'

- At a later stage **SG2**, both the etymological labials and the labials that came from a dorsal gave their place to a geminate coronal:

(12) a. e[f]tá > e[t]tá 'seven' *etymological*
b. o[f]tó > o[t]tó 'eight' *former dorsal (see 11a)*

CALABRIAN GREEK: K,P > T

- **CG** neutralized the old dorsals and labials to coronals (Rohlf's 1950; Karanastassis 1997)

(13) a.	o[x]tó	>	o[θ]tó	(Rochudi CG)	'eight'
		>	o[s]tó	(Bova CG)	
		>	o[t]thó	(Galliciano CG)	
	b. pi[k]nó	>	pi[n]nó		'thick'
	c. (e)[y]ðérno	>	(a)[d]dér:o		'I skin'

(14) a.	e[f]tá	>	e[θ]tá	(Rochudi CG)	'seven'
		>	e[s]tá	(Bova CG)	
		>	e[t]thá	(Galliciano CG)	
	b. ka[p]nós	>	ka[n]nó		'smoke'
	c. ra[v]dí	>	ra[d]dí		'stick'

TYPOLOGY

- In the diachrony of Italiot Greek we witness three the language types:

(15)	PoA	Description	Language
1	K, P, T	No merging	MG
2	P, T	K and P merge into P	SG1
3	T	K, P, and T merge into T	CG, SG2

3. ANALYSIS

PROPOSAL

- A typological analysis of the PoA shifts examined
- Feature representation along the lines of Rice (1994)
- Framework: Optimality Theory (OT, Prince & Smolensky 1993/2004)
- **Goals:**
 - To offer an account for the stepwise shifts that result in less marked codas
 - To identify the ranking conditions that yield the full factorial typology of PoA shift

OT ANALYSIS: MARKEDNESS CONSTRAINTS

- Markedness hierarchy for the PoA: $K_{[\text{dor, per}]} > P_{[\text{per}]} > T$
- Subset inclusion markedness constraints (MARK) to capture this hierarchy (see Prince 1997, 1999, 2002; de Lacy 2002, 2006; see also Alber & Meneguzzo 2016; Merchant & Krämer 2017)
- *K Assign a violation for each output consonant that is specified as [dorsal]
- *KP Assign a violation for each output consonant that is specified as [peripheral]
- Target: **non-final codas** (see also Zoll 1996, 1998 on positional markedness)
 - A more accurate formulation of the constraints: *K/Coda, *KP/Coda; I will be using the abbreviated *K and *KP

OT ANALYSIS: FAITHFULNESS CONSTRAINT

- Every delinking (or new linking) counts as a violation of faithfulness
- A faithfulness constraint ensures that the input and the output contain the same place features

FAITH Assign a violation for every input place feature that has no correspondent in the output

&

Assign a violation for every output place feature that has no correspondent in the output

VIOLATION TABLEAU

- The presence of place features in the output incurs violations on MARK
- The loss/addition of specification incurs violations on FAITH
- No shift towards the more marked: the candidates /P/ → [K], /T/ → [K], /T/ → [P] are **harmonically bounded** (see Samek-Lodovici & Prince 1999)

input	output	*KP	*K	Faith
/K/	[K]	1	1	0
	[P]	1	0	1
	[T]	0	0	2
/P/	[K]	1	1	1
	[P]	1	0	0
	[T]	0	0	1
/T/	[K]	1	1	2
	[P]	1	0	1
	[T]	0	0	0

(16) Violation Tableau

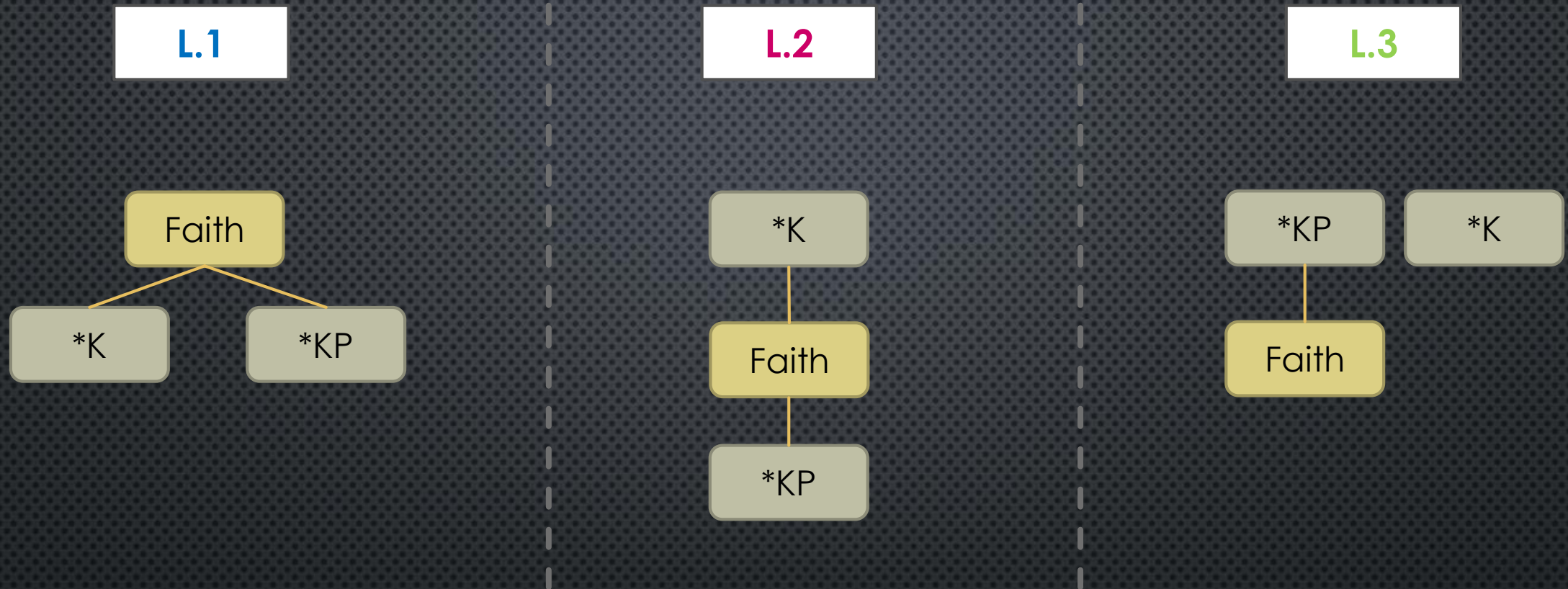
FACTORIAL TYPOLOGY

- The Factorial Typology that is generated is the following:

	Optimal candidates	Description	Languages
L.1	$\mathbf{K} \rightarrow \mathbf{K}, \mathbf{P} \rightarrow \mathbf{P}, \mathbf{T} \rightarrow \mathbf{T}$	<ul style="list-style-type: none">• Both [dorsal] and [peripheral]• Marked	MG
L.2	$\mathbf{K} \rightarrow \mathbf{P}, \mathbf{P} \rightarrow \mathbf{P}, \mathbf{T} \rightarrow \mathbf{T}$	<ul style="list-style-type: none">• No [dorsal]• Relatively unmarked	SG1
L.3	$\mathbf{K} \rightarrow \mathbf{T}, \mathbf{P} \rightarrow \mathbf{T}, \mathbf{T} \rightarrow \mathbf{T}$	<ul style="list-style-type: none">• No [dorsal] or [peripheral]• Unmarked	SG2, CG

(17) *Factorial Typology*

(18)



- The crucial ranking between FAITH and the two markedness constraints yields typologically different languages

PROPERTY ANALYSIS

Property Theory (Alber & Prince 2015, in prep.; Alber, DelBusso & Prince 2016)

- Properties: the sufficient and necessary ranking conditions which are freely combined with each other and generate every language of a typological system
- Representation of a property P: $X \leftrightarrow Y$
- Value a: $X \gg Y$
- Value b: $Y \gg X$
- Mootness: a language is *moot* to a property if this property is inactive in this language

PROPERTY ANALYSIS OF THE POA SHIFT SYSTEM

- The properties that build our system:

(19)	Properties	Value a <yes>	Value b <no>
P1	FAITH <> *KP	FAITH >> *KP	*KP >> FAITH
P2	FAITH <> *K	FAITH >> *K	*K >> FAITH

- P1 determines the presence/absence of **peripherals** in a language
- P2 determines the presence/absence of **dorsals** in a language

PROPERTY ANALYSIS OF THE POA SHIFT SYSTEM

- The full property analysis (generated with the aid of OTWorkplace, Prince et al. 2020):

(20)	P1 FAITH <> *KP	P2 FAITH <> *K	Languages
L.1	a	a	MG
L.2	a	b	SG1
L.3	b	<i>moot</i>	CG, SG2

- P1** is set to value a for L.1 and L.2, which allow peripherals, and to value b for L.3, which does not
- P2** is set to value a for L.1, which allows dorsals under the peripheral node, and to value b for L.2, which does not. **L.3** is moot to P2, as, given that it does not allow a peripheral node, it cannot accommodate additional specification for dorsals

LANGUAGE CHANGE

- The change from **MG (L.1)** to **SG1 (L.2)** is captured as a change of the value of P2 (**FAITH <> *K**)
 - FAITH dominates *K in MG, hence the presence of [dorsal] (**P2: value a**)
 - FAITH was “demoted” in SG1, i.e. faithfulness to [dorsal] is no longer respected (**P2: value b**)
 - Both languages allow peripherals (**P1: value a**)

	P1	P2
(21)	FAITH <> *KP	FAITH <> *K
L.1	a	a
L.2	a	b

LANGUAGE CHANGE

- The latest evolution of **SalGr A (L.2)** to **SalGr B (L.3)** was achieved through the change of the value of P1 (**FAITH <> *KP**)
 - *KP gets ranked above FAITH, thus peripherals are no longer allowed (**P1: value b**)
 - **P2 is not relevant in L.3**, since the prohibition of peripherals implies the prohibition of dorsals

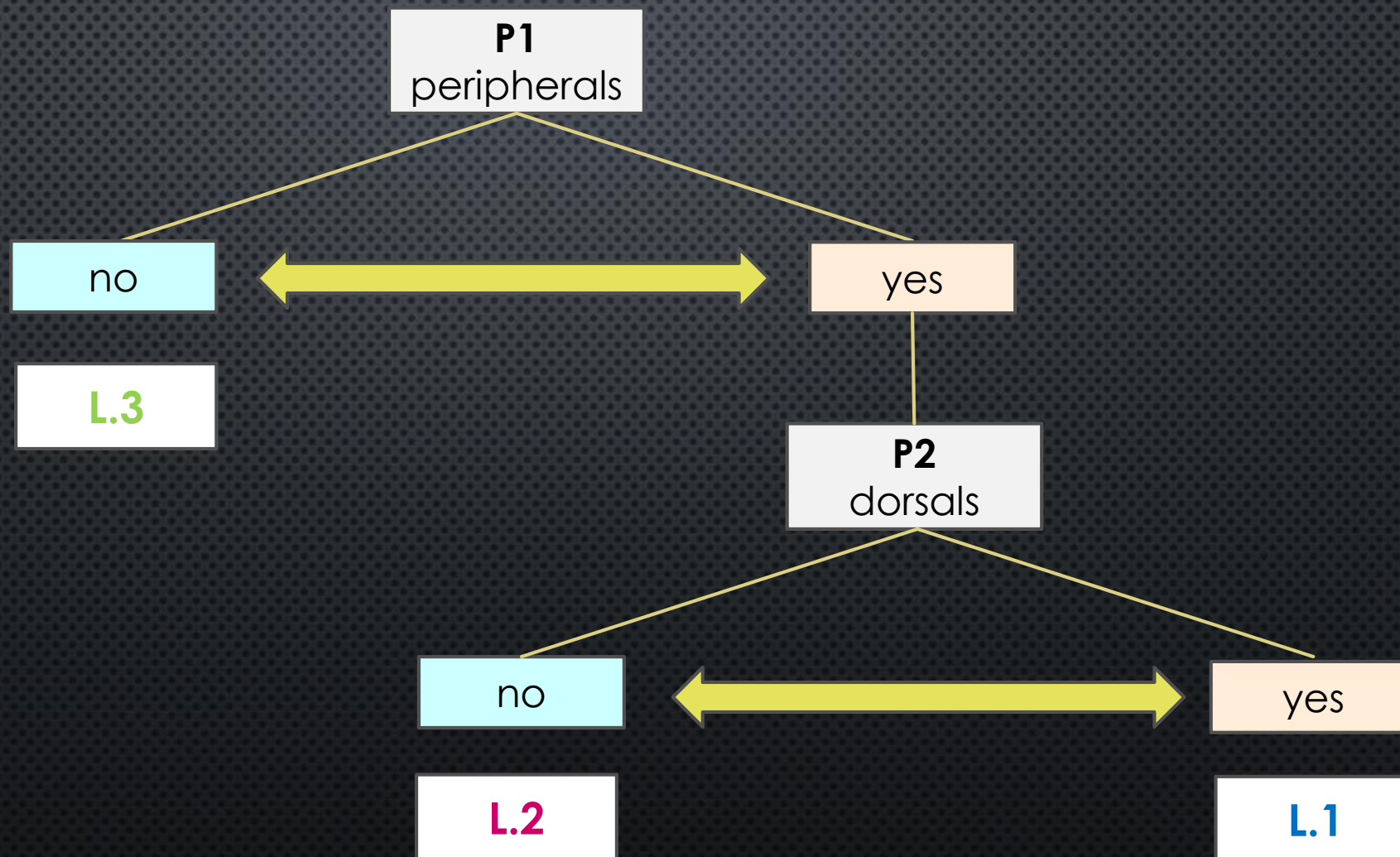
	P1	P2
(22)	FAITH <> *KP	FAITH <> *K
L.2	a	b
L.3	b	<i>moot</i>

LANGUAGE CHANGE

- The change from **MG (L.1)** to **CG (L.3)** is again accounted for as a change of the value of P1 (**FAITH <> *KP**)
 - FAITH dominates *KP in MG, hence the presence of [peripheral] (**P1: value a**)
 - FAITH is outranked by *KP in CG, i.e. faithfulness to [peripheral] is no longer respected (**P1: value b**)
 - **P2 is not relevant in L.3**, since the prohibition of peripherals implies the prohibition of dorsals

	P1	P2
(23)	FAITH <> *KP	FAITH <> *K
L.1	a	a
L.3	b	moot

PROPERTY TREEOID



4. CONCLUSIONS

CONCLUSIONS

- PoA shift in a coda position results in a less marked coda
- Three typologically different languages are found
 - A marked one, where no place shift takes place
 - A partially unmarked one, where dorsals merge with labials by means of the delinking of [dorsal]
 - A more unmarked one, where dorsals and labials merge with coronals by means of the delinking of [peripheral] (and thus of [dorsal])
- The typological system of PoA shifts is built on the basis of the interaction of
 - a faithfulness constraint that militates against changes in the specification for place
 - (Positional) markedness constraints prohibiting the presence of certain place features in a coda

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THANK YOU!