The Steppe – seedbed of languages

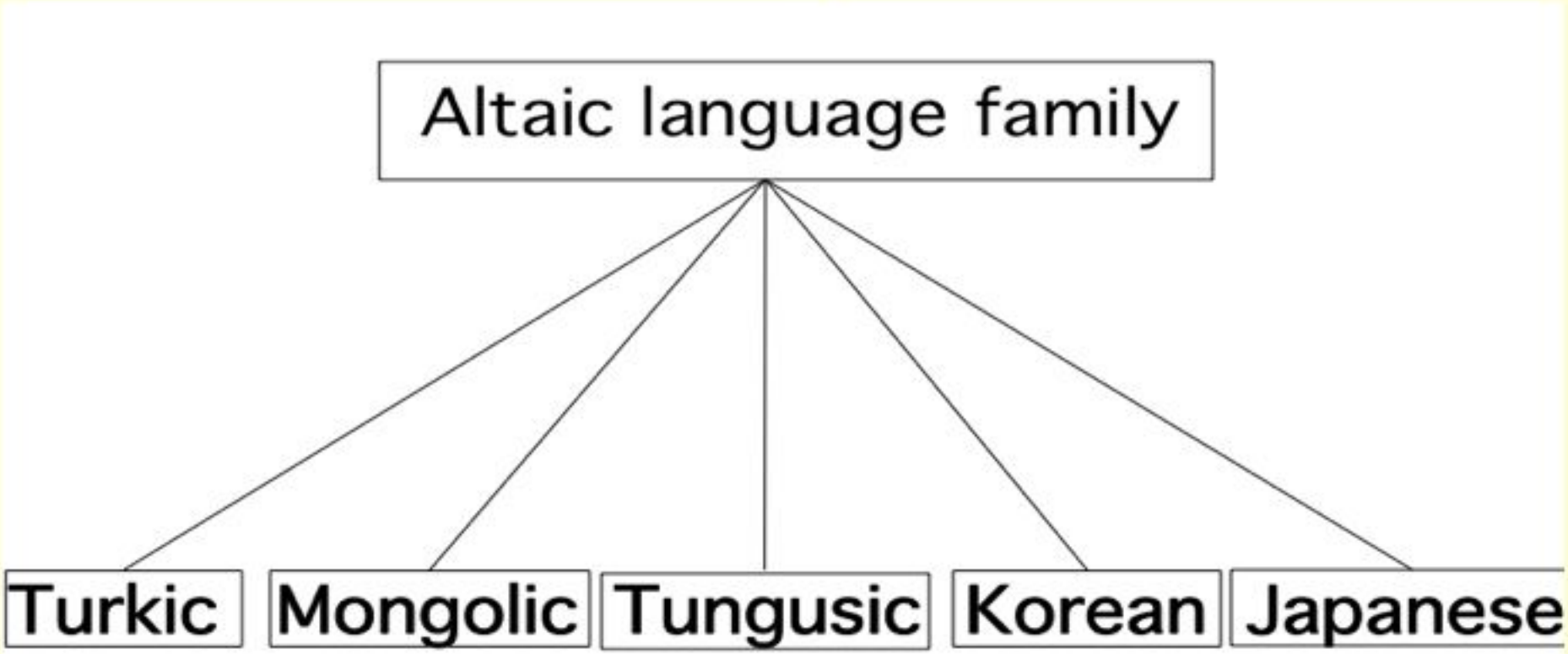
Jan-Olof Svantesson

Lund University

Why are languages similar?

- Universal tendencies: *mama*-words
- Chance: Eng. *eat* – Mongolian *it*
- Diffusion (borrowing): linguistic areas
- Genetic relationship: family trees
- Human genetics?? (Dediu & Ladd 2007)

Family trees



Linguistic areas

- Eurasian steppe

Agglutinating, suffixing, vowel harmony

Altaic, Uralic

- Southeast Asia

Isolating, monosyllabic, tones, numeral classifiers

Sino-Tibetan, Tai-Kadai, Hmong-Mien, Austroasiatic

Family vs. diffusion

- Genetic relation (family tree)

only linguistic forms are relevant

- Diffusion

linguistic form *and* linguistic structure relevant

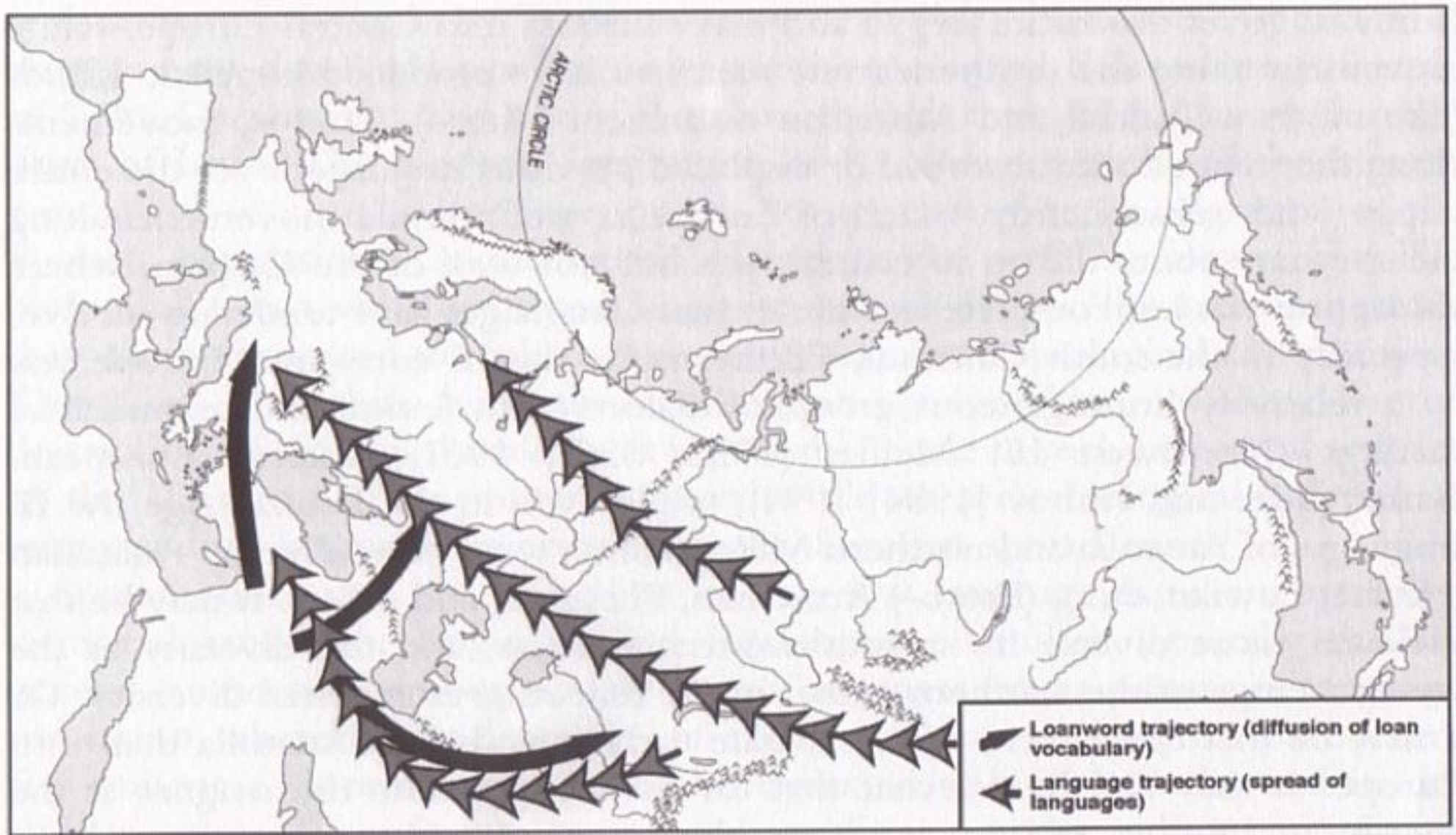
Spread zones and residual zones

Johanna Nichols: *Linguistic Diversity in Space and Time.*1989

- Spread zones: Few languages, little diversity (Eurasian steppe, …)
- Residual zones: Many languages, high diversity (Caucasus, …)

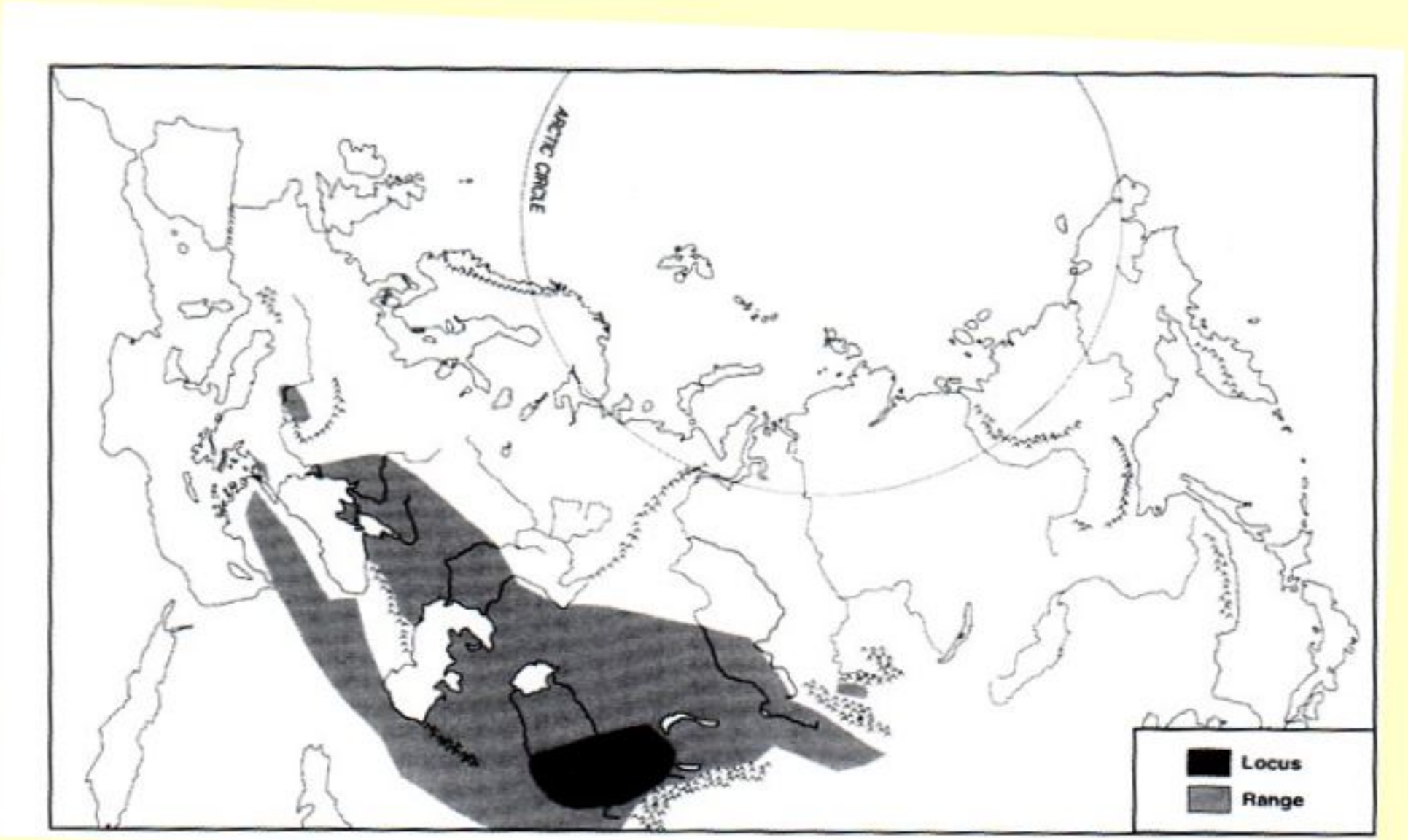
Central Eurasian spread zone

(Nichols 1997)



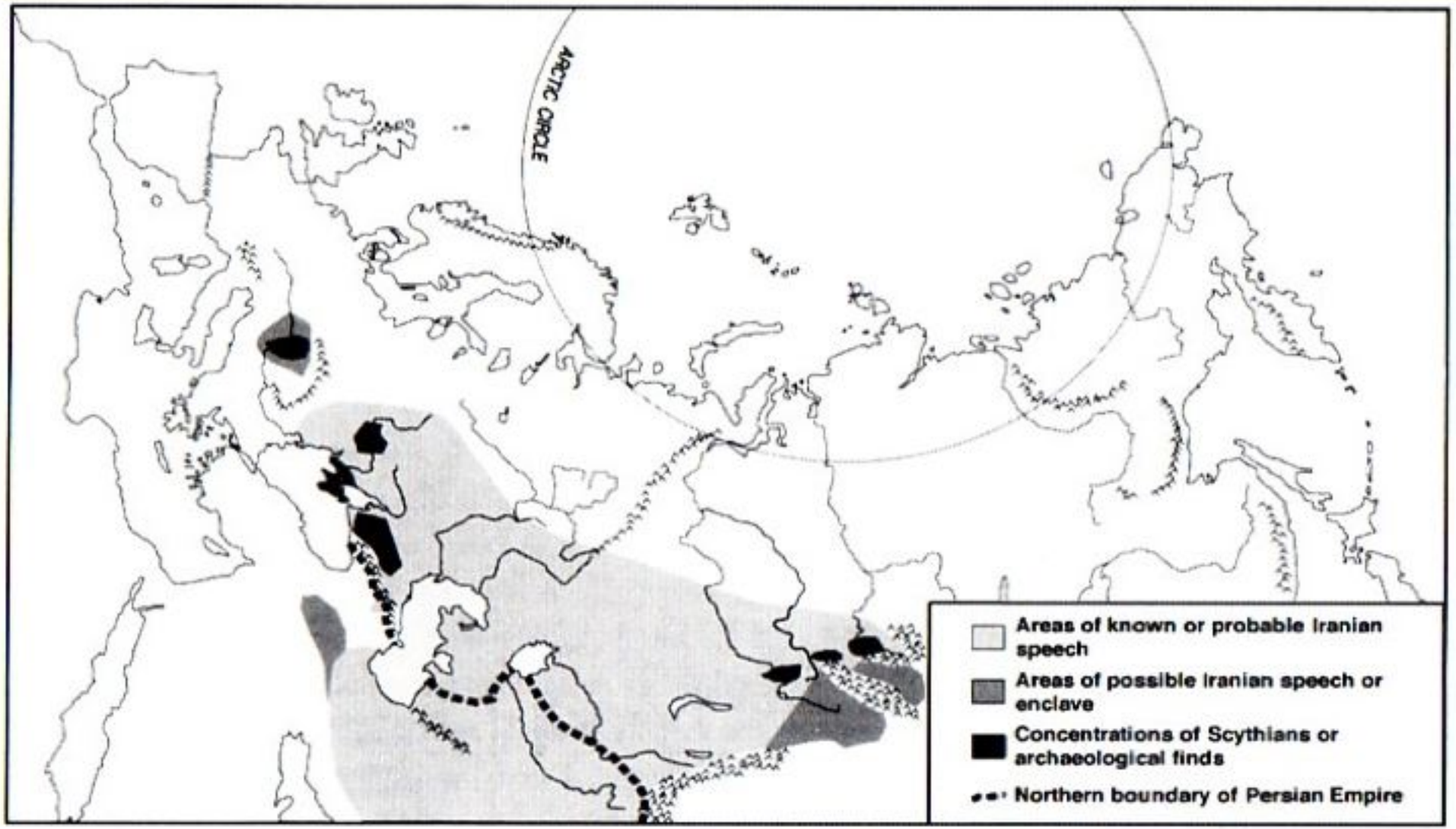
Locus and range of Proto-Indoeuropean

(Nichols 1997)



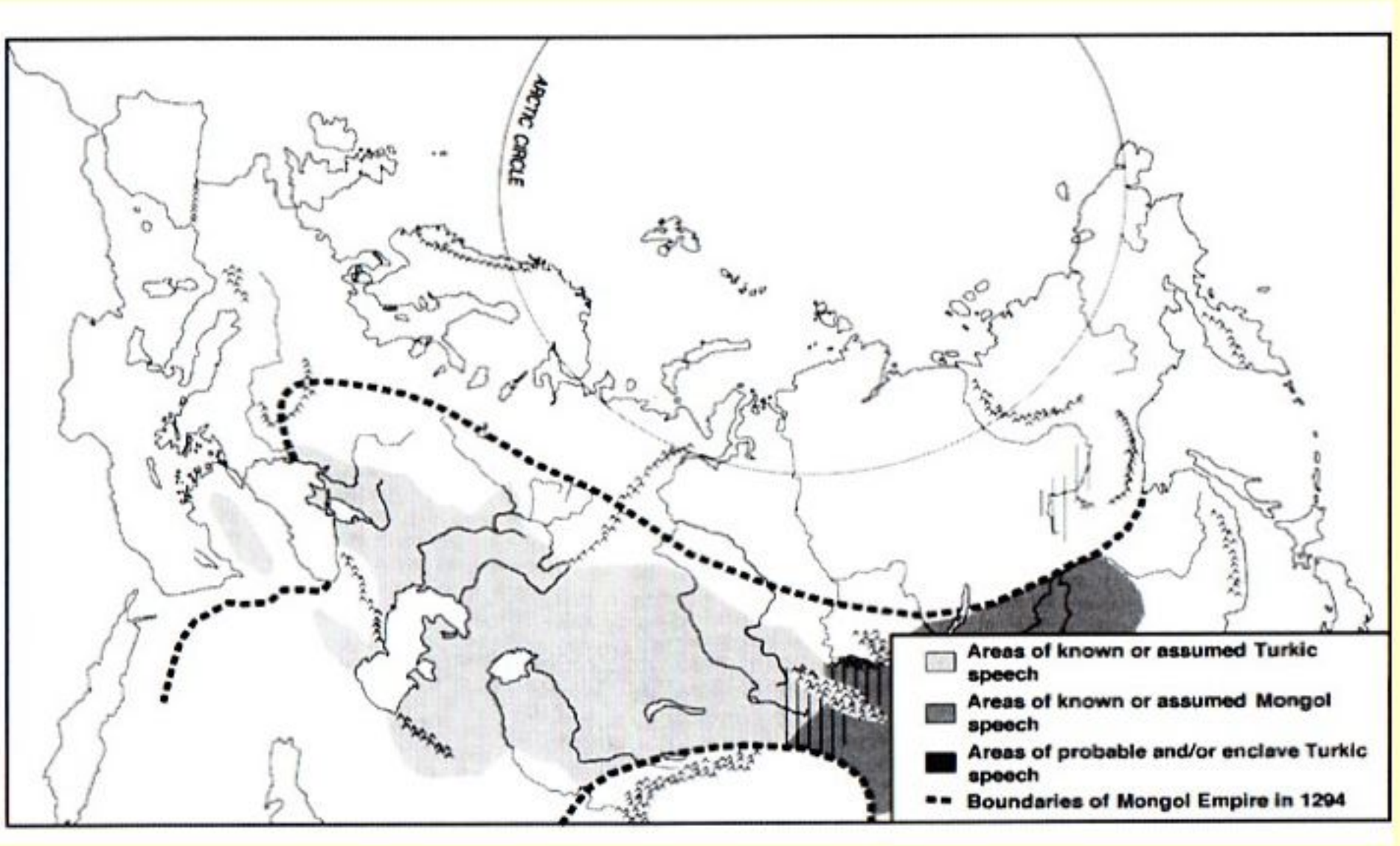
Iranian languages

(Nichols 1997)



Turkic and Mongolic

(Nichols 1997)



Steppe language spreads

- Proto-Uralic (?) 6000 BP
- Proto-Indo-European 5500 BP
- Iranian 4000 BP
- Turkic 2000 BP
- Mongolian 800 BP

Nichols 1997

Punctuated equilibrium

Robert M.W. Dixon 1997. *The rise and fall of languages*

Languages develop quietly for thousands of years, but these periods are interrupted by punctuation, when they develop quickly, due to outer factors. The family tree model is applicable only for punctuation

Spread of agriculture one reason for punctuation

Peter Bellwood 2001, (< Colin Renfrew)

Two examples of diffusion

- Tones

many languages in East and Southeast Asia have developed lexical tones

- Vowel harmony

what is the origin of vowel harmony??

Languages tend to borrow structural features but use their own resources to realize them.

A specific tone system is never borrowed by a non-tonal language but only the idea of using tones. The tones are developed through internal changes in the language

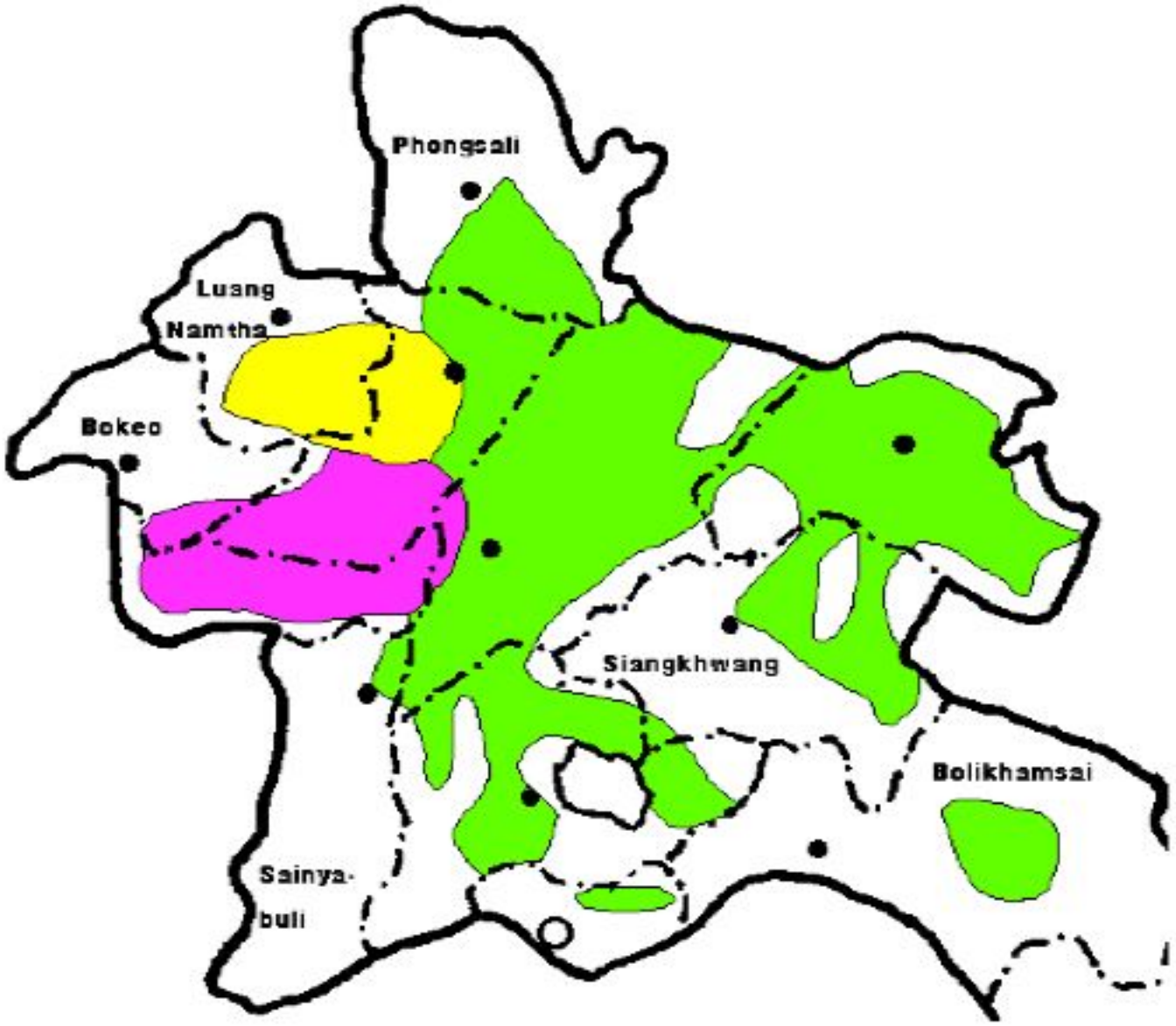
Standard Chinese:

high:	mā 媽	‘mother’
rise:	má 麻	‘hemp’
fall:	mà 罵	‘to scold’
low dip:	mǎ 馬	‘horse’

Vietnamese:

mid:	ba	‘three’
fall:	bà	‘grandmother’
rise:	bá	‘to hug’
low dip:	bả	‘bane’
low glottal:	bạ	‘haphazard’
rise glottal:	bã	‘residue’

Kammu in northern Laos

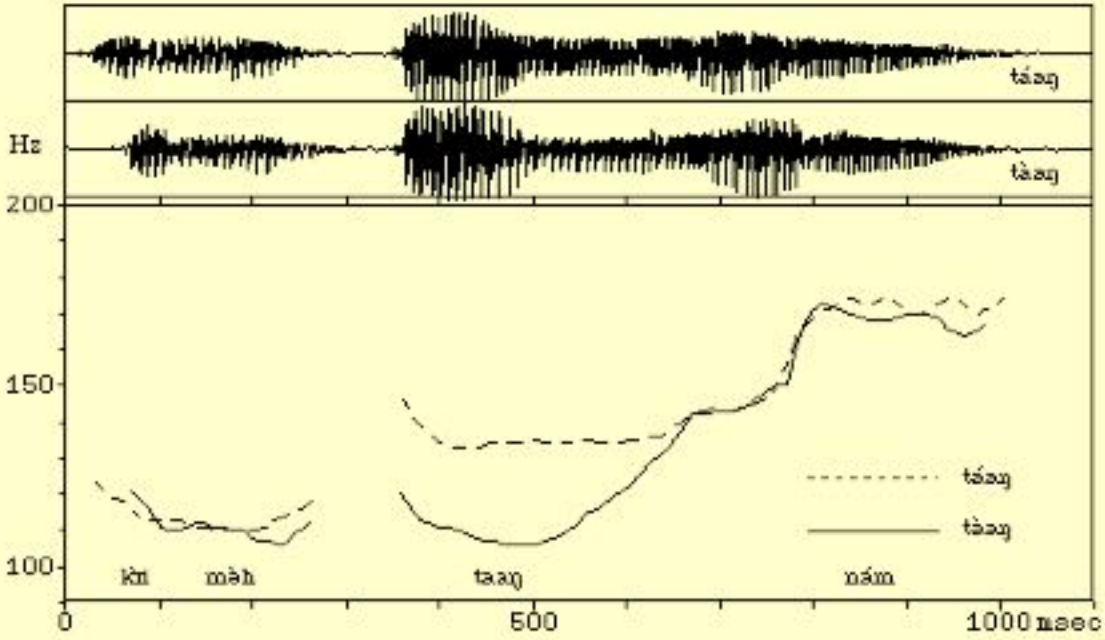


Ban Tapaen, Laos, 1996

Kammu tonogenesis

E Kammu	*N Kammu*	
puas	púas	‘deer’
taaɲ	táaɲ	‘weave’
kaap	káap	‘jaw’
m̥aar	máar	‘salt’
ŋ̥ɔʔ	ŋɔ́ʔ	‘rice’
l̥aʔ	láʔ	‘leaf’
r̥aaɲ	ráaɲ	‘tooth’

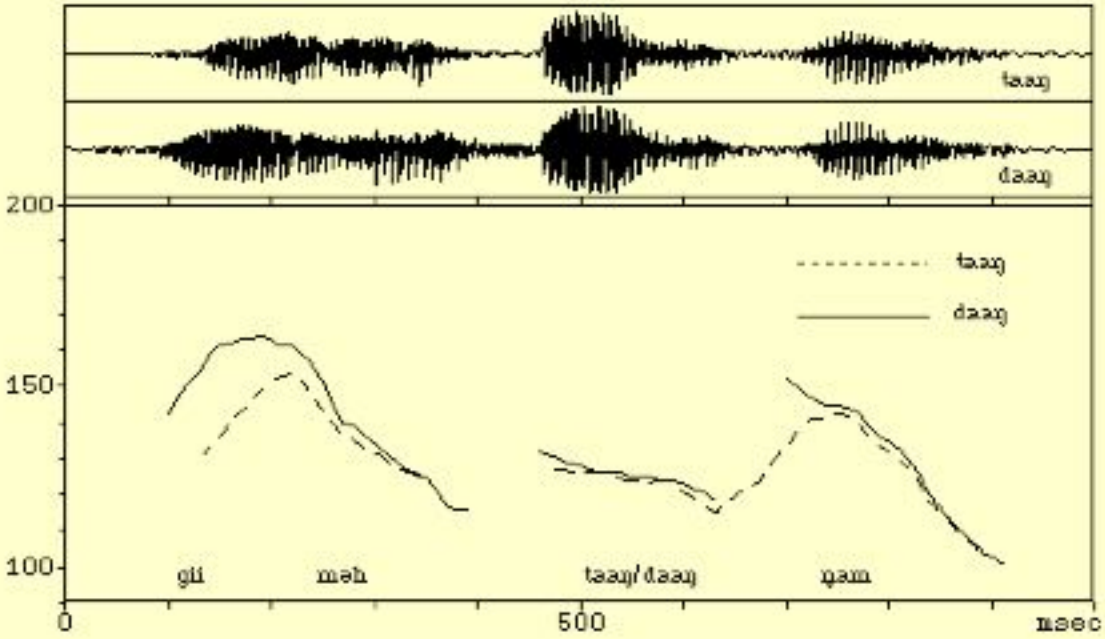
E Kammu	*N Kammu*	
buʔ	pùʔ	‘breast’
dee	tèe	‘oneself
gaaŋ	kàaŋ	‘house’
mee	mèe	‘you’
ŋɔʔ	ŋɔ̀ʔ	‘to fear’
rɔɔj	rɔ̀ɔj	‘fly’
raaŋ	ràaŋ	‘flower’



Northern Kammu

táaŋ

tàaŋ



Eastern Kammu

taaŋ

daaŋ

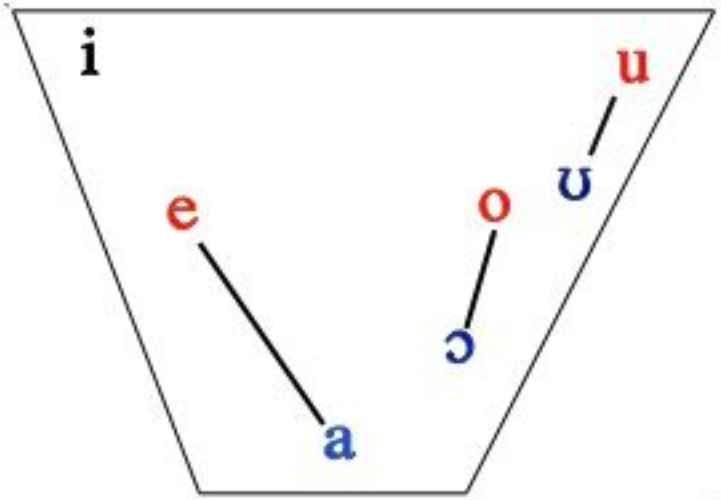
Vietnamese tonogenesis

Haudricourt's hypothesis:

	**–voiced*	**–stop*	**–fricative*
**voiceless–:*	mid	rise	low dip
**voiced–:*	fall	low glottal	rise glottal

Mongolian vowel harmony

pharyngeal (–ATR)	a	ɔ	ʊ	
non-pharyngeal (+ATR)	e	o	u	
neutral				i

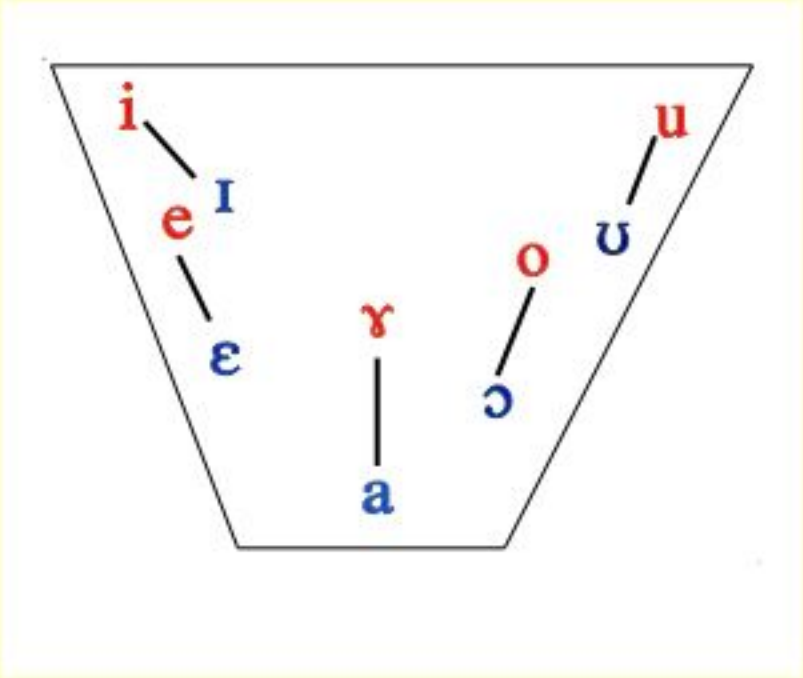


Mongolian vowel harmony

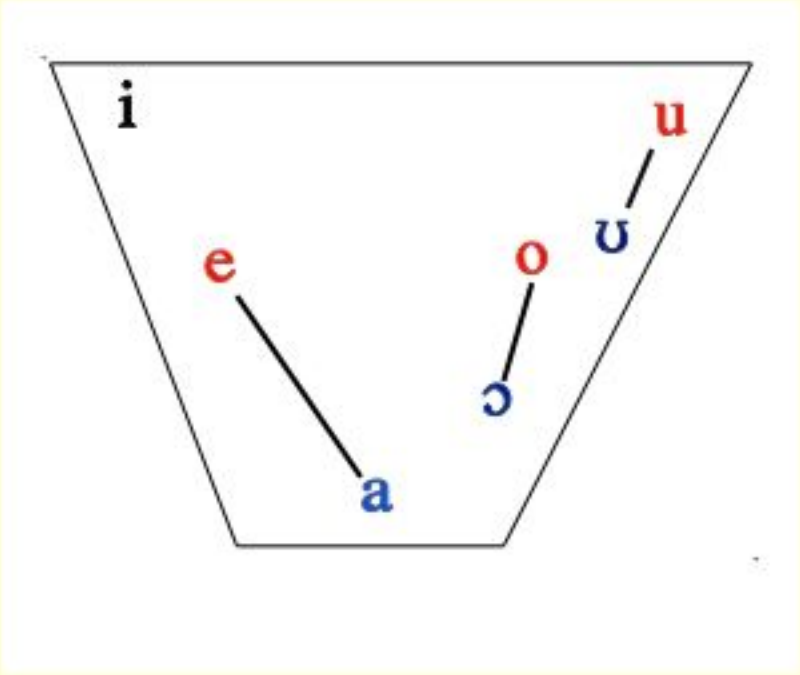
jaw	‘go’	jaw-ʊɮ	jaw-ɮa	jaw-x-ig
ɔr	‘enter’	ɔr-ʊɮ	ɔr-ɮɔ	ɔr-x-ig
xʊnʲ	‘plait’	xʊnʲ-ʊɮ	xʊnʲ-ɮa	xʊnʲ-x-ig
xeeɮ	‘adorn’	xeeɮ-uɮ	xeeɮ-ɮe	xeeɮ-x-ig
og	‘give’	og-uɮ	og-ɮo	og-x-ig
uc	‘see’	uc-uɮ	uc-ɮe	uc-x-ig
it	‘eat’	it-uɮ	it-ɮe	it-x-ig

Tungusic vowel harmony

Solon

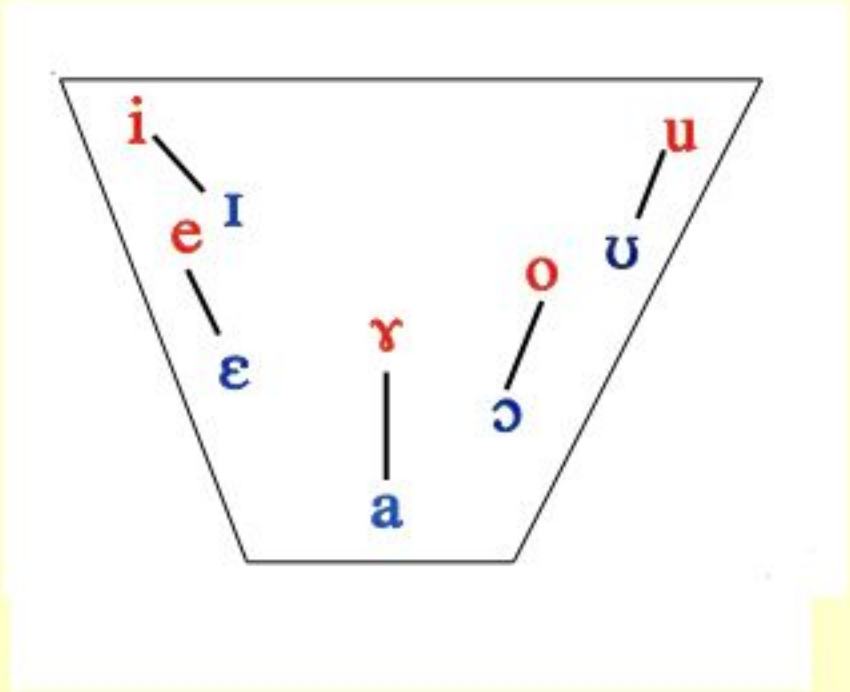


Mongolian

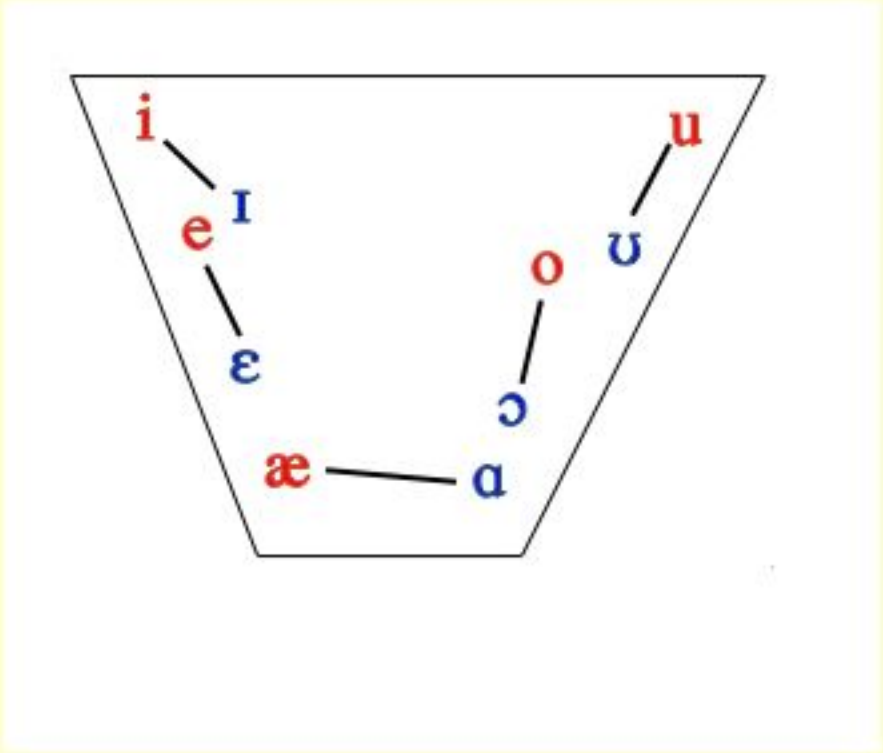


Vowel harmony ~ pharyngealization

Solon



Palestinian Arabic



Scenario for "harmonogenesis"

- A language with 'emphatic' (pharyngealized) consonants but no vowel harmony (Arabic)
- The feature 'pharyngeal' spreads from pharyngealized consonants to adjacent vowels (most varieties of Arabic, e.g. Palestinian Arabic)
- Pharyngealized and plain consonants merge (Maltese; Tunisian Arabic)
- Pharyngealization spreads through the word (Tunisian Arabic; Mongolic and Tungusic)

Mongolian as a Southeast Asian language

Old Mongolian	*Halh*		
*sehyl	suul	‘tail’	2>1
*kʰøkʰe	xox	‘blue’	2>1
*masi	maš	‘very’	2>1
*kʰonin	xɔnʲ	‘sheep’	2>1
*nilkʰa	nʲalx	‘baby’	2>1
*ahula	ʊʊɮ	‘mountain’	3>1
*huhutʰa	ʊʊtʰ	‘bag’	3>1
*sipahun	šʊwʊ	‘bird’	3>2
*pisilak	pʲasɮəg	‘cheese’	3>2

The forms of languages were shaped by diffusion in the Steppe – equilibrium

Outer factors caused them to spread – punctuation

Spread zone – Steppe
Residual zone – Outskirts

Bibliography (1)

Aikhenvald, Alexandra Y. & R. M. W. Dixon. 2001. 'Introduction'. In A.Y. Aikhenvald & R.M.W. Dixon (eds.), *Areal diffusion and genetic inheritance: problems in comparative linguistics*, 1-26. Oxford Universty Press.

Bellwood, Peter. 2001. 'Archaeology and the historical determinants of punctuation in language-family origins'. In A.Y. Aikhenvald & R.M.W. Dixon (eds.), *Areal diffusion and genetic inheritance: problems in comparative linguistics*, 27-43.

Dediu, Dan & D. Robert Ladd. 2007. 'Linguistic tone is related to the population frequency of the adaptive haplogroups of two brain size genes, *ASPM* and *Microcephalin*'. *Proceedings of the National Academy of Sciences of the Unites States of America*. PNAS Early Edition, May 30, 2007

Dixon, Robert M. W. 1997. *The rise and fall of languages*. Cambridge University Press.

Haudricourt, André-Georges. 1954. 'De l'origine des tons en viêtnamien'. *Journal Asiatique* 242, 69-82.

Nichols, Johanna. 1997, 'The epicentre of the Indo-European linguistic spread'. In R. Blench & M. Spriggs (eds.), *Archaeology and language* I, 122-148. London: Routledge

Nichols, Johanna. 1998, 'The Eurasian spread zone and the Indo-European dispersal'. In R. Blench & M. Spriggs (eds.), *Archaeology and language* II, 220-266. London: Routledge.

Bibliography (2)

Nichols, Johanna. 1992. *Linguistic diversity in space and time*. University of Chicago Press.

Renfrew, Colin. 1987. *Archaeology and language.* London: Cape.

Shahin, Kimary N. 1997. 'Acoustics of pharyngealization vs. uvularization harmony'. In M. Eid & R. R. Ratcliffe (eds), *Perspectives on Arabic linguistics* 10, 215-37. Amsterdam: Benjamins.

Svantesson, Jan-Olof. 1985. 'Vowel harmony shift in Mongolian'. *Lingua* 67, 283-327.

Svantesson, Jan-Olof. 1989. 'Tonogenetic mechanisms in Northern Mon-Khmer'. *Phonetica* 46, 60-79.

Svantesson, Jan-Olof. 2005. 'Vowel harmony – areal or genetic?' In É. Csató, B. Isaksson & C. Jahani (eds.), *Linguistic convergence and areal diffusion: case studies from Iranian, Semitic and Turkic*, 365-373. London: Routledge Curzon.

Svantesson, Jan-Olof & David House. 2006. 'Tone production, tone perception and Kammu tonogenesis'. *Phonology* 23, 309-333.

Svantesson, Jan-Olof, Anna Tsendina, Anastasia Karlsson & Vivan Franzén. 2005. *The phonology of Mongolian.* Oxford University Press.