Variability of languages in time and space - III

Linguistic Typology - Phonology

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phomenic inventories

- all families
  - The Stanford Project on Language Universals leading to the database "Stanford Phonology Archive" (SPA)
  - The **UCLA Phonological Segment Inventory Database** (or **UPSID**) is a statistical survey of the phoneme inventories in 451 of the world's languages - http://web.phonetik.uni-frankfurt.de/upsid.html
  - WALS - http://wals.info/
- selected families
  - Namkung (1998), Phonological Inventories of Tibeto-Burman Languages
  - Ramaswamy (1999), Common linguistic features in Indian languages: Phonetics
  - Phonemic Inventories Across Languages (http://www.asha.org/practice/multicultural/Phono/) – Arabic, English, Korean, Mandarin etc.

phonemes

- *pin, tin, kin, fin, thin, sin, shin*
- *dim, din, ding, did, dig, dish*
- *pin, pen, pan, pun, pain, pine, pawn*

phonemes

- *p*in, *t*in, *k*in, *f*in, *th*in, *s*in, *sh*in
- di*m*, di*n*, di*ng*, di*d*, di*g*, di*sh*
- p*i*n, p*e*n, p*a*n, p*u*n, p*ai*n, p*i*ne, p*aw*n

at the beginnings and ends of syllables vs. in the middle
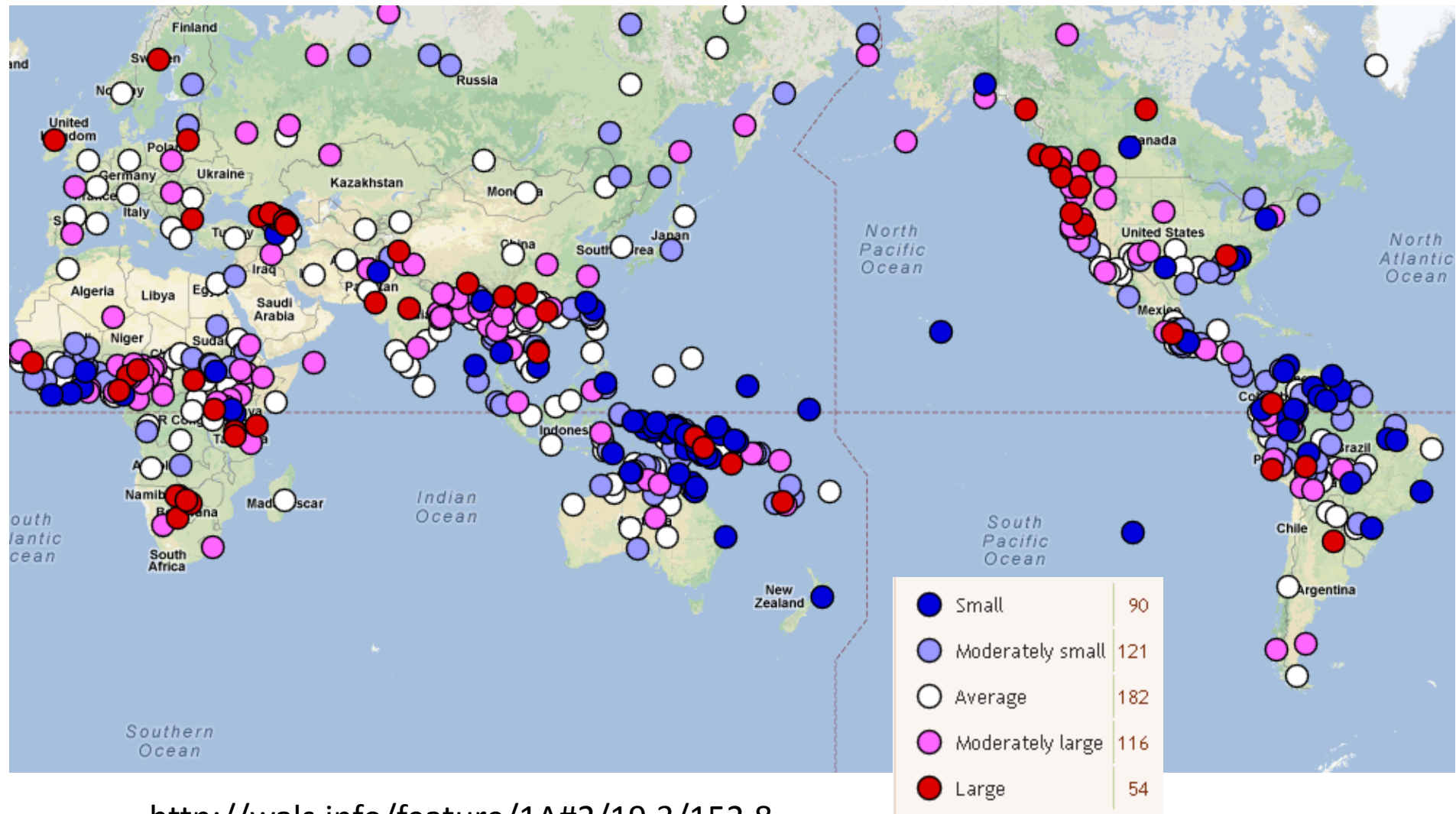
consonants and vowels

phonemes - consonants

- consonants (WALS)
  - small (6 to 14)
  - moderately small (15-18)
  - average (19-25)
  - moderately large (26-33),
  - large (34 or more consonants)

consonants

	Small	90
	Moderately small	121
	Average	182
	Moderately large	116
	Large	54

http://wals.info/feature/1A#2/19.3/152.8

Small	89
Moderately small	122
Average	201
Moderately large	94
Large	57

Rotokas (West Bougainville; Papua New Guinea)

only 6 consonants
(/p, t, k, b, d, g/)

English - 24

Small	89
Moderately small	122
Average	201
Moderately large	94
Large	57

!Xóõ
(spoken in Botswana)
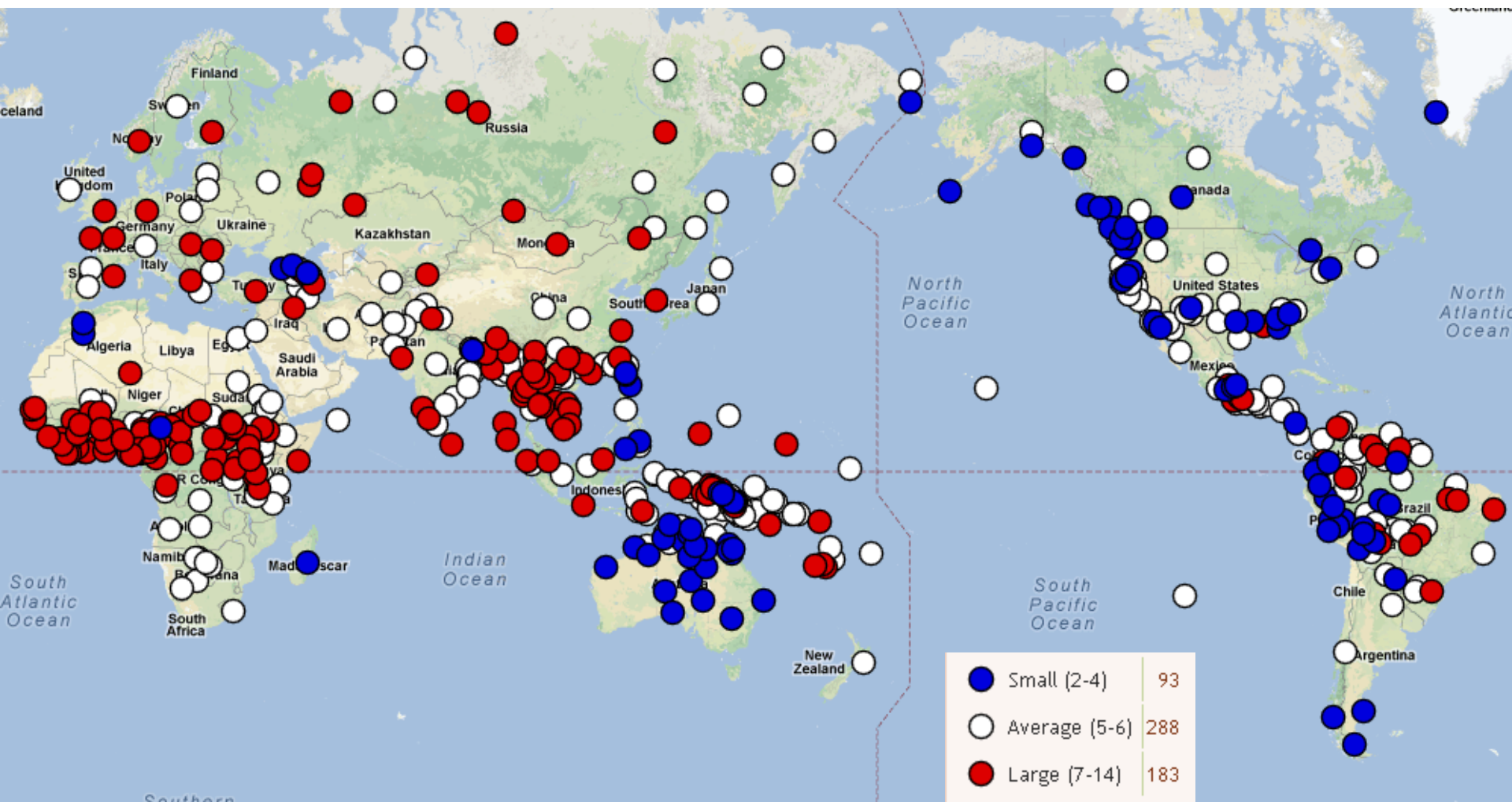
122 consonants
*(*mainly because it has a very large number of different click sounds with which a word may begin*)*

phonemes - vowels

- vowels (according to WALS)
  - small (2 to 4)
  - average (5-6)
  - large (7-14)
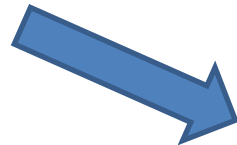
vowel quality inventories

● Small (2-4)	93
○ Average (5-6)	288
● Large (7-14)	183

phonemes - vowels

Small (2-4)	93
Average (5-6)	287
Large (7-14)	184

German: 14

Das Vokalsystem des Deutschen

vorne — zentral — hinten

geschlossen — die sie i: — für über y: — u: zu

fast geschlossen — in ich ɪ ʏ müssen — ʊ und

halbgeschlossen — der e: — ø: schön — o: so

mittel — ə andere

halboffen — kurzer es ɛ — œ können zwölf — ɔ von

: langer — spät ɛ:

fast offen

offen — das haben a a:

ungerundeter — gerundeter

Yimas (Papua New Guinea): 2
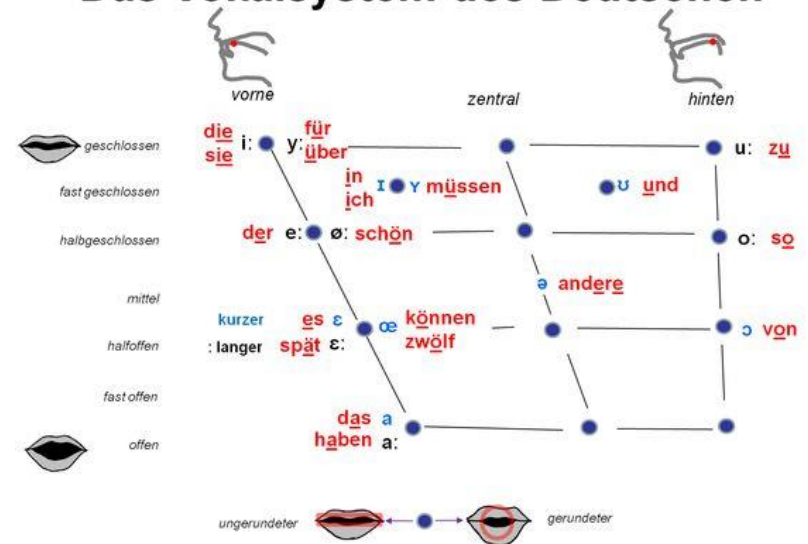
Vowel harmony

- a type of long-distance assimilatory phonological process involving vowels
- A vowel or vowels in a word are changed to sound the same (thus "in harmony.")
- In languages with vowel harmony, there are constraints on which vowels may be found near each other.
- Many agglutinative languages have vowel harmony.

háború	'war'	körút	'ring way'
háborúról	'about war'	körről	'about ring'
bűn	'guilt'	bátor	'brave'
bűntelen	'guiltless'	bátorságról	'about braveness'
bűnről	'about guilt'	bátortalan	'not brave'
út	'way'	föld	'field'
útról	'about way'	földtelen	'fieldless'
keserű	'bitter'	burgonya	'potato'
keserűség	'bitterness'	burgonyaföld	'potato field'
keserűsó	'bitter salt'	sötét	'dark'
kör	'ring'	sötétség	'darkness'

1. Which words are compounds and why?
2. Which of the following words can be divided into parts?

földtan, földnek, háborúellenes, Budapest, burgonyalevés, óraütés, hőálló, bűnöző.

3. Translate into Hungarian:
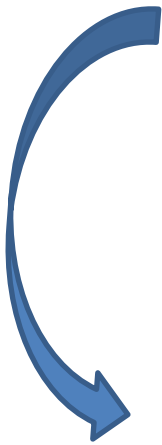*guiltlessness, about field, about potato, wayless*

Hungarian

Vowels

– stress

– length

– tones

Vowels - stress

- fixed
  - Initial: stress is on the first syllable
  - Second: stress is on the second syllable
  - Third: stress is on the third syllable
  - Antepenultimate: stress is on the antepenultimate (third from the right) syllable
  - Penultimate: stress is on the penultimate (second from the right) syllable
  - Ultimate: stress is on the ultimate (first from the right) syllable
- weight-sensitive, variable
  - unbounded (stress can be anywhere)
  - bounded (the placement of stress is sensitive to properties of syllables)

Value	Representation
○ No fixed stress (mostly weight-sensitive stress)	220
● Initial: stress is on the first syllable	92
◆ Second: stress is on the second syllable	16
■ Third: stress is on the third syllable	1
■ Antepenultimate: stress is on the antepenultimate (third from the right) syllable	12
◆ Penultimate: stress is on the penultimate (second from the right) syllable	110
● Ultimate: stress is on the ultimate (last) syllable	51
Total:	502

Mapudungun/Araucanian

ṯiˈpanto 'year', *eˈlumuˌyu* 'give us'.

Value		Representation
○	No fixed stress (mostly weight-sensitive stress)	220
●	Initial: stress is on the first syllable	92
◆	Second: stress is on the second syllable	16
■	Third: stress is on the third syllable	1
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◆	Penultimate: stress is on the penultimate (second from the right) syllable	110
●	Ultimate: stress is on the ultimate (last) syllable	51
	Total:	502

Winnebago, also known as **Ho-Chunk language** (*Hoocąk, Hocąk*)
Siouan language family

hochiˈchinik 'boy', *waghiˈghi* 'ball'

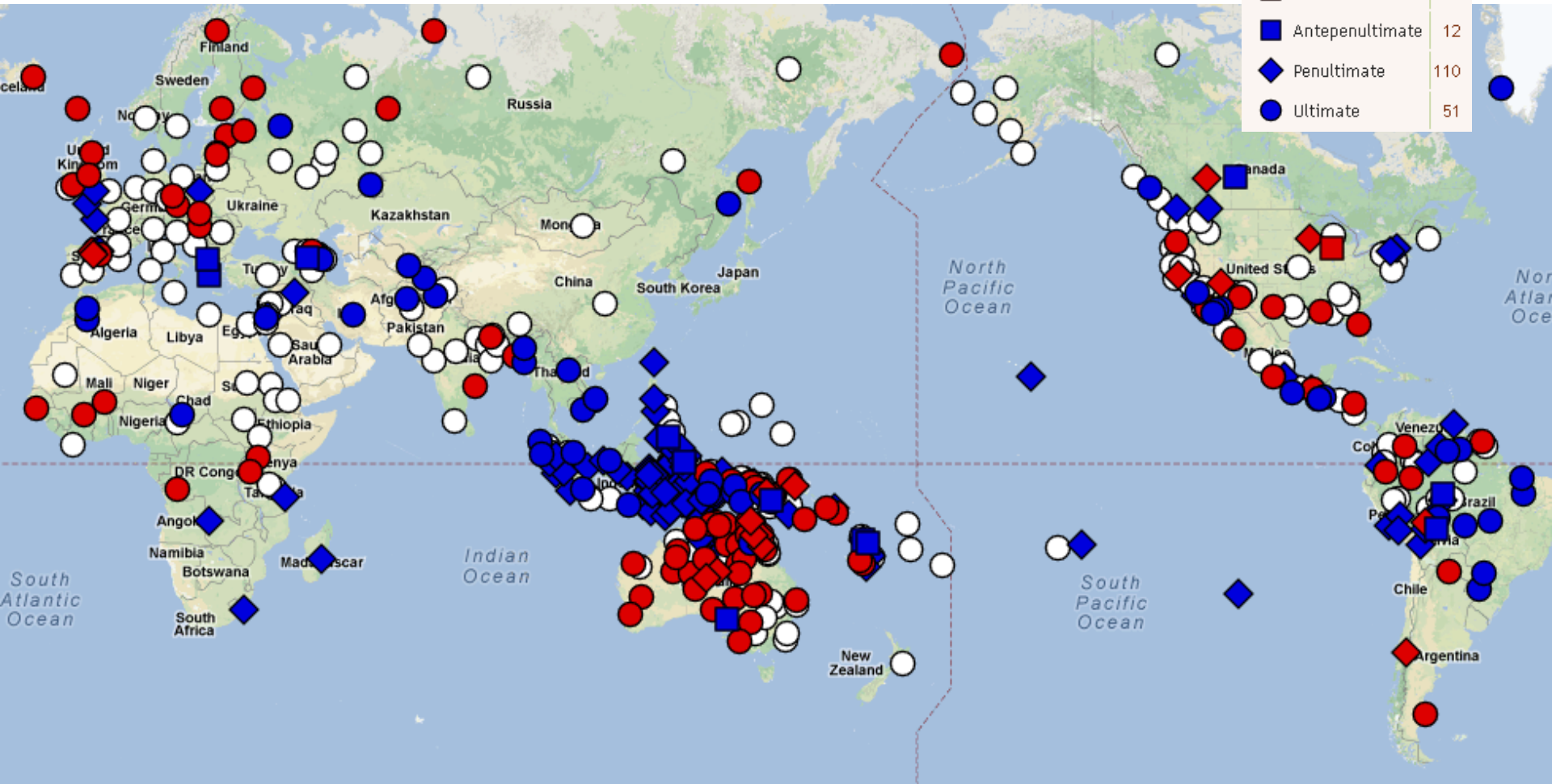| Value		Representation
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●	Ultimate: stress is on the ultimate (last) syllable	51
	Total:	502

Greek, Macedonoian

Czech, Finnish, Icelandic, Hungarian

Polish, Breton, Welsh, Basque

Fixed Stress Locations

○ No fixed stress	220
● Initial	92
◆ Second	16
■ Third	1
■ Antepenultimate	12
◆ Penultimate	110
● Ultimate	51

Vowels - stress

- fixed
  - Initial: stress is on the first syllable
  - Second: stress is on the second syllable
  - Third: stress is on the third syllable
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  - unbounded (stress can be anywhere)
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Weight-Sensitive Stress
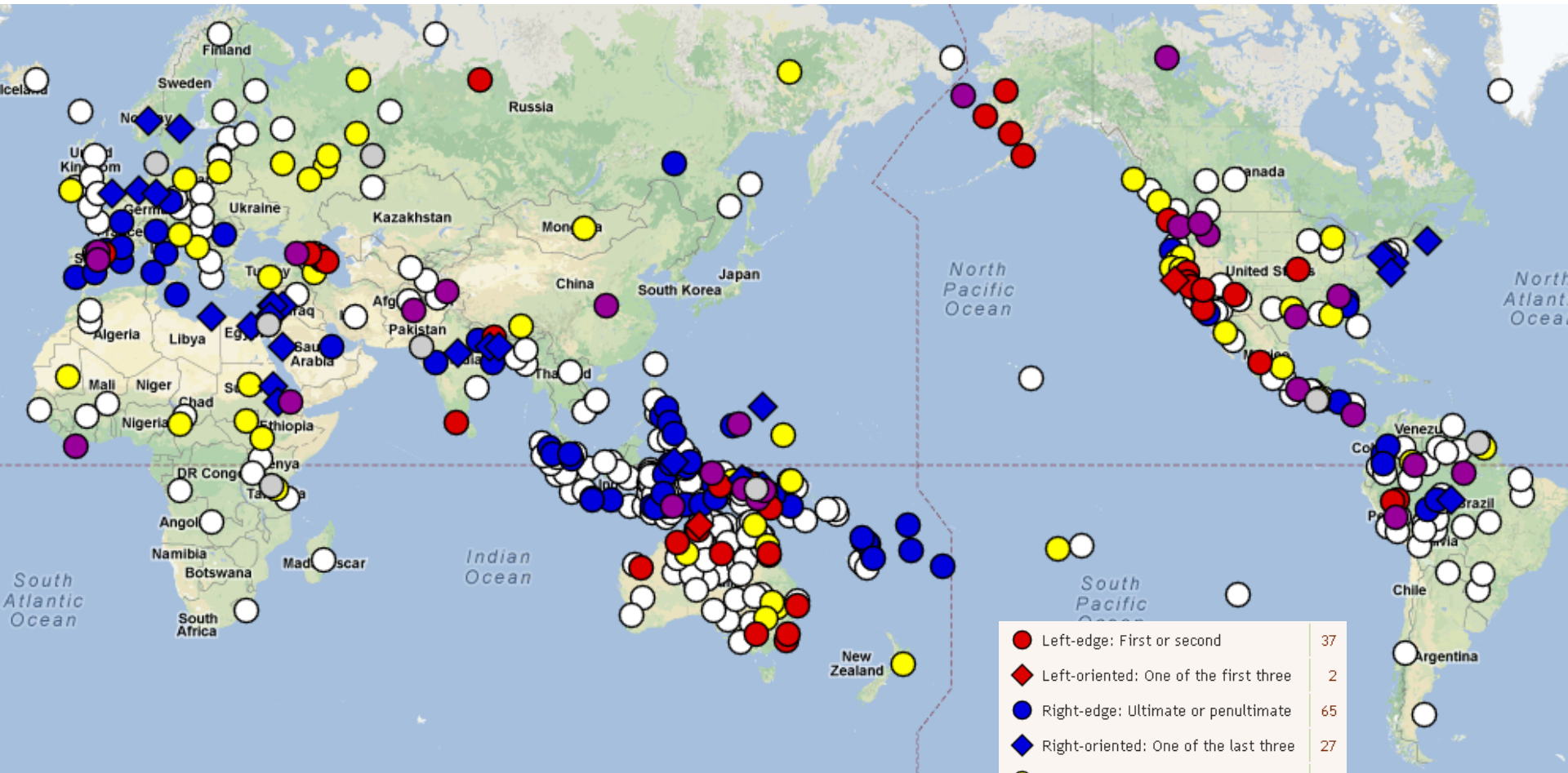
🔴	Left-edge: First or second	37
🔺	Left-oriented: One of the first three	2
🔵	Right-edge: Ultimate or penultimate	65
🔷	Right-oriented: One of the last three	27
🟡	Unbounded: Stress can be anywhere	54
⚪	Combined: Right-edge and unbounded	8
🟣	Not predictable	26
⚪	Fixed stress (no weight-sensitivity)	281

# Vowels - weight-sensitive, variable stress

variable stress **Russian**

/dor**o**ga/ – 'a road'
/doro**ga**/ – 'dear'

		a	b	c	d	e	f
Единственное число	И	карта	стол	море	вино	волк	губа
	Р	карты	стола	моря	вина	волка	губы
	Д	карте	столу	морю	вину	волку	губе
	В	карту	стол	море	вино	волка	губу
	Т	картой	столом	морем	вином	волком	губой
	П	о карте	о столе	о море	о вине	о волке	о губе
Множественное число	И	карты	столы	моря	вина	волки	губы
	Р	карт	столов	морей	вин	волков	губ
	Д	картам	столам	морям	винам	волкам	губам
	Т	картами	столами	морями	винами	волками	губами
	П	о картах	о столах	о морях	о винах	о волках	о губах

tátul	—	fox
nətɣəlqin	—	hot
nuráqin	—	far
ɣəlɣən	—	skin
néqəqin	—	quick
nəsə́qqin	—	cold
taplán̪ətkən	—	he sews shoes
kə́mɣətək	—	roll up
ʔítək	—	be
paqə́tkuk	—	run
nílɣəqinat	—	white
púnta	—	liver
qetúmɣən	—	relative
píwtak	—	fall
nəmítqin	—	skillful
túmɣətum	—	friend
tə́tka	—	walrus
kə́ttil	—	forehead
qalpúqal	—	rainbow
kəpírik	—	hold in arms
təvítatətkən	—	I work
píntəvəlŋək	—	throw at each other

Alyutor or **Alutor** is a language of Russia that belongs to the Chukotkan branch of the Chukotko-Kamchatkan languages
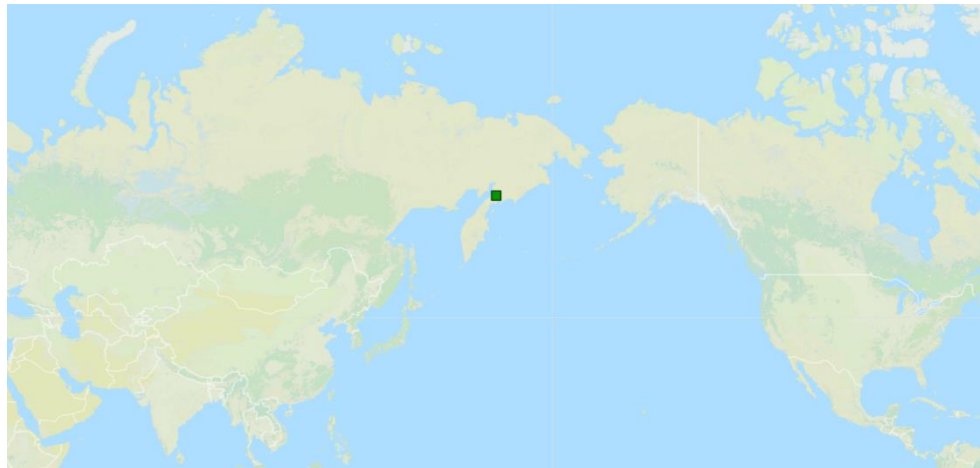
Formulate the stress rules and put the stress for the following words:

sawat - lasso
pantawwi - boots
nəktəqin - solid
nəminəm - bouillon