



Language and the Anthropocene  
**MAX PLANCK INSTITUTE**  
OF GEOANTHROPOLOGY



**RECONSTRUCTING PROTO-AMURIC (PROTO-NIVKH)  
SUPRASEGMENTALS**

Martijn Knapen | JANO LS Annual Meeting | 22 September 2024



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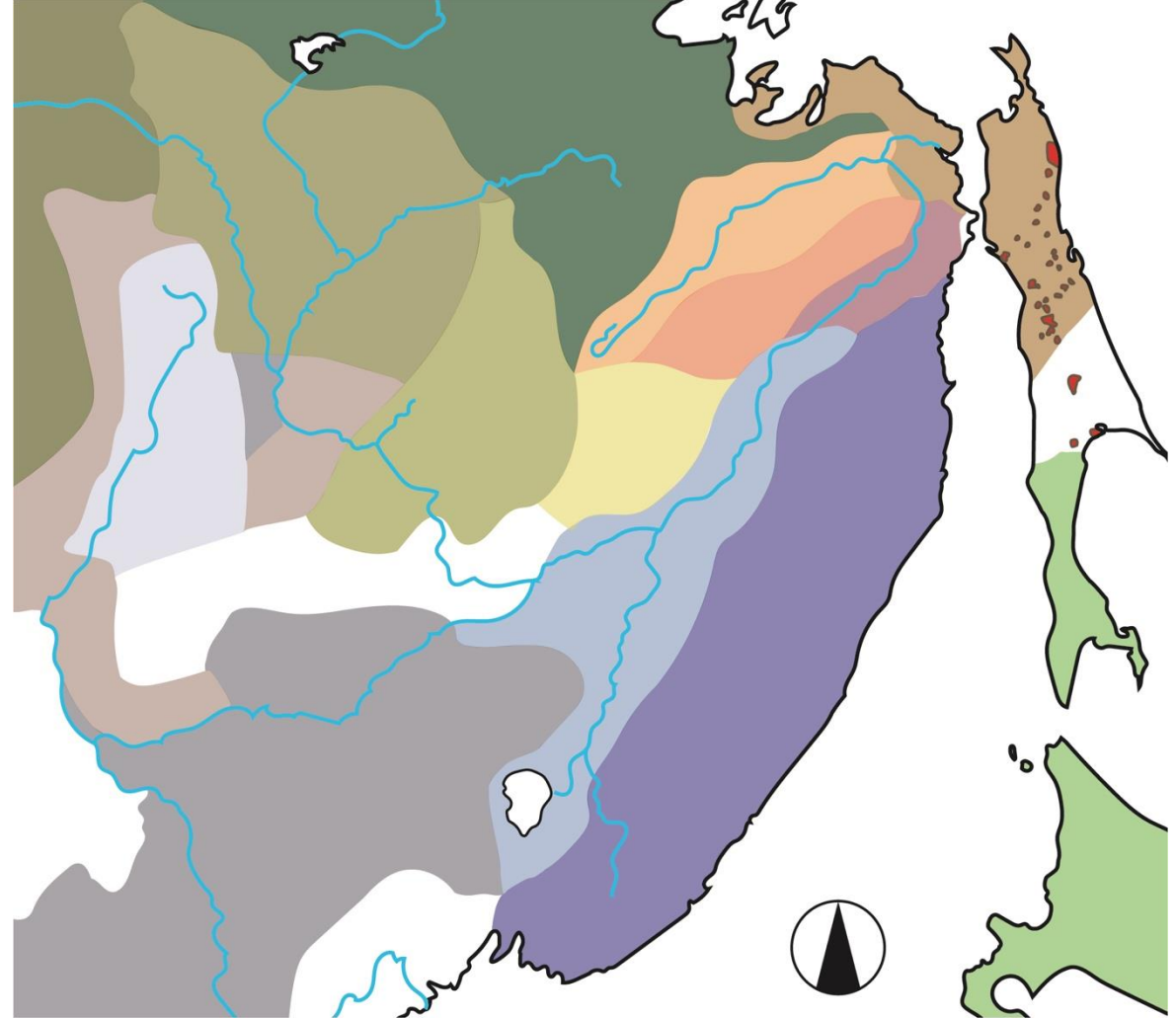
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# 1 INTRODUCTION

- This map is based on von Schrenck (1883).
- Ethnic boundaries reflect linguistic boundaries of the 1850s.

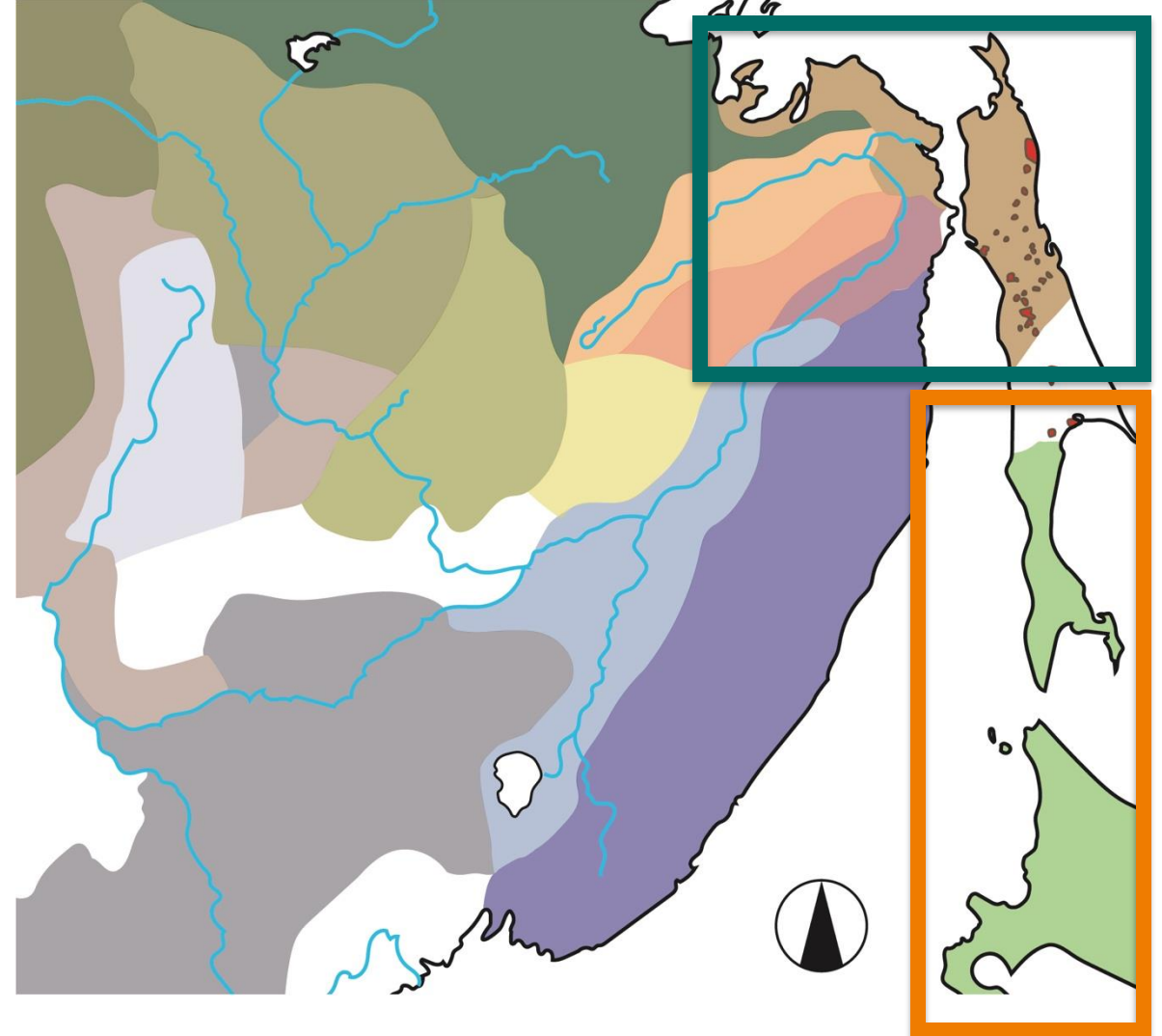


Nivkh	Oroch & Udihe	Birar
Ainu	Nanai	Manegir
Uilta	Manchu	Oroqen
Ulcha	Solon	Ewenki
Neghidal	Dagur	
Samagir	Kili	



# 1 INTRODUCTION

- This map is based on von Schrenck (1883).
- Ethnic boundaries reflect linguistic boundaries of the 1850s.
- **Amuric (Nivkh)**
- **Ainu(ic)**
- **Uilta**





# 1 INTRODUCTION

## The Amuric languages

- “Amuric” is a term coined by Janhunen (1996), which represents a reanalysis of the varieties of the Nivkh language as separate languages.
- The varieties are divided into a Nivkh or Amur branch includes the Amur (AN) and North Sakhalin varieties (NSN), while the East Sakhalin and South Sakhalin (or Poronaisk) varieties are classified together into the Nighvng or Sakhalin branch.
- These descend from a common ancestor called Proto-Amuric (PAm).

Nivkh		Nighvng	
Amur Nivkh	North Sakhalin Nivkh	East Sakhalin Nighvng	South Sakhalin Nighvng

(cf. Gruzdeva & Janhunen 2020)



# 1 INTRODUCTION

## Reconstructing Proto-Amuric suprasegmentals

- A notable feature of the Amuric languages – as compared to Uilta or Sakhalin Ainu – is their permissiveness to onset clusters (maximally CC) and coda clusters (maximally CCC) (Shiraishi 2009).
- Austerlitz (1990) proposed that Amuric clusters are the result of vowel deletion. The conditioning environment for deletion would have been the unstressed syllable.

## Austerlitz's (1990) hypothesis

AN, ESN, SSN *tla* 'harpoon shaft' < *\*tVla'*



# 1 INTRODUCTION

## Reconstructed stress patterns vs. attested stress patterns

- Recent research (e.g. Zhivlov 2023) has adopted Austerlitz's (1990) view.
- However, reconstructions in line with Austerlitz's (1990) proposal do not predict accurately stress placement in the modern Amuric varieties.
- Amuric evidence does not provide a unanimous affirmation or refutation of Austerlitz's (1990) hypothesis and therefore other evidence may need to be considered.

PAm	NSN	ESN
*d <sub>1</sub> ́-ŋa-y 'humpback salmon'	téŋi 'humpback salmon'	teŋí 'humpback salmon'

(Pejros & Starostin 1986: 217; Krejnovič 1979: 298)



## 2 METHODS AND MATERIALS

### External/extrafamilial reconstruction

- Janhunen (2016) shows that Amuric loans in Uilta and Sakhalin Ainu sometimes preserve archaic features lost in the extant Amuric languages.
- PAm \*CV(CV)CVC > CV(C)CC
- PAm \*CV(CV)CVy > CV(C)Ci

PAm \**ch(o)lanji* ~ \**t(o)lanji* 'reindeer' (Fortescue 2016)

ESN, SSN *thlanji* 'reindeer'

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SakhAi *tunakay* 'reindeer'



## 2 METHODS AND MATERIALS

### Establishing the direction of borrowing

- The objective of this study is to assess whether syllables with preserved vowels were perceived as stressed by Sakhalin Ainu and Uilta speakers.
- Therefore, only Amuric loans in these languages are useable.
- The Amuric origin of these words was first established on the basis of two of Campbell's (2020) criteria.

- (1) Morphological complexity: a loanword is not segmentable in the recipient language, but is segmentable in the donor language.
  - \*-y was a productive morpheme in Proto-Amuric, but not in Uilta or Sakhalin Ainu.
- (2) Distribution: the loanword is found in only a few members of the language family.
  - None of the words were found in the Tungusic relatives of Uilta or the Ainu dialects spoken outside of Sakhalin.



## 2 METHODS AND MATERIALS

### Materials

- For this study, data was gathered from earlier compilations of lexical parallels between Amuric and Sakhalin Ainu and between Amuric and Uilta.
  - Austerlitz (1962), Janhunen (2016), Pevnov (2016), Shiraishi & Tangiku (2021)
- For information on the adaptation of stress in Uilta, Tsumagari (1983) and Pevnov (2016) were consulted.
- The position of stress in Sakhalin Ainu was inferred on the basis of Murasaki (1979) and was verified on the basis of Dobrotvorskij (1876) and unpublished fieldnotes of Jirō Ikegami (notebooks IN13 and IN14, cf. Yamada 2022).



### 3 UILTA ADAPTATION OF PROTO-AMURIC "STRESS"

#### Adaptation of stress in Russian words

- Pevnov (2016: 49) notes that in Russian loanwords, Uilta adapts vowels in stressed syllables as long.
- The same can also be observed in the examples cited by Tsumagari (1983: 82).
- Therefore, if vowel preservation in Amuric was dependent on the position of stress in Proto-Amuric, the preserved vowel should be adapted as long in Uilta.

Uilta	Russian
<i>kəččəəli</i> 'bucket'	<i>kotél</i> 'pot'
<i>səmməəki</i> 'lock'	<i>zamók</i> 'lock'
<i>piičikka</i> 'match'	<i>spíčka</i> 'match'
<i>peečikka</i> 'stove'	<i>péčka</i> 'stove'
<i>dookturi</i> 'doctor'	<i>dóktor</i> 'doctor'
<i>palaačikka</i> 'tent'	<i>palátka</i> 'tent'



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### 3 UILTA ADAPTATION OF PROTO-AMURIC "STRESS"

#### Proto-Amuric monosyllables

- Vowels in Proto-Amuric monosyllables are adapted as long.

English	PAm	Amuric	Uilta
Waterway	* <i>chú</i>	AN, ESN <i>chu</i>	<i>čuu</i>
Ice	* <i>khó</i>	SSN <i>qho</i>	<i>koo</i>
Where	* <i>thá-</i>	AN <i>řa-</i> , ESN <i>tha-</i>	<i>saa-</i>



### 3 UILTA ADAPTATION OF PROTO-AMURIC "STRESS"

#### Proto-Amuric disyllabic words (without medial cluster)

- The preserved vowel tends to correspond to a long vowel in Uilta in words without medial clusters (10 instances).
  - Total: 17 (excluded: ESN *phron* : Ui *biro(n)* 'Japanese surfsmelt', ESN *tro* 'North Sakhalin' : Ui *doro* 'East Sakhalin')
  - $(10 \div 15) \times 100 \approx 66.6\%$

English	PAm	Amuric	Uilta
Saffron cod	* <i>ǵáŋay</i>	AN <i>qaŋi</i>	<i>kaaŋai</i>
Big wave	* <i>láta</i>	AN <i>lar</i> , ESN <i>lař</i>	<i>laata</i>
Bow of a boat	* <i>mákə</i>	AN, ESN <i>məx</i>	<i>məəxə</i>
Small wave	* <i>lámu</i>	SSN <i>lam</i>	<i>lamu</i>
Dish <i>mos</i>	* <i>músi(ŋ)</i>	AN <i>mos</i>	<i>musi(n)</i>
Moss	* <i>wáxi</i>	AN <i>vax</i> , SSN <i>wax</i>	<i>waxi</i>



### 3 UILTA ADAPTATION OF PROTO-AMURIC "STRESS"

#### Proto-Amuric disyllabic words (with medial cluster)

- The preserved vowel almost always corresponds to a short vowel in Uilta in words with medial clusters.
- Total: 17
- Exceptions: AN *laqi* : Ui *laakka* 'pacific herring', ESN *maχt* : Ui *makčii* 'towline spreader', AN, SSN *q<sup>h</sup>auri* : Ui *kaurii* 'braking pole'

English	PAm	Amuric	Uilta
Arctic rainbow smelt	* <i>árkoy</i>	AN <i>arqe</i> , ESN <i>ařqi</i>	<i>arku</i>
Dried fish (close to the bone)	* <i>bókkəy</i>	AN <i>pəki</i>	<i>bəkkəi</i>
Kamchatka lily	* <i>karka</i>	ESN <i>qařq</i>	<i>karka</i>





### 3 UILTA ADAPTATION OF PROTO-AMURIC "STRESS"

#### Proto-Amuric words with more than two syllables

- The preserved vowels in words with more than two syllables (total: 25) are generally not adapted as long.
- Exceptions: SSN *palŋař* : *baalaŋada* 'spotted seal (up to 2 years)', SSN *kuyl* : Ui *guuguldu* 'butterfly', AN *p<sup>h</sup>laqr* : Ui *pulakkaari* 'for the first time'.

English	PAm	Amuric	Uilta
Sakhalin surf clam	* <i>mokomay</i>	ESN <i>moymi</i>	<i>muxumai</i>
Fish roe	* <i>hagiri</i>	AN <i>həyr</i>	<i>xairi</i>
Frog	* <i>ɯdalaŋ</i>	AN <i>ral</i> , ESN <i>ralŋ</i>	<i>udala(n)</i>



## 4 SAKHALIN AINU ADAPTATION OF PROTO-AMURIC "STRESS"

### Diachrony of Sakhalin Ainu stress

- Stress in Sakhalin Ainu falls on the second mora, unless the second mora is a vowel or consonant, then it falls on the mora before it (Murasaki 1979: 5-6).
- Long vowels in Sakhalin Ainu correspond to stressed vowels in Hokkaidō Ainu dialects, which may indicate that vowel length in Sakhalin Ainu is the secondary effect of stress (Tangiku 2022: 330).
- Vovin (1993: 42) reconstructs long vowels to Proto-Ainu, however.

### Stress assignment in Sakhalin Ainu

C'V̄V

C'V̄C

CVC'V̄

C'V̄CC'V̄

C'V̄VC'V̄C

CVC'V̄CV

CVC'V̄C'V̄C

CVC'V̄CC'V̄



## 4 SAKHALIN AINU ADAPTATION OF PROTO-AMURIC "STRESS"

### Proto-Amuric disyllabic words (without medial cluster)

- Total: 4
- Two out of four have stress in Sakhalin Ainu corresponding to the syllable with a preserved vowel in Amuric.
- Not all items are attested in (Dobrotvorskij 1876)
- *pákuy*, *kankà*, *tunà* (Dobrotvorskij 1876)

English	PAm	Amuric	SakhAi
Spotted seal	* <i>bágu</i> y	AN <i>pə</i> yi, SSN <i>paw</i> yi	<i>pá</i> akuy
Dog collar	* <i>há</i> la	AN, SSN <i>hal</i>	(seta) <i>haná</i>
Saffron cod	* <i>gá</i> ŋay	AN <i>qa</i> ŋi	<i>kán</i> kay
Harpoon shaft	* <i>th</i> ulá	AN, SSN <i>th</i> la	<i>tuná</i>



## 4 SAKHALIN AINU ADAPTATION OF PROTO-AMURIC "STRESS"

### Proto-Amuric disyllabic words (with medial cluster)

- Total 11
- All have stress in Sakhalin Ainu on the syllable corresponding to the syllable with a preserved vowel in Amuric.
- Not all items are attested in (Dobrotvorskij 1876)
- *xáxka~gáxka* 'hat', *múxtru*, *káure* (Dobrotvorskij 1876)

English	PAm	Amuric	SakhAi
Hat	* <i>hakka</i>	AN, ESN, SSN <i>haq</i>	<i>háhka</i>
Braking pole	* <i>kháwri</i>	AN, SSN <i>qhauri</i>	<i>káwre</i>
Pillow	* <i>muttu~*</i> <i>møtte</i>	AN <i>mot</i> , ESN <i>mut</i>	<i>múhru</i>



## 4 SAKHALIN AINU ADAPTATION OF PROTO-AMURIC "STRESS"

### Proto-Amuric words consisting of more than three syllables

- Total: 15
- Of these, 8 have stress in Sakhalin Ainu in the place where the vowel has been preserved in Amuric.
- $(8 \div 15) \times 100 \approx 53.3\%$
- Not all items are attested in (Dobrotvorskij 1876)
- *tunakày*, *opokày*, *kúciri*, *noyóxko*, *máxkuru*, *xánkata* (Dobrotvorskij 1876)

English	PAm	Amuric	SakhAi
Reindeer	* <i>tułáŋay</i>	ESN, SSN <i>tʰlaŋi</i>	<i>tunákay</i>
Musk deer	* <i>obóŋay</i>	AN <i>vonji</i>	<i>opókay</i>
Wolverine	* <i>kújiri</i>	AN <i>kʰuzr</i> , ESN <i>kʰuzř</i>	<i>kucíri</i>
Egg	* <i>ŋóyokko</i>	AN <i>ŋoyeq</i> , SSN <i>ŋoyq</i>	<i>noyóhko</i>
Dried fish	* <i>mákkur</i>	SSN <i>maq̄r ma</i>	<i>máhkuru</i>
Birch bark plate	* <i>háŋaʰa</i>	ESN <i>háŋř</i>	<i>hánkata</i>



## 4 SAKHALIN AINU ADAPTATION OF PROTO-AMURIC "STRESS"

### Differences between Sakhalin Ainu transcriptions

- Transcriptions of Sakhalin Ainu variously reflect Proto-Amuric “stress” in the place where it would be expected.

English	PAm	Dobro-tvorskij	Ikegami
Reindeer	* <i>ʈuláŋay</i>	<i>tunakày</i>	<i>tunákay</i>
Musk deer	* <i>obóŋay</i>	<i>opokày</i>	<i>obókay</i>
Hare	* <i>ósʉki</i>	<i>ósukew</i>	<i>ofúkep</i>



## 5 CONCLUSION

- For disyllabic Proto-Amuric words without medial clusters, a little over half of the items have long vowels in the expected place in Uilta.
- For Proto-Amuric words with more than three syllables, a little over half of the items have stress in the expected position in Sakhalin Ainu. However, there is some variation in the data.
- Uilta provides little indication for the place of stress in words with more than two syllables, suggesting that vowel lengthening is the preferred strategy only in disyllabic words (NB: Ui *kəččəli* 'bucket' : Rus *koteí* 'pot').
- Therefore, Austerlitz (1990) is not fully confirmed and other phonological conditions for the observed correspondences may be explored (e.g. phonemic vowel length).