

# **Strategies for derivational affix adaptation in loanwords in Aanaar Saami**



**Tuomas Koukkari**  
**Giellagas Institute, University of Oulu**

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# Background and scope of study

- There appears to be systematic variation in how certain borrowed affixes are treated in AS. Morphological Analyzer<sup>1</sup> says no:
  - What regularities exist? Which variants are most common?
- Focus on phonological adaptation of imported affixes/diamorphs
  - Diamorph: Morpho(phono)logical unit with regularly corresponding variants across languages (cf. e.g. Haugen 1955, 1956).
  - Prominent cases substitution with or addition of native affixes noted.
- Only written language studied so far
  - Main sources: [Korp](#)<sup>↗</sup>, [Yle](#)<sup>↗</sup>, [Wikipedia](#)<sup>↗</sup>
  - Directly imported forms from Finnish apparently more common in speech.

Morphological Analyzer<sup>1</sup> says no:

*vokal* (recognizes: *vookaal*)

*seksual* (both *seksual-* and *seksuaal-* in compounds)

*konfereensâst* (*konferensist*)

*essiiv, abessiiv* (*essiv, abessiv*)

<sup>1</sup> [Morphological Analyzer for Inari Saami](#)<sup>↗</sup> by [Giellatekno](#)<sup>↗</sup> (UiT); examples from late 2022.



# Previous research

- Diachronic studies: Korhonen 1981: 312-341, Rauhala 2019
- General overviews: Sammallahti 1998: 88-94, Valtonen et al. 2022
- Language planning: Olthuis 2003, 2007; normative guidelines by Giellagáldu



# Linguistic environment of AS

- Traditional and still primary area: Aanaar municipality in Finland.
- Region historically multilingual.
  - Map: ca. 1800, part of Swedish Kemi Lapland. Church and administration primarily use Finnish; Scandinavian and Russian in neighboring regions. Finnish settlement has reached Kyrö (Avveel/Ivalo).
  - 20<sup>th</sup> century: increasing Finnish dominance.
- Now: pervasive bilingualism w/ Finnish, many new speakers.



Map: Vernacular languages in Aanaar and vicinity ca. 1800. Modified from [original](#) by user Edaen on Wikimedia Commons.



# Historical contacts

- Contacts between Scandinavian, Finnic and Saamic go back to respective protolanguages.
  - Several derivational affixes borrowed from Finnic into Saamic quite early on; these have become fully productive. E.g. Finnic *-mAtOn* (: *-mAttOmA-*) > AS *-mettum* (deverbal adjectivizer, NEG)  
*kiittämätön* 'ungrateful' (< *kiittää* 'thank') > *kijttemettum*  
Similarly *uáinimettum* 'invisible' from native *uáiniđ* 'see'.
- Most important contact languages: Swedish (recently replaced by English) for Finnish, Finnish for AS.
  - Scandinavian (and English) influence on AS both directly and through Finnish.



# Typological background

- Both Finnish and AS feature extensive derivational morphology, primarily suffixing.
- One (relatively unambiguous) prefix: *epälooginen* 'illogical'  
Finnish *epä-*, borrowed into AS as *epi-*. *epiloogâlâš*
  - Productive with native stems in AS: *epinjuolgâd* 'indirect'
  - Other prefix-like elements (compounds?): *esilämmitetty* 'preheated'
- Suffix-triggered root changes *heterogeeninen* 'heterogenous'
  - Exist in both; relatively simple and predictable in Finnish, less so in AS. *johta-* 'derive' > *johdos* 'derivation'  
*keeči* 'end' > *kiäjus* 'ending, suffix'



# Treatment of loanwords in Finnish

- All new words must fit into productive inflectional classes:
  - **Nouns:** Stem (= NOM.SG, usually) must end in a vowel > a paragogic vowel (most often *i*) often added to consonant-final borrowings. *turist* > *turisti* 'tourist'  
*aktiv* > *aktiivi* 'activist, operative'
  - **Adjectives:** like nouns, or derived with *-(i)nen*. *normal* > *normaali* 'normal' (as both N and Adj)  
*aktiv* > *aktiivinen* 'active'
  - **Verbs:** derived types only, typically *-At-* or *-Oi-*.  
*googlata* 'to Google'  
*aktivoida* 'to activate'

# Productive inflectional classes in AS

- Classes based on syllable count of stem: 2, 3, or 4.
  - Rarely more; as trisyllabics if count is odd, as tetra- if even.
  - Contracted stems (with secondarily diminished syllable count due to elided historical intervocalic consonant) outside this classification; mostly ignored this presentation.
- In nouns and adjectives, NOM.SG features apocope if stem is more than 2 syllables: *puttâl* 'bottle', ESS *puttâlin*  
*luvâttâh* 'high school', ESS *luvâttâhhân*
- Productive classes:
  - Verbs: derived only (?)
  - Nouns & adj.: derived and underived, but underived native adjectives are a small and somewhat special class (separate attributive form).



# Productive inflectional classes in AS

- Derived words mostly feature tri- or tetrasyllabic stems.
- Length alternation between inflectional forms: common for stem to be shortened when a suffix is added.
  - Word-final consonants always short; may sometimes be lengthened (/reverted to long) in suffixed forms. *kappeer* 'hat', ESS *kaperin*  
*tubbáák* 'tobacco', ESS *tubáakkin*
- Phonotactic restriction: a disyllabic form may not contain a long vowel in the second syllable if the first syllable is short (ends in a short vowel). *turist* ~ *tuuriist*  
*gloobaal* ~ *globaallâš*, but \**globaal*



# Nouns: Internationalisms

Greek	Latin	French	English	Swedish	Finnish
-ιστής	<i>-ista</i>	<i>-iste</i>	<i>-ist</i>	<i>-ist</i>	<i>-isti</i>
-ισμός	<i>-ismus</i>	<i>-isme</i>	<i>-ism</i>	<i>-ism</i>	<i>-ismi</i>
-ικός	<i>-icus</i>	<i>-ique</i>	<i>-ic(s)</i>	<i>-ik</i>	<i>-iikka (-iikki)</i>
(-εἶος)	<i>-ivus</i>	<i>-if, -ive</i>	<i>-ive</i>	<i>-iv</i>	<i>-iivi, -iv-</i>
	<i>-alis</i>	<i>-al</i>	<i>-al</i>	<i>-al</i>	<i>-aali, -al-</i>
-ία, -εια	<i>-ia</i>	<i>-ie</i>	<i>-y, -ia</i>	<i>-i</i>	<i>-ia</i>
	<i>-io(n-)</i>	<i>-ion</i>	<i>-ion</i>	<i>-ion</i>	<i>-io, (-ioni)</i>
-ης (-ητ-)	<i>-ans/-ens (-ant/-ent-)</i>	<i>-ant/-ent</i>	<i>-ant/-ent</i>	<i>-ant/-ent</i>	<i>-antti, -entti</i>
	<i>-antia/-entia</i>	<i>-ance/-ence</i>	<i>-ance/-ence</i>	<i>-ans/-ens</i>	<i>-anssi, -enssi</i>

(Henceforth IN)

# Nouns: IN, short vowel in Finnish penult

- AS form usually differs from Finnish in lack of paragogic vowel.
  - Forms resemble Scandinavian (or English)
- When four or more syllables in Finnish, typically no length changes in AS.
- If the Finnish form has three syllables (root is one syllable), then:
  - No length changes if first syllable is long (has a coda consonant).
  - 1<sup>st</sup>-syllable vowel or both vowels may be lengthened if 1<sup>st</sup> syllable is short.

*aktivismi*      *aktivism*

*aktivisti*      *aktivist*

*relevanssi*      *relevans*

*presidentti*      *president*

*biologi*      *biolog*

*artisti*      *artist*

*kersantti*      *kersant*

*turisti*      *turist ~ tuuriist ~ turisti*

*kemisti*      *kemist ~ kemisti*

*dosentti*      *doosent*

*agentti*      *aageent*



# Nouns: IN, long vowel in Finnish penult

- Some tendency in AS to use a short vowel instead.
  - Long nonetheless more common.
  - Evident likelihood of shortness for different diamorphs: *-iv* > *-al* (> ?-*ik*) (Fi *-iivi*, *-aali*, *-iikka*)
  - Linguists seem to prefer short vowels (but e.g. M. Morottaja 2007: *nominatiiv*, *genetiiv* etc.).
- Phonotactics require short first syllable in trisyllables to be lengthened.
  - Or second to be shortened; appears rare.

<i>negatiivi</i>	<i>negatiiv</i> ~ <i>negativ</i>
<i>festivaali</i>	<i>festivaal</i> ~ <i>festival</i>
<i>elektroniikka</i>	<i>elektroniik</i>

<i>aktiivi</i>	<i>aktiiv</i> (~ <i>aktiv</i> )
<i>normaali</i>	<i>normaal</i> (~ <i>normal</i> )
<i>optiikka</i>	<i>optiik</i>

<i>nominatiivi</i>	<i>nominativ</i>
<i>genetiivi</i>	<i>genetiv</i>
<i>dentaali</i>	<i>dental</i>

<i>finaali</i>	<i>fiinaal</i>
<i>fysiikka</i>	<i>fyysiik</i>

<i>vokaali</i>	<i>vookaal</i> (~ <i>vokal</i> )
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# Nouns: IN, no paragogic vowel in Finnish

- Vowel-final, but with vowel going back further than Finnish (typically Latin).
  - Relevant diamorphs: *-ia*, *-io* (Sca *-i*, *-ion/-jon*; Eng *-y/-ia*, *-ion*).
  - Finnish *-io* could also be analyzed as a substitution with native *-iO*; cf. e.g. *Suuri illusioni* (Waltari 1928) vs. modern Finnish *illuusio*.

- AS form usually exactly the same as Finnish.

- (Partial) exceptions:

*historia* *historjá*

*unioni* *union*

*reaktio* *reaktio* (~ ?*reaktim*)

*kemia*

*filosofia*

*dementia*

*fuusio*

*versio*

*televisio*

*kemia*

*filosofia*

*dementia*

*fuusio*

*versio*

*televisio*



# Nouns: IN, Agents

- Swedish forms agent nouns mostly with *-are* (ON *-ari*), but *-er* after *-ik-*.
- Different adaptation strategies in Finnish:
  - *-ari/-are*: imported as *-Ari*
  - *-iker*: *-er* substituted with *-kko* (native *-kkO*).
- In AS, both types with *-ár*.
  - Resembles both Scandinavian *-er* and Finnish *-Ari* (with typical deletion of final *i*, despite its different origin).
  - *-(i)ik* becomes *-ikk-*, preceding vowel(s) usually short.

*måla* 'paint' > *målare* 'painter'

*röva* 'rob' > *rövare* 'robber'

*politik* > *politiker*

*fysik* > *fysiker*

*musik* > *musiker*

*maalari* 'painter'

*ryöväri* 'robber'

*poliitikko, fyysikko, muusikko*

*máálár* 'painter'

*riävvar* 'robber'

*politikkár* (~ *politiikkár* ~ *politijkkár*)

*fysikkár*

*musikkár*



# Nouns: Original derived in Finnish

- Calquing common, esp. for neologisms.

- AS rarely uses an internationalism where Finnish has a neologism

*keitin* 'cooker' < *keittää* 'cook'      *vuošân* 'cooker' < *vuoššâđ* 'cook'  
*uskonto* 'religion' < *usko* 'faith'      *oskoldâh* 'religion' < *osko* 'faith'

*imusolmuke* 'lymph node' < *imu* 'suction' (< *imeä* 'suck') + *solmu* 'knot'  
*njamočuolmâstâh* < *njamo* (< *njoommâđ*) + *čuolmâ*

but: *henkilö* 'person'      *persovn*

- Calques often (not always) with equivalent derivational affix

*keitin* = *keittää* 'cook' + *-in* (deverbal instrumental nominalizer)

*vuošân* = likewise from *vuoššâđ*

*säilyke* 'canned food' < *säilyä* 'be preserved' + *-ke* (deverbal resultative)

*siäiludâs* 'ibid.' < *siäilud* + *-dâs* (substance nominalizer)

# Nouns: Borrowed allomorphic alternation

- Finnish allomorphic alternation between NOM.SG and most other forms sometimes imported into AS.
    - Relevant derivational affixes: *-in* : *-im(e)-*, *-(i)nen* : *-(i)s(e)-*
    - Allomorphic variation between forms also occurs natively in AS.
    - AS has no inflectional ending in GEN/ACC.SG; either identical to NOM or distinguished by stem allomorph.
      - puttâl* 'bottle', GEN *puttâl*
      - eebir* 'bucket', GEN *iäbbár*
    - In borrowed vocabulary, different allomorph often only before suffixes.
- |     |                   |                             |
|-----|-------------------|-----------------------------|
| NOM | <i>puhelin</i>    | <i>puhelin</i> 'phone'      |
| GEN | <i>puhelimen</i>  | <i>puhelin</i>              |
| ILL | <i>puhelimeen</i> | <i>puhelimân</i>            |
| NOM | <i>kaulin</i>     | <i>kavlin</i> 'rolling pin' |
| GEN | <i>kaulimen</i>   | <i>kavlin</i>               |
| ILL | <i>kaulimeen</i>  | <i>kavlimân</i>             |
| NOM | <i>ltkonen</i>    | <i>ltkonen</i>              |
| GEN | <i>ltkosen</i>    | <i>ltkos</i>                |
| ILL | <i>ltkoseen</i>   | <i>ltkosân</i>              |





# Adjectives

- Strategies vary: either imported like nouns, or with the addition of a native adjectivizer (-*lâš* or -(*i*)*sâš*).

- Often at least two variants for the same word.

*normaali*

*normaal* (~ *normaallâš*)

*neutraali*

*neutraal* ~ *neutraallâš*

*universaali(nen)*

*universaal(lâš)*

*globaali(nen)*

*gloobaal* (~ *globaallâš*)

- Without addition of suffix:

- Seems to be most common with the diamorph -(*a*)*al*.

*aktiivinen*

*aktiivlâš* ~ *aktivlâš*

*negatiivinen*

*negatiivlâš* (~ *negativlâš*)

- Phonologically adapted like nouns.

- With suffix:

*elektroninen*

*elektronisâš* (~ *elektronlâš*)

*arktinen*

*arktisâš*

- -(*i*)*iv* + *lâš*; less often -(*a*)*al* + *lâš*

- Otherwise Finnish -(*i*)*nen* usually substituted with -(*i*)*sâš* (?)

- Added syllable > less need for adaptation of root (as in *globaallâš*)?



# Verbs

- Both Finnish and AS always use a native derivational element with loan verbs.
  - Scandinavian *-er-* (and/or English *-ate* in more recent loans) almost always substituted; rarely imported with the native element (Finnish *-At-*, AS *-isti-*) being added after it.
 

<i>reagera</i>	<i>reagoida</i>	<i>reag<u>istid</u></i>
<i>evakuera</i>	<i>evakuoida</i>	<i>evaku<u>istid</u></i>
<i>neutralisera</i>	<i>neutral(is)oida</i>	<i>neutral<u>istid</u></i>
<i>kritisera</i>	<i>kritisoida</i>	<i>kritis<u>istid</u></i>
<i>fritera</i>	<i>fiteer<u>ata</u></i>	<i>fiter<u>istid</u></i>
<i>sanera</i>	<i>saneer<u>ata</u></i>	<i>saneer<u>istid</u></i>
<i>ratifiera</i>	<i>ratifioida</i>	<i>ratif<u>istid</u> ~ ratifis<u>istid</u></i>
  - Otherwise addition most common.
- Finnish *-Oi-*, AS *-(i)sti-*
  - Usually correlate in loans (but not after *-(e)er-*; see above).
  - Often technical vocabulary
  - *-fi-* > AS *-fi-sti-* or *-f-is-isti-* (from other verbs with *-is-isti-* < Fi *-isOi-*, Eng *-ize*, Gr *-ίζω*)



# Verbs

- Contracted verbs: affix vowel lengthened (due to a lost historical consonant) in some forms.

- Finnish *-At-* (: *-AA-*), AS *-a(a)-*, *-á(á)-*, *-i(i)-*
- Everyday loanwords and slang

- *-i(i)-* maybe slightly preferred in newer loanwords?

- Very little data, needs more research.

*filmata* 'film'

*blogata* 'blog'

*meikata* 'apply makeup'

*veivata* 'crank'

*hinata* 'tow'

*sahata* 'saw'

*meinata* 'mean; be about to'

*filmid̄*

*bloggid̄* (~ *bloggad̄*)

*meikkid̄*

*veivad̄*

*hinnad̄*

*sáhhád̄*

*meinad̄* ~ *miäinád̄*



# Inflection of loanwords in AS

- When a native derivational affix is added (or used as a substitution), the word is inflected as native derivatives with the same affix.
- Consonant-final nouns and adjectives with imported affixes usually inflected as if trisyllabic, regardless of actual syllable count.

NOM	<i>president</i>	<i>puttâl</i>	<i>anarâš</i>
GEN	<i>president</i>	<i>puttâl</i>	<i>anarâš</i>
LOC	<i>presidentist</i>	<i>puttâlist</i>	<i>anarâšâst</i>
ESS	<i>presidentin</i>	<i>puttâlin</i>	<i>anarâššân</i>

- But: *konferens* : *konferensist* (as trisyllabic) ~ *konfereensâst* (tetra-)



# Inflection of loanwords in AS

- Vowel-final borrowings as disyllabics without stem changes.

NOM	<i>kemia</i>	<i>skiijpâ</i>	<i>tullâ</i>
GEN	<i>kemia</i>	<i>skiijpâ</i>	<i>tuulâ</i>
LOC	<i>kemiast</i>	<i>skiijpâst</i>	<i>tuulâst</i>
ESS	<i>kemian</i>	<i>skiijpân</i>	<i>tullân</i>



# Concluding remarks

- A lot of variation in how derived words are borrowed into AS; however, certain patterns seem to be emerging as dominant.
- In internationalisms, the most common form of a borrowed diamorph in AS is one that resembles the Finnish equivalent in vowel length, but without the latter's paragogic final vowel.
  - In disyllabic forms, first-syllable vowel may be lengthened if the word would otherwise violate AS phonotactics.
- New affixes in AS?
  - Productivity difficult to assess due to scarcity of data.
  - Regular diamorphic patterns, influence usage of native affixes.
  - Usage of morphemes productive in Finnish in AS by bilinguals?
  - More research required.



# Takkâ!

<https://github.com/tkoukkar/anaraskiela/>



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