Complex affixes and expletive morphs
The case of circumfixes

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Circumfixes

- A circumfix is a single bound morph whose two parts are separated by the root morph and possibly also by additional morphs" (Zingler 2022:59)
- The parts do not occur independently with a given root.

(1) a. A noble spirit **em**-bigg-**en**-s the smallest man. (The Simpsons, Lisa the Iconoclast)

b. Tagalog (Schachter and Otanes 1983:101)
ka-...-an a class or group of X
bundok 'mountain' **ka**-bunduk-**an** 'mountains'

c. Georgian
da-kal-i sister-woman-NOM 'girlfriend' **sa**-da-kal-**o** 'a group of girlfriends'

Circumfixes

- As a descriptive category, circumfixes are a well-established notion.
- However, "[m]any linguists would argue that all cases of alleged circumfixation can be reduced (or must be reduced) to suffixation and concommittal prefixation," (Spencer 1991:12).
- For specific case studies making this point, see, e.g., Corbin (1987); Marušič (2023) and references there.

Issues with Circumfixes

- Circumfixes violate the expectations re the parallelism between syntax and morphology (Baker's Mirror Principle).
- Specifically, they fail the expectation that the branching direction ought to be consistent, or at least establishable.

Big Question

How are circumfixes derived?

Theoretical Context

- Two metalanguages: Distributed Morphology vs. “traditional” morpheme-based theory
- Distributed Morphology:
  - Underlying syntactic structure with syntactic nodes bearing feature bundles.
  - Vocabulary Items (VIs) that expone the respective features.
  - The linear position of the VIs is calculated from the syntactic structure, modulo some rearrangements.
- “Traditional” Morpheme-Based Theory
  - Morph(eme)s specified as a suffix, prefix, etc., and the features they express

How are circumfixes derived?

(2) A- ... -B

Distributed Morphology	"Traditional Morpheme" Translation
2 separate nodes + idiomatic interpretation Julien (2002)	Suffix & prefix (+ idiomatic interpretation)
Single node undergoing pre-VI Fission Calabrese (2003); Arregi and Nevins (2012); Hewett (2023)	Suffix & Prefix (+ idiomatic interpretation)
Single node undergoing Fission at VI Noyer (1992); Halle and Marantz (1993); Harbour (2016)	Bipartite morpheme
Single node $\leftrightarrow$bipartite VI, Tebay (2025)	Bipartite morpheme

My Proposal: Traditional terms

- Context: A head-final language

(3) a. A- ... -B
b. Georgian
u-maril-o
PRIV-SALT-LS
'saltless'
c. sa-dakal-o
COLL-GIRLFRIEND-LS
'group of girlfriends'

- *-B* is a Light Suffix that licenses a prefix.
- *A-* is the contentful prefix.

My Proposal: DM terms

- **Assumption 1**: Linearization precedes VI (e.g., Arregi and Nevins (2012); Kalin (2022)).
- **Assumption 2**: A VI can be specified as a suffix or a prefix in its subcategorization frame.
- **Proposal:** displacing a VI from its locus of linearization is penalized by grammar.
- If such displacement is needed to satisfy the subcategarization requirements of a given VI, an **expletive exponent** can be inserted in the original linearization locus.
- In particular, if the morpheme is linearized as a suffix but the only matching VI is subcategorized as a prefix, the prefixal VI and the suffixal expletive create a circumfix.
- The evidence comes from Svan (South Caucasian, Georgia).

Disclaimer*: Work in Progress!*

Data

Circumfixes in Svan

- Svan features a large number of ostensibly circumfixal markers, i.e. obligatory co-occurring prefixes and sufixes.
- Moreover, prefixes and suffixes that participate in circumfix formation cannot occur without an accompanying suffix or prefix, respectively.

(4)

a. masdar nominalization
li-tr-**e**
NMLZ-drink-NMLZ
'act of drinking'

b. supine nominalization
la-tr-**a**
NMLZ-drink-NMLZ
'(in order) to drink'

c. ordinal numeral
me:-sm-**e**
ORD-three-ORD
'3rd'

d. attenuative form of an adjective
mə-ʃx-**a**
ATT-black-ATT
'blackish'

Circumfixes in Svan

- Circumfixes are robustly present in Svan inflectional morphology.
- (Almost) any verb has a masdar and a supine nominalization.

(5)

a. masdar nominalization
li-tr-**e**
NMLZ-drink-NMLZ
'act of drinking'

b. supine nominalization
la-tr-**a**
NMLZ-drink-NMLZ
'(in order) to drink'

- The comparative and the superlative degrees of an adjective are normally marked circumfixally.

(6)

	basic	comparative	superlative
'white'	twetne	**xo**-ttwen-**a**	**ma**-ttwen-**e**
'red'	ts'ərni	**xo**-ts'ran-**a**	**ma**-ts'ran-**e**

Circumfixes in Svan

- Circumfixes are robustly present in Svan inflectional morphology.
- Some nouns exhibit circumfixal marking *la-...-a* in the plural.

(7)

Singular	**Plural**	**Gloss**
ʧ’æʃ	la-ʧ’ʃ-a	‘husband’
ʤəmil	la-ʤmil-a	‘brother (for a sister)’
daʧwir	la-dʧur-a	‘sister (for a brother)’
udil	la-wdil-a	‘sister (for a sister)’
tsæl	la-tsl-a	‘peer’

Circumfixes in Svan

- At least in some instances, the prefixal and the suffixal part cannot be reasonably assigned separate functions.
- E.g., the comparative and superlative degree markers differ both in their suffixal and prefixal parts.

(8)

	basic	comparative	superlative
‘white’	twetne	**xo**-ttwen-**a**	**ma**-ttwen-**e**
‘red’	ts’ərni	**xo**-ts’ran-**a**	**ma**-ts’ran-**e**

Distribution of functions between the prefixal and the suffixal part

- However, some of the prefixes that participate in a circumfix are highly specialized.
- For instance, *x*o- is only present in the comparative degree circumfix, and *li*-, only in the masdar circumfix.
- On the other hand, no suffixal part only occurs in a single circumfix.
- Conjecture: It is the prefixal part that bears the functional load in Svan circumfixes.

Circumfixes and Suppletion

- The prefixal part of a circumfix never undergoes suppletion.
- On the other hand, the suffixal part may have suppletive allomorphs.

(9) Masdar nominalization

a. li-tr-**e**
NMLZ-drink-NMLZ

b. li-gwn-**i**
NMLZ-cry-NMLZ

c. li-jmax-**w**
NMLZ-be.enemies-NMLZ

Prefixal and Suffixal Parts of Circumfixes: Inventory

- The attested **prefixal** parts are underlyingly *li-*, *la-*, *le-*, *l-*, *m-*, *me-*, *ma-*, and *xo-*.
- *l(V)-* and *m(V)-* are not decomposable into separate C- and -V- exponents.
- The attested **suffixal** parts are underlyingly *-i*, *-e*, *-w*, and a floating feature [+front] that docks on the last vowel of the base (*cf.* Trommer (2015) on circumfixes whose part is a floating feature).
- The choice of the vowels in the prefixal and suffixal parts of a circumfix is not determined phonologically.

Analysis

Premises

- I adopt the proposal that Linearization precedes Vocabulary Insertion, Arregi and Nevins (2012); Kalin (2022).
- Specific VIs can be displaced to meet their own phonological requirements, see Kalin (2022) and Kalin and Rolle (2024) for an argument in favor of splitting the original concatenation locus of a morpheme and the subcategarization requirements of specific VIs that expone it.
- **Crucial novel ingredient:** Displacement is penalized in grammar and inserting an expletive VI in the initial linearization locus may be required.

Concatenation Stage

- I propose that at this concatenation stage, Svan circumfixes correspond to a single node and are linearized as suffixes, cf. the proposal of Tebay (2025) that the circumfix *ke-...-an* in Indonesian is linearized as a prefix.
- The evidence comes from **the behavior of circumfixes with a phrasal scope** and the fact that **some circumfixes alternate with suffixes**.

Circumfixes with a phrasal scope

- The prefixal part of a circumfix with phrasal scope consistently docks on the final phonological word of the phrase (10-a), (10-b).
- That suggests that it is associated with the right edge of the respective string.

(10) a. xoʃa tsxa
big claw
'big claw'

b. [xoʃa **lə**-tsxæ-**j**] (txe:re)
big PPOSS-claw-PPOSS (wolf)
'big-clawed (wolf)'

c. Cardinal
woxwiʃd-æ:ʃd =i iʃgwid
5-10 =& 7
'57'

b. Ordinal
woxwiʃd-æ:ʃd =i **me**-ʃgwid-**e**
5-10 =& ORD-7-ORD
'57th'

Alternation between a circumfix and a suffix

- Svan adjectives can take the *attenuative* form.
- For color adjectives, it is expressed with the circumfix *m- ... -a*.
- For non-color adjectives, the attenuative circumfix has a purely suffixal allomorph, *-a:ra*.

(11) **mə**-ʃx-**a**
ATT-black-ATT
'blackish'

(12) netsn-**a:ra**
narrow-ATT
'narrowish'

Alternation between a circumfix and a suffix

- The plural circumfix *la-...-a* only occurs in a closed class of nouns, all other plural markers are suffixes.

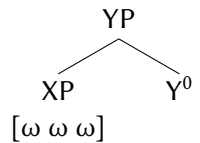
(13)

Marker	Singular	Plural	Gloss
a. Default plural marker -ær/-æl			
-ær	ʒeʁ	ʒeʁ-ær	'dog'
-æl	læjir	læjir-æl	'book'
-ær	p'at'efon	p'at'efon-ær	'wind-up record player' [Rus]
-ær	læʃdra:l	læʃdra:l-ær	'toy'
b. Some non-default plural markers			
-a	məldeʁ	məldʁ-a	'shepherd'
-u	ʁorwæj	ʁorwa-w, ʁorwæj-u	'deceiver'

Sketch of DM Analysis

- I propose that Svan requires the original linearization locus of a morpheme to be filled with some overt phonological material.
- Accordingly, the derivation proceeds as follows.
- Assuming that Vocabulary Insertion and linearization proceed from the bottom of a tree, the structure that needs to be linearized is shown in (14-a).

(14) a.



b. [ω ω ω]-[Y] *linearization*
c. [ω ω ω]-[A-] *VI Insertion*
d. [ω ω A-ω]-[] *Displacement to meet VI's requirements*
e. [ω ω A-ω]-[-E] *Expletive insertion*

Sketch of DM Analysis

- I leave it for further research to find out what determines the choice of the expletive.
- Languages may vary in whether the requirement to fill the linearization locus is operative.
- More precisely, that can be implemented in OT as a ranking of an Ident constraint that penalizes expletive insertion and a faithfulness constraint that requires the initial linearization slot to be filled.

Comparison with Late Fission

- The analysis proposed here is somewhat similar to Late Fission.
- The latter is driven by an incomplete discharge of the features of a given morpheme by the available VI (Noyer (1992) and the subsequent literature).
- The crucial difference is that on my proposal, the expletive insertion is driven not by the non-discharge of some morphosyntactic features but rather by the need to preserve the initial concatenation order, cf. the idea of (Crysmann and Bonami 2016:321) that a morph may expone no features at all.

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Single node $\leftrightarrow$bipartite VI, Tebay (2025)	Bipartite morpheme
Single node $\leftrightarrow$VI; + expletive VI	Contentful morpheme + light morpheme

Conclusion

- I advance a novel proposal about the derivation of circumfixes.
- It is not mutually exclusive with other such analyses – conceivably, different circumfixes have different derivations, possibly even in a single language.
- More generally, the idea that displacement of VIs from the locus of linearization of the respective morpheme is penalized in grammar would explain the relative rarity of infixes or genuine, i.e. underlyingly monomorphemic, circumfixes.

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იუასუ ხარიდ!
Köszönöm szépen!

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