

Principles of Linearization and Subtractive Morphology

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The Framework

- *The Phonology and Morphology of Reduplication*, Raimy (2000)
 - Explicit Precedence links
 - Non-linear Underlying structures
 - Anchor Points, Fitzpatrick (to appear)
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New Application

- Subtractive Morphology



Unforeseen Result

Subtraction bears on nature of linearization

- Completeness (Fitzpatrick) vs.
- Recency (Raimy)



...Principles Guiding Linearization

- **Recency**: The link which has been added more recently is favoured.
 - **Completeness**: The link which leads to material already recorded on the output tape is favoured; or alternatively, several linearizations of the string are produced and the one that spells-out all the nodes and links in a more complete manner is chosen.
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Subtractive Morphology

- Realised through the non-pronunciation of some segments
- Productive morphological process
- Not truncation/ stray erasure



Tohono O'odham Perfective

START → g → o → l → o → n → END

```
graph LR; START --> g; g --> o1[o]; o1 --> l; l --> o2[o]; o2 --> n; n --> END; o2 -.-> n;
```

The diagram illustrates a sequence of characters: START, g, o, l, o, n, and END. Each character is connected to the next by a right-pointing arrow. A curved arrow also connects the second 'o' to the 'n'.



Anchor Points

$\text{ImPrec}(\text{Seg}_f) \gg \text{ImFol}(\text{Seg}_f)$

Data

Imperfective

Perfective

hi:nk

hi:n

‘bark(ed)’

ñeid

ñei

‘see/saw’

ñeok

ñeo

‘speak/spoke’

golon

golo

‘rake’

si:sp

si:s

‘nail’

(Zepeda 1983 : 59-60)

Subtracting Vowel-final Stem

Imp.	Perf.	
ʔi:i	ʔi:	‘drink’
híwa	híw	‘rub against object’
mo:to	mo:t	‘carry on head or in vehicle’

Metathesis

One last apparent problem occurs when a word ends in the sequence $V?V$ where the internal glottal stop is the subtracted segment in the perfective.

Metathesis

Imp.	Perf.	
gíʔa	gía	‘grasp’
húʔa	húa	‘rake together’
múʔa	múa	‘kill (sg obj)’
báʔa	bá:	‘swallow’
síʔi	sí:	‘suck’

START \rightarrow b \rightarrow u \rightarrow k \rightarrow u \rightarrow END

```
graph LR; START --> b; b --> u; u --> k; k --> u; u --> END; u --> b;
```



Tohono O'odham Perfective

START → g → o → l → o → n → END

```
graph LR; START --> g; g --> o1[o]; o1 --> l; l --> o2[o]; o2 --> n; n --> END; o2 -.-> END;
```

The diagram illustrates a sequence of steps: START, followed by the letter 'g', then 'o', 'l', 'o', 'n', and finally END. Each step is connected to the next by a right-pointing arrow. A curved arrow also originates from the second 'o' and points to the 'END' label.



Recency (Non-stem) vs. Completeness

- In most cases, both principles yield correct output form
- For subtraction, only recency works
- Therefore, completeness can be rejected



Conclusion

A slight extension to a new empirical domain (subtraction) allows us to choose between what appeared thus far to be two extensionally equivalent linearization principles: Recency succeeds where completeness fails.
