

## Morphological Structure of Loanwords

Loanwords often exhibit non-native structures. Some of these structures are replaced by the corresponding native ones only in morphologically integrated loanwords, both diachronically and synchronically (Bloomfield 1933; LaCharité & Paradis 2005). This paper provides evidence that the foreign structures may differ in what kind of morphologically complex words they appear. Some structures are possible in prefixed, but not suffixed, words. Other structures are possible in inflected, but not derived, words. I attribute these distinctions to a single class of OT constraints.

Morphology can affect the distribution of foreign sounds. For example, some speakers of Dutch can pronounce bare English roots with [ɪ], which is replaced by the native rhotic [R] in suffixed words (1).

(1) Dutch: ɪ ~ R			
Op[ɪ]ah	Op[R]ah-tje	*Op[ɪ]ah-tje	‘DIM’
Ba[ɪ]ack	Ba[R]ack-se	*Ba[ɪ]ack-se	‘ADJ’
[ɪ]ex	[R]ex-en	*[ɪ]ex-en	‘INF’
Flo[ɪ]ida	Flo[R]ida-tje	*Flo[ɪ]ida-tje	‘DIM’

One standard solution to the Dutch pattern are cophonologies. Roots have the foreign cophonology (allowing ɪ), whereas suffixes have the native cophonology (no onset ɪ). The native cophonology applies to all suffixed words (Inkelas & Zoll 2007). This solution is problematic, because not all affixes have the same effect. In Dutch, only derivational suffixes trigger nativization (1), but not inflectional suffixes (e.g. Op[ɪ]ah’s ‘PL’) or prefixes (hoofd-op[ɪ]ah ‘main O.’). Furthermore, other languages behave differently. For example, Tagalog replaces the foreign [f] in bare roots with [p] in any affixed word (2). Canadian English allows the French [R] in words with prefixes, but not in words with infixes, derivational or inflectional suffixes (3).

(2)	Foreign structure allowed?			
	PREFIX	SUFFIX	INFIX	LANGUAGE
I	✗	✗		Slovenian
II	✗	✗	✗	Tagalog
III	✓	✗		Dutch
IV	✓	✗	✗	English

(3)	Foreign structure allowed?		
	DERIV	INFLECT	LANGUAGES
I	✗	✗	English, Ukrainian
II	✗	✓	Dutch, Catalan

To capture these typological differences, I instead propose a single OT constraint. The idea is that the foreign structure is limited to the morpheme at the edge of a domain. For example, Dutch allows [ɪ] as long as it appears in the rightmost morpheme within the stem (as it is the case in bare root forms, prefixed and inflected forms). Derivational suffixes trigger nativization, because the root is no longer aligned with the stem edge. In OT, these effects can be achieved with alignment constraints (McCarthy & Prince 1993). Here, I use a more recent version proposed by Hyde (to appear) and Jurgec (2011). To illustrate, consider the constraint active in Dutch: \*stem[ɪ, affix] (4). This constraint is violated by triplets ⟨stem, ɪ, affix⟩, when [ɪ] precedes the affix, within the stem.

(4) \*stem[ɪ, affix]  
 \*⟨st, ɪ, affix⟩ /

$$\begin{array}{c} \text{st} \\ \swarrow \searrow \\ \text{ɪ} \quad \text{afx} \end{array}$$

(5)	/flɔ.ɪda-tʰə <sub>st</sub> -s/	DEPLINK	*st[ɪ,afx]	MAXLINK
a.	flɔ.ɪda-tʰə <sub>st</sub> -s		⟨st, ɪ, tʰə⟩!	
b.	flɔ.ɪda-tʰə <sub>st</sub> -s			*

The constraint in (4) can capture Dutch if faithfulness prefers the mapping ɪ → R rather than spreading or deletion. Bare roots surface with [ɪ], since alignment is not violated, but derivational suffixes trigger nativization to [R] (5). Crucially, inflected and prefixed words pattern with bare roots, since these configurations satisfy alignment. Alignment can be furthermore extended to capture other languages. When the precedence relations are reversed, prefixes trigger nativization, as in Tagalog. When alignment refers to words rather than stems, inflectional affixes also have an effect, as in English.

This paper provides the first cross-linguistic study of how the morphological structure affects loanwords. The effects are attributed to alignment constraints that refer to morphological domains.