Mix and match: why phonology matches syntax but not morphology in intraword codeswitching

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Morphemes can switch within a single word, why can't phonology?

Intraword Codeswitching

Morphemes from more than one language can occur within a single word (Stefanich et al. (2019):

Voy a *hang*ear con mis amigos
'I'm going to hang with my friends.'

Roots and Affixes

The affixes come only from the language which generates the syntactic tree (Alexiadou & Lohndal, 2018) while the root can be taken from either language.

Voy a [hang] - ear con mis amigos

ICS cannot occur between a derivational morpheme and an inflectional morpheme (López et al., 2017) in the form below ('angered').

√cabre]$_{Spanish}$ ier$_{German}$]$_V$ t$_{[participle]German}$]$_V$

The *phonology* does not switch within such a morphologically mixed word.

The above example has German 'r's (even in the Spanish root *cabre*.

Production and acceptability judgement data (Stefanich, 2019, and Stefanich and Cabrelli Amaro, 2018) demonstrate that an English root [mɪp] with Spanish affixes would be pronounced with Spanish phonology.

Mipeando [i] not [I]

The language of the affix determines the phonology of the whole word. The phonological word is the domain for phonological uniformity.

This uniformity of word and phrase (with respect to codeswitching) is consistent with, and hence further support for a single-engine distributed morphology analysis of ICS (Alexiadou et al. 2015).

A Lexicalist Account

MacSwan & Colina (2014): *PF Interface Condition* assumes that morphology and phonology should come from the same language; phonemes are in the lexicon.
PF takes the syntactic word as the unit of analysis.
A word is sent to PF$_A$ or PF$_B$; can't be sent to both.

A lexicalist model can account for why there is one phonology but not why it should be the phonology of the affix.

"The phonological word
is the domain of phonological uniformity for intraword morphological codeswitching…."

X^0 Spanish ⟹ ω Spanish
*X^0 Spanish ⟹ ω German

A Non-Lexicalist Account

Bilinguals have a single vocabulary list (Halle & Marantz, 1994) containing the roots of both languages (Dijkstra et al. 1999, López, 2020).
Interlingual homographs can facilitate activation, interlingual homophones can inhibit it.

Phases

López, Alexiadou & Veenstra (2017) argue in the Block Transfer Hypothesis (BTH) that "material that is transferred to the interfaces is sent in one fell swoop."

Codeswitching may take place at *phase boundaries* but not within the phase.

The derivational morpheme head is the head of a phase, and the head of the phase determines the grammatical properties of the phase.

Phonology Penetrates Phases

Newell (2017) argues against the Phase Impenetrability Condition (PIC) for phonology.

Infixing

Following Newell & Piggott (2014), *fantastic* is a phase (Chomsky, 2001). The stress-shifting affix *–ic* must be interpreted in the same phase as the root it attaches to in order to shift the stress.

fántasy -> fan-fucking-**tá**stic

Previously spelled-out domains remain accessible for phonological operations.
Phonological operations can violate the PIC.
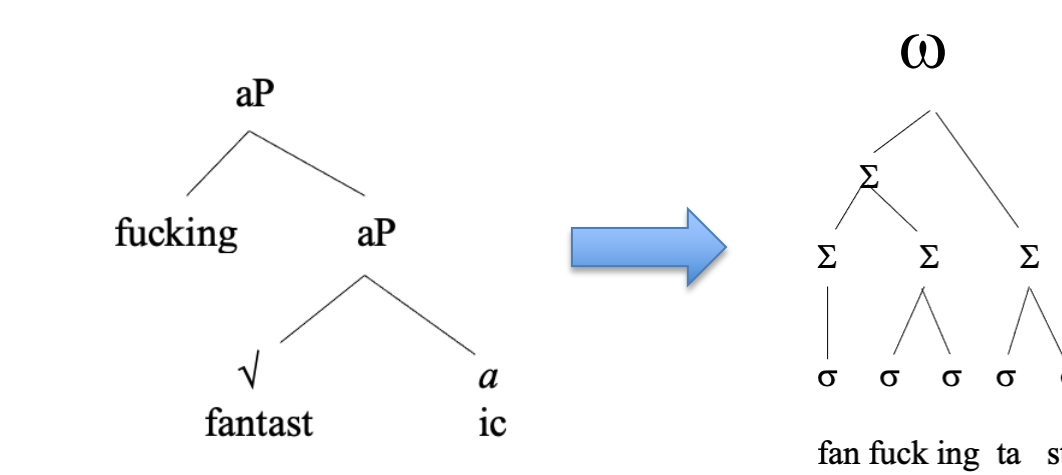
Phases don't limit phonological switching.

It's Not Switching *Cost*

Language switching in bimodal (ASL/English) bilinguals show that 'in the absence of motor constraints, producing two languages simultaneously is not necessarily more cognitively costly than producing one." Blanco-Elorrieta et al. (2018: 9708)

It's Comprehensible

Phonological uniformity does not arise from seeking to meet the needs of the listener (Reinisch & Weber (2012); Munro & Derwing (1995) ; Gwilliams et al. (2018); listeners can adapt.

Match Theory

The mechanism which ensures that the *phonology* of the X^0 matches the language of the affixes is Match Theory (Selkirk, 2011).

XP ⟹ Φ
X^0 ⟹ ω
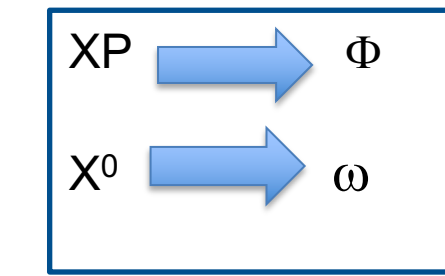
The preferential mapping is between (a) syntactic phrases (XPs) and phonological phrases (Φ), and (b) syntactic heads (X^0s) and prosodic words (ω).

Language Tags

Match Theory's (monolingual) assumption that syntactic and phonological structure are isomorphic can easily be extended to bilinguals through language tags (Green & Abutalebi,2013; Archibald & Libben, 2019).

The phonological spell out must match the language which triggers the generation of the syntactic structure. No special architecture is required (Libben, 2000).

X^0 Spanish ⟹ ω Spanish
*X^0 Spanish ⟹ ω German

The language of the syntactic frame is the one which generates the language of the affixes, and Selkirk's (2011) Match Theory dictates that the phonological word match the language of the X^0, then it follows from Blanco-Elorrietta et al. (2021) that it would be costly to disengage this language and switch to the phonology of the root.

Phonology & Infixing

No quiero vivir en [Van-fucking-couver], *quiero vivir en Madrid*.

[ban-fucking –couber] or [van-fucking-couver]

No internal switching; but *either* language

There is no affix to trigger Spanish phonology so English phonology is also allowed. Infixing is governed by prosodic circumscription not affixation.

Conclusion

Phonological uniformity is found in both affixed and infixed words because X^0 Spanish ⟹ ω Spanish

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