

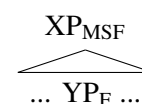
Anti-pied-piping

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We discuss the existence and distribution of *anti-pied-piping* effects, where focus morphosyntax targets a *proper subpart* of the logically focus, and its consequences for theories of focus and modularity.

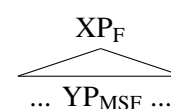
Background on pied-piping Languages may target focused constituents — the minimal constituent which focus alternatives vary over, marked “F” below for notational convenience — for focus particle placement or focus-movement. In the simplest case, the focused constituent itself is targeted, but mismatches exist. Much attention has been paid to *pied-piping* (1), where a constituent that properly contains the focused (or *wh*) constituent is morpho-syntactically treated as focused (or *wh*); marked “MSF.” Prominent theories of pied-piping include upwards feature percolation (Chomsky 1973), or merger of a (Q-)particle in a position that c-commands the focus/*wh* (Cable 2007; Horvath 2007), to morphosyntactically mark a containing phrase as MSF.

(1) Pied-piping:



Introducing anti-pied-piping In contrast, little attention has been paid to *anti-pied-piping* (2), where a proper subpart of the logically focused constituent is treated by the morphosyntax as focused, either for focus particle placement or for focus movement. The prominent approaches to pied-piping, above, do not naturally extend to mismatches of the anti-pied-piping type.

(2) Anti-pied-piping:



Anti-pied-piping in focus particle placement By way of example, consider the placement of the particle *du* in the Miyara Yaeyaman (Japonic > Ryukyuan; SOV) examples (3–4) from Davis 2013. Davis shows that *du* appears on the focus in answers to argument *wh*-questions, as in (3) for question (3a) and (4) for (4a). But Davis additionally shows that (3) is an appropriate answer to a broad focus question such as *What happened?* (3b) and (4) can express VP focus in response to *What did that woman do?* (4b).

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|---|---|
| <p>(3) [Hajasi-san]_{MSF}=du ziroo=ba bari.
Hayashi-san=DU Jiro=BA hit
'Hayashi-san hit Jiro.'</p> | <p>Appropriate preceding questions:
a. Who hit Jiro? F = subj
b. What happened? F = TP</p> |
| <p>(4) Kunu midun-pïto=o [izi=ba]_{MSF}=du fai.
this female-person=TOP fish=BA=DU ate
'This woman ate fish.'</p> | <p>Appropriate preceding questions:
a. What did that woman eat? F = obj
b. What did that woman do? F = VP</p> |

Cases similar to this—in which a focus particle hosted on an object, but with VP focus — are also reported in Ryukyuan, as well as for Japanese, Telugu, and Turkish (Kotani 2008), and Imbabura Quechua (Kwon 2013), which are all SOV. Dawson 2017 reports similar facts within the verbal complex of Tiwa (Tibeto-Burman).

The mismatch between the logical focus (VP or, for broad focus, *vP* or TP) and focus particle position in these cases could be accounted for by *post-syntactic displacement*, as suggested by Dawson 2017; see also Davis 2013 endnote 13. That is, these particles cannot or prefer not to be hosted by a verbal/clausal projection and therefore in such cases appear on a non-verbal subpart of the focus through a post-syntactic/PF process, as has been proposed for other second-position/Wackernagel clitics; see e.g. Kaufman 2010. Such a purely post-syntactic, PF treatment — if successful — could be a satisfactory resolution of the anti-pied-piping mismatch problem in (2).

Anti-pied-piping in focus movement Anti-pied-piping is however not limited to focus particle placement. Consider the Yoruba (SVO) ex-situ focus example in (5) from Manfredi 2004. Manfredi gives two translations: One reflecting narrow object focus and another reflecting VP focus, although in either case only the object is fronted.

- (5) [Èmù]_{MSF} ni Àràbá rà ____.
palmwine NI Araba buy
- | | |
|--|----------------|
| <p>a. 'What Araba bought was palmwine (not beer).'</p> | <p>F = obj</p> |
| <p>b. 'What Araba did was buy palmwine (not sell beer).'</p> | <p>F = VP</p> |

The existence of focus movement with anti-pied-piping shows that anti-pied-piping effects *cannot* simply be reduced to a process such as post-syntactic Wackernagel clitic placement, as suggested above.

The left edge requirement In cases of anti-pied-piping, we can also ask which subpart of the logically focused constituent is chosen to be morphosyntactically treated as focus (MSF). In doing so, we observe a curious preference: In many cases, the MSF must be the *leftmost* constituent within the logically focused constituent. This is explicitly reported for German in Fanselow and Lenertová 2011: 179. In response to the question *What did he do?*, the VP focus answer can involve the ditransitive idiom in-situ in (6a) or with the direct object fronted in (6b), but not with the indirect object fronted as in (6c).

- (6) a. Er hat [die FLinte ins KORN geworfen]_F. ‘He has [given up]_F.’
 he has the gun into-the grain thrown (lit. threw the gun into the grain)
- b. [Die FLinte]_{MSF} hat er [___ ins KORN geworfen]_F.
- c. # [Ins KORN]_{MSF} hat er [die FLinte ___ geworfen]_F.

The puzzle and proposal The anti-pied-piping facts from focus particle placement and focus movement above — to our knowledge, never before considered together — have taught us the following:

- (i) The choice of MSF not only affects focus particle placement but can also *feed syntactic movement*.
 (ii) The left edge requirement in some languages, observed above, suggests that the choice of MSF requires access to *linearized structures* (and their prosodic representations).

Taken together, (i) and (ii) appear at first glance to be irreconcilable: Anti-pied-piping relies on post-syntactic information but also feeds syntax. (See especially Fanselow and Lenertová 2011 for arguments that German focus fronting with anti-pied-piping is not post-syntactic.)

We resolve this tension by proposing that anti-pied-piping is uniformly due to particle placement during cyclic Spell-Out (Uriagereka 1999; Chomsky 2000, 2001), where “chunks” of the syntactic structure (phases) are linearized (Fox and Pesetsky 2005) and prosodified. Particles — both overt focus particles and unpronounced Cablerian Q-particles which are goals for movement — may be then adjoined to the focused constituent, a properly containing constituent (pied-piping), or a proper subpart of the focused constituent (anti-pied-piping), depending on language-specific restrictions on particle placement. In many languages, these particles must be second position enclitics within the focus, leading to the leftmost effects observed. We follow Kaufman 2010 in taking second position clitic placement to be able to reference both syntactic structure and linearization and prosodic information.

Focus particle phrases built during cyclic Spell-Out of a lower phase (such as vP) can then be targeted by a higher movement probe, unifying anti-pied-piping in focus particle placement and focus movement.

Evidence for this cyclic approach comes from data such as the Japanese (7) from Kotani 2008: 188. Japanese *sae* ‘even’ on an object allows for a VP focus reading (in addition to an object focus reading, not shown here). Kotani shows that this is true even if the object is then scrambled above the subject:

- (7) [UTA]_{MSF-sae_i} ano kin-medarisuto-wa [____i dashi]_{F-ta}.
 song-even that gold-medalist-TOP release-PAST
 ‘That gold-medalist even [released a song]_F (in addition to being on TV).’ F = VP

(7) shows that the placement of *sae* cannot simply target the leftmost part of the focus (VP) after the whole sentence is built; instead, *sae* is placed during Spell-Out of the lower phase, followed by scrambling.

Selected references Cable 2007 *The grammar of Q* • Chomsky 1973 “Conditions on transformations” • Davis 2013 “Surface position and focus domain of the Ryukyuan focus particle *du*,” *International Journal of Okinawan Studies* 4 • Dawson 2017 “Optimal clitic placement in Tiwa,” *NELS* 47 • Fanselow & Lenertová 2011 “Left peripheral focus: Mismatches between syntax and information structure,” *NLLT* 29 • Fox & Pesetsky 2005 “Cyclic linearization of syntactic structure,” *Theoretical Linguistics* 31 • Horvath 2007 “Separating focus movement from focus” • Kaufman 2010 *The morphosyntax of Tagalog clitics* • Kotani 2008 “A mismatch between position and interpretation: Focus association with *even* in Japanese” • Manfredi 2004 “The prosodic infrastructure of focus in Benue-Kwa”