

Overview

I address a puzzle surrounding the distribution of overt and null case endings and case-like prepositions (e.g. English *of*, *to*) [henceforth referred to as K heads] on the complements of spatial prepositions. I present novel data from Kannada, Spanish, and English that motivate the following constraint:

Constraint on null K: (i) When a KP [e.g. *of the house* in *inside (of) the house*] is immediately dominated by and adjacent to the Place° head [(Svenonius 2010) that selects for it [e.g. *inside*], null K may be permitted. (ii) Non-adjacency of Place° and KP makes K-deletion impossible.

I show that this constraint can be derived from two PF well-formedness conditions: (i) Richards' (2016) Selectional Contiguity, and (ii) An (2007)'s Intonational Phrase Edge Generalization (IPEG).

Core null K data

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|---|---------------------|
| (1) Kannada (Dravidian) [Data come from two Kannada speakers from Bangalore] | |
| a. Niivu [<i>PlaceP</i> [<i>KP</i> mane-(alli) _{K°}] oLagaDe _{Place°}] iddira.
you [<i>PlaceP</i> [<i>KP</i> house-(LOC) _{K°}] <i>inside</i> _{Place°}] are. | <i>OK adjacent</i> |
| b. Niivu mane*(- alli) _{K°} eshtu oLagaDe _{Place°} iddira?
You house*(-LOC) _{K°} how <i>inside</i> _{Place°} are
"How far inside the house are you?" | <i>*nonadjacent</i> |
| (2) Tamil , Dravidian (Sandhya Sundaresan, p.c.) | |
| a. Nii [<i>PlaceP</i> [<i>KP</i> kaar-(ukku) _{K°}] pakkattule _{Place°}] irukkai.
you [<i>PlaceP</i> [<i>KP</i> car-(DAT) _{K°}] <i>near</i> _{Place°}] are.
"You are near (to) the car." | <i>OK adjacent</i> |
| b. Nii kaar*(- ukku) _{K°} evvaLavuvu pakkattule _{Place°} irukkai?
You car*(-DAT) _{K°} how <i>near</i> _{Place°} are
"How near are you to the car?" | <i>*nonadjacent</i> |
| (3) Italian , Romance (Stanislao Zoppi, p.c. & Roberta D'Alessandro, p.c.) | |
| a. I ladri furono [<i>PlaceP</i> dentro _{Place°} [<i>KP</i> (al) _{K°} la stanza]].
The thieves went [<i>PlaceP</i> <i>inside</i> [<i>KP</i> (to) _{K°} -the store]].
"The thieves went inside the store." | <i>OK adjacent</i> |
| b. Dentro _{Place°} che furono *(al) _{K°} la stanza, i ladri furono arrestati.
<i>inside</i> that went *(to)-the store, the thieves were arrested
"Once they went inside the store, the thieves were arrested." | <i>*nonadjacent</i> |
| (4) Spanish (Romance) [Data come from two Peninsular Spanish speakers] | |
| a. Está [<i>PlaceP</i> cerca _{Place°} [<i>KP</i> (de) _{K°} la mesa]].
is [<i>PlaceP</i> <i>near</i> _{Place°} [<i>KP</i> of _{K°} the table
"It is near the table." | <i>OK adjacent</i> |
| b. ¿Cómo de cerca _{Place°} está *(de) _{K°} la mesa?
how of near is (of) the table
"How near the table is it?" | <i>*nonadjacent</i> |
| (5) English outside [Author's judgments] | |
| a. I'm outside (of) my comfort zone. | <i>OK adjacent</i> |
| b. How far outside are you *(of) your comfort zone? | <i>*nonadjacent</i> |
| (6) English near [Author's judgments] | |
| a. I live <i>near</i> _{Place} [<i>KP</i> (to) _K the store]. | <i>OK adjacent</i> |
| b. As <i>near</i> _{Place} as I live *(to) _K the store, I hardly go. | <i>*nonadjacent</i> |

Background: The IPEG

- Intonational Phrase Edge Generalization [IPEG]: CPs that obligatorily map to I-Phrases at PF (e.g. extraposed CPs, CPs following a gap, and CPs in other noncanonical positions) need something overt in their edge (= head & specifier) or else the edge of CP will be fatally misaligned with the (intonational)-Phrase it maps to at PF. [An (2007)]
- Null C at the edge of an extraposed CP [*CP* \emptyset_C *the earth is flat*] is ruled out:
 - *I believe [*CP* \emptyset *the earth is round*] and Bill believes [*CP* \emptyset (*I-Phrase* *the earth is flat*)].
- Problem:** Many of the nonadjacent null K data do not obviously KPs in noncanonical positions, unlike An's CP cases
- For C, nonadjacency alone isn't enough to force spellout; compare (8–9):
 - How obvious is it [*CP* (that)_{C°} *the teacher is lying*]?
 - How *near*_{Place°} are you [*KP* *(to)_{K°} *the store*]?
- Solution:** Use McFadden & Sundaresan (2018)'s extension of the IPEG.
- M&S18: Being dislocated is only one route to I-Phrase-hood at PF.
- M&S18: TP is the **spellout domain** of C, so it maps by default to an I-Phrase at PF.
 - > TP may be subject to the IPEG.
- M&S18: English TPs need overt subjects to avoid a PF/syntax mismatch under the IPEG that would arise in a configuration like (10).
 - *[*TP* *pro* (*I-Phrase* *am happy*)].
- M&S18's logic suggests any spellout domain could be subject to IPEG
- I assume following Bošković (2013), Griffiths et al. (2021) a.o. that, as the highest projection in the spatial PP domain, Place° heads like *inside* are phase heads.
 - (More diagnostics for phasehood in full paper on danielgreeson.com)
- > KP is the spellout domain of Place°
- > KP maps to a (intonational)-Phrase at PF and is subject to the IPEG.

Phonological evidence: Iambic reversal (IR)

- IR alters one word's stress pattern due to the stress pattern of an adjacent word
- It does not apply across an I-Phrase boundary:
 - 'fifteen' [fɪf.'tɪn] (*Underlying stress pattern of 'fifteen'*)
 - iambic reversal:** [_{NP} fifteen soldiers] (,fɪf.tɪn.'sɒl.dʒərz)
 - No iambic reversal:** (,lWhen I was [fɪf.'tɪn]) (,l['sɒl.dʒərz] came to my house.)
- Bisyllabic Place heads may undergo iambic reversal when they form part of a single NP:
 - 'inside portion' (,ɪn'saɪd 'pɔːrʃən) **OR** (,ɪnsaɪd 'pɔːrʃən)
 - 'outside portion' (,aʊt'saɪd 'pɔːrʃən) **OR** (,aʊtsaɪd 'pɔːrʃən)
- However, when they are followed by KP, IR is impossible:
 - I love to go for walk {outside/inside cástles / *óutside/inside cástles}.
- This suggests that there is indeed a prosodic boundary when stress assignment takes place.
- Warning: Undergeneration!** If there is always a prosodic boundary before KP, then KP should *always* be subject to the IPEG, but this is clearly too strong.
- We can address this with phonological restructuring (Nespor & Vogel 1986): at some point after stress assignment (see López 2010 for arguments that this happens very early in English), the I-Phrase containing KP is parsed into the rest of the clause as one big I-Phrase:
 - (*I-Phrase* I live *near*_{Place} (*I-Phrase* [*KP* (to)_K the store]))
 - (*I-Phrase* I live *near*_{Place} [*KP* (to)_K the store])

Addressing overgeneration: Selectional contiguity

The overgeneration problem

- We need prosodic restructuring to allow for things like *near (to) the store*
- But how do we avoid overgenerating **How near are you the store?* with prosodic restructuring?

Enter Richards (2016)

- If a head X selects a head Y, X and Y must be linearly adjacent.
- Crucially, Richards takes Selectional Contiguity to apply within a single prosodic domain at PF.
- If X and Y occupy distinct prosodic domains at, Contiguity does not apply.
- Consider how this works for cases where Place° and KP (bolded) are non-adjacent:
 - (21) Attempted restructuring (a -> b)
 - *(*I-Phrase* As **near** near as I live (*I-Phrase* [*KP* \emptyset_K **the store**]))
 - *(*I-Phrase* As **near** as I live [*KP* \emptyset_K **the store**])
 - In (21a), KP corresponds to a P-Phrase and is subject to the IPEG, so the string is illicit because of a null KP edge.
 - In (21b), KP is not subject to the IPEG, but Place° and KP now occupy the same single prosodic domain, and Contiguity is violated due to their non-adjacency within this domain.

Interim recap

The dual application of the IPEG and Contiguity thus renders null K illicit whenever KP is non-adjacent to its selecting head.

Discussion

- What constrains the distribution of K heads is not the syntax proper, but rather whether a derivation with null-headed KP maps to a well-formed prosodic constituent at PF w.r.t. the IPEG and Selectional Contiguity.
- The deep motivation for such well-formedness conditions may be attributable to both phonological and 'third factor' considerations
 - E.g., it is well established that children rely on prosodic structure early on in language development to make inferences about syntactic structure (e.g. Christophe et al. 2003). It so significant syntax-PF misalignment is a disfavored outcome of language development.
- The IPEG might be fruitfully extended to other domains like vP:
 - *(_I endorse wholeheartedly (_K the choices they've made)).
 - (_I approve wholeheartedly (_K the choices they've made)).
- The IPEG could also bear on theories of morphosyntax; for example, IPEG appears to treat different affixes differently w.r.t. interrupting adjacency in Spanish:
 - Estoy cerquita (de) la plaza.
am near-DIM of the store
"I'm near the store." (diminutivization)
 - Estoy cerquísima *(de) la plaza.
am near-DEG of the store
"I'm extremely near the store." (degree inflection)

Selected references [full bibliography + additional data on danielgreeson.com]

An, D. H. (2007). Clauses in noncanonical positions at the syntax-phonology interface. *Syntax*. López, L. (2010). Givenness and discourse anaphors. *Comparative and Contrastive Studies of Information Structure*. McFadden, T., Sundaresan, S. (2018). What the EPP and comp-trace effects have in common: Constraining silent elements at the edge. *Glossa*. Richards, N. (2016). *Contiguity Theory* (Vol. 73). MIT Press.