

Contrasting contrastive-topicalization strategies¹

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ABSTRACT: This paper offers a comparison and preliminary analysis of ‘topicalization’ strategies in German, Basque, and English. I argue that Basque and English topics at the left periphery are dislocated elements resumed by pronominal correlates, a configuration more directly evidenced in German. I propose an analysis of left-peripheral topics in Basque and English that capitalizes on parallels with left-dislocated XPs in German. Despite superficial differences, left-dislocation configurations in the three languages can be distinguished from inversion constructions and are united in their contrastive character. I argue that dislocated XPs are parenthetical sentence fragments, building on analogous proposals for German and other languages. The analysis is shown to be flexible enough to account for relevant surface differences between the languages while also providing a principled explanation for the contrastive import of left-peripheral topics.

KEYWORDS: Dislocation; syntax; ellipsis; pragmatics; question under discussion.

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1. Introduction

This paper offers a comparison and preliminary analysis of ‘topicalization’ strategies in German, Basque, and English. I will argue that Basque and English topics at the left sentential periphery are dislocated elements resumed by discourse-anaphoric pronominal correlates, a configuration more directly evidenced in German, where it can be contrasted with a *bona fide* gap strategy.

Chomsky (1977) analyzed topicalization in English as involving adjunction of the topicalized phrase to the sentence as a whole and concomitant null-operator movement.²

- (1) this book, I really like
- (2) [_S this book [_S OP_i [I really like *t_i*]]]

Chomsky’s principal motivation for situating the topicalized XP clause-externally was its intuitive resemblance to “as for XP” expressions. The analysis contrasts with that of *wh*-movement, in which the (overt) operator is directly associated with the corresponding gap and subject-verb inversion applies:

- (3) which book do you like?
- (4) [_S which book_{*i*} [do you like *t_i*]]

While in English the inversion strategy is confined to *wh*-questions and a few other ‘residual V2’ constructions, in Basque it is used in questions as well as narrow-focus constructions; in German, a V2 language, it applies in main clauses generally.

I suggest in this paper that a version of Chomsky’s analysis is correct for left-peripheral topics in Basque and English, which correspond to left-dislocated XPs in German. Despite superficial differences, the left-dislocation configurations in the three languages can be clearly distinguished from inversion constructions and are united in their contrastive pragmatic character. German (section 2) resorts to either inversion or left-dislocation to mark contrastive topics, while Basque (section 3) and English (section 4) rely specifically on the latter strategy for this purpose.

I will argue that dislocated XPs are properly analyzed as parenthetical sentence fragments, building on analogous proposals for left-dislocated XPs in German and other languages elsewhere (Ott 2014, 2015; Fernández-Sánchez & Ott 2020). This analysis is shown to be flexible enough to account for relevant surface differences between the languages while also providing a principled explanation for the contrastive pragmatic import of left-peripheral topics (section 5).

2. Inversion vs. dislocation in German

German has two distinct ‘topicalization’ strategies. As a V2 language, it permits XPs of any category to undergo unbounded A-bar movement to the edge of (root) CP, leaving a gap and triggering finite-V raising (inversion):

² S’ corresponds roughly to modern-day CP, while S’’ marks an extra-sentential position.

- (5) meiner Schwester habe ich – ein Buch geschenkt
 my.DAT sister have I a.ACC book given
 ‘I gave a book to my sister’

While inversion with non-*wh* operators as in (5) is sometimes referred to as ‘topicalization,’ the fronted category need not be topical in any strict sense of this (vague) term (Büring 1997).

In the second major fronting strategy, ‘(contrastive) left-dislocation’, the **fronted category** is associated with a *correlative pro-form* (typically, a ‘d-pronoun’) rather than a gap, and inversion/V2 is not permitted:

- (6) meiner Schwester, (*der*) habe (**der*) ich – ein Buch
 geschenkt
 my.DAT sister her.DAT have I a.ACC book
 given
 ‘I gave a book to my sister’

In the general case, dislocation effects an interpretation of the fronted XP as a contrastive topic: it implies the existence of contextually relevant alternatives to the denotation of the dislocated element (so that a natural continuation of (6) would be ...*and to my brother, I gave a bike*). Unlike other types of ‘topic’, *contrastive* topics are really *delimiting* expressions (Krifka 2008); as a result, they need not be nominal but can be of any major category.

Dislocation and inversion can co-occur, in which case the dislocated element precedes the fronted XP associated with a gap (cf. Rizzi 1997):

- (7) meiner Schwester, wann hast du *der* – ein
 my.DAT sister when have you her.DAT a.ACC
 Buch geschenkt?
 book given
 ‘When did you give a book to my sister?’
- (8) *wann, meiner Schwester, hast du *der* – ein
 when my.DAT sister have you her.DAT a.ACC
 Buch geschenkt?
 book given

Dislocation and fronting-*cum*-inversion have a number of properties in common. Both can front an XP of any major category; both are unbounded but sensitive to islands; and both show reconstruction effects, e.g. for case and binding.³

- (9) island-sensitivity
 a. *meiner Schwester war ich da als Peter –
 my.DAT sister was I there when Peter
 ein Buch geschenkt hat
 a book given has
 intended: ‘I was there when Peter gave a book to my sister’

³ So-called *hanging topics* share none of these properties; see Fernández-Sánchez & Ott (2020).

- b. ***meiner** Schwester, *der* war ich da als Peter _
 my.DAT sister her.D was I there when Peter _
 ein Buch geschenkt hat
 a book given has
 intended: 'I was there when Peter gave a book to my sister'
- c. ??**meiner** Schwester, wer war da als Peter *der*
 my.DAT sister who was there when Peter her.D
 ein Buch geschenkt hat?
 a book given has
 intended: 'Who left when Peter gave a book to my sister?'

(10) binding connectivity

- a. **seiner_i** Schwester hat jeder Mann_i _ ein Buch geschenkt
 his.DAT sister has every man a book given
 'Every man gave a book to his sister'
- b. **seiner_i** Schwester, *der* hat jeder Mann_i _ ein
 his.DAT sister her.D has every man a
 Buch geschenkt
 book given
 'Every man gave a book to his sister'

(We are for the moment abstracting away from the details of the filler-gap dependency involved, to which we turn presently.)

These commonalities, however, should not distract from a number of major differences between the two configurations, which militate decisively against reducing dislocation to A-bar movement. Inversion is a gap strategy and triggers verb raising/V2; dislocation shares neither property. Dislocated elements are prosodically separated from the remainder of the sentence; no such 'comma intonation' is a natural choice for initial XPs in inversion.

Furthermore, bare quantifiers readily undergo A-bar movement but resist dislocation:

(11) bare quantifiers: inversion vs. dislocation

- a. niemand ist _ gekommen
 no.one is arrived
 'No one arrived'
- b. #**niemand**, *der* ist _ gekommen
 no.one he is arrived
 intended: 'No one arrived'
- c. alles habe ich _ gekauft
 all have I bought
 'I bought everything'
- d. #**alles**, *das* habe ich _ gekauft
 all that have I bought
 intended: 'I bought everything'

And while remnant categories participate in the inversion strategy, they fail to be dislocated:

- (12) remnant XPs: inversion vs. dislocation
- a. [seiner Schwester t_i geschenkt] hat er [ein Buch]_i –
his.DAT sister given has he a.ACC book
‘He gave a book to his sister’
 - b. *[seiner Schwester t_i geschenkt], das hat er [ein Buch]_i –
his.DAT sister given that has he a.ACC book

These asymmetries between inversion and dislocation strongly suggest that inversion and dislocation involve rather different structural configurations.

The asymmetries can be captured as follows (Ott 2014, 2015). Inversion is plain A-bar movement to SPEC-C (an instance of Internal MERGE in the framework of Chomsky *et al.* 2019), which—for reasons that remain obscure—requires concomitant raising of the finite verb. A dislocated XP, on the other hand, is an extra-sentential parenthetical element, more specifically an *anticipatory fragment*: the surface remnant of an underlying full sentence that occurs prior to the parallel host sentence in the text sequence, but otherwise bears no structural connection to it.

- (13) [ich habe [meiner Schwester] ein—Buch—geschenkt]
I have my.DAT sister a book given
[der_i [habe ich t_i ein Buch geschenkt]] (=6)
her.DAT have I a book given

The left-peripheral fragment is derived by ordinary clausal ellipsis, i.e. the same PF-deletion mechanism that independently derives sluicing, fragment answers, XP tags in split questions, etc. (see Merchant 2001, 2004; Arregi 2010; Ott 2016; Ott & Struckmeier 2018).⁴ For this kind of deletion to be recoverable, the two clauses must be *parallel* in their interpretation; one way of making this precise, roughly following Merchant (2001), is to require existentially-closed variants of the two propositions modulo the focal/fronted element to be mutually entailing (for the above case, $\exists x. I\ gave\ x\ a\ book \Leftrightarrow \exists x. I\ gave\ x\ a\ book$). See Barros (2014), Weir (2014), and Griffiths (2019), among others, for refinements of this identity condition that need not concern us here.

On this analysis, it follows immediately that a wide range of categories can undergo dislocation; namely, any category that can independently surface as a fragment. Reconstruction effects—including the dative case of the fragment in (6/13) and the bound pronoun in (10b)—are merely apparent, arising as a by-product of the necessarily parallel structure of the elliptical clause, as in other cases of clausal ellipsis. The island-sensitivity of left-dislocation can largely be attributed to the front-

⁴ For reasons discussed in Ott & Struckmeier (2018), and *pace* Merchant (2004), I do not assume clausal ellipsis to be fed by obligatory fronting of the remnant in a language such as German, where foci need not move. This is different in the case of Basque (discussed in the following section), where foci are fronted obligatorily.

ing of the correlate within the non-elliptical host; on how to explain it for cases where it obtains while the correlate remains *in situ*, see Ott (2017, in progress), also Fernández-Sánchez & Ott (2020).

Importantly, the analysis likewise rationalizes the observed syntactic, prosodic, and interpretive separation of the dislocated XP. As the surface remnant of a separately generated expression, the fragment precedes an entire V2 configuration, including fronted operators; by the same token, remnant dislocation would require an illegitimate cross-sentential movement dependency. The juxtaposed elliptical clause forms its own compositional and intonational domain, and correlate and dislocate are interpreted analogously in their respective (parallel) clauses. The incompatibility of bare quantifiers with dislocation is a direct effect of their failure to act as antecedents of discourse-anaphoric pronouns generally.

3. Left-peripheral topics in Basque

In Basque, in the general case, *wh*-phrases and foci are positioned left-adjacent to the verbal complex (typically composed of nonfinite verb and inflected auxiliary). Thus, relative to the unmarked order in (14a), the order of constituents changes when the subject is focused (14b) or questioned (14c) (examples from Irurtzun 2016):

- (14) neutral order vs. focus/*wh*-placement
- | | | | | |
|----|--------------------|-------|-------|-------|
| a. | Jonek | ura | edan | du |
| | Jon.ERG | water | drink | AUX |
| | ‘Jon drank water’ | | | |
| b. | Jonek | edan | du | ura |
| | Jon.ERG | drink | AUX | water |
| | ‘JON drank water’ | | | |
| c. | nork | edan | du | ura? |
| | who.ERG | drink | AUX | water |
| | ‘Who drank water?’ | | | |

Ortiz de Urbina (1989) and Irurtzun (2016) analyze *wh*/focus-movement in Basque as directly analogous to the inversion strategy of V2 languages, i.e. as fronting of XP to SPEC-C accompanied by raising of the verbal complex:⁵

- (15) [_{CP} Jonek_i/nork_i edan+du_k [_{IP} t_i ura t_k]]

Topics, in turn, are positioned to the left of such operators:

- (16) **ura** Jonek edan du
 water Jon.ERG drink AUX
 ‘Water, JON drank’

⁵ See Uriagereka (1999), Elordieta (2001), and Arregi (2002) for alternative analyses.

Inversion accompanying A-bar movement in Basque applies quite generally, including in embedded contexts (Irurtzun 2016). By contrast, topicalization fails to trigger inversion: the contrastive-topical reading of *ura* is only supported by the constituent order in (16); that in (17) unequivocally identifies *ura* as focus.

- (17) *ura* *edan* *du* *Jonek*
 water drink AUX Jon.ERG
 'Jon drank WATER'

The same point can be made using long-distance topicalization. Unlike long-distance *wh*-movement, which triggers inversion in both the embedded clause and the main clause (Irurtzun 2016), cross-clausal topicalization does not.

- (18) inversion: long-distance *wh*-movement vs. topicalization
 a. *noiz* *pentsatzen* *duzu* [*bukatuko* *dela* *gerra* _]?
 when think AUX finish.FUT AUX.C war
 'According to you, when will the war finish?'
 b. *ura* *Jonek* *esan* *du* [*Mirenek* _ *edan* *duela*]
 water Jon.ERG say AUX Miren.ERG drink AUX.C
 'JON said that Miren drank water'

Embedded inversion in (18a), presumably a by-product of successive-cyclic movement, unambiguously locates the temporal variable bound by the *wh*-adjunct in the lower clause; no such inversion is observed in (18b).

Topicalization in Basque is thus not an inversion strategy, unlike *focus/wh*-movement. Rather, as in German, Basque left-peripheral topics precede a complete sentence, including any internally fronted foci/*wh*-phrases and concomitant inversion. Taking the question in (19) as a baseline, any of the post-V constituents can appear before the *wh*-phrase (examples from Saltarelli 1988: 6f).⁶

- (19) *nola* *eraman* *du* *aitak* *Mikel* *etxera*?
 how carry AUX father.ERG Mikel to.house
 'How did father carry Mikel home?'
 a. *aitak* *nola* *eraman* *du* *Mikel* *etxera*?
 b. *aitak* *Mikel* *nola* *eraman* *du* *etxera*?
 c. *aitak* *etxera* *nola* *eraman* *du* *Mikel*?
 d. *etxera* *Mikel* *nola* *eraman* *du* *aitak*?

Analogously, topics precede pied-piped clauses (see Irurtzun 2016 on this phenomenon):

- (20) *Jonek* [*nork* *erre* *duela*] *esan* *du*?
 Jon.ERG who.ERG smoke AUX.C say AUX
 'Who did Jon say smoked?'

⁶ Topicalization in embedded contexts appears to be possible (i) but will not be discussed here.

(i) *uste* *dut* [*ura* *Jonek* *edan* *duela*]
 think AUX water Jon.ERG drink AUX.C
 'I think that JON drank water'

Furthermore, much as we saw for German, Basque topics are intonationally isolated from the following sentence, despite the fact that they are not consistently separated from the remainder of the sentence by a comma in writing. Ortiz de Urbina (1989: 224f.) observes that “any element preceding the *wh*-[phrase] [or focus, D.O.] is interpreted as a topic and separated from the rest of the clause by a pause. [...] Where more than one pre-CP arguments occur [...] they are assigned a characteristic ‘listing’ intonation pattern [...]”. Ortiz de Urbina (2003: 455) identifies left-peripheral topics as “usually separated from the rest of the clause to their right by a pause and/or a rise in intonation which leads to the major prominence of the clause, that of the focused constituent”; where multiple XPs are dislocated, “they receive a listing intonation, with intonational breaks after each topical element”.

Basque left-peripheral topics, like their German counterparts, are interpreted contrastively. About example (21) (in Ondarroa Basque), Arregi (2002: 195) says that it “suggests that there are other objects about which we should be asking who broke them”, and as such is understood to be a partial answer to *who broke what?*:

- (21) **maxe** Jónek apurtu ban
 the.table Jon.ERG break AUX
 ‘JON broke the table’

This observation is echoed in Ortiz de Urbina (2003: 455ff.), where it is observed that left-peripheral (but not right-peripheral) elements are interpreted contrastively and require the presence of a focus in the following clause. We return to this aspect of topicalization in section 5.

Note that since Basque is a null-argument language, topicalized XPs are never formally obligatory; they merely serve to express contrast.⁷ The superficial presence of postverbal gaps in the above examples is thus no reason to conclude that Basque topicalization is a *bona fide* gap strategy: argumental gaps are simply *pros* or equivalent null pro-forms.⁸ Note in this connection that in the case of VP topicalization, the dummy verb *egin* ‘do’ is used as a correlate:

- (22) [**liburu bat irakurri**] atzo *egin* zuen Mikelek
 book one read yesterday do AUX Mikel.ERG
 ‘Mikel read a book YESTERDAY’

The example also illustrates the fact that non-nominal categories can be topicalized; examples of PP and CP topicalization are given below.

- (23) [**etxe atzean**] Mirenen zain dago Mikel
 house behind Miren.GEN wait do Mikel
 ‘Mikel is waiting for MIREN behind the house’

⁷ This is true even when (nonfinite) verbs are topicalized, which requires doubling; see Ortiz de Urbina (2003: 457). I set aside this case here, although it is presumably within the scope of the analysis proposed.

⁸ Overt pronominal arguments are unnatural correlates for dislocated XPs, presumably due to their emphatic/deictic (as opposed to purely discourse-anaphoric) import; see below.

- (24) [**Mikel joan zela**] Mireni esan zion Jonek
 Mikel go AUX.C Miren.DAT say AUX Jon.ERG
 ‘Jon told MIREN that Mikel left’

The prosodic separation noted by Ortiz de Urbina for nominal topics appears to apply to these cases.

The above observations strongly suggest that ‘topicalized’ XPs in Basque are genuinely extra-clausal constituents, connected to a host-internal pro-form rather than a gap. At the same time, Basque topicalization bears some of the hallmarks of A-bar dependencies.

First, it is unbounded (although as noted above, unlike *wh*-movement it fails to trigger embedded inversion). Second, it is island-sensitive; the following pairs are based on examples in Irurtzun (2016) illustrating the island-sensitivity of *wh*-movement in Basque:

- (25) adjunct clauses
 a. nor poztu da [abestia entzun duelako]?
 who get.happy AUX song hear AUX.C.P
 ‘Who got happy because (s)he heard the song?’
 b. ***abestia** nor poztu da [_ entzun duelako]?
- (26) N-complement clauses
 a. noiz entzun duzu [Jonek liburu bat idatzi duelako
 when hear AUX Jon.ERG book one write AUX.C.P
 zurrumurrua]?
 rumor
 ‘When did you hear the rumor that Jon wrote a book?’
 b. ***liburu bat** noiz entzun duzu [Jonek _ idatzi duelako zurrumurrua]?
- (27) possessors
 a. Nork irakurri du Jonen liburua?
 who.ERG read AUX Jon’s book
 ‘Who read Jon’s book?’
 b. ***Jonen** nork irakurri du [_ liburua]?

Third, topicalized XPs display connectivity effects. As shown by Ortiz de Urbina (1989), reciprocal *elkar* ‘each other’ is a local anaphor, subject to Condition A. In (28b), *elkar* is locally bound in the base position of the *wh*-phrase, showing that *wh*-movement reconstructs.

- (28) binding of *elkar* under reconstruction: *wh*-movement
 a. lagunek_i [elkarri_i buruzko zurrumurru bat]
 friends.ERG each.other.DAT about rumor one
 entzun zuten
 hear AUX
 ‘The friends heard a rumor about each other’
 b. [elkarri_i buruzko zein zurrumurru] entzun zuten
 each.other.DAT about which rumor hear AUX
 lagunek_i _ ?
 friends.ERG
 ‘Which rumor about each other did the friends hear?’

An equivalent reconstruction effect obtains with topicalization of an *elkar*-containing XP. In (29a), the reciprocal is bound exactly as in (28a), showing that analogous c-command relations can be exploited for purposes of interpretation ((29b) serves as a control):

(29) binding of *elkar* under reconstruction: topicalization

- a. **elkarri_i** **buruzko** **zurrumurru** **hau** noiz entzun
 each.other.DAT about rumor this when hear
 zuten lagunek_i?
 AUX friends.ERG
 ‘When did the friends hear this rumor about each other?’
- b. ***lagunei_i** **buruzko** **zurrumurru** **hau** noiz entzun zuten
 friends.DAT about rumor this when hear AUX
 elkarrek?
 each.other.ERG
 intended: ‘When did the friends hear this rumor about each other?’

These effects appear to strongly suggest that Basque topics are displaced from a clause-internal position. We thus find similarly paradoxical qualities as with dislocated XPs in German: topics act like detached parentheticals in some ways, like fronted operators in others.

With these observations in mind, we can understand Basque ‘topicalization’ to be dislocation with null pro-forms (or correlative *egin*, in the case of VP topicalization), i.e. a paratactically ordered sequence of parallel sentences:⁹

(30) ergative topic

- a. **Jonek** atzo eman zion Mikeli liburua
 Jon.ERG yesterday give AUX Mikel.DAT book
 ‘Jon gave Mikel the book YESTERDAY’
- b. [**Jonek** ~~eman~~ ~~zion~~ ~~—~~ ~~Mikeli~~ ~~liburua~~] [atzo eman
 J.ERG give AUX — M.DAT book yesterday give
 zion *pro* Mikeli liburua]
 AUX M.DAT book

(31) dative topic

- a. **Mikeli** atzo eman zion Jonek liburua
 Mikel.DAT yesterday give AUX Jon.ERG book
 ‘Jon gave Mikel the book YESTERDAY’
- b. [**Mikeli** ~~eman~~ ~~zion~~ ~~Jonek~~ ~~—~~ ~~liburua~~] [atzo eman
 M.DAT give AUX J.ERG book yesterday give
 zion Jonek liburua *pro*]
 AUX J.ERG book

⁹ The analysis is compatible with an alternative that takes the pronominal arguments to be clitics that together make up the inflected auxiliary. It is not directly compatible, however, with Arregi’s (2002) theory of focus in Basque, where non-focal XPs are moved clause-internally (to the left and right) to render the focus the most-deeply embedded constituent. The ultimate result is similar, however, in the sense that dislocated XPs are removed from the intonational domain of the host-internal focus.

Each root clause constitutes its own intonational domain, yielding the observed prosodic separation. Given that multiple topics receive a list intonation, they likely represent independent sentence fragments, hence intonation phrases:

(32) topic sequence

- a. **Jonek** **Mikeli** **liburua** atzo eman zion
 Jon.ERG Mikel.DAT book yesterday give AUX
 ‘Jon gave Mikel the book YESTERDAY’
- b. [**Jonek_i**, **eman—zion ...**] [**Mikeli_j**, **eman—zion ...**] [**liburua_k**,
 J.ERG give AUX M.DAT give AUX book
eman—zion ...]
 give AUX
[atzo eman zion *pro_i pro_j pro_k*]
yesterday give AUX

Such multiple topicalization is marginal at best in both German and English, for reasons that remain somewhat unclear (but see below). Morphosyntactic properties of the correlates and their effects on the processing of resultant dependencies are likely to play a role.

The analysis immediately rationalizes the absence of inversion in topicalization, distinguishing it sharply from *wh*- and focus movement: the fragment(s)–host sequence yields $Vn > 2$, as in German.¹⁰ Strong support for the postulated paratactic ordering of dislocate and host sentence derives from the fact that, just as in German, bare quantifiers in Basque resist topicalization. Consider the following contrasts:

(33) NP vs. bare-quantifier topic (absolutive)

- a. **liburu bat** Jonek erosi zuen
 book one Jon.ERG buy AUX
 ‘JON bought a book’
- b. **#zerbait** Jonek erosi zuen
 something Jon.ERG buy AUX
 ‘JON bought something’
- c. **#dena** Jonek erosi zuen
 everything Jonek.ERG buy AUX
 ‘JON bought everything’

(34) NP vs. bare-quantifier topic (dative)

- a. **zure lagunei** nork lagunduko die?
 your friends.DAT who.ERG help.FUT AUX
 ‘Who will help your friends?’
- b. **#norbaiti** nork lagunduko dio?
 someone.DAT who.ERG help.FUT AUX
 ‘Who will help someone?’

¹⁰ It remains to be shown that the analysis generalizes to topicalization in other null-argument languages, such as Japanese.

It is hard to imagine what might exclude these categories from topicalization if the latter were analyzed as sentence-internal fronting; on the other hand, if topics *qua* sentence fragments are resumed discourse-anaphorically, the exclusion of non-resumable categories follows.

At the same time, we capture straightforwardly those characteristics of Basque topicalization that are shared with A-bar dependencies. On the natural assumption that fragments *qua* foci move to the preverbal position (SPEC-C), as is generally the case in Basque, the island-sensitivity of topicalization follows from the movement dependency (focus fronting) that obtains within the elliptical clause. Apparent connectivity as exemplified in (29a) reduces to ellipsis parallelism: the relevant c-command dependency obtains (under reconstruction, shown below) within the elliptical first sentence.

- (35) [... lagun_i, elkarri_i, buruzko zurrumurru hau ...]
 friends.ERG each.other.DAT about rumor this
 [noiz ...]
 when

The systematic case-marking of topics, matching their putative base positions, likewise identifies them as surface remnants of underlyingly parallel sentences.¹¹ Connectivity in Basque topicalization is thus an effect not of movement but elided sentential structure, exactly as in short answers (Merchant 2004; Weir 2014).

In sum, Basque topics are equally paradoxical as their German left-dislocated counterparts. On the one hand, they appear to derivationally originate in their hosts; on the other hand, their prosodic separation and extra-sentential ordering, as well as the impossibility of dislocating bare quantifiers, militate strongly against a naive movement analysis. The proposed analysis in terms of ellipsis and discursive juxtaposition resolves the paradox.

4. English topicalization

Topicalization in English has been analyzed in various ways (see Miyagawa 2017 for a survey). One of the earliest explicit analyses was that of Chomsky (1977), where the topicalized XP is adjoined to the sentence while a null operator (in the original, a deleted *wh*-phrase) raises clause-internally in its stead:

- (36) Chomsky's (1977) analysis
 a. **this book**, I really like _
 b. [_S **this book** [_S OP_i [I really like *t_i*]]]

While the analysis was primarily designed to capture similarities between topicalization and (other kinds of) *wh*-movement, it is evident that Chomsky recognized that a number of differences necessitate the slightly more elaborate analysis above.

¹¹ Conversely, within the host sentence, the pronominal correlates standing in for dislocated arguments serve as targets for agreement by INFL, which consequently acts 'as if' the dislocated argument were part of the sentence, even though in actual fact there is no structural connection.

First, unlike *wh*-movement, topicalization does not trigger inversion:

(37) ***this book**, do I really like _

Furthermore, English topics are characterized by a rising tone followed by a boundary (indicated by the comma in orthography), prosodically separating them from the remainder of the sentence in a way not observed with *wh*-phrases (cf. Constant 2014). The prosody is indicative of a contrastive interpretation, evident in the following examples adapted from Ward (1985: 161):

(38) A: now who gets which of these presents?

B: **this one**, John gets _

(39) A: now how much money did you say you've borrowed from your parents?

B: **from my mother**, I've borrowed over a thousand dollars _

I take the fact that topicalized XPs are separated from the remainder of the sentence by an intonational break to indicate that they are parenthetically ordered relative to their host, rather than a proper constituent thereof.¹²

That said, topicalization in English behaves analogously to *wh*-movement in other ways, a fact that militates decisively against an assimilation to *as for* constructions (*pace* Chomsky).¹³ First, topicalization appears to be a *bona fide* gap strategy: unlike Basque, English does not generally permit argument drop; as a result, and patterning with *wh*-movement, the clause following a topicalized argument is not necessarily a syntactically complete root clause (as in (38B) above and unlike in (39B), where the dislocate is an adjunct).¹⁴ Furthermore, topicalization is unbounded and sensitive to island boundaries (Chomsky 1977):

(40) **this book**, I think that John should read _

(41) island-sensitivity of topicalization

a. ***this book**, I accept [the argument that John should read _]

b. ***this book**, I wonder [who will read _]

¹² It is not clear (to me) if matrix subjects in English can be topicalized. Intuitively this appears not to be the case, but given that contrastive subjects, too, are followed by an intonational break (Constant 2014), the matter is not obvious. In light of the discussion in section 5 below, it may be tempting to speculate that subject topicalization is blocked as vacuous by considerations of economy, but any such line of reasoning is thwarted by the fact that subjects are easily left-dislocated in German. As pointed out by a reviewer, the matter is clearer with regard to embedded subjects, which 'visibly' undergo topicalization (Lasnik & Saito 1992):

(i) transatlantic flights, John said (*that) _ are expensive!

¹³ A stronger resemblance holds between *as for* constructions and the construction misleadingly labeled 'left-dislocation' (after Ross 1967), shown in (ii).

(i) as for this book, I really like *(it)

(ii) this book, I really like it

'Left-dislocation' in English is equivalent to what has been more aptly labeled 'hanging topic' in the context of other languages and, like *as for* constructions, has no movement properties at all.

¹⁴ As with Basque and German, I will set aside here embedded topicalization, permissible in English "with varying acceptability" (Chomsky 1977: 91).

Like *wh*-movement (but unlike *as for* constructions), English topicalization shows definite reconstruction effects, seemingly pointing to a derivational origin of the topicalized XP within the following clause. For instance, Speas (1990) and Heycock (1995) document reconstruction for Conditions A and C:

- (42) reconstruction effects with topicalization
 a. criticize herself_p, Mary_i will not _
 b. *criticize Mary_p, she_i will not _
 c. *with John_i's computer, he_i began to write a book _

Such facts render a base-generation analysis untenable even when supplemented with clause-internal movement of a stand-in covert operator, which furthermore struggles to rationalize the parenthetical prosodic signature of the 'topicalized' XP.

It may thus be fruitful to extend the analysis proposed above for Basque fronted topics to their English counterparts and treat topicalization as an instance of dislocation:

- (43) [I really like this book] [*OP*_i I really like *t*_i]
 (44) [Mary will not criticize herself] [*OP*_i Mary will not do *t*_i]
 (45) [he began to write a book with John's computer] [*OP*_i he began to write a book *t*_i]

Case and thematic role (where present) are thus assigned within the elliptical clause, which is also where the *c*-command relations obtain that yield apparent reconstruction (enabling anaphor binding and prohibiting coreference in the first sentences in (44) and (45), respectively). *OP* movement within the host fails to trigger inversion, presumably for the same reasons that prevent inversion in relative clauses (perhaps due to lack of C altogether).

What is *OP*? To approach the question, let us turn to differences between English topicalization and the Basque/German dislocation strategy. Unlike the latter, topicalization in English is not compatible with concomitant *wh*-movement (Chomsky 1977):¹⁵

- (46) topicalization ↔ *wh*-movement
 a. *this book, to whom should we give _?
 b. *criticize herself, why did she _?
 c. *in this bed, when did you sleep _?

This suggests the obligatory presence of a null A-bar operator in SPEC-C, much as in Chomsky's original analysis, precluding the simultaneous occurrence of *wh*-phrases in this position.

¹⁵ A reviewer expresses doubts about this generalization, citing examples such as the following:

- (i) this big and heavy book, why the hell would anyone write the damn thing!?
 (ii) this big and heavy book, who the hell do you think would write the damn thing!?

But these do not appear to be proper (contrastive) topics, but rather hanging topics announcing a referent to be commented on. I have to leave this matter unresolved here.

I suggest that *OP* is essentially a phonologically null version of the d-pronouns appearing in German dislocation and likewise a free pronoun, but differing in its operator status from the ‘plain’ covert pro-forms employed by Basque.¹⁶ This would then account for both the mutual exclusivity of topicalization and *wh*-movement and the island-sensitivity of topicalization, as well as the licensing of host-internal parasitic gaps (Jayaseelan 2008):¹⁷

(47) **these papers**, I filed _ [without reading *pg*]

From this perspective, the syntactic incompleteness of the host clause in cases of argument topicalization, contrasting with Basque/German dislocation, appears less mysterious. Sentences following ‘topicalized’ XPs are much like appositive relatives in being formally equivalent to root clauses but not felicitous as assertions on their own (cf. Emonds 1979; Onea 2016); it is noteworthy in this connection that German uses free d-pronouns both as correlates in dislocation and as relative pronouns in appositive relatives.¹⁸

Ott (2018) shows that a null pronominal operator makes sense of a constraint on VP topicalization that Thoms & Walkden (2019) dub the *nominal-gap requirement*.

- (48) nominal-gap requirement
- a. **read the book**, she did _
 - b. ***leave early**, I saw them _
 - c. ***get coffee**, you should go _

What distinguishes (48a) from (48b,c) is the fact that the gap in the former alternates with a nominal, whereas no such pro-form is permitted in the latter (*he did that* vs. **I saw them that*, **you should go that*). As argued extensively in Ott (2018), this strongly suggests that VP topicalization is a form of dislocation, with a covert *that* undergoing A-bar movement clause-internally. By contrast, a naive movement analysis (e.g., Baltin 1982) necessarily fails to account for facts of this kind.

In line with the hypothesis that English topicalization is dislocation, we find that neither bare quantifiers nor remnant categories created by extraposition can be topicalized (the latter fact was noted in Postal 1994):

- (49) no bare-quantifier topicalization
- a. ***nothing**, I bought _
 - b. ***someone**, they saw _
- (50) no remnant-XP topicalization
- a. ***[such a scurrilous review t_i]**, they published _ last year [of his book]_{*i*}
 - b. ***[read a book t_i]**, he did _ [that he liked]_{*i*}

¹⁶ Note that this does not entail that movement of the operator derives an “open sentence”, as on Chomsky’s (1977) analysis; unlike Chomsky, I do not assume the relation between topic fragment and host is one of predication. See section 5 below.

¹⁷ Much as we saw with German left-dislocation, multiple topicalization is marginal in English (Lasnik & Saito 1992), although Constant (2014) provides felicitous examples. I leave the issue open.

¹⁸ Perhaps the operator employed in English topicalization is related to that used in parenthetical comment clauses such as *I think, she said*, etc., accounting for the absence of a surface object in such (root) clauses.

This differs from both *wh*-movement in English and inversion in German, whereas the patterns replicate those of German dislocation shown above. This in turn suggests that topicalization in English is likewise a paratactic fragment–host sequence, the topical XP resumed by a covert free pronoun: bare quantifiers cannot antecede such pronouns, and remnant topicalization would require a movement dependency across sentences.

By the same token, the analysis can account for a number of asymmetries between *wh*-movement (/restrictive relativization) and topicalization (/appositive relativization) first discussed in Postal (1994) and more recently in Poole (2017). Postal noticed that certain contexts block topicalization but not *wh*-movement (the examples are Poole's):

- (51) change-of-color verbs
 a. what color did he paint the car _?
 b. ***that color**, he never painted the car _
- (52) existential constructions
 a. what is there _ in the pantry?
 b. ***a potato**, there is _ in the pantry
- (53) 'name positions'
 a. what name did Irene call the cat _?
 b. ***Snowflake**, Irene called the cat _

What these contexts have in common is that they are *anti-pronominal*: pronominals are not licensed in the (putative) base positions of the preposed XPs. To explain how this precludes topicalization, Postal (1994: 162) proposes that it is only an apparent gap strategy; in actual fact, the base position of the topic is occupied by a covert resumptive pronoun. Consequently, topicalization is felicitous only from positions licensing such a pronoun.¹⁹

The analysis proposed here follows Postal's in spirit but not in implementation: topicalization is indeed not a *bona fide* gap strategy, but the covert 'resumptive' is a free pronoun functioning as an A-bar operator. Despite this difference, Postal's observations appear to largely follow. To illustrate, consider (52b). Suppose *OP* is a silent *that*, appropriate to resume an NP such as *a potato*. But its not being licensed in this context rules out both the host sentence of (52b) and an analogous appositive relative:

- (54) topicalization failure in anti-pronominal context
 a. *there is *that* in the pantry
 b. [**there is a potato in the pantry**] *[*that*_{*i*} there is *t*_{*i*} in the pantry]
 c. *I found the potatoes *[*which*_{*i*} there were *t*_{*i*} in the pantry]

In short, it appears that the constraints placed on topicalization by anti-pronominal contexts follow from the parenthetical nature of the construction, which requires cross-sentential pronominal resumption.²⁰

¹⁹ By the same token, the analysis would account for certain cases of illegitimate P-stranding under topicalization, documented in Postal (1998) and Stanton (2016). I will leave a detailed exploration of the facts to future work.

²⁰ Topicalization and appositive relativization furthermore pattern together (and against *wh*-movement and restrictive relativization) in not giving rise to weak crossover effects (Lasnik & Stowell 1991). I believe that this follows much in the same way but refrain from elaborating here for reasons of space.

Finally, let me point out that the analysis appears to readily extend beyond classical cases of topicalization. Cases in point are sentence adverbs (Jackendoff's 1972 *S-adverbs*) and other 'preposed' adverbials:

- (55) S-adverbs
 - a. **fortunately**, John left
 - b. [~~John~~ **fortunately** left] [OP_i John t_i left]
- (56) preposed adverbial PP
 - a. **in this way**, we can make progress
 - b. [~~we can make progress~~ **in this way**] [OP_i we can make progress t_i]

While these expressions are not intuitively contrastive (but see Constant 2014: 287), they fall within Krifka's (2008) category of *delimiting* expressions, which subsumes contrastive and frame-setting topics.

The analysis indicated has the advantage of eschewing adjunction to root clauses, which has a variety of unwelcome consequences, such as voiding the generality of V2 constraints. Note that the alternative suggested here, to the extent that it generalizes to other sentence-initial elements with distinctively parenthetical 'comma' intonation, has the consequence of rendering English much closer to a V2 language than standardly assumed.

5. Interpreting left-peripheral fragments

So far, we have seen that German, Basque, and English alike use dislocation to mark contrastive topics (CTs). I have argued that this strategy in all three languages involves an anticipatory fragment that is uttered prior to the host sentence containing a focus (F; '...' stands in for elided material, omitted here along with traces to avoid clutter):

- (57) [... **meiner Schwester** ...]_{CT} [*der* habe ich
 my.DAT sister her.DAT have I
 GESTERN_F ein Buch geschenkt]
 yesterday a book given
 'I gave a book to my sister YESTERDAY'
- (58) [... **Mikeli** ...]_{CT} [*atzo*_F eman zion Jonek liburua *pro*]
 Mikel.DAT yesterday give AUX Jon.ERG book
 'Jon gave Mikel the book YESTERDAY'
- (59) [... **to my sister**]_{CT} [OP I gave a book YESTERDAY_F]

The analysis immediately derives the fact that a left-dislocated XP, *qua* paratactically ordered fragment, precedes the entire host, including internal operators. How does this parenthetical sequence yield an interpretation of the anticipatory fragment as a contrastive topic?

The answer can be found by viewing left-dislocation configurations through the lens of question-driven models of discourse pioneered in van Kuppevelt (1995) and Roberts (2012). In such models, moves in cooperative discourse generally serve to

elaborate on the current *Question Under Discussion*, QUD. Material that contributes to resolution of the QUD is *focus*; material that does not address it is *presupposition*. QUDs can be explicit or implicit and are subject to various constraints pertaining to relevance, salience, etc. (see Velleman & Beaver 2016; Büring 2016; Riester 2019, among others).

Büring (2003, 2016) develops a theory of contrastive topics (CTs) within Roberts's model. He argues that CTs instantiate a *strategy*, such that the speaker highlights a sub-question of the QUD. An answer containing a CT must be a partial answer to a superordinate question of the current QUD. To illustrate, consider a classic example:

- (60) Q: who ate what?
 A: FRED_{CT} ate the BEANS_F

A clearly implies other relevant answers (*MARY ate the TUNA, JOHN ate the CHIPS, ...*). The CT prosody indicates that a sub-question is being addressed and renders other, similar questions salient, resulting in accommodation of the implicit q2 entailed by the overtly-asked q1; and so on for q3 and any number of further *what did x eat?* questions:

- (61) q1: who ate what?
 q2: *what did Fred eat?*
 a2: FRED_{CT} ate the BEANS_F
 q3: *what did Mary eat?*
 a3: MARY_{CT} ate the TUNA_F
 ⋮

Büring (2003) represents the hierarchical structure of moves as d(iscourse)-trees. In such terms, q2, q3 etc. would be sister nodes dominated by the same mother (q1), each dominating an answer move. The effect of CT is the addition of sister questions underneath q1.

As we saw, left-peripheral topics in German, Basque, and English are interpreted contrastively. And while left-dislocation is not the only way in which some XP can be marked for contrast (e.g., German can rely on inversion, and in English subject CTs can presumably remain *in situ*), peripheral CTs can appear only on the left, never at the right periphery of the sentence; this appears to be a cross-linguistically robust generalization (see, e.g., various chapters in Féry & Ishihara 2016). Right-dislocation supports backgrounding and focus ('afterthoughts'), but not contrast (see Ott & De Vries 2016; Ott 2017; Onea & Ott 2022).

The Roberts-Büring framework rationalizes not only why left-dislocated XPs are interpreted contrastively, but also why such contrastive import can only be found in the *left* periphery. Consider the following familiar example in context:²¹

²¹ In what follows, I ignore throughout any information-structural import of the correlative d-pronoun. This is an idealization: while the d-pronoun can be destressed, my impression is that it can also bear a rising accent, which would indicate that it acts as a (redundant) CT in its own right. I do not believe that this observation causes any harm to the analysis to be developed, but I set it aside for ease of exposition.

- (62) q1: what did you give to whom?
 a1: [**meiner** **SCHWESTER**]_{CT}, *der* habe ich [ein
 my.DAT sister her.DAT have I a
 BUCH]_F geschenkt
 book given
 ‘I gave a book to my sister’

Consider now in more detail the role of the initial fragment.²²

- (63) q1: what did you give to whom?
 a1: [... **meiner** **SCHWESTER** ...]_{CT} ... ‘To my sister, ...’
 my.DAT sister

Note that by itself, the fragment is not a congruent answer to q1, violating the requirement that moves be *relevant*.²³ But the hearer, guided by the fragment’s continuative CT prosodic realization, will assume that the speaker is cooperative, and consequently accommodate a *bridging question* (cf. Velleman & Beaver 2016), which is then resolved by the following host sentence (more specifically, its focus):²⁴

- (64) q1: what did you give to whom?
 a1: [... **meiner** **SCHWESTER** ...]_{CT} ‘To my SISTER, ...’
 my.DAT sister
 q2: *what did you give to your sister?*
 a2: [*der* habe ich [ein BUCH]_F geschenkt] ‘I gave a BOOK’
 her.DAT have I a book given

Note that, at least in German, the speaker could have simply responded with an inversion construction, which would have the same effect:

- (65) q1: what did you give to whom?
 q2: *what did you give to your sister?*
 a2: [*meiner* **SCHWESTER**]_{CT} habe ich [ein BUCH]_F geschenkt
 my.DAT sister have I a book given
 ‘I gave a book to my sister’

The difference is rhetorical: a2 in (65) triggers accommodation of q2 ‘on the fly’, whereas in (64), the accommodation step is mediated by an incongruent response (hence my designation of the initial fragment as *anticipatory*).²⁵ In this sense, left-dislocation is a gratuitous mechanism in German (it has no information-structural ef-

²² Nothing here hinges on the fragment being CT-marked; with Wagner (2012), we can take it to be a focus, whose particular prosodic realization indicates the way in which it is used.

²³ Büring’s (2003) weak requirement for question/answer congruence is that an answer shift the probabilistic weights among the alternatives denoted by the question; other, stricter requirements are adopted by others.

²⁴ Note that the approach essentially identifies CTs as speech acts in their own right. This echoes Krifka’s (2001: 25) assertion that “Topic selection is a speech act itself, an initiating speech act that requires a subsequent speech act, like an assertion, question, command, or curse about the entity that was selected”.

²⁵ On an alternative implementation, the fragment could be the surface remnant of the *actual sub-question*, i.e. a2 would be the elliptical q2. I will leave exploration of this alternative to future work.

fect that couldn't be achieved by means of simple inversion); but in other languages, where free inversion is not available (Basque, English, etc.), and/or where a sentence can only host a single focus (Italian, Spanish, etc.), it emerges as the primary, and potentially exclusive, means of syntactic CT-marking.

The idea is thus that the initial fragment, with its characteristic prosodic signature, acts as a *feeder* (in van Kuppevelt's 1995 terminology; cf. Buring 2003), i.e. gives rise to a new QUD (more precisely, guides the hearer's accommodation thereof). Importantly, q2 is easily accommodated in that it contains only given material and is relevant/unresolved; see Buring (2016) and Riester (2019) for details. Note that the resultant question–answer sequence, given general congruence constraints, automatically entails co-construal of dislocated XP and correlate: if, in the above example, the free pronoun *der* in a2 were not interpreted as resuming *meiner Schwester*, a2 would fail to be a congruent answer.²⁶

By virtue of invoking alternatives, the CT implicates the relevance of other sub-questions. Having resolved q2 in (64), we return to the superordinate q1, and again indicate a sub-question by means of a fragment:

- (66) a3: ... und [... **meinem BRUDER ...**]_{CT} '...and to my BROTHER, ...'
 and my.DAT brother
 q4: *what did you give to your brother?*
 a4: [*dem* habe ich [ein FAHRRAD]_F geschenkt] 'I gave a BIKE'
 him.DAT have I a bike given
 a4': [~~*dem*~~ habe ich [ein FAHRRAD]_F geschenkt] 'a BIKE'

q4 is resolved either as before, or, more naturally, by the elliptical a4', which explicitly marks the anaphoric relation to the implicit q4 (see Weir 2014 on ellipsis and QUDs).

Here's a variant of the example with dislocation of the direct object, which will trigger accommodation of a corresponding question:

- (67) q1: what did you give to whom?
 a1: [... **ein BUCH ...**]_{CT} 'A BOOK, ...'
 q2: *who did you give a book to?*
 a2: [*das* habe ich [meiner SCHWESTER]_F geschenkt] 'I gave to my SISTER'
 that have I my.DAT sister.DAT given

The only difference with the previous example is that we're now using a different 'sortal key' (presents rather than people; see Constant 2014 for details).

The accommodation steps yielding the complex strategy can easily be modeled in terms of stacks (Roberts 2012) or d-trees (Buring 2003; Riester 2019). On the latter model, as indicated above, left-dislocated fragments would cause the accommodated sub-questions to be attached at the right edge of the tree under the parent question q1. I will leave a detailed formal implementation to future work. Note that the approach sides with works such as Tomioka (2010) and Wagner (2012) in assuming

²⁶ The same holds for cases where the host sentence spells out the sub-question rather than asserting an answer, as in (7) above.

that CT-marking is not a primitive (cf. note 22): CTs are simply foci (alternative-evoking expressions) in particular configurations and with a particular prosodic realization.

What about the second question, i.e. why is contrast only ever encoded on the left periphery, but never on the right? The answer is clear: accommodation of a sub-question as the new QUD must happen temporally prior to its resolution. Consider an infelicitous attempt at right-dislocation of a CT:

- (68) Q: what did you give to whom?
 A: #ich habe *der* [ein BUCH]_F geschenkt, [meiner
 I have her.DAT a book given my.DAT
 SCHWESTER]_{CT}
 sister
 A': #*der* habe ich [ein BUCH]_F geschenkt, [meiner
 her.DAT have I a book given my.DAT
 SCHWESTER]_{CT}
 sister

Given the temporal flow of discourse, the host provides an (incongruent) answer to the QUD before a sub-question could be accommodated. The linear asymmetry between the peripheries—contrast only on the left, never on the right—is thus a natural by-product of the general fact that questions must precede their answers (cf. Wagner 2012; Onea & Ott 2022).

6. Conclusions

This paper has presented an argument that two types of ‘topicalization’ need to be distinguished in terms of the mechanisms and representations involved: plain inversion (fronting to SPEC-C), as observed in V2 languages; and dislocation (juxtaposition of an anticipatory fragment).

German uses both strategies freely, but Basque and English restrict inversion to other uses (focus and/or questions), whereas contrastive topics are syntactically marked by means of dislocation. The dislocation configuration reflects the function of CTs as indicators of a complex discourse strategy, in that the paratactic fragment–host order parallels the latter (accommodation of a sub-question via the fragment, resolution of the question by the host).

The cross-linguistic prediction, apparently correct, is that while dislocation is not necessarily the only means of marking CT-hood, if it is used to this effect the ‘dislocated’ fragment will be ordered to the left of its host, never to its right. Unlike ‘cartographic’ analyses of dislocation, which contend themselves with encoding ignorance, the paratactic approach, in conjunction with the question-driven view of discourse, provides a natural explanation of this fact.

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